Technical Note

Site:	Langstone Park
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Approved by:	John Russell
Date:	16/06/2022

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1.0 Introduction

1.1 This Technical Note has been written on behalf of XLB Property in relation to the proposed commercial development on land at Langstone Park, Havant (the Site). This Technical Note has been written in relation to comments raised by Hampshire County Council (Ref: APP/22/00172) dated 6th May 2022. Each comment will be addressed in turn, therefore the structure of this report will be as follows:

- WCHAR Audit
- Hampshire Constabulary Accident Data
- Barriers
- Swept Path Analysis
- Footpath 51
- Phasing Plan
- Trip Generation
- Junction Monitoring
- Travel Plan
- Summary and Conclusion

2.0 WCHAR Audit

2.1 An independent 3rd party company have been commissioned to undertake the WCHAR Audit.

3.0 Hampshire Constabulary Accident Data

3.1 Hampshire County Council (HCC) state:

"The applicant should obtain the most recently available accident data from Hampshire Constabulary covering a 5-year period. A supporting analysis should be provided to confirm whether there are any potential accident clusters which may be exacerbated by the proposed development."

3.2 The most recent 5 years of personal injury accident data (PIA) has been obtained from Hampshire Constabulary's website. The most recent 5 year period available is dated from 01/07/2016 to 30/06/2021. There were 5 PIAs identified within the study area for this period, 2 of these are on Langstone Road and 3 of these are at the Harts Farm Way/Brookside Road roundabout. Of these 5 accidents identified, one was serious located at the Harts Farm Way/Brookside Road roundabout, the other 4 were slight accidents. These findings are in line with the original crashmap analysis conducted within the Transport Assessment dated 16/02/2022. Extracts have been taken from Hampshire constabularies website and are shown below in Figure 2.1 and Figure 2.2:



Figure 2.1 – Harts Farm Way/Brookside Road PIAs (2 slight, 1 serious)



Figure 2.2 – Langstone Road PIAs (2 slight)

4.0 Further Information on Barrier

4.1 HCC state:

"Clarity is sought from the applicant on how these pre-approved vehicles will be identified, including what the cap on these vehicles is and how vehicles without access who errantly attempt to access the site via Langstone

Road will be expected to re-route should they reach the barrier with vehicle(s) waiting behind. Confirmation of how this system will be monitored and maintained in perpetuity is also required from the applicant."

4.2 Barriers will be installed in three locations, two fronting onto Brookside Road and one onto Langstone Road, as illustrated at **Appendix A**. The barriers will be in operation between 07:30 – 09:00 in line with condition 17 of the Phase 1 permission.

4.3 Site management will allow each tenant to allocate an appropriate number of vehicle registrations to be whitelisted. These vehicles will then be able to pass through the ANPR barriers. The ANPR barriers will monitor the number of vehicles using the barriers and if it is found there is extra capacity then more number plates can be added to the whitelist, with the aim to reach a stable average number of vehicles using the barriers daily. These figures will be made available to HCC as required for monitoring purposes.

4.4 When the barriers are in operation they will be closed and only open if the ANPR system recognises a whitelisted vehicle or if the security guard opens the barrier manually. A security guard will be stationed at the site security office throughout the entire time the barriers are closed. This will allow the security guard to interface with vehicles via the intercom if they reach the barrier and are not whitelisted. If this happens then the security guard will instruct the driver of the vehicle that when the gate opens they must turn around using the first turning head they encounter and exit the same barrier.

4.5 Regular offenders will be recorded and prevented from entering the site. Should these measures fail to effectively control the number of vehicles entering from Langstone Road, the number of whitelisted vehicles will be reduced.

4.6 HCC go onto state:

"The Highway Authority are concerned that the proposed management methods will not be sufficient for discouraging rat running through the site given the site layout. Alongside the proposed flow barriers, further clarification is sought from the applicant on how the park will be managed to ensure that east-west (and vice versa) movements through the development are appropriately managed."

4.7 It is considered that the measures described above will serve to effectively discourage rat-running and that suitable contingencies and management measures have been identified to ensure effective management on an ongoing basis.

5.0 Swept Path Analysis

5.1 HCC state:

"The track plots have not been provided separately, meaning it is hard to differentiate between the two movements; however, it appears that the vehicles overhang the footways throughout the site …

…Revised vehicle tracking should be provided to clearly demonstrate the tracking movements for each vehicle."

5.2 It is recognised the swept path analysis of two way articulated lorries at Appendix E of the Transport Assessment is at a scale of 1:2000 and may be hard to see details. As a result please see **Appendix B** which provides the swept path analysis at a scale of 1:500. Note that the articulated lorries do not overhang the footway at any point throughout the development.

6.0 Cycle Signage Footpath 51

HCC State:

"A connection is provided to the northeastern corner of the development to link into the upgraded Footpath 51 facilities. The previous permission secured this link as a 3m wide shared use route which appears to be replicated within the indicative masterplan provided in Appendix D. Clarity is sought from the applicant that this is correct".

6.1 It is confirmed that this shared use route will be 3m wide in alignment with the previous permission.

6.2 It is also confirmed that the Applicant is willing to establish a cycle route along the access road between Footpath 51 and Langstone Road and proposes that this, together with cycle signage, be included as an item in the S106 agreement.

7.0 Phasing Plan

7.1 A Construction Traffic Management Plan has been written in accordance with HCC request, this can be viewed at **Appendix C** and addresses all issues raised.

8.0 Trip Generation

8.1 The TA regrettably contains an error at table 5.2 and paragraph 5.5 in that the wording implies the figures presented include the 2019 permission. The figures represent the existing lawful uses only, prior to the implementation of the 2019 permission. It should be noted that the 2019 permission was not implemented at the point of submission but in late March 2022.

8.2 Any confusion arising from this error is sincerely apologised for.

9.0 Junction Modelling

Development Impact

9.1 The distribution of traffic travelling to and from the proposed development has been forecast having regard to journey to work statistics (JWS) obtained from the Office for National Statistics (ONS). The analysis of the ONS data is summarised at **Appendix D**. A summary of how traffic travelling to and from these destinations would route at a local level is provided in the table below.

Route		% of Trips
Brockhampton Road	Langstone South	5.40%
	Park Road South	15.70%
Harts Farm Way	A27 East	10.85%
	A27 West	67.25%
Total		**100.00%**

Table 9.1: Routing of development traffic

9.2 The table below applies the net change in peak hour traffic volumes to the route choice forecast summarised above. To ensure the assessment is robust, all traffic is routed via the Brockhampton Road roundabout.

Route		% of trips	AM Peak	PM Peak
Brockhampton Road	Langstone South	5.40%	1	-3
	Park Road South	15.70%	4	-9
Harts Farm Way	A27 East	10.85%	3	-6
	A27 West	67.25%	18	-38
Total		**100.00%**	27	-56

Table 9.2: Forecast change in peak hour traffic volumes by route arising from proposed development

9.3 The above table indicates that approximately 21.1% traffic will route via Brockhampton Road arm of the Brockhampton Road / Brookside Road / Southmoor Lane / Harts Farm Way Roundabout junction, with the remaining 78.9% routing to the A27 via the Harts Farm Way arm.

Junction Modelling

9.4 The performance of the junction has been assessed using the ARCADY module of Junctions 9, the industry standard software package for the assessment of non-signalised junctions.

9.5 Flow rates were obtained by conducting Manual Turning Count (MTC) surveys on the roundabout junction. These surveys were conducted on Wednesday 3rd November 2021 by K&M Traffic Surveys and recorded the turning movements of all vehicles entering the roundabout junction between the hours of 07:00-10:00 and 16:00-19:00 on the survey day. These surveys are included at **Appendix E**.

9.6 The geometry used is representative of the existing junction. In this respect, the modelling set out below is very much a worst case.

9.7 The results of the modelling are summarised below in Tables 9.3 and 9.4, while the full Junctions 9 outputs are included at **Appendix F**. The inputs are included at **Appendix G**.

Arm	2027 AM Peak Base			2027 AM Peak with Development		
	RFC	Delay (seconds)	Queue (PCU)	RFC	Delay (seconds)	Queue (PCU)
Brockhampton Road	0.35	4.84	0.6	0.38	5.30	0.6
Brookside Road	0.06	5.59	0.1	0.06	5.52	0.1
Southmoor Lane	0.14	3.71	0.2	0.13	3.40	0.2
Harts Farm Way	0.62	8.54	1.7	0.67	9.89	2.1

Table 9.3: AM Peak Junction Modelling Results

Arm	2027 PM Peak Base			2027 PM Peak with Development		
	RFC	Delay (seconds)	Queue (PCU)	RFC	Delay (seconds)	Queue (PCU)
Brockhampton Road	0.32	3.96	0.5	0.32	3.92	0.5
Brookside Road	0.14	5.4	0.2	0.10	5.12	0.1
Southmoor Lane	0.24	3.97	0.3	0.23	3.89	0.3
Harts Farm Way	0.21	4.24	0.3	0.20	4.01	0.2

Table 9.4: PM Peak Junction Modelling Results

9.8 Tables 9.3 and 9.4 indicate that the proposals are likely to have only a small impact on the operation of the junction. Increases in RFC of between 0.03 and 0.05 are expected on two of the arms, one in the AM peak and one in the PM peak. However, the RFC is expected to decrease by between 0.01 and 0.04 in one arm during the AM peak and three arms during the PM peak. The RFC is expected to remain the same in one arm during each of the peak periods.

9.9 Impacts on queues are similarly small with increases not exceeding 0.4 PCUs in the AM peak period, and actually decreasing on three arms of the junction in the PM peak period.

9.10 Harts Farm Way is currently the most stressed arm, in part due to the large volume of traffic utilising it to access the A27, in particular during the AM peak period. The change in travel patterns therefore benefits this arm. The reverse is true of the PM peak, when the northern arm is the most stressed and the reduction in arrivals provides a benefit in this location.

9.11 The proposals are therefore likely to lead to an overall improvement in junction performance in this location.

10.0 Travel Plan

10.1 HCC have requested to see the following elements included in the travel plan before it can be considered acceptable. These are:

- Inclusion of further policy
- Modal split targets
- Action Plan
- Roles and Responsibilities
- Monitoring
- Delivery and Enforcement

10.2 These elements have all be incorporated into the Travel Plan. The updated travel plan can be viewed at **Appendix H**.

11.0 Summary and Conclusion

11.1 This Technical Note has been written on behalf of XLB Property in relation to the proposed commercial development on land at Langstone Park, Havant (the Site). This Technical Note has been written in relation to comments raised by Hampshire County Council (Ref: APP/22/00172) dated 6th May 2022.

11.2 This Technical Note has addressed all concerns raised by HCC and as such there can be considered no transport related reasons for refusal.

Appendix A

Barrier Locations

Rev: Description: Date: Rev By: Chk'd:

Barrier

Barrier

Barrier

PHASE 1 EXTANT CONSENT
REF:APP/21/00405 UNITS

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Project:
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Title:
Barrier Locations

Client:
XLB Property

Drawing Status: Information

Scale: 1:2000 (@ A3) Date:15/06/2022

Drawn: AN Checked: JR Approved: JR

Drawing: Revision:
2010053-08

Appendix B

Swept Path Analysis

Refer to drawing
2010053-TK07
for 1:500 scale

Refer to drawing
2010053-TK08
for 1:500 scale

Refer to drawing
2010053-TK09
for 1:500 scale

Refer to drawing
2010053-TK12
for 1:500 scale

Refer to drawing
2010053-TK11
for 1:500 scale

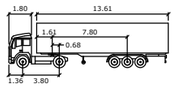
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Trailer Track	: 2.55		

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Title:
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Articulated Vehicle

Client:
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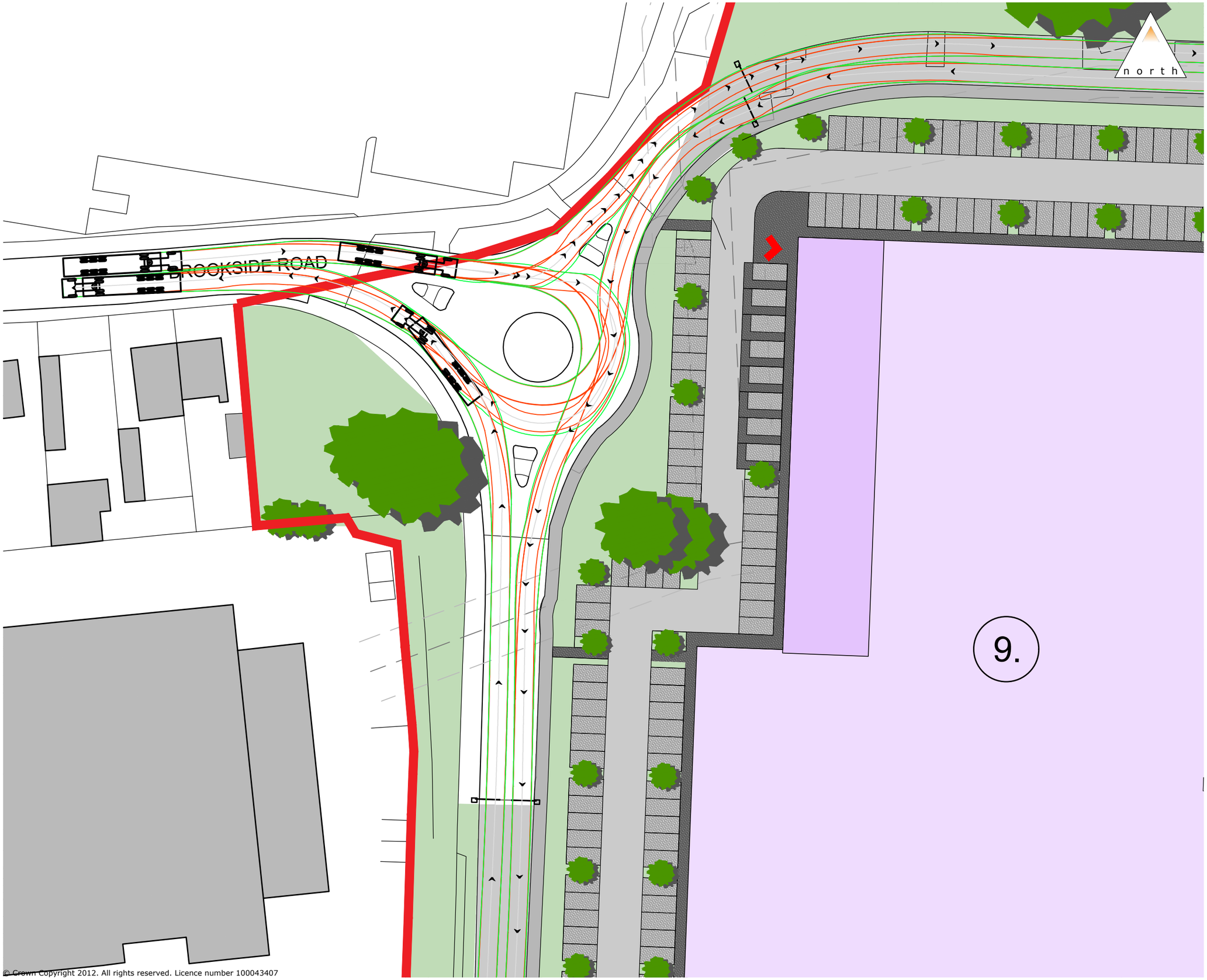
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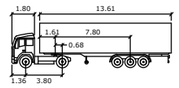
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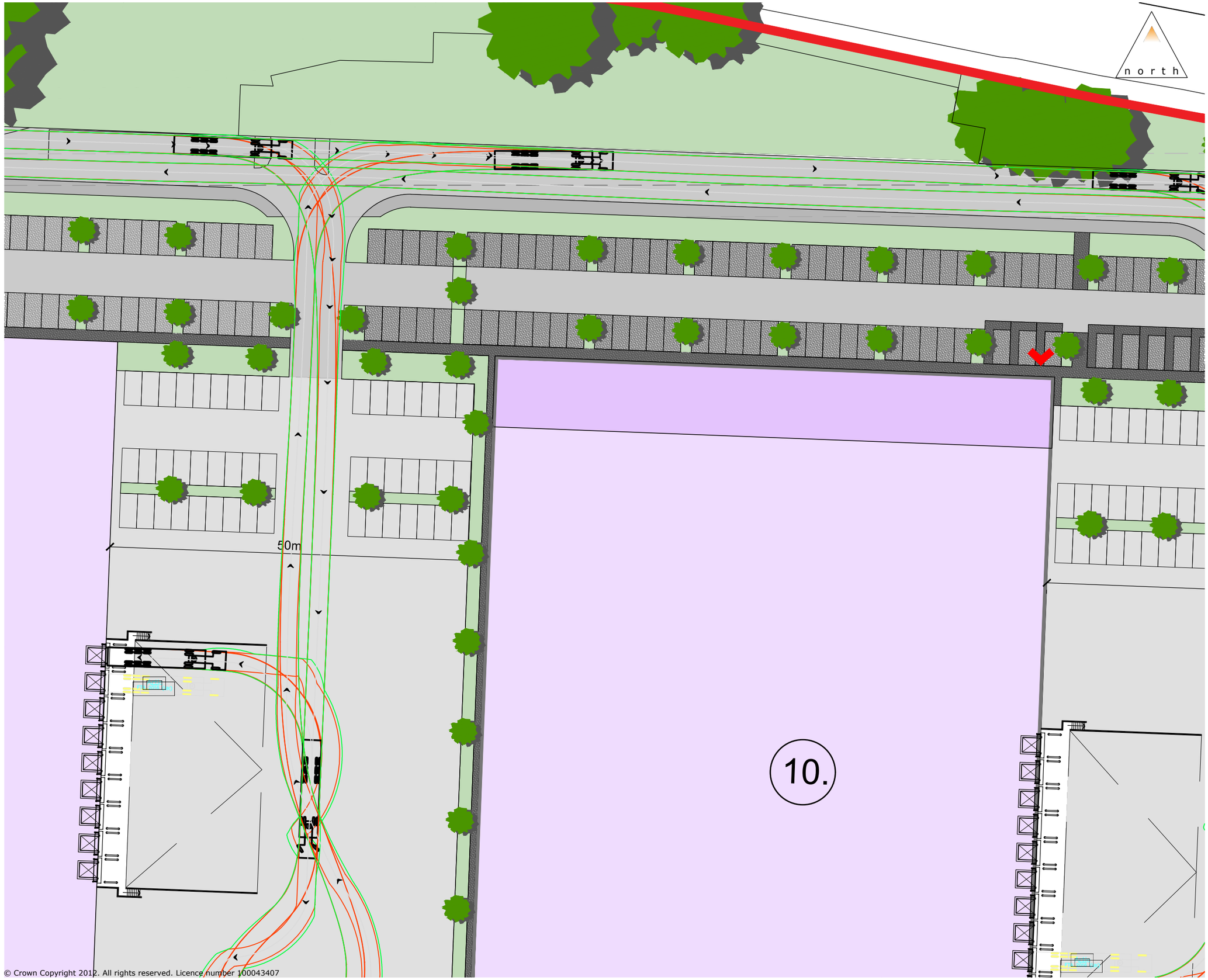
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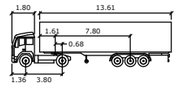
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Client:
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Drawing: Revision:

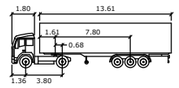
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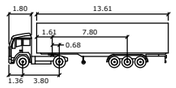
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Articulated Vehicle

Client:
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Drawing Status: Information

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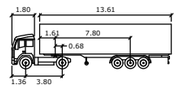
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Scale: 1:500 (@ A3) Date:27/05/2022

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Drawing: Revision:
2010053-TK11

Appendix C

Construction Traffic Management Plan

Langstone Park
Havant

Framework Construction Traffic Management Plan

For

XLB Property

Document Control Sheet

Langstone Park

Havant

XLB Property

This document has been issued and amended as follows:

Date	Issue	Prepared by	Approved by
17/06/2022	1st Draft	AN	JNR

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2.0 Construction Site Location 2
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4.0 Work and Programme 5
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6.0 Classification 6
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10.0 Corrective Measures 14
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Appendices

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1.0 Introduction

1.1 Motion has been instructed by XLB Property (the "Developer") to prepare this Framework Construction Management Plan (CMP) Statement in relation to a proposed commercial development on land at Langstone Park, Havant (the Site).

1.2 This document is a framework to which a full CMP will be based upon prior to the commencement of any phase of the development. This latter CMP will give details of the construction site layout and swept path analysis to demonstrate construction vehicles an access the site.

1.3 The purpose of the CMP is to ensure that the impact of construction work on local residents, other sensitive receptors and the immediate highway is kept to a minimum and that appropriate controls are identified should they be necessary.

1.4 The CMP provides details of measures that are considered appropriate at this time; however, this CMP will be a 'live' document that will evolve as more details are known and as the project progresses.

1.5 This CMP is intended to address the health and safety issues related to all vehicles and mobile plant travelling to, from or around site during the construction phase of the project.

1.6 The CMP will cover;

- Communication Strategy: Setting out a provisional communication strategy between the development team, stakeholders, suppliers, and subcontractors
- Work and Programme: including core construction hours and periods
- Traffic & Transport: Measures to control access routing, timing of movement, vehicle restrictions, loading and unloading of plant and parking will be discussed in this section,
- Management, Monitoring and Review of the CMP.

2.0 Construction Site Location

Site Details

2.1 The Site is located on the south of A27 and west of Langstone Road, approximately 500 metres south of Havant Town Centre.

2.2 The Site is currently occupied by a range of commercial uses including office and lab space, as well as Class E(g)(iii)/B2 and B8 industrial uses. There is also a gym and nursery/creche on site.

2.3 Part of the Site already has permission to be redeveloped to provide 12,750m^2 of flexible employment floorspace (Ref:APP/19/00703 – 'the 2019 Permission'). This permission was subsequently amended (Ref: APP/21/00405), reducing the scale of new employment floorspace to 11,290m^2 for the same flexible uses.

2.4 The 2019 Permission included a condition (Conditon 17) restricting access to the Site from Langstone Road during weekday hours of 07:30 – 09:00. This condition was carried forward to the S73 permission (also Condition 17).

2.5 The location of the Application Site is illustrated below.

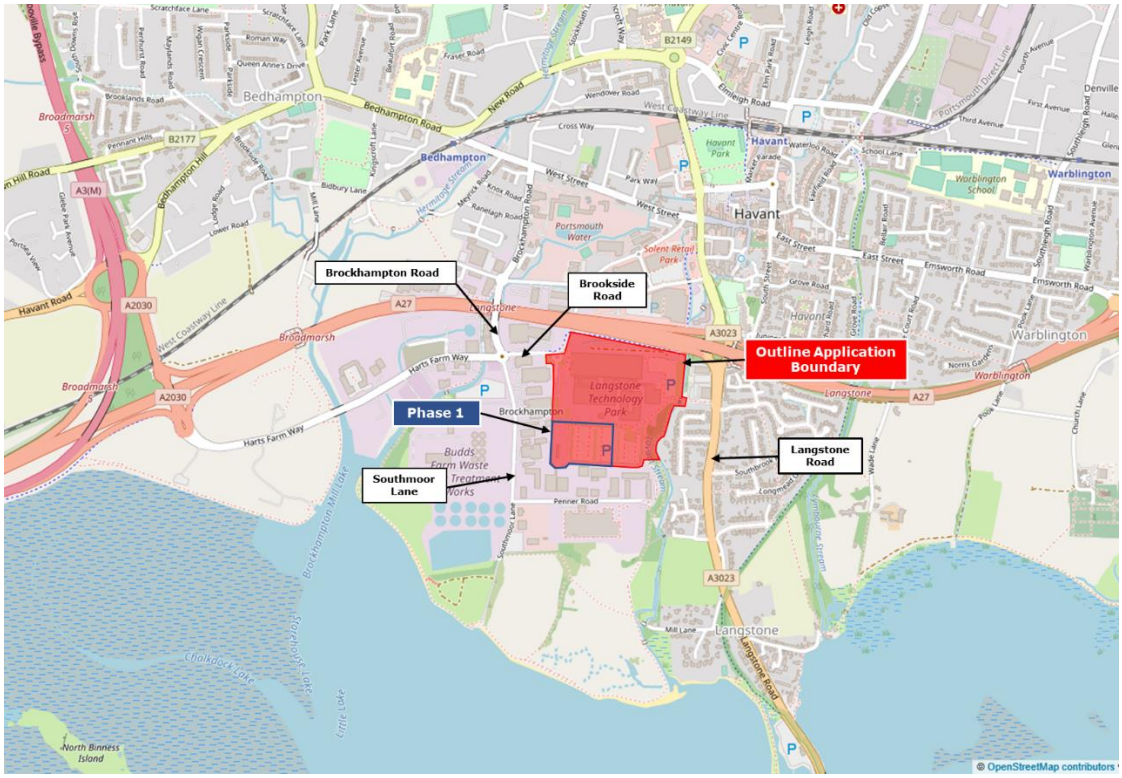


Figure 2.1 - Site Location

2.6 The Site is bordered to the north by the A27 and to the south and west by other commercial developments. To the east there are a mixture of uses including a hotel, restaurant and residential areas.

Highway Network

2.7 Vehicular access to the Site is achieved via Brookside Road to the west, Langstone Road to the east and Penner Road to the south, which is for emergency use only. Brookside Road and Penner Road both connect to Harts Farm Way, which provides access to the A27 to the west.

2.8 Langstone Road runs south from Havant to Hayling Island, forming a junction with the A27 approximately 130 metres north of the access road.

2.9 The Local Highway Network is shown in the figure below.

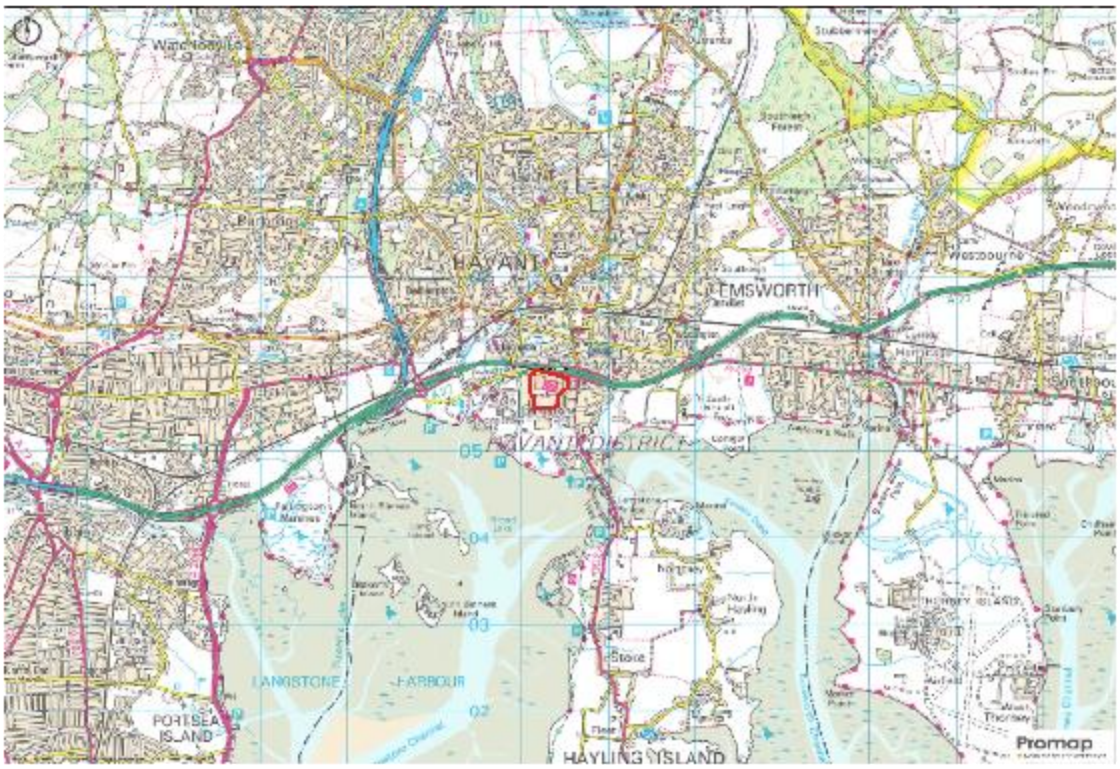


Figure 2.2 - Site in Relation to the Highway Network

3.0 Provisional Communication Strategy

3.1 Under the Considerate Construction Scheme (CCS) a communication strategy will be established pre- and post-works. This will incorporate the following elements;

- Appointment of site liaison officer for a single point of contact;
- Pre and post-meetings with stakeholders;
- Creation of contact numbers of 24 hour / 7 days a week requirement.

3.2 The list below illustrates the provisional contacts list which will form the basis of the communication strategy between the development team and stakeholders. The list is not exhaustive and will be amended during the detail design process.

- Local Residents;
- Local Businesses;
- Havant Borough Council; and,

3.3 The CEMP will be communicated to all suppliers, subcontractors and stakeholders by the following means.

- Subcontract orders;
- Pre-meetings;
- Pre-start meetings;
- Site Inductions;
- Health and Safety Meetings; and,
- Presentations.

4.0 Work and Programme

4.1 The Proposed Development involves the demolition of 51,755m^2 of existing floorspace (predominantly office but including labs, industrial, data centre and ancillary uses) and its replacement with up to 63,290m^2 (gross external area) of land use class B2, B8 and E(g)(ii)-(iii) (R&D and light industrial) and ancillary uses (Class E(b) and E(d) (including the Phase 1 Permission).

4.2 As discussed above, the 2019 Permission established planning permission for the partial demolition of some buildings within the Site and their replacement with 12,750m^2 of new buildings, bringing the total currently permitted floor area to 64,330m^2. The Proposed Development (including the Phase 1 Permission) would therefore represent a reduction in overall floor space compared to what is currently permitted at the Site.

4.3 Units 1 – 4 on the masterplan form the 11,290m^2 of floor space of the Phase 1 Permission. The net additional floor space amounts to 52,000m^2.

4.4 An alternative scheme is now being considered that would allow for the inclusion of up to 3,000m^2 of dedicated office space (use class E(g)(i), formerly B1a) in place of an equivalent quantum R&D and industrial uses.

Project Programme

4.5 The expected project duration will be confirmed by the appointed contractor although it is envisaged to be over a long timeframe up to 10 years.

4.6 The breakdown of activities required is subject to confirmation by the appointed Contractor and will be confirmed before construction commences on site.

5.0 Traffic and Transport

Initiatives to Minimise Travel

5.1 The Contractor would undertake a number of activities to minimise the number and length of journeys made in relation to the construction work. These would include:

- Provision of details of local public transport services;
- Advance warning to site operatives and visitors that limited parking is available within the vicinity of the site;
- Where possible site staff will use crew vans to minimise vehicle movements; and
- The Contractor will make reasonable endeavours to use local suppliers for materials where this is possible.

Vehicle Type

5.2 Of the vehicle movements, the typical vehicle types will be as follows:

- Light vehicles – cars and small vans;
- Low Loaders comprising up to 10m flatbed;
- 8 wheel delivery lorry up to 20 tonnes gross weight (10m length);
- Concrete mixers – delivering ready mixed concrete; and
- 16.5m large articulated lorries

5.3 Typical vehicle types are illustrated in Figure 5.1 below

	Vehicle Type Description	**Typical Vehicle**
Cars and Light Goods Vehicles (LGV)	Saloon, Hatchback, Estate, 4WD, Pick-Up	
	Light Vans	
Other Goods Vehicles 1 (OGV1)	Flatbed material delivery vehicle (up to 12m long)	
	Ready mixed concrete lorry.	

	Vehicle Type Description	Typical Vehicle
	8 wheel delivery lorry (up to 32 tonnes gross weight)	
Others Goods Vehicles (OGV2)	16.5m Large Articulated Vehicles	

Figure 5.1: Vehicle Types

6.1 The maximum length of construction vehicle accessing the site will been confirmed by the contractor upon appointment.

6.2 All contractors and sub-contractors operating vehicles over 3.5 tonnes will be required to meet the Construction Logistics and Community Safety (CLOCS) standard criteria:

- They are a member of the Fleet Operator Recognition Scheme (FORS);
- All drivers must have undertaken cycle awareness training;
- All vehicles must have side guards fitted (unless it can be demonstrated that the lorry would not perform the function for which it was built if side guards are present);
- All vehicles must have a close proximity warning system fitted, comprising a front mounted, rear facing CCTV camera, a close proximity sensor, an in-cab warning device and an external warning device; and
- All vehicles must display prominent signage on the rear of the vehicle to warn cyclists of the dangers of passing the vehicle on the inside.

6.3 It will be a requirement that all deliveries to the site will be undertaken by Silver or Gold accredited contractors under FORS, where possible in accordance with the CLOCS standard. Where Bronze accredited contractors are appointed, written assurance stating that vehicles have adequate blind spot minimisation equipment fitted and that drivers have received the necessary training will be sought from the supplier. No deliveries will be undertaken from non-accredited suppliers.

6.4 FORS ID numbers will be used as part of the delivery booking process to ensure that all operators visiting the site are FORS accredited.

Daily Profile of Deliveries

6.5 All deliveries will take place during weekdays only and on Saturday mornings or in accordance with any working hours conditions placed on any planning permission.

6.6 The Contractor will be required to manage HGV deliveries to avoid the weekday peak periods (07:00 – 09:00 & 16:00 – 19:00). The contractor will also be required to manage light vehicle movements to avoid the weekday peak hours (08:00 – 09:00 & 17:00 – 18:00).

6.7 The Contractor will also be required to manage deliveries to avoid school drop off and pick up times of (08:00-09:00) and (14:45-15:45) to avoid any potential conflict (as advised by HBC).

6.8 The contractor will be expected to manage an even distribution of deliveries throughout the day to avoid 'bunching'. Stacking of vehicles on the public highway will not be permitted. This will be undertaken by the use of a booking system detailed later within the CMP.

Road Safety

6.9 Signage to inform motorists that the local roads are accommodating construction traffic and advising of the site access will be provided in accordance with Chapter 8 of the Safety at Street Works and Road Works.

6.10 Wheel cleaning facilities will be provided on the site. Periodic review of the roads adjacent to the site will be undertaken, in addition to a final review upon completion of works. Should the transfer of mud and debris onto the public highway be evident at any such inspection, the appointed contractor shall undertake to sweep the affected highway with a mechanical road sweeper as required. Additionally, road sweeping will be carried out at the request of Havant Borough Council to keep the highway adjacent to the site access clear of mud and debris.

6.11 All deliveries will be undertaken within the site. An area for delivery vehicles to unload will be provided as well as a storage area and staff welfare facilities.

6.12 Contractors / suppliers will not be permitted to wait on the public highway outside of the site. Vehicles will drive into the site and will immediately be routed into the loading/unloading area, to enable construction materials and plant to be delivered.

6.13 Vehicle manoeuvring will be controlled through the use of a qualified banksman, this banksman will coordinate incoming and outgoing HGV movements with traffic movements within the site. A swept path analysis will been undertaken for typical construction vehicles, demonstrating that they can enter the site, turn within the loading/unloading area and leave the site in a forward gear

6.14 Fencing will be erected and maintained in order to prevent unauthorised access to the Site. In accordance with the phased development, fencing will be erected for each phase of the development, then taken down once construction is complete.

HGV Distribution and Assignment

6.15 All HGV construction traffic will be instructed to access the off Langstone Road. Construction Traffic will reach Langstone Road from the A27. Construction vehicles must turn left out of the site onto Langstone Road, joining the A27.This is illustrated in Figure 5.2 below.

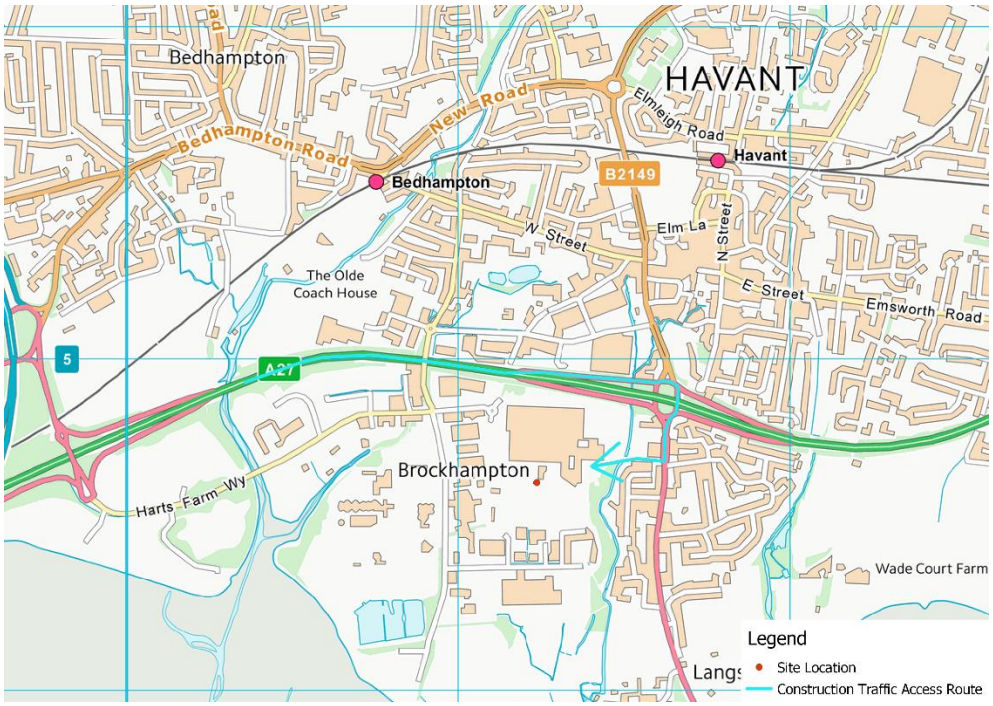


Figure 5.2: HGV Traffic Routing

6.16 The construction traffic route ensures vehicles use the Strategic and Primary Road network for the maximum length possible and hence minimise the requirement to pass through residential areas.

Coordination with other construction works

6.17 During the construction of the Development the Contractor will be required to make reasonable endeavours to coordinate deliveries with other construction being undertaken in the vicinity of the works in order to minimise the cumulative impact of construction traffic.

Measures to Control Emissions, Dust and Dirt During Construction

6.18 Upon appointment, the Contractor will be encouraged to utilise low emission plant at the Site.

6.19 To minimise the impact of dust during the demolition/construction phases, any materials taken to/from the site will be damped down and covered to minimise the risk associated with dust.

6.20 To reduce the impacts of dirt during construction, wheel washing will be provided to ensure no dirt is carried onto the public highway.

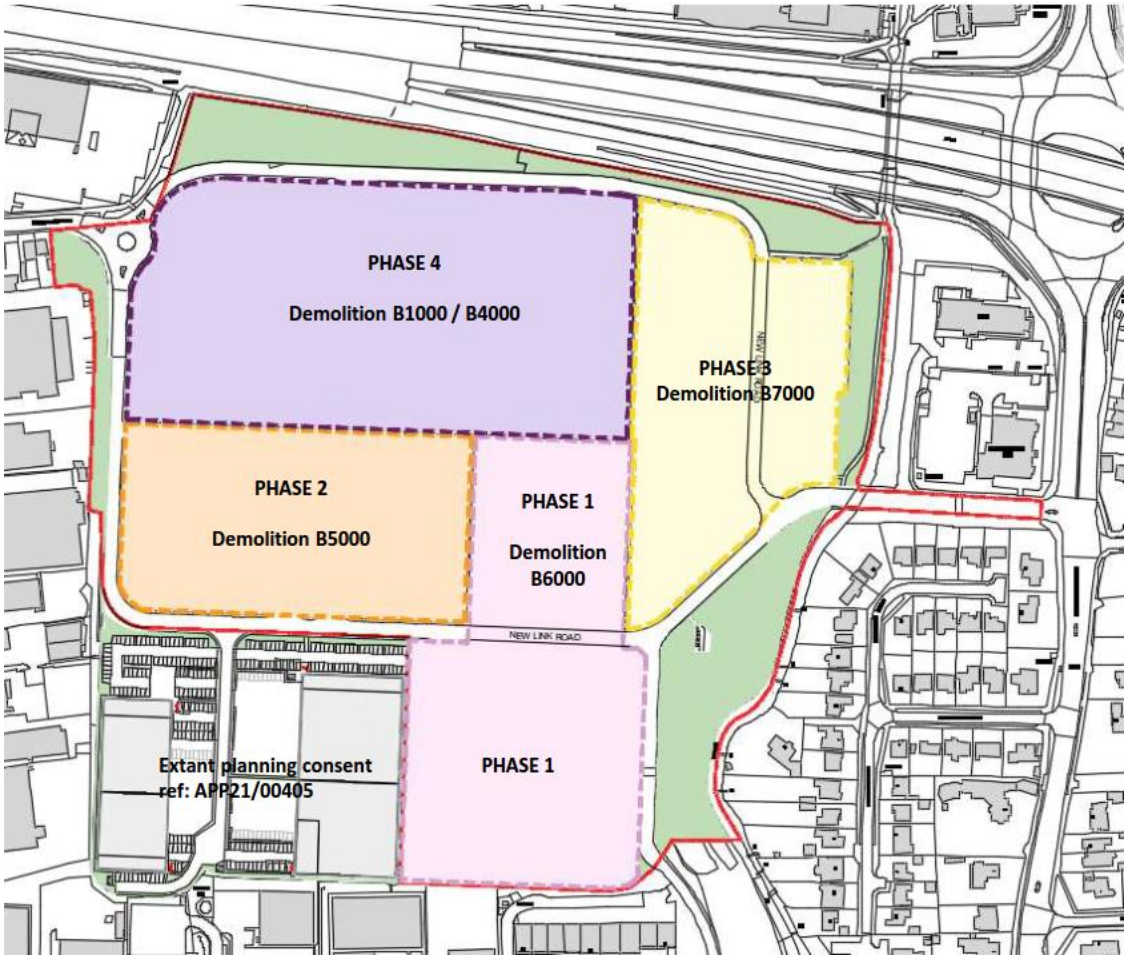
Recycling/Disposing of Waste

6.21 The contractor will be required to maximise the quantity of materials recycled on the site and equally minimise the volume of waste removed from the site. The best practicable environmental options will be achieved at the site to ensure compliance with the necessary legislation for all site options. Methods relating to waste can be confirmed upon the appointment of a contractor at the Site.

7.0 Phasing

Phasing

7.1 The development will be constructed in phases to maintain access throughout the works. An indicative phasing plan is shown below.



Phasing Plan

7.2 The proposed phasing takes into account buildings with high vacancy levels and unlettable space, existing occupants and lease events along with the need to retain facilities for existing occupiers as well as offering a practical solution to dealing with redeveloping a site with a central shared plant area. It is currently foreseen that the works will be conducted as fllows:

- Phase 1 – Work would consist of the development of the south eastern car parking area and demolition of B6000 which has 60% vacancy levels. This would allow development of the two plots and start the formation of the new primary internal access route around the Site.
- Phase 2 – This phase would consist of the demolition of B5000 and the development of flexible employment floor space with associated car parking and landscaping.
- Phase 3 – Work would consist of the demolition of B7000 and the continuation of the primary access route with buildings being developed either side of the new link road. These would consist of flexible employment floorspace along with amenity/support services such as a gymnasium and café. Improvements would also be undertaken to the existing public footpaths in the north eastern corner

of the Site which would consist of resurfacing and widening to create pedestrian/cycle access linking to the new primary circulation route in the Site. External amenity space would also be formed.

- Phase 4 – This phase would consist of the demolition B1000 & B4000 and the development of new employment floor space and the continued formation of the new primary access route along with the extension of the existing amenity space to the north of the Site.

7.3 The phasing plan is indicative at this stage and the plots could be combined or subdivided subject to market demands. It is considered that access during construction could be managed via a construction management plan for each phase, secured via a suitably worded condition.

7.4 The applicant is committed to ensuring that the construction works do not lead to parking overspill onto the surrounding streets. Sufficient parking will be retained throughout the works to serve any of the existing buildings that remain and each new phase will be self contained with respect to parking.

7.5 The current phasing plan hinges around bringing down B6000 early on, which being a three storey office building generates considerable parking demand. Doing this effectively provides an excess of parking that allows changes to be made elsewhere. The car park provided through the S73 application is retained until near the end of the process to cater the needs of the existing buildings that remain.

7.6 As outlined above, the phasing plan is subject to change based on a variety of factors. It is envisaged that the parking arrangements throughout the build process would be managed through either the construction management plan or a standalone parking management plan.

8.0 Control Process

8.1 This section outlines the control processes that the contractor and their supply chain will be required to adhere to during the construction of the Development.

Control of Delivery Vehicles

8.2 The contractor is expected to manage an even distribution of deliveries throughout the day to avoid 'bunching'.

Delivery Route Compliance

8.3 The delivery routes will be communicated in advance by the contractor to all individuals and companies involved in the transport of materials and plant to and from the Site.

8.4 Information signs will be erected at the Site which will include a telephone number for the public to report concerns. This telephone number will also be provided to the local Council.

On-Street Waiting

8.5 It will be communicated to the contractor and supply chain that they are not permitted to wait on the public highway. The contractor and supply chain will be advised in advance of the times when deliveries can be received and will be required to meet those delivery windows.

Booking System

8.6 The Contractor will be responsible for managing the demand for deliveries and exports for their own fleet and ensuring that their supply chain partners comply with the principles set out in Section 3 of this document. Up to date records of deliveries and exports from the Site will be maintained.

Communication Strategy

8.7 An information pack will be distributed to all suppliers involved in the transport of materials and plant to and from the Site. The pack will be a convenient size so it can be stored in a truck cab.

8.8 The pack will include key information on delivery routes and clearly set out procedures for dealing with emergencies and disciplinary measures for non-compliance.

Access

8.9 Staff will have telecommunication equipment to enable them to communicate with delivery drivers. Drivers will be required to call ahead to ensure the Site is ready to receive them in advance of their arrival.

9.0 Monitoring Vehicle Movements

Monitoring Strategy

9.1 The HGV movements associated with the construction work will be continuously monitored through the use of a booking system. This will require the Contractor to keep an up-to-date record of deliveries to and exports from the Site.

9.2 The information will be provided to Havant Borough Council upon request for checking against the provisions of this Framework CMP.

Stakeholder Input

9.3 Contact numbers will be on display at the Site entrance for the general public to raise any concerns with the Developer directly. All enquiries will be recorded and responded to within five working days if contact details are provided. The enquirer will receive a written response (copied to Havant Borough Council) detailing what action has been taken, if necessary.

10.0 Corrective Measures

10.1 This section provides a summary of the mechanisms that will ensure that the proposed control measures are effectively implemented.

Correction Process

10.2 A three-stage correction process is proposed:

- **Stage one** – Havant Borough Council (HBC) highlight a potential breach and request the Developer to review the data and concerns. The Developer and HBC will then agree the extent of the breach of controls if it is material and agree upon action to be taken. This is likely to be a Contractor warning at this stage.
- **Stage two** – If a further material breach is identified the Contractor will be given a further warning and required to produce an action plan to outline how the issue will be rectified and any additional mitigation measures proposed.
- **Stage three** – Should further breaches still occur the Contractor will be required either to remove the offender from Site or to stop using an offending supplier.

11.0 Summary

11.1 Motion has been instructed by XLB Property (the "Developer") to prepare this Framework Construction Management Plan (CMP) Statement in relation to a proposed commercial development on land at Langstone Park, Havant (the Site).

11.2 A comprehensive detailed list of measures and site protocols will be agreed with Havant Borough Council through the submission of the final CMP. This will include and make reference to the following:

- All contractors to be members of the Considerate Contractors Scheme and Fleet Operators Recognition Scheme (FORS);
- All contractors to be members of a Safer Lorry Scheme;
- Site hoarding to enclose the phased development of the site on all sides and suitable signage to be installed to warn pedestrians and highways users of the presence of HGVs;
- The regular inspection of the local highway network for any deposits of soil/debris deposited by construction traffic and if necessary, the road to be swept using a mechanical sweeper; and
- Wheel washing facilities to be provided.

Appendix D

2011 Census Data – Journey to Work

Origin/Destination	%	Route
Portsmouth	23.0%	A27 West
Fareham	7.6%	A27 West
Chichester	5.6%	A27 East
East Hampshire	7.0%	A27 West
Winchester	4.1%	A27 West
Gosport	3.4%	A27 West
Havant	37.2%	
Havant 014	3.7%	A27 West
Havant 018	3.6%	Park Road South/Brockhampton Road
Havant 010	3.1%	Park Road South/Brockhampton Road
Havant 011	2.5%	A27 West
Havant 009	2.4%	Park Road South/Brockhampton Road
Havant 013	2.3%	Park Road South/Brockhampton Road
Havant 008	2.2%	Park Road South/Brockhampton Road
Havant 015 (Hayling Island)	2.1%	Langstone Road South
Havant 006	2.1%	Park Road South/Brockhampton Road
Havant 004	1.3%	A27 West
Havant 007	1.8%	A27 West
Havant 020	1.8%	A27 West
Havant 016 (Hayling Island)	1.7%	Langstone Road South
Havant 017 (Hayling Island)	1.6%	Langstone Road South
Havant 003	1.5%	A27 West
Havant 019	1.5%	A27 West
Havant 005	1.2%	A27 West
Arun	2.1%	A27 East
Southampton	1.8%	A27 West
Eastleigh	1.9%	A27 West
Other	6.3%	A27 East/West 50:50
Total	100.0%	

Appendix E

Surveys

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 3RD NOVEMBER 2021

LOCATION : HAVANT, HAMPSHIRE

HARTS FARM WAY / BROCKHAMPTON ROAD / BROOKSIDE RD / SOUTHMOOR LANE ROUNDABOUT

	HARTS FARM WAY - WEST LEFT TURN TO BROCKHAMPTON RD - NORTH						HARTS FARM WAY - WEST STRAIGHT AHEAD TO BROOKSIDE RD - EAST						HARTS FARM WAY - WEST RIGHT TURN TO SOUTHMOOR RD - SOUTH						HARTS FARM WAY - WEST U TURNS					
	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT
0700-0715	15	2			2	**19**	13	1			1	**15**	27	3				**30**	0					**0**
0715-0730	26	2		2		**30**	21	1			2	**24**	59			1		**60**	0					**0**
0730-0745	37	2		1	2	**42**	20				1	**21**	62	1		3		**66**	0					**0**
0745-0800	46	3			1	**50**	18					**18**	80	2			1	**83**	0					**0**
0800-0815	43				2	**45**	32					**32**	46	5				**51**	0					**0**
0815-0830	59	3			1	**63**	33			1		**34**	63	2	1	2		**68**	0					**0**
0830-0845	44	1			2	**47**	30					**30**	35	2		2		**39**	0					**0**
0845-0900	77			1		**78**	23			1	1	**25**	56					**56**	0					**0**
0900-0915	64	1			1	**66**	13					**13**	34	1				**35**	0					**0**
0915-0930	47					**47**	6					**6**	30	2				**32**	1					**1**
0930-0945	46	1			3	**50**	3	1				**4**	22	2				**24**	1					**1**
0945-1000	42	4				**46**	13					**13**	20	5				**25**	0	1				**1**
0700-1000	**546**	**19**	**0**	**4**	**14**	**583**	**225**	**3**	**0**	**2**	**5**	**235**	**534**	**25**	**1**	**8**	**1**	**569**	**2**	**1**	**0**	**0**	**0**	**3**
0700-0800	124	9	0	3	5	**141**	72	2	0	0	4	**78**	228	6	0	4	1	**239**	0	0	0	0	0	**0**
0715-0815	152	7	0	3	5	**167**	91	1	0	0	3	**95**	247	8	0	4	1	**260**	0	0	0	0	0	**0**
0730-0830	185	8	0	1	6	**200**	103	0	0	1	1	**105**	251	10	1	5	1	**268**	0	0	0	0	0	**0**
0745-0845	192	7	0	0	6	**205**	113	0	0	1	0	**114**	224	11	1	4	1	**241**	0	0	0	0	0	**0**
0800-0900	223	4	0	1	5	**233**	118	0	0	2	1	**121**	200	9	1	4	0	**214**	0	0	0	0	0	**0**
0815-0915	244	5	0	1	4	**254**	99	0	0	2	1	**102**	188	5	1	4	0	**198**	0	0	0	0	0	**0**
0830-0930	232	2	0	1	3	**238**	72	0	0	1	1	**74**	155	5	0	2	0	**162**	1	0	0	0	0	**1**
0845-0945	234	2	0	1	4	**241**	45	1	0	1	1	**48**	142	5	0	0	0	**147**	2	0	0	0	0	**2**
0900-1000	199	6	0	0	4	**209**	35	1	0	0	0	**36**	106	10	0	0	0	**116**	2	1	0	0	0	**3**

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 3RD NOVEMBER 2021

LOCATION : HAVANT, HAMPSHIRE

HARTS FARM WAY / BROCKHAMPTON ROAD / BROOKSIDE RD / SOUTHMOOR LANE ROUNDABOUT

	HARTS FARM WAY - WEST LEFT TURN TO BROCKHAMPTON RD - NORTH						HARTS FARM WAY - WEST STRAIGHT AHEAD TO BROOKSIDE RD - EAST						HARTS FARM WAY - WEST RIGHT TURN TO SOUTHMOOR RD - SOUTH						HARTS FARM WAY - WEST U TURNS					
	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT
1600-1615	49	2			2	**53**	6				1	**7**	7	6				**13**	0					**0**
1615-1630	49	2			2	**53**	4				2	**6**	14	6				**20**	0					**0**
1630-1645	42				3	**45**	4					**4**	1	2				**3**	0					**0**
1645-1700	51	3		1	6	**61**	5					**5**	9	1				**10**	0					**0**
1700-1715	38			1	1	**40**	0					**0**	4				1	**5**	0					**0**
1715-1730	40				1	**41**	6				2	**8**	6	2				**8**	0					**0**
1730-1745	42				1	**43**	2				1	**3**	4					**4**	0					**0**
1745-1800	33				2	**35**	3	1			1	**5**	4	1				**5**	0	1				**1**
1800-1815	31				1	**32**	2					**2**	1	1				**2**	0					**0**
1815-1830	19	1			1	**21**	0					**0**	2	1				**3**	0					**0**
1830-1845	17					**17**	1	1				**2**	7	3				**10**	0					**0**
1845-1900	12					**12**	1					**1**	2	2				**4**	0					**0**
1600-1900	**423**	**8**	**0**	**2**	**20**	**453**	**34**	**2**	**0**	**0**	**7**	**43**	**61**	**25**	**0**	**0**	**1**	**87**	**0**	**1**	**0**	**0**	**0**	**1**
1600-1700	191	7	0	1	13	**212**	19	0	0	0	3	**22**	31	15	0	0	0	**46**	0	0	0	0	0	**0**
1615-1715	180	5	0	2	12	**199**	13	0	0	0	2	**15**	28	9	0	0	1	**38**	0	0	0	0	0	**0**
1630-1730	171	3	0	2	11	**187**	15	0	0	0	2	**17**	20	5	0	0	1	**26**	0	0	0	0	0	**0**
1645-1745	171	3	0	2	9	**185**	13	0	0	0	3	**16**	23	3	0	0	1	**27**	0	0	0	0	0	**0**
1700-1800	153	0	0	1	5	**159**	11	1	0	0	4	**16**	18	3	0	0	1	**22**	0	1	0	0	0	**1**
1715-1815	146	0	0	0	5	**151**	13	1	0	0	4	**18**	15	4	0	0	0	**19**	0	1	0	0	0	**1**
1730-1830	125	1	0	0	5	**131**	7	1	0	0	2	**10**	11	3	0	0	0	**14**	0	1	0	0	0	**1**
1745-1845	100	1	0	0	4	**105**	6	2	0	0	1	**9**	14	6	0	0	0	**20**	0	1	0	0	0	**1**
1800-1900	79	1	0	0	2	**82**	4	1	0	0	0	**5**	12	7	0	0	0	**19**	0	0	0	0	0	**0**

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 3RD NOVEMBER 2021

LOCATION : HAVANT, HAMPSHIRE

HARTS FARM WAY / BROCKHAMPTON ROAD / BROOKSIDE RD / SOUTHMOOR LANE ROUNDABOUT

	BROCKHAMPTON RD - NORTH LEFT TURN TO BROOKSIDE RD - EAST						BROCKHAMPTON RD - NORTH STRAIGHT AHEAD TO SOUTHMOOR RD - SOUTH						BROCKHAMPTON RD - NORTH RIGHT TURN TO HARTS FARM WAY - WEST						BROCKHAMPTON RD - NORTH U TURNS					
	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT
0700-0715	7	1				**8**	14					**14**	25	2			2	**29**	0					**0**
0715-0730	14					**14**	31	1			3	**35**	27	1		1		**29**	0					**0**
0730-0745	9			1		**10**	30				2	**32**	49			1		**50**	0					**0**
0745-0800	6					**6**	26				6	**32**	43	2			1	**46**	0					**0**
0800-0815	12			1		**13**	18				1	**19**	60	3			2	**65**	1					**1**
0815-0830	8					**8**	18	1				**19**	40	3				**43**	0					**0**
0830-0845	6				1	**7**	14			1		**15**	50	1				**51**	0					**0**
0845-0900	3					**3**	18	1			2	**21**	53	2				**55**	0					**0**
0900-0915	3					**3**	9					**9**	48	4				**52**	0					**0**
0915-0930	2					**2**	12	1				**13**	45	3			1	**49**	0					**0**
0930-0945	3	1				**4**	5	1				**6**	50				1	**51**	0					**0**
0945-1000	3	1				**4**	13					**13**	52	1	1	1		**55**	0					**0**
0700-1000	**76**	**3**	**0**	**2**	**1**	**82**	**208**	**5**	**0**	**1**	**14**	**228**	**542**	**22**	**1**	**3**	**7**	**575**	**1**	**0**	**0**	**0**	**0**	**1**
0700-0800	36	1	0	1	0	**38**	101	1	0	0	11	**113**	144	5	0	2	3	**154**	0	0	0	0	0	**0**
0715-0815	41	0	0	2	0	**43**	105	1	0	0	12	**118**	179	6	0	2	3	**190**	1	0	0	0	0	**1**
0730-0830	35	0	0	2	0	**37**	92	1	0	0	9	**102**	192	8	0	1	3	**204**	1	0	0	0	0	**1**
0745-0845	32	0	0	1	1	**34**	76	1	0	1	7	**85**	193	9	0	0	3	**205**	1	0	0	0	0	**1**
0800-0900	29	0	0	1	1	**31**	68	2	0	1	3	**74**	203	9	0	0	2	**214**	1	0	0	0	0	**1**
0815-0915	20	0	0	0	1	**21**	59	2	0	1	2	**64**	191	10	0	0	0	**201**	0	0	0	0	0	**0**
0830-0930	14	0	0	0	1	**15**	53	2	0	1	2	**58**	196	10	0	0	1	**207**	0	0	0	0	0	**0**
0845-0945	11	1	0	0	0	**12**	44	3	0	0	2	**49**	196	9	0	0	2	**207**	0	0	0	0	0	**0**
0900-1000	11	2	0	0	0	**13**	39	2	0	0	0	**41**	195	8	1	1	2	**207**	0	0	0	0	0	**0**

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 3RD NOVEMBER 2021

LOCATION : HAVANT, HAMPSHIRE

HARTS FARM WAY / BROCKHAMPTON ROAD / BROOKSIDE RD / SOUTHMOOR LANE ROUNDABOUT

	BROCKHAMPTON RD - NORTH LEFT TURN TO BROOKSIDE RD - EAST						BROCKHAMPTON RD - NORTH STRAIGHT AHEAD TO SOUTHMOOR RD - SOUTH						BROCKHAMPTON RD - NORTH RIGHT TURN TO HARTS FARM WAY - WEST						BROCKHAMPTON RD - NORTH U TURNS					
	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT
1600-1615	7					**7**	4				1	**5**	98	1			1	**100**	0					**0**
1615-1630	4					**4**	5	1				**6**	78	1		1	5	**85**	0					**0**
1630-1645	5					**5**	5					**5**	86				3	**89**	0					**0**
1645-1700	6					**6**	6					**6**	95				2	**97**	0					**0**
1700-1715	1					**1**	3					**3**	90	1		1	1	**93**	0					**0**
1715-1730	4					**4**	3					**3**	72			1	2	**75**	1					**1**
1730-1745	2					**2**	5	2				**7**	87			1	3	**91**	0					**0**
1745-1800	0					**0**	2					**2**	61	1			1	**63**	1					**1**
1800-1815	1					**1**	6					**6**	69				1	**70**	2					**2**
1815-1830	0					**0**	5					**5**	33				1	**34**	0					**0**
1830-1845	3					**3**	5					**5**	44					**44**	0					**0**
1845-1900	2					**2**	3					**3**	38					**38**	0					**0**
1600-1900	**35**	**0**	**0**	**0**	**0**	**35**	**52**	**3**	**0**	**0**	**1**	**56**	**851**	**4**	**0**	**4**	**20**	**879**	**4**	**0**	**0**	**0**	**0**	**4**
1600-1700	22	0	0	0	0	**22**	20	1	0	0	1	**22**	357	2	0	1	11	**371**	0	0	0	0	0	**0**
1615-1715	16	0	0	0	0	**16**	19	1	0	0	0	**20**	349	2	0	2	11	**364**	0	0	0	0	0	**0**
1630-1730	16	0	0	0	0	**16**	17	0	0	0	0	**17**	343	1	0	2	8	**354**	1	0	0	0	0	**1**
1645-1745	13	0	0	0	0	**13**	17	2	0	0	0	**19**	344	1	0	3	8	**356**	1	0	0	0	0	**1**
1700-1800	7	0	0	0	0	**7**	13	2	0	0	0	**15**	310	2	0	3	7	**322**	2	0	0	0	0	**2**
1715-1815	7	0	0	0	0	**7**	16	2	0	0	0	**18**	289	1	0	2	7	**299**	4	0	0	0	0	**4**
1730-1830	3	0	0	0	0	**3**	18	2	0	0	0	**20**	250	1	0	1	6	**258**	3	0	0	0	0	**3**
1745-1845	4	0	0	0	0	**4**	18	0	0	0	0	**18**	207	1	0	0	3	**211**	3	0	0	0	0	**3**
1800-1900	6	0	0	0	0	**6**	19	0	0	0	0	**19**	184	0	0	0	2	**186**	2	0	0	0	0	**2**

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 3RD NOVEMBER 2021

LOCATION : HAVANT, HAMPSHIRE

HARTS FARM WAY / BROCKHAMPTON ROAD / BROOKSIDE RD / SOUTHMOOR LANE ROUNDABOUT

	BROOKSIDE ROAD - EAST LEFT TURN TO SOUTHMOOR RD - SOUTH						BROOKSIDE ROAD - EAST STRAIGHT AHEAD TO HARTS FARM WAY - WEST						BROOKSIDE ROAD - EAST RIGHT TURN TO BROCKHAMPTON RD - NORTH						BROOKSIDE ROAD - EAST U TURNS					
	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT
0700-0715	2					**2**	3				1	**4**	0					**0**	0					**0**
0715-0730	6				1	**7**	5				1	**6**	3	1				**4**	0					**0**
0730-0745	8					**8**	6					**6**	4					**4**	0					**0**
0745-0800	6					**6**	3				4	**7**	0					**0**	0					**0**
0800-0815	2					**2**	5					**5**	2					**2**	0					**0**
0815-0830	1					**1**	5					**5**	4					**4**	0					**0**
0830-0845	4					**4**	5					**5**	3					**3**	0					**0**
0845-0900	3					**3**	3	1				**4**	1					**1**	0					**0**
0900-0915	3					**3**	4					**4**	0					**0**	0					**0**
0915-0930	2					**2**	2					**2**	1					**1**	0					**0**
0930-0945	0	2				**2**	3					**3**	0	1				**1**	0					**0**
0945-1000	1					**1**	4					**4**	3					**3**	0					**0**
0700-1000	**38**	**2**	**0**	**0**	**1**	**41**	**48**	**1**	**0**	**0**	**6**	**55**	**21**	**2**	**0**	**0**	**0**	**23**	**0**	**0**	**0**	**0**	**0**	**0**
0700-0800	22	0	0	0	1	**23**	17	0	0	0	6	**23**	7	1	0	0	0	**8**	0	0	0	0	0	**0**
0715-0815	22	0	0	0	1	**23**	19	0	0	0	5	**24**	9	1	0	0	0	**10**	0	0	0	0	0	**0**
0730-0830	17	0	0	0	0	**17**	19	0	0	0	4	**23**	10	0	0	0	0	**10**	0	0	0	0	0	**0**
0745-0845	13	0	0	0	0	**13**	18	0	0	0	4	**22**	9	0	0	0	0	**9**	0	0	0	0	0	**0**
0800-0900	10	0	0	0	0	**10**	18	1	0	0	0	**19**	10	0	0	0	0	**10**	0	0	0	0	0	**0**
0815-0915	11	0	0	0	0	**11**	17	1	0	0	0	**18**	8	0	0	0	0	**8**	0	0	0	0	0	**0**
0830-0930	12	0	0	0	0	**12**	14	1	0	0	0	**15**	5	0	0	0	0	**5**	0	0	0	0	0	**0**
0845-0945	8	2	0	0	0	**10**	12	1	0	0	0	**13**	2	1	0	0	0	**3**	0	0	0	0	0	**0**
0900-1000	6	2	0	0	0	**8**	13	0	0	0	0	**13**	4	1	0	0	0	**5**	0	0	0	0	0	**0**

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 3RD NOVEMBER 2021

LOCATION : HAVANT, HAMPSHIRE

HARTS FARM WAY / BROCKHAMPTON ROAD / BROOKSIDE RD / SOUTHMOOR LANE ROUNDABOUT

	BROOKSIDE ROAD - EAST LEFT TURN TO SOUTHMOOR RD - SOUTH						BROOKSIDE ROAD - EAST STRAIGHT AHEAD TO HARTS FARM WAY - WEST						BROOKSIDE ROAD - EAST RIGHT TURN TO BROCKHAMPTON RD - NORTH						BROOKSIDE ROAD - EAST U TURNS					
	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT
1600-1615	0					**0**	10					**10**	5					**5**	0					**0**
1615-1630	0					**0**	34					**34**	15			1		**16**	0					**0**
1630-1645	0					**0**	6					**6**	8					**8**	0					**0**
1645-1700	0					**0**	17				1	**18**	11					**11**	0					**0**
1700-1715	1					**1**	18			2		**20**	7					**7**	0					**0**
1715-1730	0					**0**	8				1	**9**	7					**7**	0					**0**
1730-1745	0					**0**	14				3	**17**	4					**4**	0					**0**
1745-1800	1					**1**	6					**6**	4					**4**	0					**0**
1800-1815	0					**0**	5				1	**6**	3					**3**	0					**0**
1815-1830	0					**0**	2				2	**4**	3					**3**	0					**0**
1830-1845	1					**1**	13					**13**	5					**5**	0					**0**
1845-1900	0					**0**	5	1				**6**	3					**3**	0					**0**
1600-1900	**3**	**0**	**0**	**0**	**0**	**3**	**138**	**1**	**0**	**2**	**8**	**149**	**75**	**0**	**0**	**1**	**0**	**76**	**0**	**0**	**0**	**0**	**0**	**0**
1600-1700	0	0	0	0	0	**0**	67	0	0	0	1	**68**	39	0	0	1	0	**40**	0	0	0	0	0	**0**
1615-1715	1	0	0	0	0	**1**	75	0	0	2	1	**78**	41	0	0	1	0	**42**	0	0	0	0	0	**0**
1630-1730	1	0	0	0	0	**1**	49	0	0	2	2	**53**	33	0	0	0	0	**33**	0	0	0	0	0	**0**
1645-1745	1	0	0	0	0	**1**	57	0	0	2	5	**64**	29	0	0	0	0	**29**	0	0	0	0	0	**0**
1700-1800	2	0	0	0	0	**2**	46	0	0	2	4	**52**	22	0	0	0	0	**22**	0	0	0	0	0	**0**
1715-1815	1	0	0	0	0	**1**	33	0	0	0	5	**38**	18	0	0	0	0	**18**	0	0	0	0	0	**0**
1730-1830	1	0	0	0	0	**1**	27	0	0	0	6	**33**	14	0	0	0	0	**14**	0	0	0	0	0	**0**
1745-1845	2	0	0	0	0	**2**	26	0	0	0	3	**29**	15	0	0	0	0	**15**	0	0	0	0	0	**0**
1800-1900	1	0	0	0	0	**1**	25	1	0	0	3	**29**	14	0	0	0	0	**14**	0	0	0	0	0	**0**

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 3RD NOVEMBER 2021

LOCATION : HAVANT, HAMPSHIRE

HARTS FARM WAY / BROCKHAMPTON ROAD / BROOKSIDE RD / SOUTHMOOR LANE ROUNDABOUT

	SOUTHMOOR RD - SOUTH LEFT TURN TO HARTS FARM WAY - WEST						SOUTHMOOR RD - SOUTH STRAIGHT AHEAD TO BROCKHAMPTON RD - NORTH						SOUTHMOOR RD - SOUTH RIGHT TURN TO BROOKSIDE RD - EAST						SOUTHMOOR RD - SOUTH U TURNS					
	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT
0700-0715	11	9				**20**	5	3				**8**	0					**0**	0					**0**
0715-0730	8	7				**15**	5	4				**9**	0					**0**	0	1				**1**
0730-0745	10	2				**12**	4	4				**8**	0					**0**	0					**0**
0745-0800	10	2				**12**	6	2				**8**	1	1				**2**	0					**0**
0800-0815	10	2				**12**	7	1			1	**9**	2					**2**	0					**0**
0815-0830	17	5				**22**	11					**11**	3					**3**	0					**0**
0830-0845	6	4				**10**	6	1				**7**	0					**0**	0					**0**
0845-0900	8	1				**9**	11	1				**12**	1					**1**	1					**1**
0900-0915	12	5				**17**	6	1				**7**	0					**0**	0					**0**
0915-0930	12	1				**13**	3					**3**	1					**1**	0					**0**
0930-0945	9	2				**11**	10	1				**11**	1					**1**	1					**1**
0945-1000	14	1				**15**	7					**7**	1					**1**	0					**0**
0700-1000	**127**	**41**	**0**	**0**	**0**	**168**	**81**	**18**	**0**	**0**	**1**	**100**	**10**	**1**	**0**	**0**	**0**	**11**	**2**	**1**	**0**	**0**	**0**	**3**
0700-0800	39	20	0	0	0	**59**	20	13	0	0	0	**33**	1	1	0	0	0	**2**	0	1	0	0	0	**1**
0715-0815	38	13	0	0	0	**51**	22	11	0	0	1	**34**	3	1	0	0	0	**4**	0	1	0	0	0	**1**
0730-0830	47	11	0	0	0	**58**	28	7	0	0	1	**36**	6	1	0	0	0	**7**	0	0	0	0	0	**0**
0745-0845	43	13	0	0	0	**56**	30	4	0	0	1	**35**	6	1	0	0	0	**7**	0	0	0	0	0	**0**
0800-0900	41	12	0	0	0	**53**	35	3	0	0	1	**39**	6	0	0	0	0	**6**	1	0	0	0	0	**1**
0815-0915	43	15	0	0	0	**58**	34	3	0	0	0	**37**	4	0	0	0	0	**4**	1	0	0	0	0	**1**
0830-0930	38	11	0	0	0	**49**	26	3	0	0	0	**29**	2	0	0	0	0	**2**	1	0	0	0	0	**1**
0845-0945	41	9	0	0	0	**50**	30	3	0	0	0	**33**	3	0	0	0	0	**3**	2	0	0	0	0	**2**
0900-1000	47	9	0	0	0	**56**	26	2	0	0	0	**28**	3	0	0	0	0	**3**	1	0	0	0	0	**1**

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 3RD NOVEMBER 2021

LOCATION : HAVANT, HAMPSHIRE

HARTS FARM WAY / BROCKHAMPTON ROAD / BROOKSIDE RD / SOUTHMOOR LANE ROUNDABOUT

	SOUTHMOOR RD - SOUTH LEFT TURN TO HARTS FARM WAY - WEST						SOUTHMOOR RD - SOUTH STRAIGHT AHEAD TO BROCKHAMPTON RD - NORTH						SOUTHMOOR RD - SOUTH RIGHT TURN TO BROOKSIDE RD - EAST						SOUTHMOOR RD - SOUTH U TURNS					
	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT	CAR	HGV	BUS	MCY	PCY	TOT
1600-1615	61	2				**63**	33			2	1	**36**	2	1				**3**	1					**1**
1615-1630	44	1				**45**	21				2	**23**	1					**1**	0					**0**
1630-1645	61	3		1		**65**	33	1			2	**36**	3					**3**	0					**0**
1645-1700	29					**29**	16					**16**	2					**2**	0					**0**
1700-1715	45		1	2		**48**	16					**16**	2					**2**	0					**0**
1715-1730	30					**30**	14	1			1	**16**	2					**2**	0					**0**
1730-1745	19			3		**22**	6					**6**	1					**1**	0					**0**
1745-1800	13	1				**14**	8					**8**	0					**0**	0					**0**
1800-1815	27	1				**28**	12					**12**	0					**0**	0					**0**
1815-1830	10			1		**11**	5					**5**	0					**0**	0					**0**
1830-1845	8	1				**9**	6					**6**	1					**1**	0					**0**
1845-1900	9					**9**	4					**4**	0					**0**	0					**0**
1600-1900	**356**	**9**	**1**	**7**	**0**	**373**	**174**	**2**	**0**	**2**	**6**	**184**	**14**	**1**	**0**	**0**	**0**	**15**	**1**	**0**	**0**	**0**	**0**	**1**
1600-1700	195	6	0	1	0	**202**	103	1	0	2	5	**111**	8	1	0	0	0	**9**	1	0	0	0	0	**1**
1615-1715	179	4	1	3	0	**187**	86	1	0	0	4	**91**	8	0	0	0	0	**8**	0	0	0	0	0	**0**
1630-1730	165	3	1	3	0	**172**	79	2	0	0	3	**84**	9	0	0	0	0	**9**	0	0	0	0	0	**0**
1645-1745	123	0	1	5	0	**129**	52	1	0	0	1	**54**	7	0	0	0	0	**7**	0	0	0	0	0	**0**
1700-1800	107	1	1	5	0	**114**	44	1	0	0	1	**46**	5	0	0	0	0	**5**	0	0	0	0	0	**0**
1715-1815	89	2	0	3	0	**94**	40	1	0	0	1	**42**	3	0	0	0	0	**3**	0	0	0	0	0	**0**
1730-1830	69	2	0	4	0	**75**	31	0	0	0	0	**31**	1	0	0	0	0	**1**	0	0	0	0	0	**0**
1745-1845	58	3	0	1	0	**62**	31	0	0	0	0	**31**	1	0	0	0	0	**1**	0	0	0	0	0	**0**
1800-1900	54	2	0	1	0	**57**	27	0	0	0	0	**27**	1	0	0	0	0	**1**	0	0	0	0	0	**0**

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 3RD NOVEMBER 2021 LOCATION : HAVANT, HAMPSHIRE QUEUE SURVEY - TOTAL NUMBER OF VEHICLES

	HARTS FARM ROAD / BROCKHAMPTON RD / SOUTHMOOR RD ROUNDABOUT					
	HARTS FARM ROAD WEST		BROCKHAMPTON RD - NORTH	BROOKSIDE ROAD - EAST	SOUTHMOOR ROAD - SOUTH	
	INSIDE	OUTSIDE		INSIDE	INSIDE	OUTSIDE
0705	0	0	0	0	0	0
0710	0	0	0	0	0	0
0715	0	0	0	0	0	0
0720	0	0	0	0	0	0
0725	0	0	7	0	0	0
0730	0	0	0	0	0	0
0735	0	0	4	0	0	0
0740	5	0	4	0	0	0
0745	0	0	0	0	0	0
0750	0	0	4	0	0	0
0755	0	0	3	1	0	1
0800	0	0	0	0	0	0
0805	0	0	4	0	0	0
0810	0	0	4	0	0	0
0815	0	0	1	0	0	0
0820	0	0	0	0	0	0
0825	0	0	0	0	0	0
0830	0	0	4	0	2	0
0835	0	0	0	0	0	0
0840	0	0	0	0	0	0
0845	0	0	0	0	0	0
0850	0	0	0	0	0	0
0855	0	0	0	0	0	0
0900	0	0	0	0	0	0
0905	0	0	0	0	0	0
0910	0	0	0	0	0	0
0915	0	0	0	0	0	0
0920	0	0	0	0	0	0
0925	0	0	0	0	0	0
0930	0	0	0	0	0	0
0935	0	0	0	0	0	0
0940	0	0	0	0	0	0
0945	0	0	0	0	0	0
0950	0	0	0	0	0	0
0955	0	0	0	0	0	0
1000	0	0	0	0	0	0

	HARTS FARM ROAD / BROCKHAMPTON RD / SOUTHMOOR RD ROUNDABOUT					
	HARTS FARM ROAD WEST		BROCKHAMPTON RD - NORTH	BROOKSIDE ROAD - EAST	SOUTHMOOR ROAD - SOUTH	
	INSIDE	OUTSIDE		INSIDE	INSIDE	OUTSIDE
1605	0	0	0	0	0	0
1610	0	0	0	0	0	0
1615	0	0	0	10	0	0
1620	0	0	0	2	1	2
1625	0	0	4	1	3	0
1630	0	0	0	0	0	0
1635	0	0	0	0	1	2
1640	0	0	4	0	0	0
1645	0	0	0	0	0	0
1650	0	0	0	0	0	0
1655	0	0	0	0	0	0
1700	0	0	0	0	0	0
1705	0	0	0	1	4	2
1710	0	0	0	0	0	0
1715	0	0	0	0	0	0
1720	0	0	0	0	0	0
1725	0	0	0	0	0	0
1730	0	0	0	0	0	0
1735	0	0	0	6	0	0
1740	0	0	0	0	0	0
1745	0	0	0	0	0	0
1750	0	0	0	0	0	3
1755	0	0	0	0	0	0
1800	0	0	0	0	0	0
1805	0	0	0	0	0	0
1810	0	0	0	0	0	0
1815	0	0	0	0	0	0
1820	0	0	0	0	0	0
1825	0	0	0	0	0	0
1830	0	0	0	0	0	0
1835	0	0	0	0	0	0
1840	0	0	0	0	0	0
1845	0	0	0	0	0	0
1850	0	0	0	0	0	0
1855	0	0	0	0	0	0
1900	0	0	0	0	0	0

K&M TRAFFIC SURVEYS

DATE : WEDNESDAY 3RD NOVEMBER 2021

LOCATION : HAVANT, HAMPSHIRE



Appendix F

Junctions 9 Outputs

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: Junction Modelling - Existing 2022-06-15.j9
Path: C:\Users\CharlotteHiscott\Desktop\Havant Junction Modelling
Report generation date: 15/06/2022 11:35:16

»2022, AM
»2022, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2022									
Arm A	D1	0.5	4.59	0.33	A	D2	0.4	3.75	0.29	A
Arm B		0.1	5.42	0.06	A		0.1	5.16	0.13	A
Arm C		0.2	3.64	0.13	A		0.3	3.79	0.21	A
Arm D		1.4	7.68	0.58	A		0.3	4.12	0.20	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	15/06/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MOTION\CharlotteHiscott
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	PCU	perTimeSegment	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2022	AM	DIRECT	00:00	01:00	60	15
D2	2022	PM	DIRECT	00:00	01:00	60	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2022, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	6.19	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Brockhampton Road	
B	Brookside Road	
C	Southmoor Lane	
D	Harts Farm Way	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	3.50	7.00	20.0	12.0	25.0	80.0	
B	3.00	3.50	8.0	34.0	25.0	45.0	
C	3.00	8.00	23.5	9.0	25.0	64.0	
D	3.50	5.50	10.5	6.0	25.0	49.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
A	0.532	345.408
B	0.508	250.553
C	0.563	372.137
D	0.498	294.576

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2022	AM	DIRECT	00:00	01:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A		✓	100.000
B		✓	100.000
C		✓	100.000
D		✓	100.000

Origin-Destination Data

00:00 - 00:15

Demand (Veh/TS)

		To			
		A	B	C	D
From	A	1.00	12.00	18.00	63.00
	B	2.00	0.00	2.00	5.00
	C	8.00	2.00	0.00	12.00
	D	43.00	32.00	51.00	0.00

00:15 - 00:30

Demand (Veh/TS)

		To			
		A	B	C	D
From	A	0.00	8.00	19.00	43.00
	B	5.00	0.00	1.00	5.00
	C	11.00	3.00	0.00	22.00
	D	62.00	33.00	66.00	0.00

00:30 - 00:45

Demand (Veh/TS)

		To			
		A	B	C	D
From	A	0.00	6.00	14.00	51.00
	B	3.00	0.00	4.00	5.00
	C	7.00	0.00	0.00	10.00
	D	45.00	30.00	37.00	0.00

00:45 - 01:00

Demand (Veh/TS)

		To			
		A	B	C	D
From	A	0.00	3.00	19.00	55.00
	B	1.00	0.00	3.00	4.00
	C	12.00	1.00	1.00	9.00
	D	77.00	23.00	56.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	3	4
	B	0	0	0	6
	C	9	0	0	29
	D	2	0	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.33	4.59	0.5	A
B	0.06	5.42	0.1	A
C	0.13	3.64	0.2	A
D	0.58	7.68	1.4	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	97.29	86.99	299.12	0.325	96.80	0.5	4.593	A
B	9.28	138.07	180.37	0.051	9.22	0.1	5.421	A
C	26.20	73.67	330.66	0.079	26.10	0.1	3.520	A
D	129.32	13.63	287.78	0.449	128.50	0.8	5.769	A

00:15 - 00:30

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	72.44	104.98	289.55	0.250	72.59	0.3	4.297	A
B	11.28	133.63	182.63	0.062	11.27	0.1	5.385	A
C	43.39	55.28	341.02	0.127	43.32	0.2	3.643	A
D	165.42	19.91	284.65	0.581	164.85	1.4	7.682	A

00:30 - 00:45

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	73.65	69.32	308.52	0.239	73.67	0.3	3.976	A
B	12.28	106.86	196.23	0.063	12.28	0.1	5.006	A
C	20.53	61.52	337.51	0.061	20.63	0.1	3.430	A
D	114.66	10.65	289.27	0.396	115.38	0.7	5.321	A

00:45 - 01:00

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	79.97	83.55	300.95	0.266	79.92	0.4	4.227	A
B	8.22	136.47	181.18	0.045	8.24	0.0	5.349	A
C	26.67	62.63	336.88	0.079	26.65	0.1	3.363	A
D	160.19	16.02	286.59	0.559	159.59	1.3	7.231	A

2022, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	3.98	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2022	PM	DIRECT	00:00	01:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A		✓	100.000
B		✓	100.000
C		✓	100.000
D		✓	100.000

Origin-Destination Data

00:00 - 00:15

Demand (Veh/TS)

		To			
		A	B	C	D
From	A	0.00	1.00	3.00	91.00
	B	7.00	0.00	1.00	18.00
	C	16.00	2.00	0.00	46.00
	D	38.00	0.00	4.00	0.00

00:15 - 00:30

Demand (Veh/TS)

		To			
		A	B	C	D
From	A	1.00	4.00	3.00	72.00
	B	7.00	0.00	0.00	8.00
	C	15.00	2.00	0.00	30.00
	D	40.00	6.00	8.00	0.00

Demand (Veh/TS)

00:30 - 00:45

		To			
		A	B	C	D
From	A	0.00	2.00	7.00	87.00
	B	4.00	0.00	0.00	14.00
	C	6.00	1.00	0.00	19.00
	D	42.00	2.00	4.00	0.00

Demand (Veh/TS)

00:45 - 01:00

		To			
		A	B	C	D
From	A	1.00	0.00	2.00	62.00
	B	4.00	0.00	1.00	6.00
	C	8.00	0.00	0.00	14.00
	D	33.00	4.00	5.00	1.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	15	1
	B	0	0	0	0
	C	2	0	0	2
	D	0	9	17	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.29	3.75	0.4	A
B	0.13	5.16	0.1	A
C	0.21	3.79	0.3	A
D	0.20	4.12	0.3	A

Main Results for each time segment

00:00 - 00:15

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	96.01	6.64	341.87	0.281	95.62	0.4	3.686	A
B	26.00	99.27	200.09	0.130	25.85	0.1	5.161	A
C	65.24	116.03	306.82	0.213	64.97	0.3	3.790	A
D	42.67	25.25	281.99	0.151	42.49	0.2	3.816	A

00:15 - 00:30

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	80.89	17.83	335.92	0.241	80.96	0.3	3.569	A
B	15.00	86.29	206.69	0.073	15.07	0.1	4.698	A
C	47.92	88.58	322.27	0.149	48.01	0.2	3.348	A
D	55.88	25.36	281.94	0.198	55.81	0.3	4.117	A

00:30 - 00:45

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	97.60	7.90	341.21	0.286	97.52	0.4	3.755	A
B	18.00	100.20	199.62	0.090	17.98	0.1	4.954	A
C	26.50	105.43	312.78	0.085	26.58	0.1	3.205	A
D	48.85	11.20	289.00	0.169	48.90	0.2	3.817	A

00:45 - 01:00

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	65.68	11.18	339.46	0.193	65.84	0.2	3.327	A
B	11.00	72.66	213.62	0.051	11.04	0.1	4.445	A
C	22.45	74.54	330.17	0.068	22.47	0.1	2.986	A
D	44.20	13.18	288.01	0.153	44.22	0.2	3.793	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: Junction Modelling - 2027 Baseline 2022-06-15.j9
Path: C:\Users\CharlotteHiscott\Desktop\Havant Junction Modelling
Report generation date: 15/06/2022 11:33:16

»2027 Baseline, AM
»2027 Baseline, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2027 Baseline									
Arm A	D1	0.6	4.84	0.35	A	D2	0.5	3.96	0.32	A
Arm B		0.1	5.59	0.06	A		0.2	5.40	0.14	A
Arm C		0.2	3.71	0.14	A		0.3	3.97	0.24	A
Arm D		1.7	8.54	0.62	A		0.3	4.24	0.21	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	15/06/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MOTION\CharlotteHiscott
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	PCU	perTimeSegment	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2027 Baseline	AM	DIRECT	08:00	09:00	60	15
D2	2027 Baseline	PM	DIRECT	17:00	18:00	60	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2027 Baseline, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	6.75	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Brockhampton Road	
B	Brookside Road	
C	Southmoor Lane	
D	Harts Farm Way	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	3.50	7.00	20.0	12.0	25.0	80.0	
B	3.00	3.50	8.0	34.0	25.0	45.0	
C	3.00	8.00	23.5	9.0	25.0	64.0	
D	3.50	5.50	10.5	6.0	25.0	49.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
A	0.532	345.408
B	0.508	250.553
C	0.563	372.137
D	0.498	294.576

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2027 Baseline	AM	DIRECT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A		✓	100.000
B		✓	100.000
C		✓	100.000
D		✓	100.000

Origin-Destination Data

08:00 - 08:15

Demand (Veh/TS)

		To			
		A	B	C	D
From	A	1.00	13.00	19.00	68.00
	B	2.00	0.00	2.00	5.00
	C	9.00	2.00	0.00	13.00
	D	46.00	34.00	55.00	0.00

08:15 - 08:30

Demand (Veh/TS)

		To			
		A	B	C	D
From	A	0.00	9.00	20.00	46.00
	B	4.00	0.00	1.00	5.00
	C	12.00	3.00	0.00	24.00
	D	67.00	35.00	71.00	0.00

08:30 - 08:45

Demand (Veh/TS)

		To			
		A	B	C	D
From	A	0.00	6.00	15.00	55.00
	B	3.00	0.00	4.00	5.00
	C	8.00	0.00	0.00	11.00
	D	48.00	32.00	40.00	0.00

08:45 - 09:00

Demand (Veh/TS)

		To			
		A	B	C	D
From	A	0.00	3.00	20.00	59.00
	B	1.00	0.00	3.00	4.00
	C	13.00	1.00	1.00	10.00
	D	83.00	25.00	60.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	3	4
	B	0	0	0	6
	C	9	0	0	29
	D	2	0	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.35	4.84	0.6	A
B	0.06	5.59	0.1	A
C	0.14	3.71	0.2	A
D	0.62	8.54	1.7	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	104.54	93.12	295.86	0.353	103.98	0.6	4.842	A
B	9.28	148.41	175.12	0.053	9.22	0.1	5.593	A
C	28.58	78.84	327.75	0.087	28.47	0.1	3.581	A
D	138.58	14.71	287.25	0.482	137.63	0.9	6.138	A

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	77.60	112.14	285.74	0.272	77.78	0.4	4.481	A
B	10.28	143.00	177.87	0.058	10.27	0.1	5.520	A
C	47.06	57.44	339.80	0.139	46.98	0.2	3.709	A
D	177.76	20.01	284.61	0.625	177.03	1.7	8.539	A

08:30 - 08:45

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	78.86	74.58	305.72	0.258	78.88	0.4	4.118	A
B	12.28	115.30	191.94	0.064	12.27	0.1	5.125	A
C	22.91	65.69	335.16	0.068	23.02	0.1	3.477	A
D	122.86	11.73	288.73	0.426	123.77	0.8	5.617	A

08:45 - 09:00

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	85.18	89.68	297.69	0.286	85.13	0.4	4.396	A
B	8.22	145.81	176.43	0.047	8.24	0.1	5.500	A
C	29.05	66.80	334.53	0.087	29.03	0.1	3.422	A
D	172.49	17.10	286.05	0.603	171.73	1.5	8.030	A

2027 Baseline, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	4.16	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2027 Baseline	PM	DIRECT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A		✓	100.000
B		✓	100.000
C		✓	100.000
D		✓	100.000

Origin-Destination Data

17:00 - 17:15

Demand (Veh/TS)

		To			
		A	B	C	D
From	A	0.00	1.00	7.00	98.00
	B	8.00	0.00	1.00	19.00
	C	19.00	2.00	0.00	49.00
	D	41.00	0.00	4.00	0.00

17:15 - 17:30

Demand (Veh/TS)

		To			
		A	B	C	D
From	A	1.00	4.00	7.00	77.00
	B	8.00	0.00	0.00	9.00
	C	18.00	2.00	0.00	32.00
	D	43.00	6.00	9.00	0.00

17:30 - 17:45

Demand (Veh/TS)

		To			
		A	B	C	D
From	A	0.00	2.00	11.00	94.00
	B	4.00	0.00	0.00	15.00
	C	8.00	1.00	0.00	20.00
	D	45.00	2.00	4.00	0.00

17:45 - 18:00

Demand (Veh/TS)

		To			
		A	B	C	D
From	A	1.00	0.00	6.00	67.00
	B	4.00	0.00	1.00	6.00
	C	11.00	0.00	0.00	15.00
	D	35.00	4.00	5.00	1.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	15	1
	B	0	0	0	0
	C	2	0	0	2
	D	0	9	17	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.32	3.96	0.5	A
B	0.14	5.40	0.2	A
C	0.24	3.97	0.3	A
D	0.21	4.24	0.3	A

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	107.67	6.64	341.87	0.315	107.20	0.5	3.887	A
B	28.00	110.85	194.20	0.144	27.83	0.2	5.403	A
C	71.37	125.00	301.77	0.237	71.05	0.3	3.973	A
D	45.67	29.29	279.98	0.163	45.47	0.2	3.891	A

17:15 - 17:30

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	90.54	18.99	335.30	0.270	90.63	0.4	3.745	A
B	17.00	97.11	201.19	0.085	17.07	0.1	4.889	A
C	53.02	95.63	318.30	0.167	53.13	0.2	3.464	A
D	60.05	29.43	279.91	0.215	59.96	0.3	4.235	A

17:30 - 17:45

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	109.26	7.90	341.20	0.320	109.16	0.5	3.958	A
B	19.00	111.85	193.70	0.098	18.98	0.1	5.151	A
C	29.56	113.46	308.26	0.096	29.66	0.1	3.296	A
D	51.85	13.25	287.97	0.180	51.91	0.2	3.877	A

17:45 - 18:00

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	75.33	11.18	339.46	0.222	75.51	0.3	3.475	A
B	11.00	82.33	208.70	0.053	11.05	0.1	4.554	A
C	26.54	79.60	327.32	0.081	26.56	0.1	3.056	A
D	46.20	16.25	286.48	0.161	46.23	0.2	3.845	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: Junction Modelling - 2027 With Development 2022-06-15.j9
Path: C:\Users\CharlotteHiscott\Desktop\Havant Junction Modelling
Report generation date: 15/06/2022 13:57:17

»2027 With Development, AM
»2027 With Development, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2027 With Development									
Arm A	D1	0.6	5.30	0.38	A	D2	0.5	3.92	0.32	A
Arm B		0.1	5.52	0.06	A		0.1	5.12	0.10	A
Arm C		0.2	3.40	0.13	A		0.3	3.89	0.23	A
Arm D		2.1	9.89	0.67	A		0.2	4.01	0.20	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	15/06/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MOTION\CharlotteHiscott
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	PCU	perTimeSegment	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2027 With Development	AM	DIRECT	08:00	09:00	60	15
D2	2027 With Development	PM	DIRECT	17:00	18:00	60	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2027 With Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	7.68	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Brockhampton Road	
B	Brookside Road	
C	Southmoor Lane	
D	Harts Farm Way	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	3.50	7.00	20.0	12.0	25.0	80.0	
B	3.00	3.50	8.0	34.0	25.0	45.0	
C	3.00	8.00	23.5	9.0	25.0	64.0	
D	3.50	5.50	10.5	6.0	25.0	49.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
A	0.532	345.408
B	0.508	250.553
C	0.563	372.137
D	0.498	294.576

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2027 With Development	AM	DIRECT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A		✓	100.000
B		✓	100.000
C		✓	100.000
D		✓	100.000

Origin-Destination Data

08:00 - 08:15

Demand (Veh/TS)

		To			
		A	B	C	D
From	A	1.00	15.00	19.00	68.00
	B	2.00	0.00	2.00	4.00
	C	9.00	2.00	0.00	13.00
	D	46.00	41.00	55.00	0.00

08:15 - 08:30

Demand (Veh/TS)

		To			
		A	B	C	D
From	A	0.00	10.00	20.00	46.00
	B	4.00	0.00	1.00	4.00
	C	12.00	3.00	0.00	24.00
	D	67.00	42.00	71.00	0.00

08:30 - 08:45

Demand (Veh/TS)

		To			
		A	B	C	D
From	A	0.00	8.00	15.00	55.00
	B	3.00	0.00	4.00	4.00
	C	8.00	0.00	0.00	11.00
	D	48.00	39.00	40.00	0.00

08:45 - 09:00

Demand (Veh/TS)

		To			
		A	B	C	D
From	A	0.00	5.00	20.00	59.00
	B	1.00	0.00	3.00	3.00
	C	13.00	1.00	1.00	10.00
	D	83.00	31.00	60.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	2	10
	B	0	0	0	1
	C	4	0	0	17
	D	4	0	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.38	5.30	0.6	A
B	0.06	5.52	0.1	A
C	0.13	3.40	0.2	A
D	0.67	9.89	2.1	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	110.18	103.27	290.46	0.379	109.53	0.6	5.302	A
B	8.04	155.21	171.66	0.047	7.99	0.0	5.525	A
C	26.57	81.36	326.34	0.081	26.47	0.1	3.323	A
D	149.89	14.30	287.45	0.521	148.76	1.1	6.797	A

08:15 - 08:30

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	81.00	123.26	279.82	0.289	81.21	0.4	4.836	A
B	9.04	149.59	174.51	0.052	9.03	0.1	5.462	A
C	43.56	58.80	339.03	0.128	43.49	0.2	3.401	A
D	190.49	19.46	284.88	0.669	189.55	2.1	9.894	A

08:30 - 08:45

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	83.80	84.15	300.63	0.279	83.82	0.4	4.461	A
B	11.04	120.76	189.17	0.058	11.03	0.1	5.070	A
C	21.19	67.52	334.13	0.063	21.28	0.1	3.208	A
D	133.32	11.36	288.92	0.461	134.48	0.9	6.161	A

08:45 - 09:00

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	90.30	99.18	292.63	0.309	90.24	0.5	4.779	A
B	7.03	152.46	173.06	0.041	7.05	0.0	5.446	A
C	27.22	68.90	333.35	0.082	27.20	0.1	3.200	A
D	183.92	16.51	286.35	0.642	182.98	1.8	9.121	A

2027 With Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	O-D data		O-D matrix contains negative demand. Matrix should only be used as a development matrix for Demand Set relationships and should not be run on its own.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	3.99	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2027 With Development	PM	DIRECT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Scaling Factor (%)
A		✓	100.000
B		✓	100.000
C		✓	100.000
D		✓	100.000

Origin-Destination Data

17:00 - 17:15

Demand (Veh/TS)

		To			
		A	B	C	D
From	A	0.00	0.00	7.00	98.00
	B	6.00	0.00	1.00	12.00
	C	19.00	2.00	0.00	49.00
	D	41.00	-4.00	4.00	0.00

17:15 - 17:30

Demand (Veh/TS)

		To			
		A	B	C	D
From	A	1.00	3.00	7.00	77.00
	B	6.00	0.00	0.00	1.00
	C	18.00	2.00	0.00	32.00
	D	43.00	3.00	9.00	0.00

Demand (Veh/TS)

17:30 - 17:45

		To			
		A	B	C	D
From	A	0.00	1.00	11.00	94.00
	B	2.00	0.00	0.00	8.00
	C	8.00	1.00	0.00	20.00
	D	45.00	-1.00	4.00	0.00

Demand (Veh/TS)

17:45 - 18:00

		To			
		A	B	C	D
From	A	1.00	-1.00	6.00	67.00
	B	2.00	0.00	1.00	-1.00
	C	11.00	0.00	0.00	15.00
	D	35.00	1.00	5.00	1.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	2	2
	B	0	0	0	0
	C	1	0	0	2
	D	0	1	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.32	3.92	0.5	A
B	0.10	5.12	0.1	A
C	0.23	3.89	0.3	A
D	0.20	4.01	0.2	A

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	107.10	8.82	340.71	0.314	106.64	0.5	3.913	A
B	19.00	110.10	194.59	0.098	18.89	0.1	5.119	A
C	71.17	117.42	306.03	0.233	70.86	0.3	3.886	A
D	41.17	27.06	281.09	0.146	41.00	0.2	3.762	A

17:15 - 17:30

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	89.68	14.36	337.76	0.266	89.77	0.4	3.698	A
B	7.00	96.12	201.69	0.035	7.07	0.0	4.627	A
C	52.82	86.71	323.32	0.163	52.93	0.2	3.384	A
D	55.39	27.19	281.02	0.197	55.32	0.2	4.015	A

17:30 - 17:45

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	108.10	6.00	342.21	0.316	108.00	0.5	3.917	A
B	10.00	111.01	194.12	0.052	9.98	0.1	4.887	A
C	29.48	105.78	312.59	0.094	29.57	0.1	3.232	A
D	48.16	11.15	289.02	0.167	48.21	0.2	3.752	A

17:45 - 18:00

Arm	Total Demand (PCU/TS)	Circulating flow (PCU/TS)	Capacity (PCU/TS)	RFC	Throughput (PCU/TS)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	74.42	7.20	341.57	0.218	74.60	0.3	3.440	A
B	2.00	79.82	209.98	0.010	2.04	0.0	4.328	A
C	26.41	70.19	332.62	0.079	26.43	0.1	2.985	A
D	42.21	13.08	288.06	0.147	42.24	0.2	3.679	A

Appendix G

Junction Modelling inputs

London Road/Griffin Way Roundabout Modelling Inputs

Arm A:	Brockhampton Road
Arm B:	Brookside Road
Arm C:	Southmoor Lane
Arm D:	Harts Farm Way

2021 AM Peak Base Flows (08:00-09:00)

Vehicles

From/To	A	B	C	D
A	1	31	74	214
B	10	0	10	19
C	39	6	1	53
D	233	121	214	0

HGVs

From/To	A	B	C	D
A	0	0	2	9
B	0	0	0	1
C	3	0	0	12
D	4	0	9	0

% HGV

From/To	A	B	C	D
A	0%	0%	3%	4%
B	0%	0%	0%	5%
C	8%	0%	0%	23%
D	2%	0%	4%	0%

2021 PM Peak Base Flows (17:00-18:00)

Vehicles

From/To	A	B	C	D
A	2	7	15	322
B	22	0	2	52
C	46	5	0	114
D	159	16	22	1

HGVs

From/To	A	B	C	D
A	0	0	2	2
B	0	0	0	0
C	1	0	0	1
D	0	1	3	1

% HGV

From/To	A	B	C	D
A	0%	0%	13%	1%
B	0%	0%	0%	0%
C	2%	0%	0%	1%
D	0%	6%	14%	0%

Notes:

Flows taken from TA associated with application 14/00733/MAJOR

Flows inlcude traffic associated with both application 14/00733/MAJOR and the approved Sainsburys

TEMPro Growth Rates

AM Peak 1.0755

PM Peak 1.0748

2027 Baseline AM Peak Flows (08:00-09:00)

Vehicles

From/To	A	B	C	D
A	1	33	80	230
B	11	0	11	20
C	42	6	1	57
D	251	130	230	0

HGVs

From/To	A	B	C	D
A	0	0	2	10
B	0	0	0	1
C	3	0	0	13
D	4	0	10	0

% HGV

From/To	A	B	C	D
A	0%	0%	3%	0%
B	0%	0%	0%	0%
C	8%	0%	0%	23%
D	0%	0%	4%	0%

2027 Baseline PM Peak Flows (17:00-18:00)

Vehicles

From/To	A	B	C	D
A	2	8	16	346
B	24	0	2	56
C	49	5	0	123
D	171	17	24	1

HGVs

From/To	A	B	C	D
A	0	0	2	2
B	0	0	0	0
C	1	0	0	1
D	0	1	3	1

% HGV

From/To	A	B	C	D
A	0%	0%	13%	0%
B	0%	0%	0%	0%
C	2%	0%	0%	1%
D	0%	0%	14%	0%

2027 Development AM Peak Flows (08:00-09:00)

Vehicles

From/To	A	B	C	D
A	0.0	36.8	0.0	0.0
B	-5.6	0.0	0.0	0.6
C	0.0	0.0	0.0	0.0
D	0.0	-3.8	0.0	0.0

HGVs

From/To	A	B	C	D
A	0.0	0.0	0.0	0.0
B	0.0	0.0	0.0	0.0
C	0.0	0.0	0.0	0.0
D	0.0	0.0	0.0	0.0

% HGV

From/To	A	B	C	D
A	0%	0%	#DIV/0!	0%
B	0%	0%	#DIV/0!	0%
C	#DIV/0!	#DIV/0!	0%	#DIV/0!
D	0%	0%	#DIV/0!	0%

2027 Development PM Peak Flows (17:00-18:00)

Vehicles

From/To	A	B	C	D
A	0.0	-20.1	0.0	0.0
B	-42.4	0.0	0.0	4.4
C	0.0	0.0	0.0	0.0
D	0.0	2.1	0.0	0.0

HGVs

From/To	A	B	C	D
A	0.0	0.0	0.0	0.0
B	0.0	0.0	0.0	0.0
C	0.0	0.0	0.0	0.0
D	0.0	0.0	0.0	0.0

% HGV

From/To	A	B	C	D
A	0%	0%	#DIV/0!	0%
B	0%	0%	#DIV/0!	0%
C	#DIV/0!	#DIV/0!	0%	#DIV/0!
D	0%	0%	#DIV/0!	0%

2027 AM Peak With Development Flows (08:00-09:00)

Vehicles

From/To	A	B	C	D
A	1	70	80	230
B	5	0	11	21
C	42	6	1	57
D	251	126	230	0

HGVs

From/To	A	B	C	D
A	0	0	2	10
B	0	0	0	1
C	3	0	0	13
D	4	0	10	0

% HGV

From/To	A	B	C	D
A	0%	0%	3%	4%
B	0%	0%	0%	5%
C	8%	0%	0%	23%
D	2%	0%	4%	0%

2027 PM Peak With Development Flows (17:00-18:00)

Vehicles

From/To	A	B	C	D
A	2	-13	16	346
B	-19	0	2	60
C	49	5	0	123
D	171	19	24	1

HGVs

From/To	A	B	C	D
A	0	0	2	2
B	0	0	0	0
C	1	0	0	1
D	0	1	3	1

% HGV

From/To	A	B	C	D
A	0%	0%	13%	1%
B	0%	0%	0%	0%
C	2%	0%	0%	1%
D	0%	6%	14%	0%

TEMPro Growth Rates

AM Rates

Results

Level	Area	Local Growth Figure
E02004775	Havant 014	1.0755

PM Rates

Results

Level	Area	Local Growth Figure
E02004775	Havant 014	1.0748

Appendix H

Travel Plan

Langstone Technology Park
Havant

Travel Plan

For

XLB Property

motion

Document Control Sheet

Langstone Technology Park

Havant

XLB Property

This document has been issued and amended as follows:

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Introduction

1.1 This Travel Plan has been prepared by Motion on behalf of XLB Property in respect of a redevelopment proposal at Langstone Technology Park, Havant, within the administrative boundaries of Havant Borough Council (HBC) and Hampshire County Council (HCC).

1.2 The Park is located to the south of Havant Town Centre, south of the A27 and west of the A3023 Langstone Road as shown on Figure 1.1. It was originally developed by IBM in the 1960s.

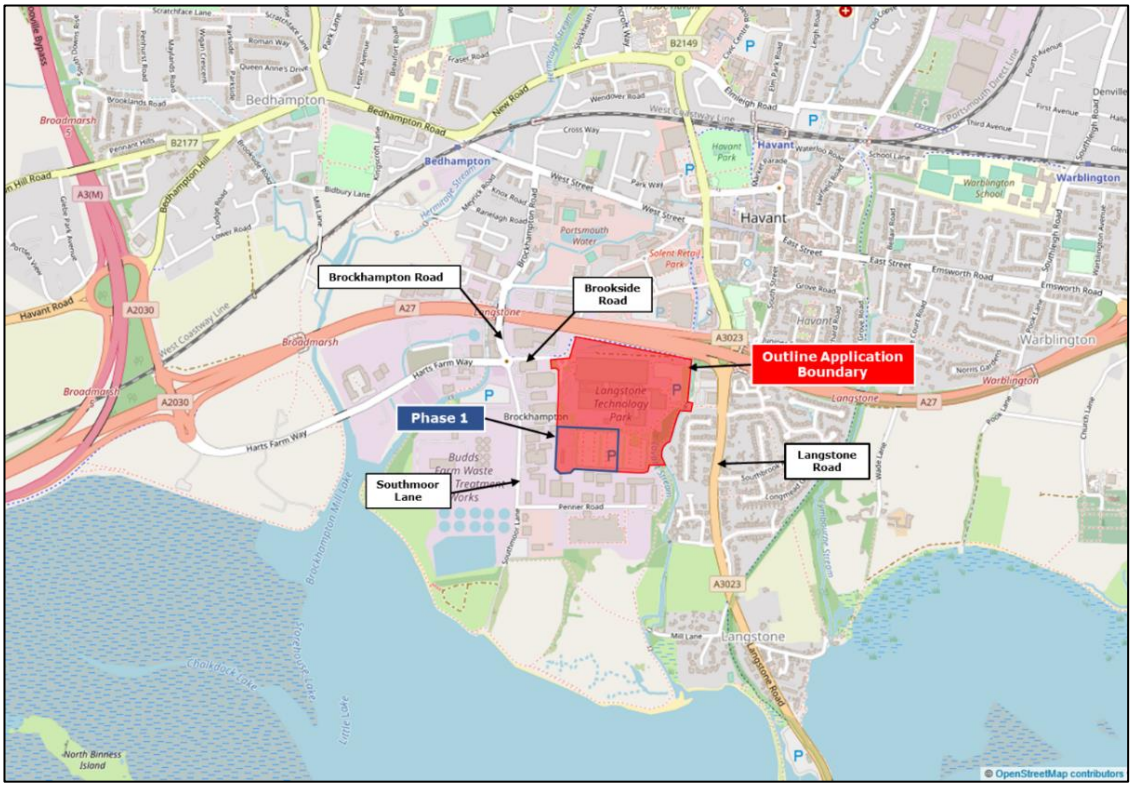


Figure 1.1 – Site Location

1.3 The Proposed Development involves the demolition of 51,755m^2 of existing floorspace (predominantly office but including labs, industrial, data centre and ancillary uses) and its replacement with up to 63,290m^2 (gross external area) of land use class B2, B8 and E(g)(ii)-(iii) (R&D and light industrial) and ancillary uses (Class E(b) and E(d) (including the Phase 1 Permission).

1.4 The architect's site layout plan can be viewed at **Appendix A**.

1.5 Units 1 to 4 have been progressed as per the extant consent (ref. APP/21/00405) (Phase 1 on Figure 1.1 above). This Travel Plan (TP) has been produced in relation to a planning application for redevelopment of the remainder of the site, incorporating units numbered 5 to 16, and aligns with the 2020 Framework Travel Plan approved for the site as a whole through planning approval APP/19/00703.

1.6 The Framework Travel Plan strategy includes:

- encouragement to use public transport;
- cycling incentives and facilities;
- walking incentives; and
- encouragement to lift-share.

1.7 Incoming tenants, or subsequent landowner(s) should XLB Property sell the Park, will be responsible for implementing this TP.

1.8 The remainder of this TP comprises:

- Section 2 – policy context.
- Section 3 – site assessment
- Section 4 – monitoring and auditing
- Section 5 – Action Plan
- Section 6 – Summary and Conclusion

Policy Context

2.1 There are a number of documents that contain planning policies relevant to transport. The key policy and guidance documents that set the context for the development proposals include:

- National Planning Policy Framework, Ministry of Housing, Communities and Local Government, July 2021;
- National Design Guide, Ministry of Housing, Communities & Local Government, October 2019;
- Planning Practice Guidance, Ministry of Housing, Communities and & Local Government, June 2021;
- Working Together to Promote Active Travel - A Briefing for Local Authorities, Public Health England, May 2016;
- Local Transport Note (LTN) 1/20 Cycle Infrastructure Design, Department for Transport, July 2020;
- Gear Change: A bold vision for cycling and walking, Department for Transport, July 2020;
- Manual for Streets (MfS), Department for Transport, March 2007;
- National Travel Survey (NTS), Department for Transport, 2019;
- Good Practise Guidelines (2014)
- Hampshire County Council's Guide to Development Related Travel Plans (2009)
- IHT's Guidelines for Providing Journeys on Foot (2000)
- CIHT's Buses in Urban Developments (2018)
- Developers Policy

National Planning Policy Framework (NPPF)

2.0 The NPPF sets a presumption in favour of sustainable development, requiring that social, environmental and economic matters be considered in concert.

2.1 The NPPF promotes incorporation of sustainable transport in development proposals (par. 104) and states that the planning system should actively manage patterns of growth such that a genuine choice of transport modes is offered (par. 105).

2.2 With regard to the delivery of sustainable transport the NPPF states at paragraph 113 that:

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

2.3 The NPPF describes a Travel Plan as: "*A long-term management strategy for an organisation or site that seeks to deliver sustainable transport objectives and is regularly reviewed*." (NPPF pg. 73)

National Design Guide (NDG)

2.4 The National Design Guide (NDG) sets out the characteristics of well-designed places and demonstrates what good design means in practice. It forms part of the Government's collection of planning practice guidance and should be read alongside the separate planning practice guidance related to design process and tools.

2.5 With respect to consideration of 'movement' in the design of new development, the NDG promotes assessment of existing and delivery of new features that result in developments being accessible and easy to move around within and between by all applicable transport modes.

2.6 A well-designed movement network is one that:

"... *defines a clear pattern of streets that:*

- *is safe and accessible for all;*
- *functions efficiently to get everyone around, takes account of the diverse needs of all its potential users and provides a genuine choice of sustainable transport modes;*
- *limits the impacts of car use by prioritising and encouraging walking, cycling and public transport, mitigating impacts and identifying opportunities to improve air quality;*
- *promotes activity and social interaction, contributing to health, well-being, accessibility and inclusion; and*
- *incorporates green infrastructure, including street trees to soften the impact of car parking, help improve air quality and contribute to biodiversity*."

(par. 77)

Planning Practice Guidance (PPG)

2.7 Planning practice guidance (PPG) supports delivery of the principles set out in the National Planning Policy Framework (NPPF).

2.8 The guidance describes Travel Plans as "*… long-term management strategies for integrating proposals for sustainable travel into the planning process. They are based on evidence of the anticipated transport impacts of development and set measures to promote and encourage sustainable travel (such as promoting walking and cycling). They should not, however, be used as an excuse for unfairly penalising drivers and cutting provision for cars in a way that is unsustainable and could have negative impacts on the surrounding streets*." (PPG paragraph: 003; reference ID: 42-003-20140306)

2.9 Furthermore, the guidance indicates that "*… Travel Plans should where possible, be considered in parallel to development proposals and readily integrated into the design and occupation of the new site rather than retrofitted after occupation*." (PPG paragraph: 003; reference ID: 42-003-20140306)

2.10 It is stated that the primary purpose of a Travel Plan is:

"*… to identify opportunities for the effective promotion and delivery of sustainable transport initiatives e.g. walking, cycling, public transport and tele-commuting, in connection with both proposed and existing developments and through this to thereby reduce the demand for travel by less sustainable modes. …, they should not be used as a way of unfairly penalising drivers*."
(PPG paragraph 005; reference ID: 42-005-20140306)

Active travel – walking and cycling

Working Together to Promote Active Travel - A Briefing for Local Authorities

2.11 Public Health England has issued a briefing for Local Authorities containing their latest research findings relating to active travel:

- "*Physical inactivity directly contributes to 1 in 6 deaths in the UK and costs £7.4 billion a year to businesses and wider society*
- *The growth in road transport has been a major factor in reducing levels of physical activity*
- *Building walking and cycling into daily routines are the most effective ways to increase physical activity*
- *Short car trips (under 5 miles) are a prime area for switching to active travel and to public transport*
- *Health-promoting transport systems are pro-business and support economic prosperity. They enable optimal travel to work with less congestion, collisions and pollution, and they support a healthier workforce*."

Planning for Walking and Cycling

2.12 Walking and cycling are active *and* sustainable forms of transport in their own right and as linking modes for accessing public transport, for example, when making longer journeys.

2.13 The Chartered Institution of Highways and Transportation (CIHT) documents 'Planning for Walking' and 'Planning for Cycling' provide an insight into these modes of transport:

- "*Across Britain about 80% of journeys shorter than 1 mile are made wholly on foot…but beyond that distance cars are the dominant modes*" (Planning for Walking, 2015, pg.6).
- "*Majority of cycling trips are used for short distances, with 80% being less than five miles and with 40% being less than two miles*" (Planning for Cycling, 2014, pg.4).

Local Transport Note (LTN) 1/20 'Cycle Infrastructure Design' & 'Gear Change: A bold vision for cycling and walking'

2.14 The Department for Transport (DfT) updated their advice to Local Authorities in Local Transport Note (LTN) 1/20 'Cycle Infrastructure Design', which was published in July 2020 alongside the DfT's 'Gear Change: A bold vision for cycling and walking'. LTN 1/20 promotes the inclusion of good quality cycling infrastructure in Local Authority planning, design and highway adoption policies and processes, with new developments, new highways and new highway improvement schemes contributing accordingly.

Manual for Streets and National Travel Survey

2.15 Manual for Streets (MfS) identifies 'walkable neighbourhoods' as "*having a range of facilities within 10 minutes' (up to about 800m) walking distance of residential areas which residents may access comfortably on foot*". Within MfS it is also noted that 800 metres is not considered the maximum walking distance for pedestrians, highlighting that walking can replace short car trips, particularly those under 2 kilometres.

2.16 The 2019 National Travel Survey (NTS) noted that 74% of all trips under one mile are walks, making walking the most frequently used mode of travel for very short distances (1 mile = 1.6 kilometres). This proportion includes trips made in non-motorised wheelchairs, prams or pushchairs; riding on toy bicycles, roller-skates, skateboards and non-motorised scooters; and jogging. For example, children on toy bicycles/tricycles accompanying others who are walking on a trip to the local shops are recorded as having walked that trip.

Planning Practise Guidance

Good Practice Guidelines: Delivering Travel Plans through the Planning Process (2009)

2.17 In April 2009 the Department for Transport published 'Good Practice Guidelines: Delivering Travel Plans through the Planning Process'. The Guidelines aim to bring together some of the best practice from around the country, drawing upon recent research.

2.18 TPs have become an integral element of the planning process

"They are critical to ensure that the use of sustainable modes is maximised, the finite capacity of the transport network is used effectively and the need for some costly highway infrastructure is avoided as far as is practical."

Paragraph 1.7. Good Practice Guidelines: Delivering Travel Plans through the Planning Process. April 2009

2.19 The Guidance defines a TP as:

"a long-term management strategy for an occupier or site that seeks to deliver sustainable transport objectives through positive action and is articulated in a document that is regularly reviewed"

Paragraph 2.1. Good Practice Guidelines: Delivering Travel Plans through the Planning Process. April 2009

2.20 The Guidance sets out that a TP involves:

"the development of agreed explicit outcomes limited to the appropriate packageof measures aimed at encouraging more sustainable travel, with an emphasis on reducing single occupancy car use. Each travel plan should be unique to a site"

Paragraph 2.1. Good Practice Guidelines: Delivering Travel Plans through the Planning Process. April 2009

2.21 The Guidance sets out the ultimate objective of the travel planning process whilst identifying the additional aims and benefits:

"travel plans focus on achieving the lowest practical level of single occupancy vehicle trips to or from a site and widening the use of other modes. They assist in the wider aims of encouraging sustainable travel, improving health and reducing congestion, energy consumption and pollution. Travel plans need to address all journeys that may be made to and from a site, by anyone who may have a need to visit or stay there."

Paragraph 2.4. Good Practice Guidelines: Delivering Travel Plans through the Planning Process. April 2009

2.22 The Guidance focuses on an 'outcomes' approach to TPs, requiring that specific outcomes or targets are established by agreement on what should be achieved through the TP over time.

Planning Practice Guidance 'Travel Plans, Transport Assessments and Statements' (2014)

2.23 The Department for Communities and Local Government (CLG) recently published the Planning Practice Guidance (PPG), which reinforces the guidance contained within the NPPF.

2.24 In particular Paragraph 111 which states that:

"All developments which generate significant amounts of transport movement should be required to provide a Travel Plan.

Travel Plans should identify the specific required outcomes, targets and measures, and set out clear future monitoring and management arrangements all of which should be proportionate. They should also consider what additional measures may be required to offset unacceptable impacts if the targets should not be met."

This document also states some of the policies that Travel Plans should/ may include:

- Benchmark travel data including trip generation databases;
- Information concerning the nature of the proposed development and the
- forecast level of trips by all modes of transport likely to be associated with the development;
- Relevant information about existing travel habits in the surrounding area;
- Proposals to reduce the need for travel to and from the site via all modes
- of transport; and
- Provision of improved public transport services;
- Parking strategy options (if appropriate); and
- Proposals to enhance the use of existing, new and improved public
- transport services and facilities for cycling and walking both by users of the development and by the wider community.

2.25 Travel Plans should set out explicit outcomes rather than just identify processes to be followed (such as encouraging active travel or supporting the use of low emission vehicles). They should address all journeys resulting from a proposed development by anyone who may need to visit or stay and they should seek to fit in with wider strategies for transport in the area."

Hampshire County Council's Guide to Development Related Travel Plans (2009)

2.26 This document was adopted by Hampshire County Council in 2009 and relates to the importance of a Travel Plan and the specific guidance needed for producing a TP document relevant to the local area. The document includes basic information about the function of a TP, how an effective TP can be secured through the planning process, how a TP document should be produced and specific management and monitoring that should be included.

2.27 This Travel Plan has been prepared in accordance with this local guidance, setting out all required elements including realistic targets and measures to achieve these targets. These elements link directly to the outcome of the Transport Assessment and are consistent with the Local Transport Plan.

IHT's Guidelines for Providing Journeys on Foot (2000)

2.28 The guidelines provide current best practice for providing for pedestrians in support of policies to achieve sustainable travel patterns.

CIHT's Buses in Urban Developments (2018)

2.29 The guidelines emphasise the important role of buses in achieving sustainable travel patterns and that in addition to enabling or providing for bus services there should be targets or specific aspirations for their use.

Havant Borough Council Parking Supplementary Planning Document (2016, updated 2019)

2.30 The SPD sets out the car parking requirements within Havant, which have been applied in the Transport Assessment accompanying the planning application.

Developer's Policy

2.31 XLB are committed to delivering sustainable developments both during the construction and throughout the life of the development. They are committed to encouraging sustainable travel through the delivery of appropriate infrastructure and travel plans.

Site Assessment

Local Highway Network

3.1 Vehicular access to the Site is achieved via Brookside Road to the west, Langstone Road to the east and Penner Road to the south, which is for emergency use only. Brookside Road and Penner Road both connect to Harts Farm Way, which provides access to the A27 to the west.

3.2 Langstone Road runs south from Havant to Hayling Island, forming a junction with the A27 approximately 130 metres north of the access road.

3.3 The local highway network is shown in the figure below.

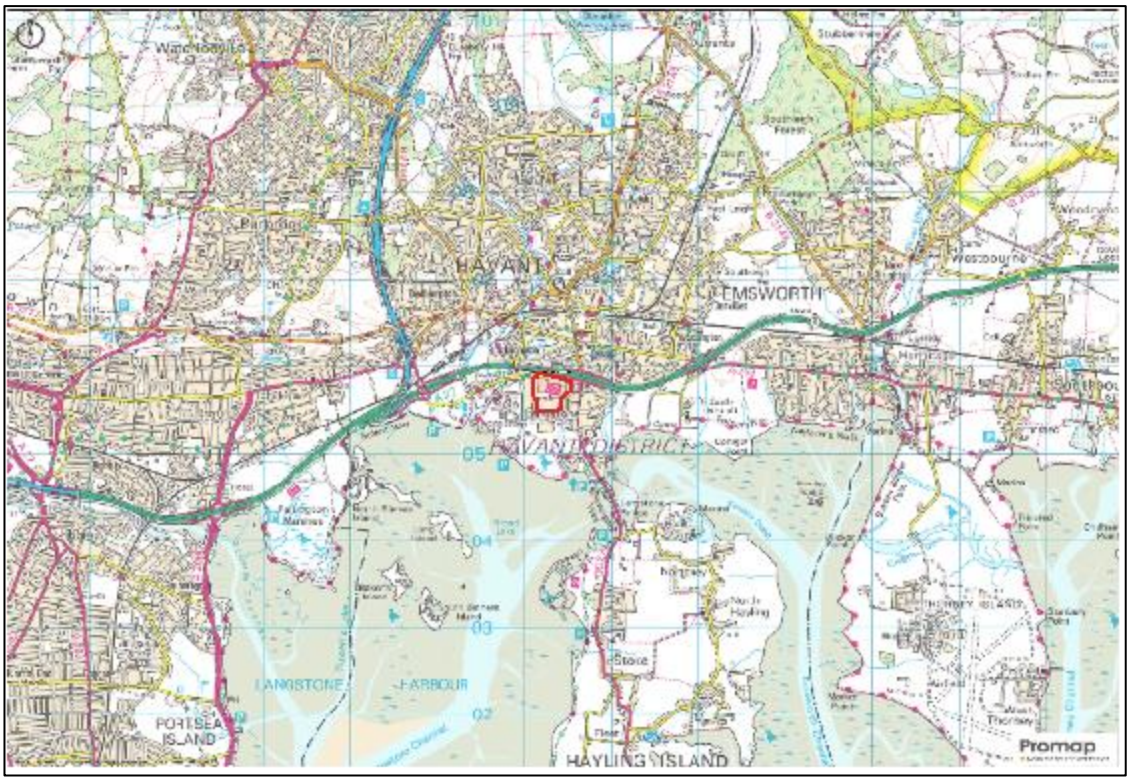


Figure 3.1 – Highway Network Local to the Site

Accessibility

3.4 It is generally accepted that walking and cycling provide important alternatives to the private car and should also be encouraged to form part of longer journeys via public transport. Indeed, it is noteworthy that the Institute of Highways and Transportation (IHT) has prepared several guidance documents that provide advice with respect to the provision of sustainable travel in conjunction with new developments. Within these documents it is suggested that:

- Most people will walk to a destination that is less than one mile (Planning for Walking, 2015);
- The bicycle is a potential mode of transport for all journeys under five miles (Planning for Cycling, 2015); and,
- Walking distances to bus stops should not exceed 400 metres, with people being prepared to walk twice as far to rail stations (Planning for Walking, 2015).

3.5 Notwithstanding the above, it should be noted that Manual for Streets (MfS) identifies 'walkable neighbourhoods' as being "characterised by having a range of facilities within 10 minutes (up to about 800m) walking distance of residential area which residents may access comfortably on foot". However, it is important to recognise that MfS does not consider 800 metres to be a maximum walking distance. Indeed, MfS and the Design Manual for Roads and Bridges (DMRB) contend that walking can be used to access a variety of destinations within a range of two kilometres and two miles respectively.

3.6 The plans provided at **Appendix B** illustrate these walk and cycle catchments (which include bus stops and Havant railway station) and demonstrate the extent of the opportunity for the Site to attract a significant volume of journeys by foot and bicycle.

3.7 Having regard to the above, it is considered that the Site is spatially well located with respect to the more sustainable modes of travel including foot, cycle and public transport. Details on each of these sustainable modes of travel are set out below.

Journeys by Foot and by Bicycle

3.8 Access to the Site for pedestrians and cyclists is provided from Langstone Road and Brookside Road. Both streets have footways on either side and are lit. They connect to a wider, comprehensive pedestrian network of lit footways.

3.9 Footpath reference 108/51/2 is located on the eastern edge of the Site and runs north-south connecting Langstone in the south with Havant in the north, passing under the A27.

3.10 Footpath reference 108/50/1 is located along the northern edge of the Site providing a connection between Langstone Road and Brookside Road.

3.11 As shown on the Havant cycle map provided at **Appendix C**, the Site is located adjacent to Sustrans route 22 which connects the Site to Havant town centre and railway station to the north and towards Portsmouth in the west.

3.12 An audit of routes surrounding the Site and between the Soite and Havant town centre / railway station has identified the following:

- There is a comprehensive network of pedestrian and cycle routes (the latter as evidenced at **Appendix C**);
- There is route signage within the network;
- Crossings are provided throughout the network including tactile paving; and
- The network is lit.

3.13 Notwithstanding this the audit identified a missing link to the cycle network along the eastern edge of the Site following PRoW 51. This results in cyclists being forced to either wheel their bikes along PRoW51 or else follow a detour around the northern, western and southern edges of the Site.

Journeys by Public Transport

3.14 The nearest bus stops are located adjacent to the Site on Langstone Road providing a frequent service connecting the Site to Havant and Hayling Island. Table 3.1 provides a summary of the bus services available.

Service	Route	Frequency
30/31	Havant – Langstone – Stoke – Eastoke – West Town – Stoke – Langstone - Havant	Every 15 minutes

Table 3.1 – Local Bus Services

3.15 Havant railway station is located approximately 1.3km (17-minute walk) from the Site providing services to destinations along the south coast including Southampton, Portsmouth, Chichester and Brighton. Table 3.2 provides a summary of the services available from Havant Station.

Route	Frequency
Havant – Rowlands Castle – Petersfield – Liss – Liphook – Haslemere – Witley – Milford – Godalming – Guildford – Worplesdon – Woking – Clapham Junction – London Waterloo	Every 20 minutes
Havant – Chichester – Barnham – Horsham – Crawley – Three Bridges – Gatwick Airport – East Croydon – Clapham Junction – London Victoria	Every 30 minutes
Havant – Emsworth – Chichester – Barnham – Ford – Angmering – Goring-by-Sea – Durrington-by-Sea – West Worthing – Worthing – East Worthing – Lancing – Shoreham-by-Sea – Southwick – Fishersgate – Portslade – Hove - Brighton	Every 30 minutes
Havant – Warblington – Emsworth – Southbourne – Nutbourne – Bosham – Fishbourne – Chichester – Barnham – Ford - Littlhampton	Hourly
Havant – Bedhampton – Hilsea – Fratton – Portsmouth and Southsea – Portsmouth Harbour	Every 10 minutes (2 trains per hour termisnte at Portsmouth and Southsea)
Havant – Cosham – Fareham – Swanwick – Southampton Central	Every 30 minutes

Table 3.2 – Local Rail Services

Car and Cycle parking

3.16 Car parking will generally be provided at a level of 1 space per 45m² of gross floor area for the employment uses. A limited area of employment floor space which is designed solely for use for B8 purposes will have car parking provided at 1 space per 90m² of gross floor area. Car parking for ancillary and support facilities will be provided at a maximum rate of 1 space per 14m² of gross floor area. This results in a total of 1,158 car parking spaces within the Site.

3.17 Electric car charging (EVC) will be provided at a rate of 10%, resulting in 116 spaces. An additional 20% minimum will be passively equipped for electric charging, meaning charging equipment can be retrofitted in a straightforward manner. This aligns with emerging best practice being prepared by the Department for Transport.

3.18 HGV parking is provided adjacent to loading bays. These are spaced to allow additional HGV parking between them as necessary.

3.19 Cycle parking spaces will be provided in accordance with HBC parking standards having regard to the activities of the occupier of each unit within the Proposed Development. Spaces will be located in lit areas where they can be naturally surveilled and provided in covered shelters. Details of location and design will be provided with reserved matters applications for each of the units.

3.20 It is noted that B1a type uses generally produce a greater demand for parking than industrial uses. In the event that part of the site comes under a dedicated B1a use, the layout will be reconfigured to provide car parking at a ratio of one space per 30m^2, in line with local standard.

Objectives and Targets

Developer Objectives

4.1 To ensure the potential for access by sustainable travel modes, the developer, through close liaison with the Local Authority, should ensure that the appropriate infrastructure is implemented prior to occupation.

4.2 Key developer objectives are defined as follows:

- to provide the necessary transport and building infrastructure required for the detailed Travel Plan to be effective;
- to enable efficient access to the development by a number of alternative modes of transport; and
- to provide an attractive, secure environment for pedestrians, cyclists and public transport users.

4.3 Table 4.1 summarises the preliminary design features that give priority to those arriving at the Park via active, sustainable modes. Further consideration will be given to the requirements of those arriving by sustainable means at the more detailed design stage.

Occupier Objectives

4.4 Occupiers will encourage their employees to travel by more sustainable modes than the private car by promoting use of the site's design features that support active, sustainable modes.

4.5 Each occupying tenant company will also deliver the following Travel Plan objectives:

- promote the health, wealth and environmental benefits of cycling, walking and using public transport;
- provide clear information to all employees and visitors on the non-car modes of travel to and from site;
- enhance the safety and security of people travelling to and from site;
- effectively manage the demand for staff car parking; and
- reduce the need to travel during peak hours, where possible.

Management and Communications Strategy

Overview

5.1 This section sets out how this Travel Plan will be managed and communicated from the present day to when the site is fully constructed and occupied.

Management Strategy

5.2 XLB Property, as the landowner, will appoint a Site-Wide Travel Plan Co-ordinator (SWTPC) for the Park who will be responsible for day to day Travel Plan implementation and formal monitoring (detailed later within this document).

5.3 The SWTPC will maintain appropriate communication with HBC and HCC throughout the lifetime of the Travel Plan, and will ensure sufficient time is given to undertake the role.

5.4 The SWTPC will be the 'face' of the Travel Plan and a point of contact for the occupants, who will be responsible for delivering their unit's Travel Plan activities.

5.5 Staff at the companies occupying the Park will also be given sufficient time to fill in surveys so as to assist with implementation of the TP monitoring programme.

5.6 Up to date contact details for the SWTPC will be provided to HCC. If the role changes new details will be provided.

5.7 The main duties of the SWTPC will consist of the following;

- Be a contact point and 'face' of the Travel Plan.
- Ensure their contact details are in the Travel Information Pack, which is to be supplied to staff via the induction process, displayed on the staff notice board in a communal area of each unit, and published on the company website/intranet.
- Upon their appointment, establish good communications and relations between themselves and the relevant contact at HCC.
- Ensure they are fully aware of all the active and/or sustainable travel options to and from the site and provide personalised travel planning to all staff upon request.
- Ensure that they are fully up to date with the current active and/or sustainable travel initiatives provided by the local Councils so that these can be promoted throughout the site.
- Be up to date on nationwide events such as 'Bike to Work Week', 'National Lift Share Day' and 'Sustainable Travel Week' so that these events can be promoted throughout the site.
- Look at the feasibility of setting up a 'Bike User Group' (BUG) and if demand dictates manage it.
- Organise the monitoring surveys and compile the Monitoring Reports.

Staff Notice Boards

5.8 Staff notice boards will be located in the communal areas that are highly frequented by staff and will be used to display the Travel Information Pack.

Company Website / Intranet

5.9 An online version of the Travel Information Pack will be provided on the development-related website.

Enforcement

5.10 This Travel Plan will be secured in the Section 106 Legal Agreement associated with this application.

General Promotion

5.11 Below is a list of initiatives specific to each travel mode. As well as these the Travel Plan should raise awareness of the environmental and health problems connected with transport. To promote "greener" travel choices for all journeys, not just work-related travel. Tables 5.1 – 5.4 summarises a tool kit of measures which may be adopted by the SWTPC.

Potential Travel Plan Initiative	Responsibility
Walking (best suited to journeys under 2 miles)	
For the new build elements, provide cloakroom facilities within the building with drying and storage locker facilities.	Under agreement between developer and occupier, such facilities could be included within building design. For speculative builds developer to provide.
Provision of pedestrian linkages through the site as set out within the Transport Assessment. These will link between the new buildings and the existing internal network of routes within the established site and provide improvements to existing routes where required.	Developer
Produce a map illustrating safe walking routes to common destinations. Include reference to crossing points and public transport facilities.	Occupier to provide through SWTPC
Keep a store of pool umbrellas on site for use by staff who walk to/from walk or for walking journeys during the day.	
Provide staff with personal attack alarms.	
Raise awareness of health benefits of walking. Through posters, leaflets and/or events.	
Offer a guaranteed ride home to alleviate staff concerns of being stranded at work in the event of unforeseen circumstances.	
Arrange events to promote walking, such as a walk to work day.	
Time allowance to change	
Promotion of free health apps	

Table 5.1 – Travel Plan Tool Kit (walking)

Cycling (best suited to journeys under 2 miles)	
For the new build elements, provide safe, secure and fully weatherproof cycle storage.	Under agreement between developer and occupier, such facilities should be included within site design. For speculative builds developer to provide.
For the new build elements, provide changing rooms/areas within the building.	Under agreement between developer and occupier, such facilities should be included within building design. For speculative builds developer to provide.
Provide lockers for cyclist safety gear	Occupier to provide through SWTPC
Raise awareness of health benefits of cycling through continual	
Provide cycle route maps	
Keep a supply of basic cycle maintenance equipment on site e.g. pump, puncture repair kit, tools etc.	
Offer a guaranteed ride home to alleviate staff concerns of being stranded at work in the event of unforeseen circumstances.	
Establish a bicycle user group (BUG) & bike buddy scheme.	
Employers to consider the provision of interest free loans for the purchase of bicycles	
Liaise with local cycle shops to organise discounts and offers Cycle to work scheme	
Mileage allowance for cycle use	
Arrange events to promote cycling to work such as "biker's breakfasts". Possibly correspond with national events such as "bike week" & "bike2work" in June.	
Arrange adult cycle training sessions.	
Employers to consider the provision of interest free loans for the purchase of bicycles	

Table 5.2 – Travel Plan Tool Kit (cycling)

Public Transport	
Disseminate up-to-date public transport information on site. Including routes, timetables and fares for local services.	Occupier to provide through SWTPC
Promote benefits of public transport, savings etc	
Consider the provision of interest free loans for the purchase of season tickets	
Arrange with local transport operators to buy tickets in bulk at a discount and sell on to staff on site.	
Liaise with local operators for improved services to site.	

Table 5.3 – Travel Plan Tool Kit (Public Transport)

Car Sharing (provides a sustainable alternative when the car is the only option	
Establish a car sharing scheme to match employees with others living in a similar area or travelling the same route.	Occupier to provide through SWTPC
Provide a guaranteed ride home scheme for car sharers in the event of unforeseen circumstances.	
Allocate priority parking to car sharers	
Devise a protocol/guidelines for car sharers to follow.	

Table 5.4 – Travel Plan Tool Kit (Car Sharing)

Monitoring and Auditing

6.1 By undertaking the survey every two years the success of the Travel Plan in its ability to influence staff travel behaviour can be measured. The modal split of how employees travel will be recorded to ensure that the number of staff driving to car in their own private vehicle will reduce in favour of more sustainable modes.

6.2 In order to ensure an effective monitoring strategy is in place the following activities will be undertaken as part of a Travel Plan:

- A baseline survey will be undertaken within 6 months of each unit becoming occupied to establish the baseline modal split,
- Periodic monitoring surveys will be undertaken in years 1 (baseline), 3 and 5 of the lifetime of the Travel Plan. This enables modal shift to be identified; and,
- The answers to the main mode question should be used to identify the mode split for the site.

6.3 Whilst the proposals reflect a redevelopment of the Park, the site is currently occupied. Travel patterns have been obtained from the most recent travel to work Census 2011 data. This is directly applicable for staff at the site. The existing modal shares from the census data (E00116635) within Middle Super Output Area Havant 014 have been used to project the baseline and projected modal split that could be achieved over the first 5-year period from completion of the redevelopment. In this case a 10% reduction in the number of single occupancy vehicles over 5-years is considered realistic. These baseline and modal shifts from years 1 to 5 are summarised in Table 6.1 below.

Mode of Transport	Baseline Modal Split (%)	Year 1 (%)	Year 3 (%)	Year 5 (%)
Car Driver	71.1	69.5	66.3	63.1
Car Passenger	7..8	8.2	9.0	9.8
Single Occupancy Vehicles	63.3	61.3	57.3	53.3
Bus	4.5	5.0	6.0	7.0
Train	4.8	5.0	5.4	5.8
Walk	4.7	4.9	5.3	5.7
Cycle	4.4	4.7	5.3	5.9
Taxi	0.4	0.4	0.4	0.4
Motorcycle	1.5	1.5	1.5	1.5
Other	0.2	0.2	0.2	0.2
Total	100	100	100	100

Table 6.1 – Targeted Modal Shares (Based on Census 2011 Data from E00116635)

6.4 Other data collected might include:

- Personal information such as home postcode, job type, nature of work and working hours,
- Reasons for choice of travel mode and barriers to travel by sustainable modes,

- Additional information about measures which are likely to encourage a switch to sustainable alternatives; and,
- The amount of business travel undertaken during the working day and opportunities for switching to alternatives.

6.5 Surveys should will be undertaken at a similar time each year and in a 'neutral' month, avoiding school holidays.

6.6 Surveys may be undertaken online or via hard copy, whichever is considered to be most appropriate for the nature of the organisation to ensure a good and representative response. Organisations should aim to achieve a response rate of at least 35% for baseline surveys, or at least be able to provide assurance to the local authority that the sample is representative if this response rate is not achieved.

6.7 An example proforma questionnaire is included at **Appendix D**.

Plan Performance Audits

6.8 The results will be reported within three months of the survey date to the Council. The report should take the following format:

- Chapter 1 – Introduction and Background. This will detail the site to which the report relates and provide details of occupier, name, date of occupation, number of staff employed, working hours, number of parking spaces etc.
- Chapter 2 – Results of Surveys. This section will detail the results of the surveys that have been undertaken against the indicators set out above. It will include details of current travel situation and target levels.
- Chapter 3 – Initiatives Undertaken. This will provide details of the work and initiatives undertaken over the previous 12 months, with supporting evidence as necessary.
- Chapter 4 – Problems and Issues. This section will detail any problems encountered in implementing the Travel Plan and any issues which remain unresolved or require progress in future.
- Chapter 5 – Specific Measures from Travel Plan. This section will detail how all measures from the travel plan have been implemented in terms of infrastructure, policy and promotion of each specific travel mode and strategy (walking, cycling public transport, car sharing, general measures, working practises, etc). This will include evidence of how each measure has been implemented and a completed checklist of measures agreed at the planning application stage.
- Chapter 6 – Summary. This will set out whether the Travel Plan is on track to meet targets and if not why not.
- Chapter 7 – The Plan for the next 12 months. This will include any specific outcomes and desired results and any additions to the Travel Plan

Remedial Action

6.9 If the survey highlights that the site is not meeting its targets a number of remedial measures will needed to be implemented on site to rectify the situation. These will be devised in consultation with HCC. A number of potential remedial measures are listed below:

- Run awareness campaign reinforcing alternatives to car travel;
- Allocation of additional resources to promote non-car modes of transport;
- Charging for parking for spaces used for single occupancy vehicles; and / or

- Parking restrictions.

Securing the Travel Plan

6.10 As part of the S106 Agreement a Travel Plan monitoring fee is sought by HCC. A Travel Plan Bond shall be in place and maintained throughout the full 5 year lifetime of the Travel Plan.

Action Plan

7.1 The Action Plan for the site is set out in Table 7.1 and 7.2 below:

Objective	Action	Timeframe	Mode Affected	Cost Estimate
To encourage the modal shift from single person vehicle trips to sustainable means	Appoint a site wide Travel Plan Coordinator	Prior to occupation of full site	N/A	£0 Cost borne at source with appointment of management company
Increase the use of cycling to work	Marketing and Promotion, incl. walking and cycling maps, info on public transport, info on events, bicycle user groups, health benefits etc	Ongoing	Cycling	£3,000
Increase opportunity for cycling	Cycle Parking	From onset	Cycling	Provided as part of development infrastructure No Cost
Increase attractiveness for cycling	Cloakroom facilities, lockers and changing rooms	From onset	Cycling	Provided as part of development infrastructure No Cost
Increase attractiveness for cycling	Cycle Maintenance equipment such as tyre pumps etc	Prior to occupation of full site	Cycling	£100
Reduce single person vehicle trips	Car Sharing/Car Clubs	Throughout operation	Car	Within SWTPC role
Reduce vehicle trips	Reducing the need to travel through flexible working practice: teleworking and home working	Throughout operation	Car	Within SWTPC role
Encourage Walking	Communal Umbrellas	Prior to occupation of full site	Walking	£50

-	Appoint Individual Occupier Travel Plan Coordinators	Prior to occupation of full site	Prior to occupation of individual new units	£0
Increase uptake of sustainable travel	Marketing and Promotion, incl, incentives for car sharing, public transport use and cycling	Throughout operation	Short Term/ Ongoing	£2,000

Summary and Conclusions

8.1 This Travel Plan has been prepared by Motion on behalf of XLB Property in respect of redevelopment employment proposals at Langstone Technology Park, Havant.

8.2 The Travel Plan will seek to provide clear initiatives to encourage all site users to access the development via non car modes.

8.3 This Travel plan will be initiated once the development is completed but prior to occupation. The Travel Plan coordinator will provide a full Travel Plan upon completion of the site. The Travel Plan Coordinator will implement the plan and control the day to day management of the Travel Plan, which will include consultation with HCC.

8.4 This document sets out how site users will travel to and from the development by modes other than the private car and has indicated that these opportunities, as well as accompanying benefits will be set out within marketing material which will be prepared in respect to this development.

8.5 It can therefore be concluded that the framework established by this Travel Plan is sufficiently robust to deliver more sustainable travel choices in relation to the site. At the same time, it maintains a degree of flexibility to enable the Travel Plan to respond to changing circumstances and continue to deliver more sustainable transport choices into the future.

Appendix A

Architects Layout

Figured dimensions only are to be used. All dimensions to be checked onsite. Differences between drawings and between drawings and specification or bills of quantites to be reported to the PRC Group.

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Revisions: Drawn/Chkd: Date:

N

BUILDING TO HAVE FLEXIBLE USE CLASSES, E CLASS RESEARCH & DEVELOPMENT, LIGHT INDUSTRY, B2 & B8

CAR PARKING BASED ON A MAXIMUM OF 1 PER 45m²
(HIGH TECH, R&D, LIGHT INDUSTRY) GENERALLY

UNIT 5 CAR PARKING PROVIDED AT 1 PER 90m² (B8).

BUILDINGS 9 & 10 CAR PARKING PROVIDED BETWEEN 1 PER 45m² & 1 PER 90m²

ACCESSIBLE CAR PARKING PROVIDED AT 5%, EVC PROVIDED 10% MINIMUM ACTIVE & 20% PASSIVE

UNIT 14 SINGLE STOREY AMENITY FACILITY AND OUTDOOR SEATING (3,000ft² GYM, 2,000ft² CAFE), PARKING PROVIDED AT 1 PER 14M² MAX

AMENITY HUB (CAFE / GYM)

FLEXIBLE USE EMPLOYMENT SPACE

ANCILLARY OFFICE SPACE

TREES

Client:
XLB PROPERTY &
HAVANT S.a.r.l. (Luxembourg)

Project:
LANGSTONE PARK
HAVANT

Drawing Title:
INDICATIVE MASTER PLAN

PRC

12 Warren Yard,
Warren Park,
Milton Keynes,
MK12 5NW
01908 305 246

info@prc-group.com
www.prc-group.com

Scale @ A1: 1:1000
Checked by: ME
Date: SEPT 21
Job No: 11392
Stage: PL
Drawing No: 005
Rev:

Issue Status:
Construction ☐ Preliminary ☐
Information ☐ Approval ☐
Tender ☐

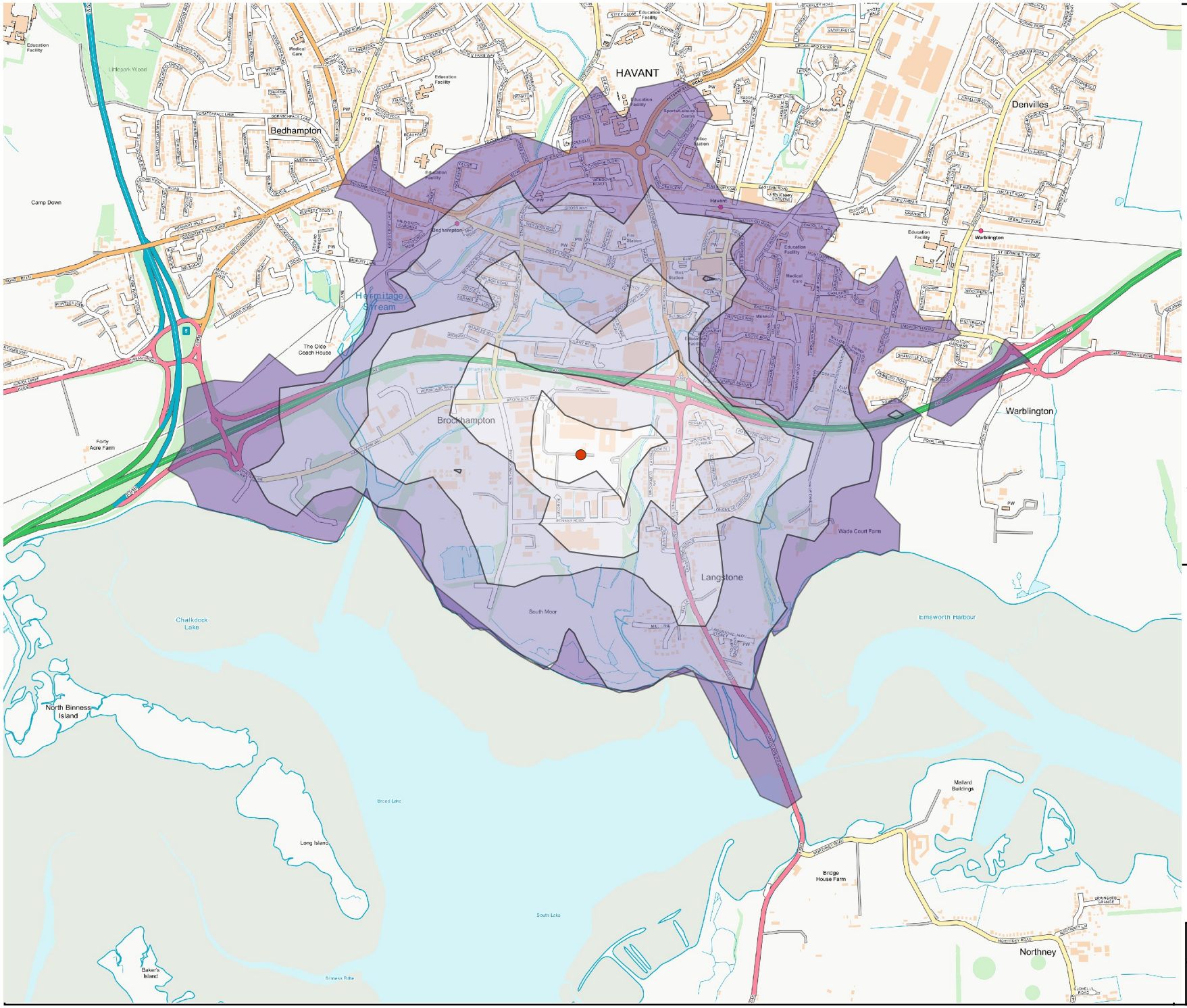
Architecture
Planning
Master Planning
Urban Design
Interiors
Landscape

Offices
Woking
London
Milton Keynes
Warsaw

PRC Architecture & Planning

Appendix B

Walk and Cycle Catchment



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north

Key:

- 400 metres
- 800 metres
- 1200 metres
- 1600 metres
- 2000 metres

Assumed Walk Speed: 4.8 km/h

Project

Langstone Technology Park, Havent

Title

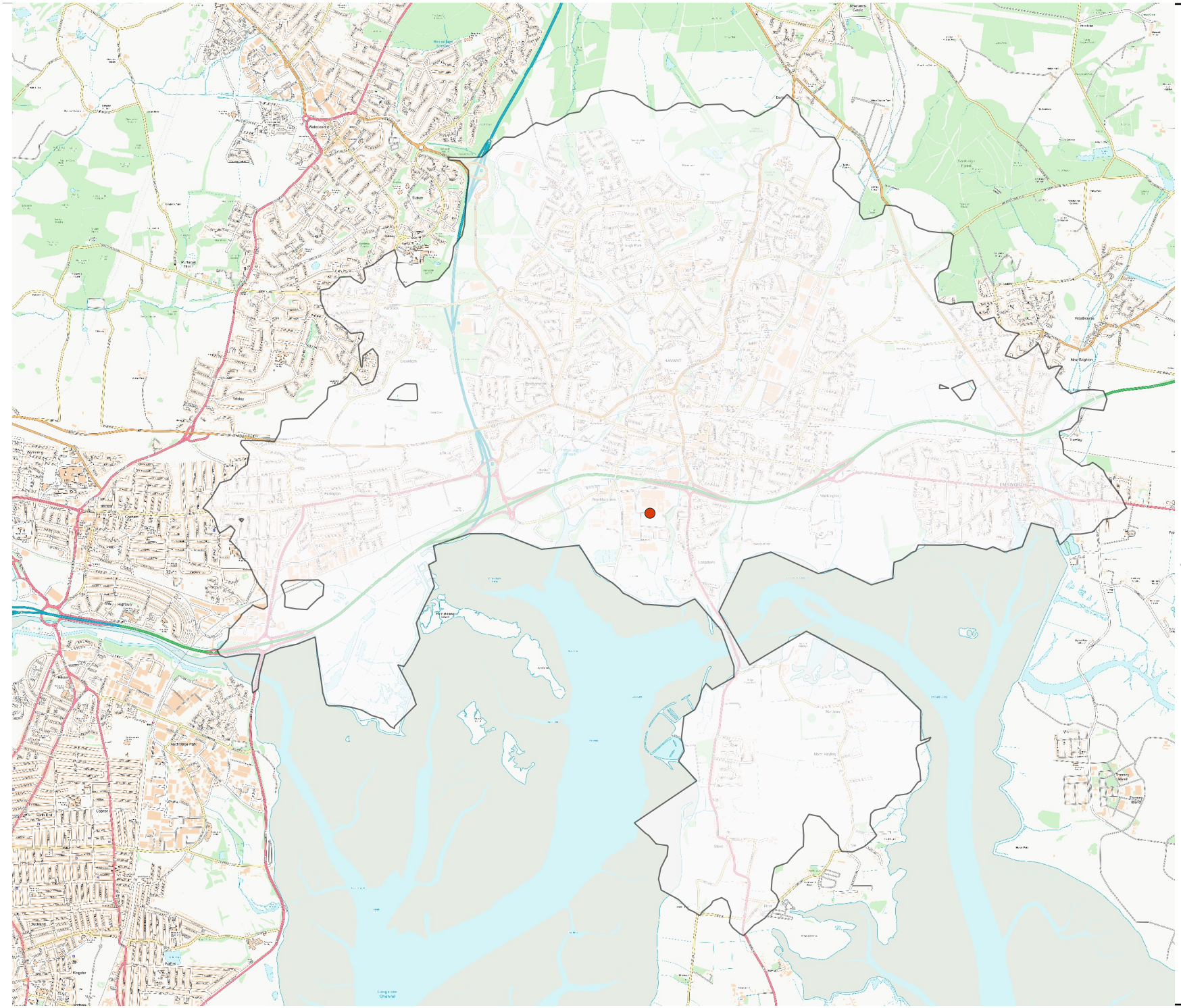
Accessibility by Foot

motion

9 Greyfriars Road, Reading, RG1 1NU
Tel: +44 (0) 118 206 2930

scale	drawn by	date
stated	AN	12/05/2021

drawing number	rev
2010053	-



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Key:

5 km

north

Project

Langstone Technology Park, Havent

Title

Accessibility by Cycle

motion

9 Greyfriars Road, Reading, RG1 1NU
Tel: +44 (0) 118 206 2930

scale	drawn by	date
stated	AN	12/05/2021

drawing number	rev
2010053	-

Appendix C

Havant Cycle Map

SOME USEFUL CONTACTS

Havant Borough Council is proud to promote cycling in the borough. For more information and routes visit www.havant.gov.uk/cycle

If you want to explore cycling further, why not take a peek at the following websites?

Cycle Hoping – Planning cycling on Hoping Island www.cyclehoping.org.uk

Cyclestreets – The UK's free bicycle journey planner www.cyclestreets.net

Cycling in Hampshire – A country-wide guide to cycling www.hants.gov.uk/leisure-tourism/cycling

Cycling UK – Championing cycling in the UK www.cyclinguk.org

Sustrans – The charity that makes it easier to cycle www.sustrans.org.uk

CYCLING IN THE HAVANT AREA

www.havant.gov.uk/cycle

A GREAT PLACE TO RIDE

Nestled between the South Downs and the Solent, there is a wealth of great cycling routes throughout the borough...

Covering an area of around 76 kilometres, this guide will provide you with the definitive map of cycle paths and routes through the borough of Havant and the southern parishes of Rowlands Castle.

Intermediate and important coastlines provide magnificent cycling views. There are also beautiful woodlands as you head north, as well as the South Downs. From sea level to an elevation of 250 metres as you reach the South Downs National Park, there is a variety of country lanes and tracks for you to enjoy.

Raising take on even more hilly, young or old, there are great cycling opportunities for all in the borough.

PROMOTING CYCLING

These national charities have worked tirelessly to help improve cycling opportunities and safety here and throughout the country

With more than 68,000 members, Cycling UK is a charity whose organ contributes to 1930. It promotes all forms of cycling, protects the interests of existing and would-be cyclists, encourages people of all ages, backgrounds and abilities to enjoy cycling.

Supporting hundreds of cycle clubs throughout the country, why not see what's on your doorstep?

www.cyclinguk.org

A charity dedicated to sustainable transport, Sustrans is responsible for the National Cycle Network, which has created more than 14,000 miles of signed cycle routes throughout the UK, with a distance anywhere in the network. Sustrans is also the custodian of the National Cycle Network, enhancing biodiversity, allowing routes and reducing our reliance on our cars on roads.

www.sustrans.org.uk

ABOUT HAVANT

Once famous for its parchment making, Havant is now a bustling town offering great places to eat, shop and explore.

Havant takes its name from Hamon Fertis Otamus's Saxon 'Chief' spelling Havant to be the one at Homewell. Havant grew up at the crossing point of two ancient roads, the Langstone Harbour to Hayling Island, Castle roads and the Roman coast road from Chichester to Winchester.

Today, Havant has a lot to offer a cyclist passing through, with plenty of places to rest and eat, secure bicycle racks and three bicycle shops in the town. Havant is well built in a hill.

Why not visit St Faith's Church (parts of which date back to the early 13th century), Havant Park or follow the Havant Heritage Trail, marked by Mary Rose signs throughout the town?

CYCLE SHOPS

Whether preparing in advance - or dealing with a mishap mid-ride - knowing where your local bike shop is always makes sense! Listed below are some of the local bike shops at your disposal. Call if you can to check they are open!

Sivyer Cycles
10 North Street, Havant, PO9 1PF
023 9245 5644

Evans Cycles
Unit 3a, Solent Road, Havant PO9 1HD
023 9297 0070

Total Sport Cycle Repair Centre
Unit 5b, Solent Road, Havant, PO9 1JH
023 9247 2381

Halfords
Unit 1, Solent Retail Park, Southmoore Road, Havant PO9 1HD
023 9245 1920

Emsworth Cycles
44-46 North Street, Emsworth, PO10 7DA
01243 298844

Hayling Cycles
163-165 Lower Mayfield Road, Hayling Island PO11 0EH
023 9246 5882

South Coast Cycling
49 London Road, Horndean, Waterlooville PO8 0DW
023 9257 5080

Bikefixers
Unit 17, Catherington Business Park, Waterlooville, PO8 0AQ
023 9207 9937

PLEASE NOTE: This leaflet is in no endorsement for any of the cycle shops listed - please use at your discretion.

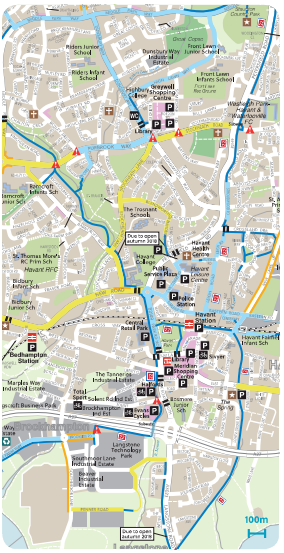
ABOUT WATERLOOVILLE

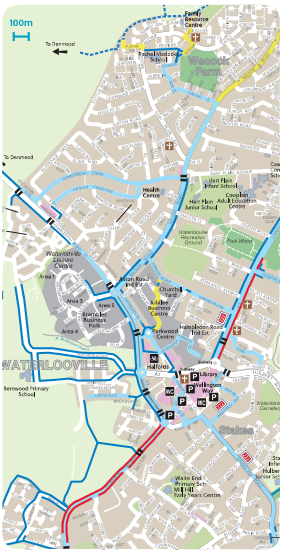
Named after the soldiers who stopped there after returning from the Battle of Waterloo, Waterlooville has lots to offer...

Waterlooville initially developed around a road running through the forest of Bere. A cobuilt track – only usable in fair weather – led through the forest from Horndean to Portsmouth. In 1771, a much better road was constructed joining London to Portsmouth – running right inside as London Road.

Growing significantly in size following World War II and the village it was recognised as the fastest growing town in the area. Waterlooville is home to a wide range of shops, pubs and cafés – ideal for a break on your bike ride!

HAVANT AND LEIGH PARK TOWN CENTRES





ABOUT EMSWORTH

A Saxon village with strong fishing and sailing ties, Emsworth has a lovely town centre offering fine places to eat and shop...

Emsworth derives from the Anglo Saxon Aimelas worp – 'home of Aimel's or Aimel's enclosure'. Divided from the nearby manor of Westbourne in the early 5th Century, Emsworth began to thrive with the need to supply the Royal Navy during the days of the British Empire. With a strong focus on fishing – and once famed for its oysters which were considered the best in the country – Emsworth is now home to a bustling town centre offering the very best of food shops, restaurants, cafés and more.

For cyclists, Emsworth is surrounded by a variety of coastal paths and tracks, and is without doubt well provisioned. Whether you're a keen cyclist looking for a challenge or just want a good coastal views, what more could you ask for?

BMX FUN!

For those feeling a little more adventurous, the borough is home to BMX and skate parks for practising their moves... Do wear the right kit!

STREET NAME	POST CODE
Barncroft Recreation Ground	PO9 4QU
Beechlands Road	PO9 4AU
Bidbury Road	PO9 1AU
Diamond Jubilee Recreation Ground	PO8 7PF
Havant Park	PO9 1QF
St. Clare's Avenue	PO9 4AT
Waterlooville Recreation Ground	PO7 8AT
Wecock Down Space	PO9 1HT

SHOWING DUE RESPECT

It's important to enjoy your bike ride – just not at the expense of others. Here are a few pointers to consider for a ride everyone will enjoy...

- Use paths shared with others considerately, and always consider your speed around them.
- Do not assume people have seen or heard you.
- Take care around horses riders, leaving them plenty of room – especially when approaching from behind.
- Cycle at a speed safe for you and those around you. Don't be personal challenges place your others at risk.
- Slow down when space is limited, there are crossings or junctions, or you cannot see clearly ahead.
- Have a bell on your bike – and use it to avoid surprise.
- Don't ride in dull or dark weather without lights.

ABOUT HAYLING

Home to an Iron Age shrine, a Roman temple and 12th Century monks, Hayling is also the home of windsurfing, invented here in 1958.

A real island, connected to the north by Hayling Bridge and to the west by Langstone Bridge, the island has been in continuous use since the Iron Age.

Steeped in history, half of the island was granted to the French abbey of Lyonshyre by William the Conqueror. Salt production was a major industry on the island, once recorded in the Domesday Book and continued into the late 19th Century.

Today, the island's fine beaches prove popular with paddlers and watersports enthusiasts alike, and the Hayling Billy Trail – following the route of the railway that ran the length of the island, providing cyclists with a safe and beautiful route to explore.

MAP OF THE BOROUGH

CYCLE HAVANT

Havant BOROUGH COUNCIL



KEY ROAD SIGNS FOR CYCLISTS

The Highway Code can be seen at www.gov.uk/highwaycode , but some key signs for cyclists are as follows:

- Route recommended for cyclists on main road
- Route to be used by cyclists ONLY
- Shared pedestrian and cycle route
- Segregated cycle and pedestrian route
- Contra-flow cycle route
- With - flow cycle lane (should be solid line; prohibits all other vehicles)
- Warning (for motorists) Cycle route ahead
- No cycling

KEY

Signs and Lines

- Off-road cycle track (hard surfaced)
- On-road cycle lane
- Bus and cycle lane
- Signposted route (part of a National Cycle Network route where indicated)
- Suggested on-route (not sign posted)
- Byway open to all traffic (BOAT) or bridleway or other track available for cyclist use (typically loose surfaced)
- Byway open to all traffic (BOAT) or bridleway or other track available for cyclist use (typically improved surfaced)
- One-way traffic (INCLUDING CYCLISTS)
- Controlled crossing
- Cyclists beware - Difficult junction, barriers or step
- Cycle parking
  NB – at stations and most public buildings have cycle parking facilities
- Cycle shop

Buildings and places of interest

- Public toilets
- Church
- Caravan site
- Other places of interest
- Mainline railway station
- Narrow gauge railway station
- Bus interchange
- Ferry terminal
- South Downs National Park boundary
- Woods and forests
- Parks and other open spaces
- Countryside and arable land
- School or college
- Shopping area / retail park
- Blue flag beach

NATIONAL CYCLE NETWORK

The network is a 14,000 mile network of safe, traffic-free paths and quiet on-road cycling and walking routes.

The Havant area is fortunate enough to have three main routes from the National Cycle Network running through it. These are marked on the maps in this leaflet in light blue routes with their corresponding route numbers. The routes are:

Route 2 – Dover to Cornwall
Via Brighton, Chichester, Havant, Portsmouth and Exeter

Route 22 – South London to New Forest
Via Guildford, Fareham, Petersfield, Havant, Portsmouth and the Isle of Wight

Route 222 – A link between routes 2 and 22
Connecting route 22 at Chalkhouse Green to route 2 at Southsea via Horndean, Waterlooville and Farlington

If you've enjoyed riding along these lovely routes, why not consider becoming a volunteer and help maintain them? For more information on the network and volunteering, visit www.sustrans.org.uk

Cycle Havant Brochure 150118 2

NEW0290 11.18

Appendix D

Questionnaire proforma

Travel Plan Proforma

Site: Langstone Technology Park
Prepared by: Andrew Nock
Approved by: John Russell
Date: 15/06/2022

9 Greyfriars Road
Reading
RG1 1NU

Tel: 0118 206 2932
www.motion.co.uk

Details of the development

Name of company:

Types of visitors:

Size:

How this Travel Plan relates to the development

Predicted travel

No of staff:

Standard Organisation working hours:

Non-Standard Organisation working hours:

Any information on the general operation of the site in terms of vehicles coming and going:

This Travel Plan relates to

Staff

Travel Plan Contacts

Executive Summary

TBC

Our Organisation

Please provide the following:-

a description of your organisation:

number of car parking spaces:

number of staff employed at the site:

number of staff on site at any one time :

number and type of people who access the site other than staff:

details of relevant policies (for example, a homeworking policy) :

Location

Current travel patterns

Any known current travel patterns, for example, known numbers of staff who cycle/ drive/ travel by bus.

If not known please provide details of when and how travel survey will be undertaken to obtain this information

.