vectos.

SUPPLEMENTARY TRANSPORT ASSESSMENT

Kingsbridge Estates

New Lane

July 2021

Contents

Figures

Appendices

1 Executive Summary

— A planning application was submitted at the site in February 2021, under planning reference APP/21/00200 for a 'last mile' distribution centre, where parcels are delivered via small vans to customers in the local area. The application was supported by a Transport Assessment (TA) and Travel Plan (TP) prepared by Vectos (Feb 2021).

— This report has been prepared as a supplementary TA which sets out the current position from a transport perspective and the significant additional work undertaken since the submission of the full planning application in the light of comments made by Hampshire County Council (HCC) and by local stakeholders.

— The site has a complex planning history having been redeveloped over a number of years. The existing site was most recently operated by Pfizer who are winding down operation at the site which has resulted in a significant drop off in vehicular activity.

— The site is located in an accessible location with good access to public transport services and day to day amenities for staff and visitors.

— The agreed trip generation shows the site will have a small uplift in vehicle movements compared to the 'existing use' of the site (ie the re-use of the existing buildings on the site).

— The proposed traffic distribution of the site has been agreed with HCC. The majority of site traffic will route through Crossland Drive as it provides the most direct access to the strategic road network and is the signed route to the employment area for all vehicles including HGVs.

— The only vehicles using New Lane will be staff who live in Havant travelling to/from work and vans making deliveries to residents who live in these areas. All HGVs will use Crossland Drive to travel to/from the site.

— The site will be served by three points of vehicular access of which one is a new access The appropriate visibility splays can be achieved at all of the accesses in accordance with national and local design standards as shown by recent surveys speeds on New Lane. Modelling of the site accesses show that each of them can safely accommodate future traffic levels.

— Several off-site improvements to the local highway network close to the site are proposed which include:

- A safety Improvement scheme at the Crossland Drive junction with New Lane to address an existing issue of collisions with cyclists.
- A brand-new crossing point to the south of New Lane which allows pedestrians to safely cross the carriageway.

- A brand-new crossing on Crossland Drive that will serve an existing desire line between New Lane and St Albans Road.
- Upgrade of bus shelter near the site to increase the uptake in sustainable travel

— Capacity assessments have been undertaken of the Crossland Drive junctions with New Lane and Petersfield Road. The results show that these junctions can safely accommodate future traffic levels.

— An updated Travel Plan has been submitted which includes the sustainable measures to be implemented at the site and the proposed Travel Plan bond amount. The Travel Plan is a framework, and a full Travel Plan will be prepared when an end user is identified.

— An Operational Management Plan, a Car Park Management Plan and a Delivery and Servicing Management Plan will be prepared to control the operation of the site.

— A Construction Management Plan will be prepared to control construction traffic to/from the site.

— Local stakeholders have commented on the submitted planning application. In response, it has been confirmed that the development proposals will generate a similar level of traffic to the existing site and that most traffic will use Crossland Drive. The only traffic using New Lane will be staff living in the local area and deliveries being made to homes in these areas.

2 Introduction

2.1 Vectos has been retained by Kingsbridge Estates to provide highways and transport advice in relation to the re-development of a former Pfizer Site at New Lane, Havant.

2.2 The site is located within an existing employment area near an existing industrial estate and is currently occupied by a cold chain packaging, storage, and distribution facility.

2.3 A planning application was submitted at the site in February 2021, under planning reference APP/21/00200 for a 'last mile' distribution centre, where parcels are delivered via small vans to customers in the local area.

2.4 The application was supported by a Transport Assessment (TA) and Travel Plan (TP) prepared by Vectos (Feb 2021).

2.5 Since the submission of the planning application at the site, discussions have been on-going with Hampshire County Council (HCC) regarding transport matters and comments have been made by local stakeholders.

2.6 This report has been prepared as a supplementary TA which sets out the current position and additional work undertaken since the submission of the full planning application.

2.7 The remainder of this report is structured as follows:

- Section 3 - Existing Use of Site
- Section 4 - Accessibility
- Section 5 - Traffic Generation
- Section 6 - Traffic Distribution
- Section 7 - Site Accesses
- Section 8 - Off-Site Works
- Section 9 - Modelling
- Section 10 - Travel Plan and Management Plans
- Section 11 - Stakeholder Comments
- Section 12 - Summary and Conclusions

3 Existing Use of Site

Planning History

3.1 The site has a complex planning history having been developed over a number of years. The following is not a full planning history but is a summary as this is relevant to transport.

3.2 In 2010 planning consent was granted for a new cold storage unit and including the consent for this building **Table 3.1** is the schedule of land uses that were on the site (taken from the planning application form on the planning portal):

Table 3.1: 2010 Schedule of Uses

Land Use	Floorspace (sq m)
Office (B1a)	7,726
R&B (B1b)	2,427
Industrial (B1c/B2)	17,139
Warehousing (B8)	11,046
Total	**38,338**

3.3 This is when the use of the site was highest with the most intense activities on the site and it is also when the clearest description is available of the uses on the site.

3.4 The following are the significant changes to the land use schedule on the site since this time:-

— Velocity Site – this was the redevelopment of part of the site in 2015 which resulted in the reduction of offices floorspace by 2,615 sq m and warehouse floorspace by 1,115 sq m

— Building G on the site was built and consists of additional office floorspace of 1,200 sq m and 5,400 sq m of additional industrial floorspace

— The demolition of the buildings at the front of the site resulted in a loss of 2,000 sq m of office floorspace and 5,400 sq m of industrial floorspace.

3.5 There have been other changes to the land uses on the site, but this has been the construction and demolition of a number of small buildings that do not change the overall level of development on the site significantly.

3.6 **Table 3.2** sets out the current floorspace on the site taking account of the above changes:

Table 3.2: 2020 Schedule of Uses

Land Use	Floorspace (sq m)
Office (B1a)	4,311
R&B (B1b)	2,427
Industrial (B1c/B2)	22,539
Warehousing (B8)	5,231
Total	**34,508**

Existing Site

3.7 The existing site has most recently been operated by Pfizer who have been winding down the site. Like the majority of employment sites, the use of this site was affected by the pandemic which has led to the use of the site being reduced. An indication of the timeline of this is below:

- The use of the site has only reduced since March last year i.e. over the last 15 months.
- During this time work patterns were affected by the pandemic with some staff working from home and therefore traffic to/from the site as lower
- There were around 300 employees on the site during Summer 2020, by the Christmas period this was 100-150 people
- During the last year the site has been used to fulfil an NHS contract related to the storage/distribution of non-COVID related drugs/vaccine while other facilities were used for COVID vaccines
- From March 2021 the site has moved to decanting and there has been around 30 people on the site.

3.8 The above shows that the site has been winding down and the levels of activity associated with the site have dropped off considerably. Notwithstanding this the site has been in use until very recently and a new occupier does have the ability to re-use the existing building.

3.9 The traffic that would be associated with the re-use of the existing building on the site is a material consideration when considering this planning application for the redevelopment of the site.

4 Accessibility

4.1 As noted in the submitted TA, the site is located within a sustainable location with good links to public transport services and local amenities. This section provides a summary of accessibility of the site and proposals to enhance sustainability.

Bus Services

4.2 Bus stops located in proximity to the site include the 'Old Copse Road' bus stops which are situated approximately 40m apart on Crossland Drive to the west of the site (approximately a 4-minute walk).

4.3 Both stops provide a pole and flag arrangement with the westbound bus stop providing a bus shelter and are served by routes 20 and 21.

4.4 Located on St Albans Road (approximately 150m to the west of the site) 'Flexford Gardens' stop is also served by route 641 in addition. A summary of the frequency of services for these stops is set out in **Table 2.1**.

Table 4.1: Local Bus Services

Number	Route	Frequency
20	Portsmouth – Cosham – West Leigh – Havant	2 per hour
21	Portsmouth – Farlington – West Leigh - Havant	6 per hour
641	Purbrook (Oaklands School) Leigh Park – Denvilles – New Brighton – Rowlands Castle – Southbourne	1 per day (school service)

Railway

4.5 Havant railway station is the nearest railway station to the site. It is located approximately 1km south west of the site. Havant is a junction station that provides passengers with an interchange between the West Coastway line and Portsmouth Direct Line. The station therefore provides the access to Portsmouth, London Waterloo, London Victoria via Gatwick Airport, Brighton and Southampton.

4.6 The station provides 92 secure cycle storage spaces and a car park with 492 (including eight accessible) spaces.

4.7 A summary of the destinations reachable from this station and the services provided on a typical weekday are set out in **Table 4.2.**

Table 4.2: Railway Services – Havant Railway Station

Destination	Journey time (mins)	Frequency (per hour)
Southampton Central	41	2
London Waterloo	80	2
Brighton	65	3
Portsmouth Harbour	20	5
Littlehampton	40	2
Bognor Regis	32	4
Portsmouth and Southsea	12	7
London Victoria via Horsham	105	2

4.8 Havant railway station is approximately 1.1km to the south west of the site, equating to around 13 minutes' walk.

BREEAM Accessibility Index

4.9 Using the BREEAM Accessibility Index Calculator, the Accessibility Index for the site has been calculated.

4.10 From these calculations, the proposed site has achieved an Accessibility Index figure of 7.96. The calculation of this figure is shown at **Appendix A**.

Local Facilities

4.11 The site is also within walking distance of a number of key day to day amenities which are summarised in **Table 4.3** below.

Table 4.3: Local Facilities

Amenity Type	Amenity Location	Distance from site
Access to a recreation or leisure facility for fitness or sports	My Fitness Hub Havant, 5 Hayward Business Centre, New Ln, Havant PO9 2NL	260m
Childcare facility or school	St Albans School, St. Albans Rd, Havant PO9 2JX	350m
Access to an outdoor open space	Old Copse Road Open Space, Old Copse Rd, Havant PO9 2XB	350m
Appropriate food outlet	The Co-operative Food, 55 St. Albans Rd, West Leigh, Havant PO9 2JR	400m
Access to cash	Best-one, 64-66 St. Albans Rd, Havant PO9 2JY	450m
Public sector GP surgery or general medical centre	Oak Park Community Clinic, 8 Lavant Dr, Havant PO9 2AW	600m

Community facility	Havant Leisure Centre, Civic Centre Rd, Havant PO9 2AY	1100m
Over the counter services associated with a pharmacy	Octapharm, Civic Centre Rd, Havant PO9 2AZ	1100m
Publicly available postal facility	Havant Post Office, 25 Market Parade, Havant PO9 1PY	1200m

4.12 It can be seen that the site is within proximity of a number of day-to-day services which can be easily accessed by users at the site.

Proposals

4.13 The site is highly accessible by walking and cycling and benefits from a network of footways and cycleways in close proximity. As part of the development proposals, it is proposed to enhance local crossing facilities with the addition of dropped kerbs and tactile paving. It is also proposed to introduce two new crossing points on Crossland Drive and New Lane respectfully. These improvements will make the site more accessible for those walking and cycling to the site.

4.14 The provision of dropped kerbs will also aid the movement of disabled users towards the site. Similar provision will also be provided internally within the site to ensure disabled users are able to navigate the site with step free access.

4.15 A full Travel Plan will be implemented at the site which seeks to promote sustainable travel at the site through a number of sustainable measures.

4.16 As detailed in **Section 8** of this report, the applicant has agreed to contribute to improving local bus stops. This will benefit the users of the site and also those working and living within the locale.

Car Parking

4.17 Car parking will be provided at the site for staff that need to drive to the site. 20% of all car parking spaces will be equipped with active charging facilities.

4.18 Similarly, 20% of van storage spaces will be equipped with active electric vehicle charging point (EVCP) infrastructure from the outset. The remaining 80% will be provided with passive infrastructure to be brought forward in future.

4.19 11 parking spaces will also be provided on-site for disabled users.

Cycle parking

4.20 50 cycle parking spaces will be provided within cycle parking shelters. This provision would meet operational needs of the site with a potential for an increase in cycle mode share.

4.21 The development will also be providing changing and shower facilities to encourage staff to cycle to the site.

5 Traffic Generation

5.1 This section sets out the traffic generation of the proposed re-use of the existing site and the implications of this.

Proposed Site Trip Generation

5.2 A summary of the trip generation obtained from the occupier for the proposed development, for the AM and the PM network peak period is set out in **Table 5.1**. The trip generation provided by the proposed occupier is contained in **Appendix B** of this report. The proposed site traffic for the site has been presented and agreed with HCC who have confirmed that the data is robust.

Table 5.1: Development Trip Generation

Time Period	Car			LGV (excl. cars)			HGV			Total		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
08:00	12	0	121	0	216	216	1	1	2	**122**	**217**	**339**
17:00	0	105	105	216	0	216	0	0	0	**217**	**112**	**329**
Daily	***541***	***541***	***1081***	***505***	***505***	***1010***	***36***	***36***	***72***	***1,208***	***1,208***	***2,415***

5.3 As can be seen from **Table 5.1** the proposed development will generate 339 two-way vehicle movements in the morning peak period and 329 two-way vehicle movements in the evening peak period. The proposed site traffic is predominantly made up of cars and light vans. There are a limited number of HGVs at peak times, a total of 36 HGVs will be arriving and leaving the site across the day.

5.4 To confirm the robustness of the figures presented in **Table 5.1** consideration is given to trip data obtained from the TRICS database for a parcel distribution centre. This data has recently been accepted by HCC on a scheme in Basingstoke.

5.5 The peak hour trip rates extracted from TRICS and resulting trip generation based on the existing floor area of the site is presented in **Table 5.2** below. The full TRICS output is provided at **Appendix C** of this report.

Table 5.2: TRICS Trip Rates (per 100 sq.m) and Trip Generation

	Trip Rates			Trip Generation		
	In	Out	Total	In	Out	Total
AM	0.796	1.28	2.076	124	199	323
PM	0.562	0.911	1.473	87	142	229

5.6 **Table 5.2** shows that a parcel distribution centre at the site would generate circa 323 two-way vehicle movements in the AM peak and circa 229 two-way vehicle movements in the PM peak.

5.7 A comparison of the proposed occupier trips presented at **Table 5.1** and the TRICS trip generation presented at **Table 5.2** is provided at **Table 5.3**.

Table 5.3: Net Change between Parcel Distribution Data and Bespoke Data from Occupier

	Trip Generation		
	In	Out	Total
AM	+2	-18	+16
PM	-130	+30	+100

5.8 It can be seen that while there is some difference in the tidality of traffic, overall, the bespoke traffic data gives a more robust assessment than using TRICS data. Therefore, the assessment that has been undertaken is more robust than using TRICS data and there is no justification for any form of restrictive condition.

5.9 A 24hr profile of the proposed occupier trip generation is provided at **Appendix B**. This traffic profile has been agreed with HCC and has been used to inform the noise assessment supporting the development proposals.

Existing Site Trip Generation

5.10 The traffic generation of the proposed redevelopment of the site needs to be considered in the context of the previous and existing use of the site as this would be the redevelopment of an existing employment site.

5.11 This is the same approach as was agreed and used in the Transport Assessment for the consented development on the Velocity element of the site.

5.12 This has been undertaken for two scenarios: -

- Previous Maximum Usage of the Site
- Existing Use of the Site

5.13 Before taking each of these scenarios in turn, the following sets out the trip generation rates that have been calculated for the various uses on the site using the TRICS Database. The use of trip rates extracted from TRICS to understand the trip generation potential of varying land uses is a standard industry practice used and accepted throughout the UK. Indeed, HCC have accepted this approach on other schemes elsewhere within Hampshire. All of the TRICS outputs used to generate the calculated trip rates are provided at **Appendix C**.

5.14 **Table 5.4** below contains the trips rates for the existing land uses on the site which include B1(a) Offices and B1(b) Research and Development, for B1(c) and B2 Industrial and B8 Warehousing:

Table 5.4: Existing Site Use Trip Rates

Land Use	08:00 - 09:00			17:00 -18:00			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
B1(a) Offices and B1(b) Research and Development,	2.44	0.353	2.793	0.277	2.566	2.843	7.557	7.572	15.129
B2 Industrial	0.283	0.073	0.356	0.055	0.251	0.306	1.591	1.676	3.267
B8 Warehousing	0.17	0.11	0.28	0.089	0.187	0.276	1.877	1.83	3.707

Previous Maximum Usage of the Site

5.15 As set out above, the previous maximum usage of the site is believed to have followed the grant of consent for a new Cold Storage unit granted in 2010.

5.16 Using the figures set out above and the trip rates presented in **Table 5.4**, the traffic generation of the previous maximum usage of the site is set out in **Table 5.5**.

Table 5.5: Previous Maximum Usage Site Trip Generation

Land Use	08:00 - 09:00			17:00 -18:00			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
B1(a) Offices and B1(b) Research and Development	248	36	284	28	261	289	767	769	1536
B2 Industrial	49	13	61	9	43	52	273	287	560
B8 Warehousing	19	12	31	10	21	30	207	202	409
Total	***315***	***61***	***376***	***47***	***324***	***372***	***1247***	***1258***	***2505***

5.17 It can be seen from **Table 5.5** that the permitted maximum use of the site is forecast to generate approximately 376 two-way movements in the morning peak period and 372 two-way vehicle movements in the evening peak period. The site is also forecast to generate 2,505 two-way vehicle movements daily.

Previous Site Usage Trip Comparison

5.18 **Table 5.6** below compares the maximum usage of the site to the predicted traffic generation of the site taken from **Table 5.5**:

Table 5.6: Previous Maximum Usage Site Trip Generation Comparison

	08:00 - 09:00			17:00 -18:00			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
Existing Trip Generation	315	61	376	47	324	372	1247	1258	2505
Proposed Trip Generation	122	217	339	217	112	329	1,208	1,208	2,415
Net Change	***-193***	***156***	***-36***	***170***	***-212***	***-42***	***-40***	***-50***	***-90***

5.19 It can be seen that in comparison to the previous maximum usage of the site the proposed development would generate less traffic during both peak hours and across the day.

Existing Site Use

5.20 Using the figures set out above and the trip rates presented in **Table 5.4**, the traffic generation of the existing usage of the site is set out in **Table 5.7**.

Table 5.7: Existing Site Trip Generation

Land Use	08:00 - 09:00			17:00 -18:00			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
B1(a) Offices and B1(b) Research and Development	164	24	188	19	173	192	509	510	1019
B2 Industrial	64	16	80	12	57	69	359	378	736
B8 Warehousing	9	6	15	5	10	14	98	96	194
Total	***237***	***46***	***283***	***36***	***239***	***275***	***966***	***984***	***1950***

5.21 It can be seen from **Table 5.7** that the existing use of the site is forecast to generate approximately 283 two-way movements in the morning peak period and 275 two-way vehicle movements in the evening peak period. The site is also forecast to generate 1,950 two-way vehicle movements daily.

Existing Site Trip Generation Comparison

5.22 **Table 5.8** below compares the existing usage of the site to the predicted traffic generation of the site taken from **Table 5.7**.

Table 5.8: Existing Site Usage Trip Generation Comparison

	08:00 - 09:00			17:00 -18:00			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
Existing Trip Generation	237	46	283	36	239	275	966	984	1950
Proposed Trip Generation	122	217	339	217	112	329	1,208	1,208	2,415
Net Change	***-115***	***171***	***56***	***181***	***-127***	***54***	***242***	***224***	***466***

5.23 In comparison to the existing traffic generation of the site the proposed unit would generate slightly more traffic than the existing uses.

5.24 For assessment purposes, including modelling, the trips generated by the existing use of the site have been considered, but not for the maximum previous use of the site. This is to provide a comparison to the traffic that would be generated by the re-use of the existing buildings on the site.

5.25 As mentioned in **Section 3**, the existing site has been winding down and the level of activity has been reduced. Therefore, there would be no merit in surveying the existing site and the assessment undertaken above serves as the best proximation of the trip generation potential of the existing site if it were to be reused by another occupier in its current form.

6 Traffic Distribution

6.1 Traffic distribution for the proposed development was first established using a population-based gravity model. This traffic distribution was presented within the Transport Assessment (TA) prepared by Vectos (Feb 2021) which is replicated below. These figures were copied over from the distribution spreadsheet which informed the assessment. The table presented in the TA is replicated below in **Table 6.1**.

Table 6.1: Distribution Table Presented in TA

Direction	Percentage Traffic
A27 East	15%
A27 West	41%
A3(M) North (J2)	25%
A3(M) North (J3)	1%
B2177 West	9%
Emsworth Common Road	4%
Hulbert Road beyond A3(M) J3	2%
Langstone Road	2%
Stakes Road	1%
New Lane North	0%
New Lane South	29%
Crossland Drive	1%
Park Road North	70%

6.2 Unfortunately, some of the figures previously quoted had been incorrectly copied over and distribution had been wrongly assigned within the TA. The corrected traffic distribution spread is shown below in **Table 6.2**.

Table 6.2: Corrected Distribution Table

Direction	Percentage Traffic
A27 East	15%
A27 West	41%
A3(M) North (J2)	25%
A3(M) North (J3)	1%
B2177 West	9%
Emsworth Common Road	4%
Hulbert Road beyond A3(M) J3	2%
Langstone Road	2%
Stakes Road	1%
New Lane North	29%
New Lane South	1%
Crossland Drive	70%
Park Road North	56%

6.3 **Table 6.2** shows the true distribution originally assumed for the site using the gravity model prepared by Vectos.

6.4 Further to discussions with HCC it was agreed that the impact on the following junctions should also be included in any assessment:

- Bartons Road/Petersfield Road signal junction;
- New Lane/Bartons Road;
- Bartons Road/Horndean Road staggered crossroads;
- Crossland Drive/New Lane;
- B2149/Crossland Drive;
- B2149/Park Road North roundabout; and
- A27/Langstone Road roundabout.

6.5 The percentage of traffic routing through the junctions listed above using the Vectos distribution is summarised in **Table 6.3** below.

Table 6.3: Operational Vehicular Distribution at HCC requested Junctions

Junctions	Percentage Traffic
Bartons Road / Petersfield Road	25%
New Lane / Bartons Road	29%
Bartons Road / Horndean Road	4%
Crossland Drive / New Lane	71%
B2149 / Crossland Drive	70%
B2149 / Park Road North roundabout	66%
A27 / Langstone Road roundabout	57%

6.6 HCC then requested that consideration is given to the site distribution included in the TA which supported planning application APP/19/00660. It was agreed with HCC that this distribution should be taken forward to assess the traffic impact of the site.

6.7 A gravity model has been created using the traffic distribution proportions extracted from the TA which supported planning application APP/19/00660. Using these proportions, **Table 6.4** shows the percentage impact of the development proposals at the junctions requested by HCC. It should be noted that the distribution requested by HCC does not extend to the A27/Langstone Road roundabout junction. Therefore, in the following tables this junction has not been included.

Table 6.4: Percentage Impact of Proposals using Distribution taken from APP/19/00660

Junction	% Impact
Bartons Road / Petersfield Road	24%
New Lane / Bartons Road	25%
Bartons Road / Horndean Road	7%
Crossland Drive / New Lane	75%
B2149 / Crossland Drive	47%
B2149 / Park Road North roundabout	58%

6.8 **Table 6.5** below shows the net impact of the development proposals assuming the existing site usage.

Table 6.5: Existing Site Usage Net Traffic Impact (APP/19/006600)

Trip Distribution	% Impact	08:00 - 09:00	17:00 - 18:00
Bartons Road / Petersfield Road	24%	11	13
New Lane / Bartons Road	25%	12	14
Bartons Road / Horndean Road	7%	3	4
Crossland Drive / New Lane	75%	34	40
B2149 / Crossland Drive	47%	21	25
B2149 / Park Road North roundabout	58%	27	32

6.9 **Table 6.4** shows that the development proposals will result in a negligible uplift in vehicle movements at the HCC requested junctions near the site.

6.10 The increases in traffic arising from the proposed development at the A27/Langstone Road roundabout junction would be lower than the figures shown above. This junction is also significantly larger than the other junctions and is therefore able to accommodate higher levels of traffic.

6.11 The only increases in traffic above 30 movements are forecast at the Crossland Drive/New Lane and Park Road North junctions. Junction modelling has been undertaken of the Crossland Drive junctions with New Lane and B2149 (refer to **Section 9**).

7 Site Accesses

7.1 The proposed development will provide three separate vehicle access/egress points from New Lane, all in the form of simple priority junctions.

7.2 The southern access is an existing access which would be used by HGVs and by van drivers arriving and leaving the site in their own vehicles and for vans to arrive and leave the site.

7.3 The central access is also an existing access and would be used by staff based on the site.

7.4 The proposed new northern access would be used by van drivers arriving and leaving the site. Entry/exit to the site is controlled by barriers and gatehouses with the barriers set back within the site to avoid any potential for queuing back to the existing public highway.

7.5 The existing and proposed site accesses are shown in the plan provided at **Appendix D**.

7.6 Swept path analysis has been undertaken of the proposed site accesses to ensure that the required vehicles are able to access and exit the site in forward gear. This is provided at **Appendix E** of this report.

Visibility Requirements

7.7 To understand the visibility requirements at the proposed site accesses, speed surveys were undertaken near the end of the design speed visibility splays to understand the 85th percentile speeds at these locations. The speed surveys were undertaken on Wednesday 23rd of June 2021 in line with relevant DfT guidance. The scope of the survey was agreed with HCC highway officers prior to being undertaken.

7.8 The results of the surveys confirmed the following 85th percentile speeds and corresponding stopping site distance (SSD) requirements:

Northern Access:

- **NB 85th%ile** 38.7mph - SSD to the right: 87m
- **SB 85th%ile** 41.6mph - SSD to the left: 78m

Southern Access:

- **NB 85th%ile** 41.1mph - SSD to the right: 76m
- **SB 85th%ile** 38.0mph - SSD to the left: 86m

7.9 Visibility requirements have been calculated according to HCC guidelines. The plan provided at **Appendix D** demonstrates that the required visibility splays can be achieved.

7.10 Modelling of all the site accesses has been undertaken and is presented in **Section 9** of this report. A Road Safety Audit (RSA) will also be undertaken of the proposed site accesses. An initial review has not indicated any safety concerns with the proposed arrangement.

8 Off-Site Works

8.1 A number of off-site works are proposed as part of the development which contribute to an enhanced walking and cycling environment near the site. These improvements are discussed below in detail.

Safety Improvement Works at Crossland Drive

8.2 Discussions have been on going with HCC regarding the need for safety related improvements at the Crossland Drive priority access junction with New Lane. A review of collision data for the most recent 10-year period has revealed that there have been a number of instances where vehicles travelling eastbound on Crossland Drive have collided with cyclists passing the junction on New Lane.

8.3 It has been agreed that the Crossland Drive / New Lane junction would benefit from safety improvement and that any improvements should be simple, proportional and low cost. HCC requested that reference is made to LTN 1/20 guidance on cycle infrastructure design, in considering a potential safety improvement scheme at the Crossland Drive / New Lane priority junction.

8.4 A simple scheme which limited forward visibility for eastbound vehicles was presented to HCC who have agreed to this approach. It was agreed with HCC that planting will be installed along the minor arm of the junction which would reduce excessive visibility splays currently afforded to drivers approaching the junction. This would ensure that vehicles would be forced to approach the junction on New Lane at lower speeds, allowing for more time to see cyclists and pedestrians crossing the junction.

8.5 The proposals also include the widening of the cycle lane across the mouth of the Crossland Drive / New Lane junction from 1.5m to 2.0m. The widened cycle lanes at this location will be suitably tapered either side of the junction back down to 1.5m.

8.6 The proposed arrangement is shown in the plan provided at **Appendix F**.

8.7 In addition, the informal dropped kerbs opposite the Crossland Drive/ New Lane junction, which direct pedestrians to the middle of the carriageway, will also be removed. The remaining dropped kerbs in proximity of the junction will be formalised with tactile paving. This is an additional safety improvement of the pedestrian and cycle environment at this location. These proposed improvements can be viewed at the drawing provided at **Appendix F**.

Planting

8.8 As mentioned above, the agreed approach to limit excess visibility along Crossland Drive is to install planting. The nature of the proposed planting in terms of the species has been discussed with HCC.

8.9 A plan provided at **Appendix F** shows indicatively the type and extent of planting that will be used alongside the overall improvement at the Crossland Drive junction with New Lane mentioned above.

New Crossing Point on New Lane

8.10 During discussions with HCC on the 29th April 2020, it was requested that consideration is given to the possibility of replicating the pedestrian refuge crossing, 200m north of the site, at a location on New Lane to the south of the site. It should be noted that the existing crossing to the north benefits from localised widening which has allowed an island to be installed without compromising the existing lane widths on New Lane. New Lane measures at about 10m in width at the location of the crossing to the north of the site, whilst the remainder of New Lane measures at about 9m in width.

8.11 The drawing provided at **Appendix F**, shows a proposed pedestrian refuge island crossing. The crossing features an island, dropped kerbs and tactile paving. The crossing has been suitably positioned so as to avoid conflict with vehicles leaving and entering driveways to the west of New Lane. Adequate visibility splays have also been confirmed and are illustrated in the drawing provided at **Appendix F**.

8.12 The design incorporates a traffic island of 1.5m width which allows for carriageway widths of 3.85m either side of the island, inclusive of existing cycle lanes. The carriageway widths would allow a car to pass a cyclist as it passes the island, however, a larger vehicle would not be able to do so. This would be clear to drivers as the 1.5m cycle lanes would be continuous passed the island. Swept path analysis has been undertaken which demonstrates that a car is able to travel passed the crossing without encroaching on to the 1.5m cycle lane.

8.13 It is accepted that it would be preferable to provide 3.90m of carriageway either side of the proposed island however this cannot be delivered due to existing widths on New Lane. Providing the extra 50mm required either side of the carriageway would have cost implications that would outweigh the benefit of doing so. An alternative option would be to narrow the refuge island by 100mm so that it is 1.4m wide i.e., 100mm below the desired minimum, but still greater than the absolute minimum of 1.2m

8.14 As with many amendments to existing roads there are compromises that are needed where all current design standards cannot be met. The realistic options are to accept a lower carriageway width or to reduce the width of the refuge island. Our preference is for the former as a carriageway of 3.85m would safely accommodate all traffic and would maintain the width of the refuge island.

New Crossing Point on Crossland Drive

8.15 It is understood from discussions with HCC that local Councillors raised a concern that there is an existing issue with pedestrians travelling northbound on New Lane and informally crossing the Crossland Drive carriageway towards St Albans Road. Pedestrians are making use of the dropped kerb intended for cyclists to leave the carriageway. There is clearly and existing pedestrian desire line which is not being served.

8.16 To address this issue, HCC have requested that the possibility of introducing a crossing point on Crossland Drive to the west of the junction with New Lane is considered.

8.17 The relatively narrow carriageway width on Crossland Drive measures at approximately 6.5m which would make it unsuitable for a pedestrian refuge island crossing. Widening Crossland Drive would

also result in increased vehicle speeds which would not be encouraged. Therefore, a simple uncontrolled crossing is proposed with dropped kerbs and tactile paving.

8.18 The proposed crossing point, which can be viewed at **Appendix F**, will serve an existing desire line between New Lane/ Crossland Drive and St. Albans Road. This is shown both as a technical plan and is then overlaid on a satellite images to show the pedestrian facilities. On the satellite image the existing trees needed to have their crown shown as dashed lines to avoid obscuring some of the new facilities.

8.19 Providing a clear crossing point on a desire line which is perpendicular to the road ensures pedestrians have good visibility of vehicles and likewise vehicles have good visibility of pedestrians. This is an improvement on the existing situation as it provides a clear formal arrangement to enhance pedestrian safety that would be easy and safe to use.

8.20 It is proposed to remove the existing dropped kerb for cyclist on Crossland Drive and allow cyclists to continue through to the junction with New Lane. The benefit of this would be that it would be clear to pedestrians where they should cross on Crossland Drive. Cyclist using the Crossland Drive junction will be able to route north or south on New Lane from Crossland Drive. At present, cyclists have to make use of informal dropped kerbs on New Lane to do so.

8.21 The amendments to the pedestrian routes around the junction would make it safer for pedestrians to cross the road on clear routes with good visibility in both directions.

8.22 Initial advice has been sought from a road safety perspective which has indicated no safety issues. A formal Road Safety Audit (RSA) will be undertaken, and the results shared with HCC.

Bus Improvements

8.23 At pre-application stage HCC requested that consideration be given to the potential to upgrade local bus facilities to improve uptake of sustainable transport to the site.

8.24 The two closest bus stops to the site are the two ‘Flexford Gardens’ stops on St Albans Road. The northbound service is located on a narrow footway where it would be impractical to introduce additional features. During discussions with HCC on the 29th of April 2021, it was agreed that the southbound stop could potentially benefit from a bus shelter and that there was no scope to improve the northbound bus stop. The location of both of bus stops described are shown below in **Figure 8.1**.

Figure 8.1: Bus Stop Locations

8.25 HCC have proposed a figure of £5,500 for a new bus shelter which the applicant is willing to accept.

9 Modelling

9.1 This section of the report provides a breakdown of junction capacity assessments undertaken at the proposed site accesses and two off-site junctions requested by HCC.

Off-site Junctions

9.2 As noted in **Section 6**, the majority of the traffic associated with the site is forecast to route through Crossland Drive which forms junctions with Petersfield Road and New Lane to the east and west respectively. Due to the majority of traffic routing through Crossland Drive, HCC have requested that capacity assessments be undertaken of the junctions at either end of the road.

9.3 HCC have confirmed that they are unable to provide traffic flows for the Crossland Drive/New Lane junction or the Crossland Drive/Petersfield Road signal junction. Therefore, it has been necessary to undertake traffic surveys at these junctions.

9.4 In previous discussions, HCC have confirmed that traffic surveys undertaken are considered to be valid as traffic levels in the local area have been restored to 'normal' conditions at peak times.

9.5 Manual classified turning counts were undertaken of the two named junctions on the 9th of June 2021 between 07:00 – 10:00 and 16:00-19:00. The raw survey data is provided at **Appendix G** of this report.

9.6 As mentioned, the existing site is winding down and there is currently a very low level of activity and very little vehicular traffic being generated. The surveys undertaken will have captured the existing movements through Crossland Drive and as such the proposed assessment is considered robust as no discounting of trips has been implemented.

9.7 HCC requested that modelling be undertaken for a base year and a forecast year of plus 5 years for the junctions at either end of Crossland Drive. Therefore, the following scenarios have been modelled.

- Observed 2021 Base
- 2021 Base + Existing Uses
- 2021 Base + Development
- 2026 Base
- 2026 Base + Existing Uses
- 2026 Base + Development

9.8 The 'Existing Uses' scenario assumes the traffic generated by the site as presented in **Table 5.7** via the existing access arrangement. As mentioned previously, this level of traffic is less than that assumed for the 'maximum site use scenario' which not being considered for modelling purposes.

9.9 The development traffic input in to the model is the agreed proposed traffic distribution set out in **Table 5.1**.

9.10 Modelling for all scenarios has been undertaken during the typical network peak hours of 08:00 – 09:00 in the morning and 17:00 – 18:00 in the evening. However, traffic counts on New Lane have suggested that morning network peak hour is actually 07:30 – 08:30 rather than 08:00 – 09:00. To ensure a robust assessment the morning peak hour between 07:30 – 08:30 has also been considered.

Crossland Drive / New Lane Junction

9.11 The Crossland Drive / New Lane junction has been modelled using the industry standard Junctions 9 PICADY software for priority junctions. The results of this modelling assessment are summarised in **Table 9.1** below. The full modelling output is provided at **Appendix H**.

Table 9.1: Crossland Drive/New Lane Junctions 9 Output Summary

	AM (07:30 - 08:30)			AM (08:00 - 09:00)			PM (17:00 - 18:00)		
	RFC	Delay (s)	Queue Length (pcu)	RFC	Delay (s)	Queue Length (pcu)	RFC	Delay (s)	Queue Length (pcu)
2021 Observed									
Stream B-AC	0.47	10.39	0.90	0.49	11.15	1.00	0.29	9.28	0.40
Stream C-AB	0.22	7.09	0.30	0.26	7.43	0.40	0.73	20.32	2.90
2021 Observed + Existing Use									
Stream B-AC	0.82	30.80	4.10	0.84	35.70	4.70	0.40	12.60	0.70
Stream C-AB	0.26	7.30	0.40	0.30	7.70	0.50	**0.97**	86.00	14.60
2021 Observed + Proposed Development									
Stream B-AC	0.69	19.30	2.20	0.70	20.80	2.30	0.69	25.90	2.20
Stream C-AB	0.37	9.00	0.70	0.44	10.20	0.90	0.84	31.90	5.20
2026 Base									
Stream B-AC	0.50	11.20	1.00	0.52	12.11	1.10	0.32	9.86	0.50
Stream C-AB	0.24	7.23	0.40	0.28	7.62	0.50	0.79	25.93	3.90
2026 Base + Existing Use									
Stream B-AC	**0.85**	38.06	5.20	0.88	45.82	6.30	0.44	14.07	0.80
Stream C-AB	0.28	7.45	0.50	0.33	7.90	0.60	**1.04**	135.96	25.40
2026 Base + Proposed Development									
Stream B-AC	0.73	22.30	2.70	0.75	24.50	2.80	0.74	31.50	2.70
Stream C-AB	0.39	9.30	0.70	0.47	10.60	1.00	**0.90**	47.20	8.0

9.12 The modelling outputs presented in **Table 9.1** above show that the proposed development will only have an impact on the Crossland Drive junction with New Lane in the evening peak period in the 2026 + development scenario. The junction is only slightly above a theoretical capacity of 0.85 and is comfortably below actual capacity. The impact of the development proposals is not considered to be significant, and it should be emphasised that this only takes place at one hour throughout the day in 5 years' time.

9.13 **Table 9.1** also shows that the existing use of the site would have a much more significant impact on the operation of the Crossland Drive / New Lane junction during both peak periods. In the 2021 scenario the existing site traffic generates an RFC value of 0.84 which indicates the junction is approaching a theoretical capacity of 0.85. Similarly, in the evening period an RFC value of 0.97 is observed which indicates that the junction will be massively over capacity with significant delays for right turners.

9.14 In 2026 the impact of the existing site trip generation worsens, and the junction is above theoretical capacity in the morning peak and above actual capacity in the evening peak.

9.15 Therefore, the modelling exercise has concluded that the development proposals are a considerable improvement in junction capacity terms on the Crossland Drive / New Lane junction in comparison to the existing uses on the site.

9.16 The only turning movement which is impacted by development traffic is the southbound right turners onto Crossland Drive. The only way to increase capacity at this junction would be to introduce a right turn lane on New Lane. There is simply not enough available width to accommodate a right turn on New Lane. In addition, New Lane has cycle lanes across its length which are proposed to be extended in width as part of the development proposals particularly along the mouth of the junction.

9.17 The introduction of a right turn lane would further prejudice the proposed safety improvement works at the junction as it would encourage speeds on New Lane and compromise the safety of cyclists. It would mean that the proposed safety improvements at the junction are not achievable. Given that this is an improvement on the situation if the existing site where to be reused it is not considered necessary to introduce a right turn lane when there would be a reduced impact and where this is not compatible with proposed safety improvements.

9.18 HCC have agreed with this position and do not believe that it would be appropriate to introduce a right turn lane given the impact of the development compared to the existing site use and the proposed safety improvements which are to be secured.

Crossland Drive/Petersfield Road Signal Junction

9.19 The Crossland Drive / Petersfield Road signal junction has been modelled using the industry standard LINSIG software for signal junctions. The results of this modelling assessment are summarised in Table 9.2 below. The full modelling output is provided at **Appendix H**.

Table 9.2: Crossland Drive/Petersfield Road Signal Junction LINSIG Output Summary

	AM Peak (0730-0830)		AM Peak (0800-0900)		PM Peak (1700-1800)	
Lane	Degree of Saturation (%)	Queue Length (pcu)	Degree of Saturation (%)	Queue Length (pcu)	Degree of Saturation (%)	Queue Length (pcu)
2021 Observed						
B2149 (North) - Lane 1	39.7	3.2	47	24.2	3.8	54.3
B2149 (North) - Lane 2	43.8	4.1	51.2	24.2	4.8	58
Crossland Drive	42.8	2.6	49.5	15.1	3.1	57.3
B2149 (South) - Lane 1	19.3	1.6	26.3	6.4	2.5	39.6
B2149 (South) - Lanes 2/3	44.3	3.7	50.3	25.2	4	57.4
2021 Observed + Existing Use						
B2149 (North) - Lane 1	52	3.9	54	26.8	4.4	63.9
B2149 (North) - Lane 2	56.9	5	58.5	26.8	5.5	67.2
Crossland Drive	48.7	2.7	61.8	18	3.6	67.2
B2149 (South) - Lane 1	18.9	1.5	23.8	4.6	2	43.6
B2149 (South) - Lanes 2/3	56.3	5.7	60	22.3	5.9	68.2
2021 Observed + Development						
B2149 (North) - Lane 1	50.4	3.8	55.8	28.3	4.4	62.1
B2149 (North) - Lane 2	55	4.8	60.1	28.4	5.3	65.6
Crossland Drive	54.4	3.7	63.8	15.7	5.1	67
B2149 (South) - Lane 1	20.3	1.8	27	6.9	2.6	36.3
B2149 (South) - Lanes 2/3	55.6	5.2	61.3	26.7	5.4	65.9
2026 Base						
B2149 (North) - Lane 1	42.8	3.6	50.6	24.8	4.2	58.1
B2149 (North) - Lane 2	46.6	4.4	54.6	24.8	5.1	61.8
Crossland Drive	45.8	2.9	52.9	15.5	3.4	61.1
B2149 (South) - Lane 1	20.7	1.7	28.1	6.5	2.7	42.3
B2149 (South) - Lanes 2/3	47.3	4.1	53.7	25.9	4.3	61.3
2026 Base + Existing Use						
B2149 (North) - Lane 1	55.6	4.3	58	27.7	4.8	68.3
B2149 (North) - Lane 2	60.3	5.3	61.9	27.7	5.8	71.6
Crossland Drive	51.7	3	63.1	17.8	4	72.4
B2149 (South) - Lane 1	20.2	1.6	26.1	5.1	2.4	45
B2149 (South) - Lanes 2/3	58.8	6.1	65.6	24.8	6.6	66.8
2026 Base + Development						
B2149 (North) - Lane 1	54	4.2	60	29.5	4.8	66.2
B2149 (North) - Lane 2	58.4	5.1	63.7	29.4	5.8	69.7
Crossland Drive	57.1	4.1	67.1	16.3	5.6	71.2
B2149 (South) - Lane 1	21.7	1.9	28.8	7	2.8	38.8
B2149 (South) - Lanes 2/3	58.5	5.6	64.5	27.7	5.8	68.9

9.20 The results presented in **Table 9.2** clearly show that the Crossland Drive/Petersfield Road Signal Junction will operate well within its theoretical capacity in all modelled scenarios.

9.21 There is no impact at the Crossland Drive/Petersfield Road junction arising from the proposed redevelopment of the site.

Site Accesses

9.22 The proposed accesses that will serve the site have been modelled to using the Junctions 9 PICADY software for standard priority junctions. The split of traffic across the three site access junctions is set out in **Section 7** of this report which also sets out the access visibility requirements. The distribution and direction of travel in and out of each respective access has been taken from the agreed site distribution presented in **Table 6.4**.

9.23 The modelling results of the site accesses are summarised below in **Table 9.3**. The full modelling output is provided at **Appendix H**.

Table 9.3: Junctions 9 PICADY Site Access Modelling Results

	AM Peak (0730-0830)			AM Peak (0800-0900)			PM Peak Hour		
2021 + Development									
Lane	**RFC**	**Average Delay (s/pcu)**	**Queue Length (pcu)**	**RFC**	**Average Delay (s/pcu)**	**Queue Length (pcu)**	**RFC**	**Average Delay (s/pcu)**	**Queue Length (pcu)**
North Access Exit	0.18	7.64	0.20	0.21	8.04	0.30	0.00	0.00	0.00
N/B ahead + right turn into site	0.00	0.00	0.00	0.00	0.00	0.00	0.18	6.31	0.40
Central Access Exit	0.00	0.00	0.00	0.00	0.00	0.00	0.12	8.28	0.10
N/B ahead + right turn into site	0.26	6.02	0.60	0.23	5.87	0.50	0.00	0.00	0.00
South Access Exit	0.20	8.99	0.20	0.24	9.58	0.30	0.00	0.00	0.00
N/B ahead + right turn into site	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2026 + Development									
Lane	**RFC**	**Average Delay (s/pcu)**	**Queue Length (pcu)**	**RFC**	**Average Delay (s/pcu)**	**Queue Length (pcu)**	**RFC**	**Average Delay (s/pcu)**	**Queue Length (pcu)**
North Access Exit	0.18	7.74	0.20	0.21	8.16	0.30	0.00	0.00	0.00
N/B ahead + right turn into site	0.00	0.00	0.00	0.00	0.00	0.00	0.19	6.31	0.40
Central Access Exit	0.00	0.00	0.00	0.00	0.00	0.00	0.12	8.51	0.10
N/B ahead + right turn into site	0.27	5.98	0.60	0.24	5.82	0.50	0.00	0.00	0.00
South Access Exit	0.20	9.10	0.30	0.24	9.71	0.30	0.00	0.00	0.00
N/B ahead + right turn into site	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

9.24 It can be seen that all site accesses will operate without any capacity issues up to a future year of 2026.

10 Travel Plan and Management Plans

Framework Travel Plan

10.1 A Framework Travel Plan (FTP) was submitted to HCC alongside the TA which accompanied the submission of the formal planning application in February 2021.

10.2 HCC provided separate comments on the draft Travel Plan on 29th March. These have been considered and an amended Travel Plan has been prepared. The amended Travel Plan is provided at contained **Appendix I**.

10.3 The Travel Plan remains as a Draft or Framework Travel Plan which will be finalised once an occupier for the site is known. The final Travel Plan being submitted for approval prior to first occupation which can be the subject of a condition as part of an planning consent granted.

10.4 Within the draft Travel Plan a commitment is made to this, alongside commitments to agreeing a Bond for the Travel Plan and agreeing to the evaluation and monitoring contributions that HCC are seeking.

Management Plans

Operational Management Plan

10.5 An Operational Management Plan will be prepared for the proposed redevelopment of the site with the objective of providing certainty on the future operation of the site and how it will be managed. It will include the following sections:

- Planning Context - this section will detail the planning consent and the proposed operation of the site which will be consistent with both the submitted Transport Assessment and Supplementary Transport Assessment.

- Traffic Generation - this section will detail the proposed traffic generation of the site including the use of the proposed accesses. The agreed proposed traffic generation of the site is set out in this report at **Table 5.1** and the daily site traffic profile is provided at **Appendix B**.

- Traffic Distribution - this section will detail the routing for all traffic to/from the site. This will state all traffic will use Crossland Drive with the exception of employees arriving/leaving from nearby areas of Havant or parcels being delivered to local Havant residents north and south of the site. The agreed site distribution is provided within this report at **Table 6.4**.

10.6 The overall purpose of this document being to detail the operation of the site to ensure it is consistent with the submitted assessments. It is proposed that an OMP would be prepared by any occupier coming to the site or would be amended if there is a significant change in operations.

10.7 It is anticipated that any planning consent granted will include a condition requiring the submission of this documents for approval prior to occupation of the proposed development and then the implementation of the approved plan.

Car Park Management Plan

10.8 The purpose of a Car Park Management Plan is to ensure clarity on how all staff and operational parking on the site will be managed. It will include the following sections:

- Car Park Layout - Parking Provision, Car Park Circulation, Car Drop Off/Pick Up, Electric Car Charging and Cycle Parking
- Staff Working Patterns - Physical Car Parking Controls, Access Road Control and Signage
- Car Park Management – Overview, Car Parking Allocation, Information to Employees, Day to Day Management, Vehicle Arrivals, Vehicle Parking, Monitoring, Demand Management, Car Share System and Monitoring, Electric Car Charge System, Visual Security, Mitigation Measures, Signage and Information

10.9 Again, it is anticipated that any planning consent granted will include a condition requiring the submission of this document for approval prior to occupation of the proposed development and then the implementation of the approved plan.

Delivery and Servicing Management Plan

10.10 The purpose of a Delivery and Servicing Management Plan is to ensure clarity on how all servicing by HGV to/from a site will be managed. It will include the following sections:

- The Servicing Arrangements – Layout and Management
- Key Features - Servicing and Deliveries, Vehicle Routing On-site Facilities for Drivers, Reducing HGV Movements, Vehicles and Drivers Used and Refuse Collection
- Monitoring and Review

10.11 Again, it is anticipated that any planning consent granted will include a condition requiring the submission of this documents for approval prior to occupation of the proposed development and then the implementation of the approved plan.

10.12 The preparation of an Operational Management Plan, a Car Park Management Plan and a Delivery and Servicing Management Plan will give certainty on how the site will be operated and how this will be managed.

Construction Management Plan

10.13 A Construction Management Plan (CMP) has been prepared to which sets out how all construction activities including traffic movements to/from the site will be managed.

10.14 All construction traffic will use Crossland Drive to travel/from the site.

10.15 The Construction Management Plan was originally submitted in June 2021 and was subsequently updated to reflect comments received from consultees. The updated CMP has been submitted and is to be controlled via a planning condition.

Section Summary

10.16 The additional documents set out in this section will provide certainty on how the site will be operated and how this will be managed.

11 Stakeholder Comments

11.1 A number of comments have been raised by other stakeholders reviewing the submitted planning application and the key ones are considered below:

Traffic Generation

11.2 The traffic generation of the proposed development was set out in the Transport Assessment submitted in support of the planning application and have been refined following discussions with HCC.

11.3 As an overview the level of future traffic is not significantly different to the traffic that was associated with the previous uses of the site. This is the redevelopment of an existing employment site.

Traffic to the North and South

11.4 The majority of traffic to/from the site would use Crossland Drive to reach Parkway and then onto other parts of Havant and to the A27. All HGVs would use this route which is the signed route for HGVs to the whole employment area.

11.5 Traffic using New Lane to both the north and south would only be employees travelling to work on the site and deliveries by vans to residents who live in these areas.

Pedestrians Facilities and Walk to School Routes

11.6 Various suggestions have been made with regard to pedestrian routes in the area. As has been discussed above, where appropriate these have been considered in detail to ensure that the traffic associated with the proposed development does not have a detrimental impact on pedestrians, including children either walking or being walked to school.

11.7 To the north of the site there is an existing pedestrian splitter island, and this is used by children walking from Denvilles to St Alban's Primary School. The route being taken to the site being to cross the railway line, walk along Stanbridge Road on the footways, walk to the splitter island along the footway on the eastern side of New Lane and then to use the footpath to Littlegreen Avenue and onto the school. This provides a clear and safe route for pupils walking to school either alone or escorted.

11.8 As set out above, there will be some traffic associated with the proposed redevelopment of the site using New Lane, but this will be limited and will not be any higher than the previous uses of the site.

11.9 As it had been raised by stakeholders discussions were held with HCC about whether this crossing needed to be a formal controlled pelican crossing, but HCC did not believe this was needed in the context of pedestrian movements, traffic volumes and traffic speeds on New Lane.

11.10 As set out earlier in this report we have looked at the pedestrian crossing facilities on both Crossland Drive and New Lane around the junction between these two roads to ensure they are improved. We have suggested a number of measures that would be undertaken in association with the proposed development to improve pedestrian facilities in this area

11.11 Stakeholders had raised the potential of a spitter island on Crossland Drive, but this is not considered to be appropriate as while it would mean pedestrians could cross the road in two movements installing a splitter island would mean the carriageway would need to be widened due the relatively narrow existing carriageway and this would lead to higher vehicle speeds making it harder to cross the road. To improve safety for pedestrians it is proposed to provide a clear crossing point on the identified desire line, including for school children.

11.12 On New Lane there are currently a number of pedestrian routes which are confusing. It is proposed that some of these are removed (including the one that direct pedestrians into the middle of the junction) and clear facilities are provided on either side of the junction.

11.13 To the south of the site on New Lane where the footway ends on the eastern side of the road it is proposed to install a splitter island to assist pedestrian crossing the road. This is as detailed above. The proposed island would reduce the width of the carriageway thereby reducing vehicle speeds and making it safer and easier to cross the road.

11.14 There are a number of improvements proposed on the roads closest to the site to ensure that pedestrians can safely cross the roads, including school children on the way to school.

12 Summary and Conclusions

12.1 Vectos has been retained by Kingsbridge Estates to provide highways and transport advice in relation to the re-development of a former Pfizer Site at New Lane, Havant.

12.2 The site is located within an existing employment area near an existing industrial estate and is currently occupied by a cold chain packaging, storage, and distribution facility.

12.3 A planning application was submitted at the site in February 2021, under planning reference APP/21/00200 for a 'last mile' distribution centre, where parcels are delivered via small vans to customers in the local area.

12.4 The application was supported by a Transport Assessment (TA) and Travel Plan (TP) prepared by Vectos (Feb 2021).

12.5 Since the submission of the planning application at the site, discussions have been on-going with Hampshire County Council (HCC) regarding transport matters.

12.6 This report has been prepared as a supplementary TA which sets out the current position from a transport perspective and the significant additional work undertaken since the submission of the full planning application in the light of comments made by Hampshire County Council (HCC) and by local stakeholders.

12.7 The site has a complex planning history having been redeveloped over a number of years. The existing site was most recently operated by Pfizer who are winding down operation at the site which has resulted in a significant drop off in vehicular activity.

12.8 The agreed trip generation shows the site will have a small uplift in vehicle movements compared to the 'existing use' of the site (i.e. the re-use of the existing buildings on the site).

12.9 The proposed traffic distribution of the site has been agreed with HCC. The majority of site traffic will route through Crossland Drive as it provides the most direct access to the strategic road network and is the signed route to the employment area for all vehicles including HGVs.

12.10 The only vehicles using New Lane will be staff who live in Havant travelling to/from work and vans making deliveries to residents who live in these areas. All HGVs will use Crossland Drive to travel to/from the site.

12.11 The site will be served by three points of vehicular access of which one is a new access The appropriate visibility splays can be achieved at all of the accesses in accordance with national and local design standards as shown by recent surveys speeds on New Lane. Modelling of the site accesses show that each of them can safely accommodate future traffic levels.

12.12 Several off-site improvements to the local highway network close to the site are proposed which include:

- A safety Improvement scheme at the Crossland Drive junction with New Lane to address an existing issue of collisions with cyclists.
- A brand-new crossing point to the south of New Lane which allows pedestrians to safely cross the carriageway.
- A brand-new crossing on Crossland Drive that will serve an existing desire line between New Lane and St Albans Road.
- Upgrade of bus shelter near the site to increase the uptake in sustainable travel

12.13 These improvements will improve safety for pedestrians and cyclists and will provide a wider benefit.

12.14 Capacity assessments have been undertaken of the Crossland Drive junctions with New Lane and Petersfield Road. The results show that these junctions can safely accommodate future traffic levels.

12.15 An updated Travel Plan has been submitted which includes the sustainable measures to be implemented at the site and the proposed Travel Plan bond amount. The Travel Plan is a framework, and a full Travel Plan will be prepared when an end user is identified.

12.16 An Operational Management Plan, a Car Park Management Plan and a Delivery and Servicing Management Plan will be prepared to control the operation of the site.

12.17 A Construction Management Plan will be prepared to control construction traffic to/from the site.

12.18 Local stakeholders have commented on the submitted planning application. In response, it has been confirmed that the development proposals will generate a similar level of traffic to the existing site and that most traffic will use Crossland Drive. The only traffic using New Lane will be staff living in the local area and deliveries being made to homes in these areas.

vectos.

Appendix A

BREEAM Accessibility Index Calculation

BREEAM 2018 Tra01/02 Accessibility Index calculator

BREEAM® UK delivered by bre

Using the drop down boxes make the relevant selections and press the 'Select' button

Building type: Offices/Industrial

No. nodes required: 3

Select

NODE 1

Public transport type	Bus
Distance to node (m)	150

	Service 1	Service 2	Service 3	Service 4	Service 5	Service 6	Service 7	Service 8	Service 9	Service 10
Average frequency per hour	1.9	1.9	0.09							

NODE 2

Public transport type	Bus
Distance to node (m)	550

	Service 1	Service 2	Service 3	Service 4	Service 5	Service 6	Service 7	Service 8	Service 9	Service 10
Average frequency per hour	3.1	0.09								

NODE 3

Public transport type	Rail
Distance to node (m)	1000

	Service 1	Service 2	Service 3	Service 4	Service 5	Service 6	Service 7	Service 8	Service 9	Service 10
Average frequency per hour	2.1	2.6	2	2.4	1	5.5	1.9			

Accessibility Index	7.96

vectos.

Appendix B

Proposed Occupier Traffic Data

Vehicle Movements Per Hour																								
	6	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**0**	**1**	**2**	**3**	**4**	**5**
Total	***206***	***303***	***339***	***96***	***41***	***81***	***45***	***45***	***88***	***43***	***166***	***329***	***252***	***71***	***50***	***60***	***141***	***9***	***8***	***8***	***8***	***8***	***8***	***8***
Arriving	89	158	122	1	40	23	23	23	39	10	158	217	94	0	50	12	121	4	4	4	4	4	4	4
Departing	117	145	217	95	1	58	23	23	50	34	8	112	157	71	0	49	20	5	4	4	4	4	4	4

vectos.

Appendix C

TRICS Output

Calculation Reference: AUDIT-152302-201005-1005

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : G - PARCEL DISTRIBUTION CENTRES
TOTAL VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	SO	SLOUGH	1 days
04	**EAST ANGLIA**		
	NF	NORFOLK	1 days
05	**EAST MIDLANDS**		
	LN	LINCOLNSHIRE	1 days
	NT	NOTTINGHAMSHIRE	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	RI	EAST RIDING OF YORKSHIRE	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 1496 to 15583 (units: sqm)
Range Selected by User: 763 to 24154 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/12 to 28/06/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	1 days
Wednesday	1 days
Thursday	1 days
Friday	1 days

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

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	1
Edge of Town	3
Free Standing (PPS6 Out of Town)	1

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

Selected Location Sub Categories:

Industrial Zone	1
Commercial Zone	3
Development Zone	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

B8	5 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Use Class Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	1 days
10,001 to 15,000	1 days
25,001 to 50,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	1 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
1.1 to 1.5	2 days
1.6 to 2.0	2 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	1 days
No	4 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	5 days

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

LIST OF SITES relevant to selection parameters

1 **LN-02-G-01** **PARCELFORCE WORLDWIDE** **LINCOLNSHIRE**
WHISBY WAY
LINCOLN
BIRCHWOOD
Edge of Town
Industrial Zone
Total Gross floor area: 1496 sqm
Survey date: FRIDAY *28/06/19* *Survey Type: MANUAL*

2 **NF-02-G-01** **PARCELFORCE** **NORFOLK**
BARKER STREET
NORWICH

Edge of Town Centre
Commercial Zone
Total Gross floor area: 1600 sqm
Survey date: THURSDAY *25/10/12* *Survey Type: MANUAL*

3 **NT-02-G-02** **CITY LINK** **NOTTINGHAMSHIRE**
MILLENIUM WAY
NOTTINGHAM
PHOENIX CENTRE
Edge of Town
Commercial Zone
Total Gross floor area: 3000 sqm
Survey date: MONDAY *17/06/13* *Survey Type: MANUAL*

4 **RI-02-G-01** **UK MAIL** **EAST RIDING OF YORKSHIRE**
YORK ROAD
NEAR POCKLINGTON
ALLERTHORPE BUS. PARK
Free Standing (PPS6 Out of Town)
Commercial Zone
Total Gross floor area: 2700 sqm
Survey date: WEDNESDAY *19/12/12* *Survey Type: MANUAL*

5 **SO-02-G-01** **DHL** **SLOUGH**
HORTON ROAD
SLOUGH
COLNBROOK
Edge of Town
Development Zone
Total Gross floor area: 15583 sqm
Survey date: TUESDAY *06/03/18* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 02 - EMPLOYMENT/G - PARCEL DISTRIBUTION CENTRES

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	1	15583	0.090	1	15583	0.109	1	15583	0.199
01:00 - 02:00	1	15583	0.173	1	15583	0.090	1	15583	0.263
02:00 - 03:00	1	15583	0.199	1	15583	0.160	1	15583	0.359
03:00 - 04:00	1	15583	0.231	1	15583	0.186	1	15583	0.417
04:00 - 05:00	1	15583	0.237	1	15583	0.244	1	15583	0.481
05:00 - 06:00	3	6593	0.576	3	6593	0.182	3	6593	0.758
06:00 - 07:00	4	5345	0.655	4	5345	0.533	4	5345	1.188
07:00 - 08:00	5	4876	0.607	5	4876	0.537	5	4876	1.144
08:00 - 09:00	**5**	**4876**	**0.796**	5	4876	0.484	5	4876	1.280
09:00 - 10:00	5	4876	0.464	5	4876	0.340	5	4876	0.804
10:00 - 11:00	5	4876	0.299	5	4876	0.291	5	4876	0.590
11:00 - 12:00	5	4876	0.336	5	4876	0.336	5	4876	0.672
12:00 - 13:00	5	4876	0.267	5	4876	0.361	5	4876	0.628
13:00 - 14:00	5	4876	0.373	5	4876	0.365	5	4876	0.738
14:00 - 15:00	5	4876	0.340	5	4876	0.390	5	4876	0.730
15:00 - 16:00	5	4876	0.361	5	4876	0.418	5	4876	0.779
16:00 - 17:00	5	4876	0.529	5	4876	0.718	5	4876	1.247
17:00 - 18:00	5	4876	0.562	**5**	**4876**	**0.911**	**5**	**4876**	**1.473**
18:00 - 19:00	5	4876	0.472	5	4876	0.636	5	4876	1.108
19:00 - 20:00	5	4876	0.476	5	4876	0.402	5	4876	0.878
20:00 - 21:00	5	4876	0.254	5	4876	0.345	5	4876	0.599
21:00 - 22:00	3	7094	0.136	3	7094	0.268	3	7094	0.404
22:00 - 23:00	1	15583	0.237	1	15583	0.295	1	15583	0.532
23:00 - 24:00	1	15583	0.160	1	15583	0.225	1	15583	0.385
Total Rates:			8.830			8.826			17.656

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

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

Parameter summary

Trip rate parameter range selected:	1496 - 15583 (units: sqm)
Survey date date range:	01/01/12 - 28/06/19
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRICS 7.7.1
Trip Rate P Gross floor area

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use 02 - EMPLOYMENT
Category C - INDUSTRIAL UNIT
VEHICLES

Selected regions and areas:

2	SOUTH EAST		
	HC	HAMPSHIF	1 days
	RE	READING	1 days
3	SOUTH WEST		
	BR	BRISTOL CI	1 days
	DV	DEVON	2 days
4	EAST ANGLIA		
	SF	SUFFOLK	1 days
5	EAST MIDLANDS		
	DS	DERBYSHIF	1 days
6	WEST MIDLANDS		
	HE	HEREFORD	1 days
	WM	WEST MID	2 days
8	NORTH WEST		
	CH	CHESHIRE	1 days
	LC	LANCASHII	3 days
9	NORTH		
	TW	TYNE & WI	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.
Parameter Gross floor area
Actual Ran 150 to 20000 (units: sqm)
Range Sele 150 to 80000 (units: sqm)

Public Transport Provision:
Selection t Include all surveys

Date Rang 01/01/12 to 24/09/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.
Selected survey days:
Tuesday 6 days
Wednesda 1 days
Thursday 7 days
Friday 1 days
This data displays the number of selected surveys by day of the week.

Selected survey types:
Manual co 15 days
Directiona 0 days
This data c the total a whilst ATC surveys are undertaking using machines.

Selected Locations:
Town Cent 0
Edge of To 1
Suburban 5
Edge of To 9
Neighbour 0
Free Stand 0
Not Know 0
This data c Edge of Tc Suburban Neighbou Edge of Tc Town Centre and Not Known.

Selected Location Sub Categories:
Industrial Z 14
Commerci 1
Developm 0
Residentia 0
Retail Zon 0
Built-Up Zc 0
Village 0
Out of Tow 0
High Stree 0
No Sub Ca 0
This data c Industrial Developm Residentia Retail Zon Built-Up Z Village Out of To High Street and No Sub Category.

Secondary Filtering selection:

Use Class:
B1 9 days
B2 6 days
This data c which can be found within the Library module of TRICS®.

Population within 1 mile:
1,001 to 5 1 days
5,001 to 1 1 days
10,001 to 5 days
15,001 to 2 days
20,001 to 2 days
25,001 to 4 days
This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:
50,001 to 1 days
75,001 to 1 days
100,001 to 1 days
125,001 to 8 days
250,001 to 4 days
This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:
0.5 or Less 1 days
0.6 to 1.0 4 days
1.1 to 1.5 10 days
This data c within a radius of 5-miles of selected survey sites.

Travel Plan:
No 15 days
This data c and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:
No PTAL P 15 days
This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters
1 BR-02-C-0: STAINLESS BRISTOL CITY
SOUTH LIBERTY LANE

BRISTOL
Edge of Town
Industrial Zone
Total Gross floor area: 1475 sqm
Survey dat TUESDAY ######## Survey Typ MANUAL
2 CH-02-C-0: INDUSTRIA CHESHIRE
JUPITER DRIVE
CHESTER W. EMP. PARK
CHESTER
Edge of Town
Industrial Zone
Total Gross floor area: 8100 sqm
Survey dat WEDNESD ######## Survey Typ MANUAL
3 DS-02-C-0: ENGINEERI DERBYSHIRE
PONTEFRACT STREET

DERBY
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 2600 sqm
Survey dat THURSDAY ######## Survey Typ MANUAL
4 DV-02-C-0: TUBE MAN DEVON
PLYMBRIDGE ROAD
ESTOVER
PLYMOUTH
Edge of Town
Industrial Zone
Total Gross floor area: 20000 sqm
Survey dat TUESDAY ######## Survey Typ MANUAL
5 DV-02-C-0: ENERGY RE DEVON
GRACE ROAD SOUTH
MARSH BARTON TRAD. EST.
EXETER
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 3513 sqm
Survey dat THURSDAY ######## Survey Typ MANUAL
6 HC-02-C-0: ENGINEERI HAMPSHIRE
JAYS CLOSE

BASINGSTOKE
Edge of Town
Industrial Zone
Total Gross floor area: 3000 sqm
Survey dat THURSDAY ######## Survey Typ MANUAL
7 HE-02-C-0: THERMAL HEREFORDSHIRE
COLLEGE ROAD
BURCOTT
HEREFORD
Edge of Town
Commercial Zone
Total Gross floor area: 1880 sqm

Survey dat TUESDAY ######## Survey Typ MANUAL

8 LC-02-C-02 RECYCLING LANCASHIRE
ESSEX STREET
RED SCAR IND ESTATE
PRESTON
Edge of Town Centre
Industrial Zone
Total Gross floor area: 8000 sqm
Survey dat THURSDAY ######## Survey Typ MANUAL

9 LC-02-C-03 TIMBER SU LANCASHIRE
GOLDEN HILL LANE

LEYLAND
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 150 sqm
Survey dat TUESDAY ######## Survey Typ MANUAL

10 LC-02-C-04 POWDER C LANCASHIRE
CHORLEY ROAD
LITTLE CARLETON
BLACKPOOL
Edge of Town
Industrial Zone
Total Gross floor area: 1010 sqm
Survey dat THURSDAY ######## Survey Typ MANUAL

11 RE-02-C-01 SHEET ME READING
COMMERCIAL ROAD

READING
Edge of Town
Industrial Zone
Total Gross floor area: 645 sqm
Survey dat THURSDAY ######## Survey Typ MANUAL

12 SF-02-C-01 JOINERY SUFFOLK
ANSON ROAD
MARTLESHAM HEATH
IPSWICH
Edge of Town
Industrial Zone
Total Gross floor area: 1100 sqm
Survey dat FRIDAY ######## Survey Typ MANUAL

13 TW-02-C-0 INDUSTRIA TYNE & WEAR
SHAFTESBURY AVENUE
TYNE POINT IND. ESTATE
JARROW
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 950 sqm
Survey dat THURSDAY ######## Survey Typ MANUAL

14 WM-02-C-(INDUSTRIA WEST MIDLANDS
DOWNING STREET

SMETHWICK
Edge of Town
Industrial Zone
Total Gross floor area: 5070 sqm
Survey dat TUESDAY ######## Survey Typ MANUAL

15 WM-02-C-(FOUNDRY WEST MIDLANDS
STOURVALE ROAD
LYE
STOURBRIDGE
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 4324 sqm
Survey dat TUESDAY ######## Survey Typ MANUAL

This sectio it displays the select the day of and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
Calculation Factor: 100 sqm
Count Type: VEHICLES

	ARRIVALS			DEPARTURES			TOTALS		
	No.	Ave.	Trip	No.	Ave.	Trip	No.	Ave.	Trip
Time Rang	Days	GFA	Rate	Days	GFA	Rate	Days	GFA	Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:(	15	4121	0.239	15	4121	0.044	15	4121	0.283
08:00-09:(	15	4121	0.283	15	4121	0.073	15	4121	0.356
09:00-10:(	15	4121	0.194	15	4121	0.116	15	4121	0.31
10:00-11:(	15	4121	0.12	15	4121	0.094	15	4121	0.214
11:00-12:(	15	4121	0.091	15	4121	0.095	15	4121	0.186
12:00-13:(	15	4121	0.129	15	4121	0.139	15	4121	0.268
13:00-14:(	15	4121	0.214	15	4121	0.152	15	4121	0.366
14:00-15:(	15	4121	0.112	15	4121	0.199	15	4121	0.311
15:00-16:(	15	4121	0.087	15	4121	0.154	15	4121	0.241
16:00-17:(	15	4121	0.055	15	4121	0.251	15	4121	0.306
17:00-18:(	15	4121	0.049	15	4121	0.231	15	4121	0.28
18:00-19:(	15	4121	0.018	15	4121	0.128	15	4121	0.146
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			1.591			1.676			3.267

Parameter summary

Trip rate p 150 - 20000 (units: sqm)
Survey dat 01/01/12 - 24/09/19
Number of 15
Number of 0
Number of 0
Surveys au 0
Surveys ma 0
This sectio followed b the total r the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRICS 7.7.1
Trip Rate F Gross floor area

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use 02 - EMPLOYMENT
Category F - WAREHOUSING (COMMERCIAL)
VEHICLES

Selected regions and areas:

2	SOUTH EAST		
	EX	ESSEX	1 days
	HC	HAMPSHIF	1 days
	KC	KENT	1 days
3	SOUTH WEST		
	DV	DEVON	1 days
4	EAST ANGLIA		
	SF	SUFFOLK	2 days
6	WEST MIDLANDS		
	WM	WEST MID	1 days
7	YORKSHIRE & NORTH LINCOLNSHIRE		
	WY	WEST YOR	2 days
9	NORTH		
	CB	CUMBRIA	1 days
	TW	TYNE & W	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.
Parameter Gross floor area
Actual Rar 190 to 31000 (units: sqm)
Range Sele 190 to 80066 (units: sqm)

Public Transport Provision:
Selection I Include all surveys

Date Rang 01/01/12 to 03/04/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.
Selected survey days:
Monday 2 days
Tuesday 1 days
Thursday 3 days
Friday 5 days
This data displays the number of selected surveys by day of the week.

Selected survey types:
Manual co 11 days
Directiona 0 days
This data c the total a whilst ATC surveys are undertaking using machines.

Selected Locations:
Town Cent 0
Edge of To 1
Suburban 2
Edge of To 8
Neighbour 0
Free Stanc 0
Not Know 0
This data c Edge of Tc Suburban Neighbou Edge of Tc Town Centre and Not Known.

Selected Location Sub Categories:
Industrial 8
Commerci 2
Developm 0
Residentia 0
Retail Zon 0
Built-Up Z 1
Village 0
Out of Tov 0
High Stree 0
No Sub Ca 0
This data c Industrial Developm Residentia Retail Zon Built-Up Z Village Out of To High Street and No Sub Category.

Secondary Filtering selection:

Use Class:
B8 11 days
This data c which can be found within the Library module of TRICS®.

Population within 1 mile:
1,001 to 5 2 days
5,001 to 1 4 days
10,001 to 1 days
15,001 to 2 days
20,001 to 1 days
25,001 to 1 days
This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:
5,001 to 3 days
25,001 to 1 days
125,001 to 4 days
250,001 to 2 days
500,001 o 1 days
This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:
0.6 to 1.0 4 days
1.1 to 1.5 7 days

This data c within a radius of 5-miles of selected survey sites.

Travel Plan:
No 11 days
This data c and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:
No PTAL P 11 days
This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 CB-02-F-0: DOMINO'S CUMBRIA
COWPER ROAD
GILWILLY IND. ESTATE
PENRITH
Edge of Town
Industrial Zone
Total Gross floor area 2950 sqm
Survey dat TUESDAY ######## Survey Typ MANUAL

2 DV-02-F-0 OPTICS W/ DEVON
ALDERS WAY

PAIGNTON
Edge of Town
Industrial Zone
Total Gross floor area 190 sqm
Survey dat FRIDAY ######## Survey Typ MANUAL

3 EX-02-F-0: SPORTS SL ESSEX
BRUNEL WAY
SEVERALLS INDUSTRIAL PK
COLCHESTER
Edge of Town
Industrial Zone
Total Gross floor area 6560 sqm
Survey dat FRIDAY ######## Survey Typ MANUAL

4 HC-02-F-0: LOGISTICS HAMPSHIRE
RUTHERFORD ROAD

BASINGSTOKE
Suburban Area (PPS6 Out of Centre)
Commercial Zone
Total Gross floor area 13200 sqm
Survey dat THURSDA\ ######## Survey Typ MANUAL

5 KC-02-F-0: COMMERC KENT
MILLS ROAD
QUARRY WOOD
AYLESFORD
Edge of Town
Industrial Zone
Total Gross floor area 11200 sqm
Survey dat FRIDAY ######## Survey Typ MANUAL

6 SF-02-F-0: WAREHOU SUFFOLK
WALTON ROAD

FELIXSTOWE
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area 22270 sqm
Survey dat THURSDA\ ######## Survey Typ MANUAL

7 SF-02-F-0: ROAD HAL SUFFOLK
CENTRAL AVENUE
WARREN HEATH
IPSWICH
Edge of Town
Industrial Zone
Total Gross floor area 4700 sqm
Survey dat FRIDAY ######## Survey Typ MANUAL

8 TW-02-F-0 ASDA DIST TYNE & WEAR
MANDARIN WAY
PATTISON IND. ESTATE
WASHINGTON
Edge of Town
Industrial Zone
Total Gross floor area 31000 sqm
Survey dat FRIDAY ######## Survey Typ MANUAL

9 WM-02-F- LOGISTICS WEST MIDLANDS
SOVEREIGN ROAD
KINGS NORTON
BIRMINGHAM
Edge of Town
Commercial Zone
Total Gross floor area 3625 sqm
Survey dat MONDAY ######## Survey Typ MANUAL

10 WY-02-F-0 ELECTRON WEST YORKSHIRE
MORTIMER STREET

CLECKHEATON
Edge of Town Centre
Built-Up Zone
Total Gross floor area 1507 sqm
Survey dat MONDAY ######## Survey Typ MANUAL

11 WY-02-F-0 DISTRIBUT WEST YORKSHIRE
STAITHGATE LANE
NEWHALL
BRADFORD
Edge of Town
Industrial Zone
Total Gross floor area 10446 sqm
Survey dat THURSDA\ ######## Survey Typ MANUAL

This sectio it displays the select the day of and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
Calculation Factor: 100 sqm
Count Type: VEHICLES

	ARRIVALS			DEPARTURES			TOTALS		
Time Rang	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:(	4	8721	0.126	4	8721	0.077	4	8721	0.203
06:00-07:(	4	8721	0.218	4	8721	0.118	4	8721	0.336
07:00-08:(	11	9698	0.179	11	9698	0.091	11	9698	0.27
08:00-09:(	11	9698	0.17	11	9698	0.11	11	9698	0.28
09:00-10:(	11	9698	0.148	11	9698	0.086	11	9698	0.234
10:00-11:(	11	9698	0.115	11	9698	0.112	11	9698	0.227
11:00-12:(	11	9698	0.112	11	9698	0.115	11	9698	0.227
12:00-13:(	11	9698	0.11	11	9698	0.099	11	9698	0.209
13:00-14:(	11	9698	0.128	11	9698	0.132	11	9698	0.26
14:00-15:(	11	9698	0.099	11	9698	0.127	11	9698	0.226
15:00-16:(	11	9698	0.099	11	9698	0.124	11	9698	0.223
16:00-17:(	11	9698	0.086	11	9698	0.159	11	9698	0.245
17:00-18:(	11	9698	0.089	11	9698	0.187	11	9698	0.276
18:00-19:(	10	10517	0.049	10	10517	0.106	10	10517	0.155
19:00-20:(	4	8721	0.069	4	8721	0.112	4	8721	0.181
20:00-21:(	4	8721	0.049	4	8721	0.057	4	8721	0.106
21:00-22:(	1	22270	0.031	1	22270	0.018	1	22270	0.049
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			1.877			1.83			3.707

Trip rate p 190 - 31000 (units: sqm)
Survey dat 01/01/12 - 03/04/19
Number o 11
Number o 0
Number o 0
Surveys au 0
Surveys m 0
This sectio followed b the total r the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRICS 7.7.1
Trip Rate I Gross floor area

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use 02 - EMPLOYMENT
Category A - OFFICE
VEHICLES

Selected regions and areas:

3	SOUTH WEST	
WL	WILTSHIRI	1 days
4	EAST ANGLIA	
CA	CAMBRID(	1 days
NF	NORFOLK	2 days
SF	SUFFOLK	1 days
9	NORTH	
CB	CUMBRIA	1 days
DH	DURHAM	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.
Parameter Gross floor area
Actual Rar 615 to 6505 (units: sqm)
Range Sel 178 to 175000 (units: sqm)

Public Transport Provision:
Selection I Include all surveys

Date Rang 01/01/12 to 25/09/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.
Selected survey days:
Monday 1 days
Tuesday 3 days
Wednesd 1 days
Friday 2 days
This data displays the number of selected surveys by day of the week.

Selected survey types:
Manual cc 7 days
Directiona 0 days
This data (the total ; whilst ATC surveys are undertaking using machines.

Selected Locations:

Town Cen	0
Edge of Tc	4
Suburban	0
Edge of Tc	3
Neighbou	0
Free Stanc	0
Not Know	0

This data (Edge of T Suburban Neighbou Edge of T Town Centre and Not Known.

Selected Location Sub Categories:

Industrial	2
Commerci	4
Developm	1
Residentia	0
Retail Zon	0
Built-Up Z	0
Village	0
Out of Tov	0
High Stree	0
No Sub Ca	0

This data (Industrial Developn Residenti Retail Zor Built-Up Z Village Out of To High Street and No Sub Category.

Secondary Filtering selection:

Use Class:
B1 7 days
This data (which can be found within the Library module of TRICS®.

Population within 1 mile:
1,001 to 5 1 days
5,001 to 1 2 days
10,001 to 1 days
15,001 to 2 days
20,001 to 1 days
This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:
25,001 to 3 days
75,001 to 1 days
100,001 tc 1 days
125,001 tc 2 days
This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:
0.6 to 1.0 3 days
1.1 to 1.5 4 days
This data (within a radius of 5-miles of selected survey sites.

Travel Plan:
No 7 days
This data (and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:
No PTAL P 7 days
This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 CA-02-A-0 OFFICES CAMBRIDGESHIRE
LYNCH WOOD

PETERBOROUGH
Edge of Town
Commercial Zone
Total Gross floor area 4040 sqm
Survey da WEDNESD ####### Survey Ty MANUAL

2 CB-02-A-0 OFFICE CUMBRIA
PORT ROAD

CARLISLE
Edge of Town Centre
Industrial Zone
Total Gross floor area 925 sqm
Survey da FRIDAY ####### Survey Ty MANUAL

3 DH-02-A-0 CONSTRU DURHAM
DURHAM ROAD
BOWBURN
NEAR DURHAM
Edge of Town
Industrial Zone
Total Gross floor area 2000 sqm
Survey da TUESDAY ####### Survey Ty MANUAL

4 NF-02-A-0 FINANCIA NORFOLK
NORTH QUAY

GREAT YARMOUTH
Edge of Town Centre
Commercial Zone
Total Gross floor area 894 sqm
Survey da MONDAY ####### Survey Ty MANUAL

5 NF-02-A-0 OFFICES NORFOLK
NORTH QUAY

GREAT YARMOUTH
Edge of Town Centre
Commercial Zone
Total Gross floor area 5500 sqm
Survey da TUESDAY ####### Survey Ty MANUAL

6 SF-02-A-0: OFFICES SUFFOLK
BATH STREET

IPSWICH
Edge of Town Centre
Commercial Zone
Total Gross floor area 6505 sqm
Survey da FRIDAY ####### Survey Ty MANUAL

7 WL-02-A-0 PET INSUF WILTSHIRE
THE CRESCENT
SUNRISE WAY
AMESBURY
Edge of Town
Development Zone
Total Gross floor area 2500 sqm
Survey da TUESDAY ####### Survey Ty MANUAL

This sectic it displays the select the day o and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
Calculation Factor: 100 sqm
Count Type: VEHICLES

	ARRIVALS			DEPARTURES			TOTALS		
Time Rang	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:(	7	2834	0.716	7	2834	0.131	7	2834	0.847
08:00-09:(	7	2834	2.44	7	2834	0.353	7	2834	2.793
09:00-10:(	7	2834	1.472	7	2834	0.297	7	2834	1.769
10:00-11:(	7	2834	0.383	7	2834	0.227	7	2834	0.61
11:00-12:(	7	2834	0.202	7	2834	0.192	7	2834	0.394
12:00-13:(	7	2834	0.479	7	2834	0.716	7	2834	1.195
13:00-14:(	7	2834	0.665	7	2834	0.484	7	2834	1.149
14:00-15:(	7	2834	0.388	7	2834	0.454	7	2834	0.842
15:00-16:(	7	2834	0.222	7	2834	0.484	7	2834	0.706
16:00-17:(	7	2834	0.227	7	2834	1.033	7	2834	1.26
17:00-18:(	7	2834	0.277	7	2834	2.566	7	2834	2.843
18:00-19:(	7	2834	0.086	7	2834	0.635	7	2834	0.721
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									
Daily Trip Rates:			7.557			7.572			15.129

Parameter summary

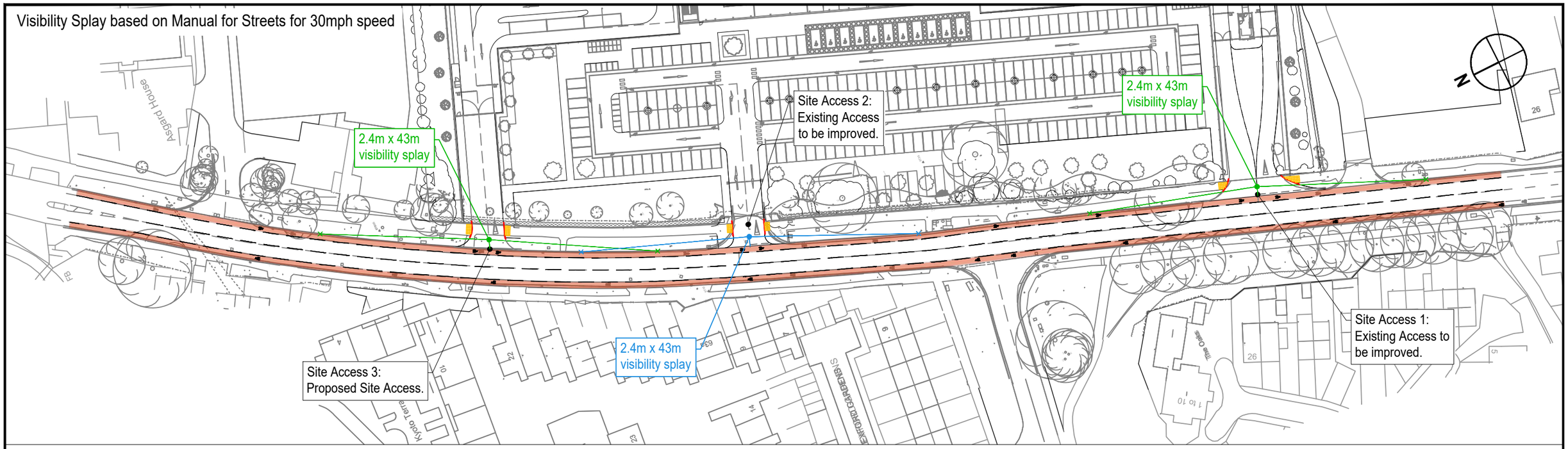
Trip rate p	615 - 6505 (units: sqm)
Survey da	01/01/12 - 25/09/19
Number o	7
Number o	0
Number o	0
Surveys a	0
Surveys m	0

This sectic followed the total the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

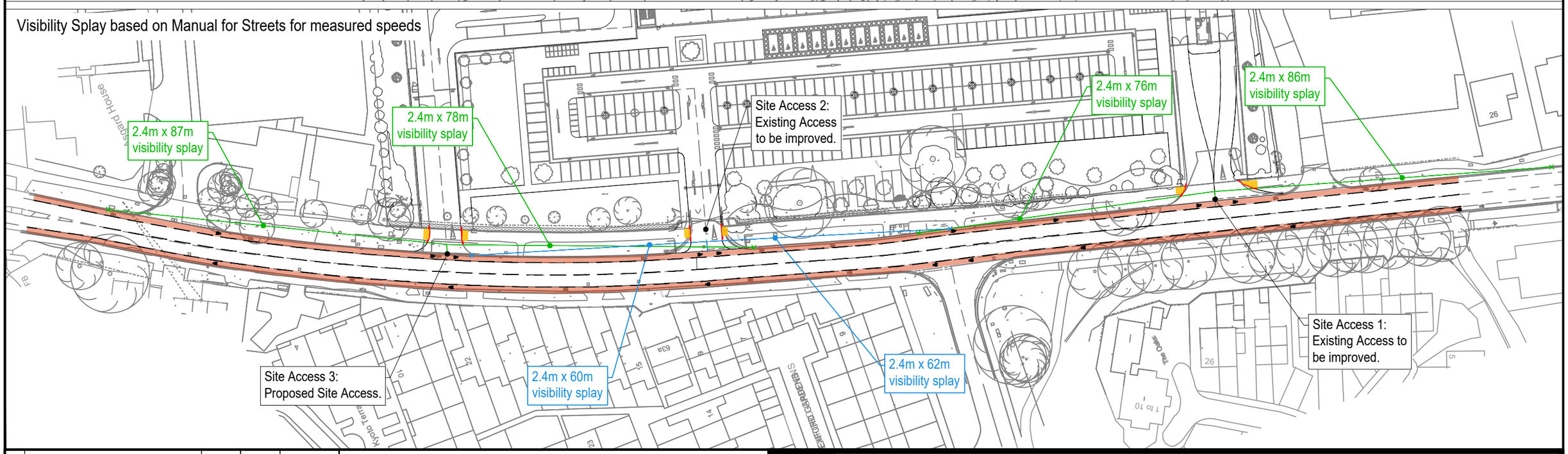
Appendix D

Site Accesses Drawing

Visibility Splay based on Manual for Streets for 30mph speed



Visibility Splay based on Manual for Streets for measured speeds



REV.	DETAILS	DRAWN	CHECKED	DATE
A	Topo and layout updated	JB	YA	08.01.2021
B	Base, proposals & vis splays updated	JB	YA	15.04.2021
C	Ped crossings added	JB	YA	13.05.2021
D	vis splays updated	JB	YA	25.06.2021

Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.
3. Layout is based on SMR layout: 7379-SMR-00-ZZ-DR-A-2003A-S4-P2

New Lane, Havant

Kingsbridge Estates Ltd

General Arrangement
New Lane Site Accesses

DRAWN:	CHECKED:	DATE:	SCALES:
KR	ID	17.06.20	1:1000 at A3

vectos.
Network Building, 97 Tottenham Court Road, London W1T 4TP
t: 020 7580 7373 e: enquiries@vectos.co.uk

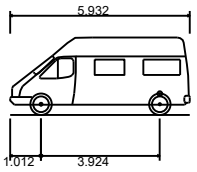
DRAWING NUMBER:	REVISION:
205452/PD01	D

vectos.

Appendix E

Swept Path Analysis

Inset A : Reject Vehicle Manoeuvre



Mercedes Sprinter	
Overall Length	5.932m
Overall Width	2.020m
Overall Body Height	2.567m
Min Body Ground Clearance	0.339m
Track Width	1.996m
Lock to lock time	4.00s
Wall to Wall Turning Radius	7.600m

N

SL

ED Bdy

Ward Bdy

REV.	DETAILS	DRAWN	CHECKED	DATE
.	.	.	.	.

Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.
3. Based on SMR layout : 7379-SMR-00-ZZ-DR-A-2003A-S4-P2

New Lane, Havant

Swept Path Analysis

Servicing Van Storage Area and Waiting & Loading Area

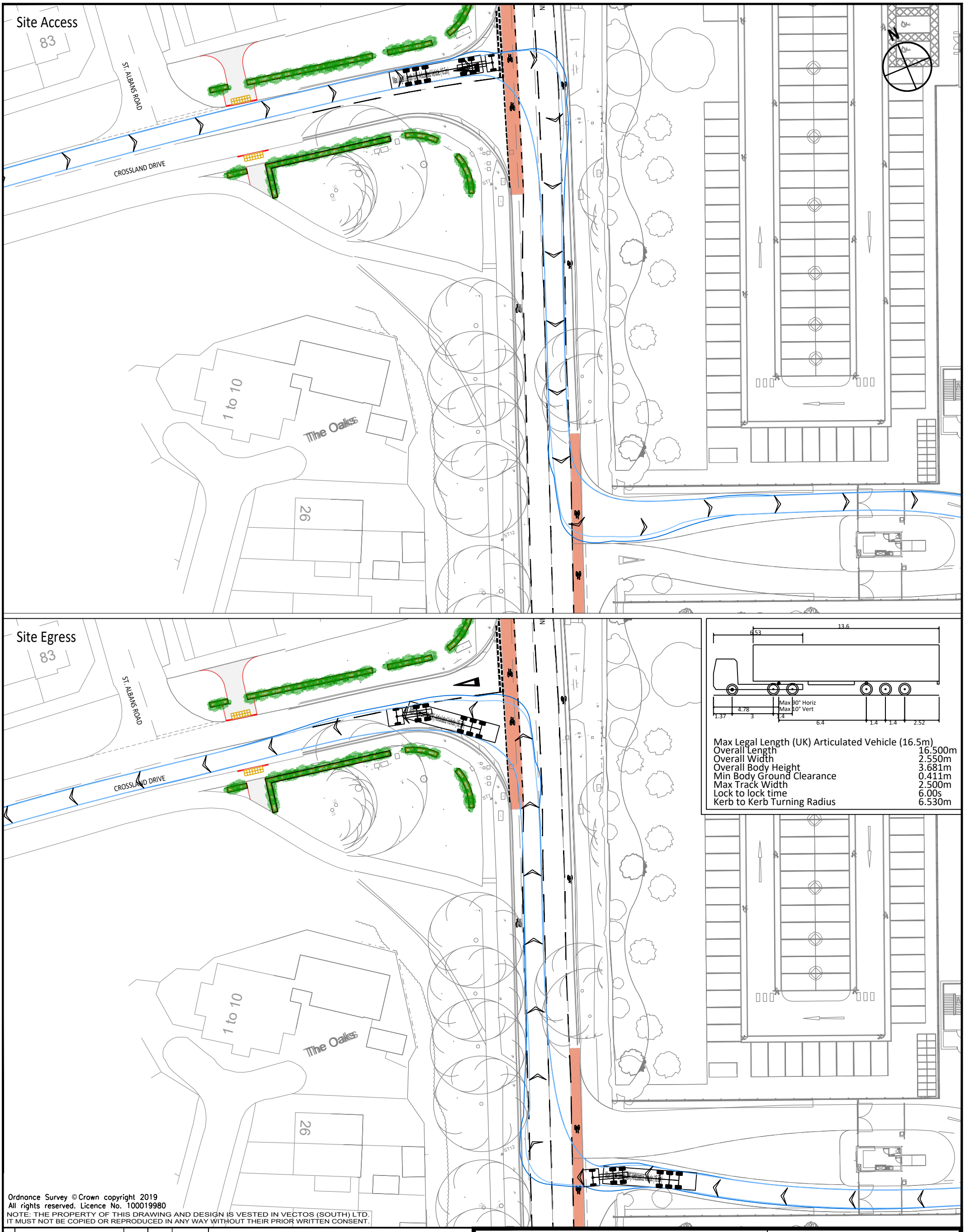
Mercedes Sprinter

Kingsbridge Estates Ltd

vectos.
Network Building, 97 Tottenham Court Road, London W1T 4TP
t: 020 7580 7373 e: enquiries@vectos.co.uk

DRAWN:	CHECKED:	DATE:	SCALES:	DRAWING NUMBER:	REVISION:
JB	YA	08.02.2021	1:1000 at A3	205452/AT/D01	·

Site Access



Site Egress

Max Legal Length (UK) Articulated Vehicle (16.5m)

Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.681m
Min Body Ground Clearance	0.411m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.530m

REV.	DETAILS	DRAWN	CHECKED	DATE
A	Layout and tracking updated	JB	YA	02.07.2021

Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.
3. Layout is based on Ordinance Survey data and Topographical Survey data.

New Lane, Havant

Kingsbridge Estates Ltd

Swept Path Analysis
Site Access via Crossland Drive
16.5m Articulated Vehicle

vectos.
Network Building, 97 Tottenham Court Road, London W1T 4TP
t: 020 7580 7373 e: enquiries@vectos.co.uk

DRAWN:	CHECKED:	DATE:	SCALES:	DRAWING NUMBER:	REVISION:
JB	YA	01.07.2021	1:500 at A3	205452/AT/E01	A