



LISS FOREST NURSERY, GREATHAM

## TRANSPORT STATEMENT

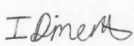


July 2021

Cove Construction Ltd,  
Peter Catt, Neill Catt & Vincent Catt

**RESIDENTIAL DEVELOPMENT  
LISS FOREST NURSERY  
GREATHAM**

**TRANSPORT STATEMENT**

**CONTROLLED DOCUMENT**

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**RESIDENTIAL DEVELOPMENT  
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## 1. INTRODUCTION

- 1.1 This Transport Statement (NTS) has been prepared by Paul Basham Associates on behalf of Cove Construction Ltd to support a full planning application for the *'development of 37 dwellings (including affordable homes), alterations to existing access onto Petersfield Road, hard and soft landscaping, drainage and all other associated development works'* at Liss Forest Nursery, Petersfield Road, Greatham. The site location is demonstrated in **Figure 1**, with the proposed site layout included in **Appendix A**.



**Figure 1:** Site Location

- 1.2 The site is identified in the South Downs Local Plan 2014-2033 (Adopted 2<sup>nd</sup> July 2019) under Allocation Policy SD72: Land at Petersfield Road, Greatham. The policy allocated the site for the development of 35-40 residential dwellings and associated open space. A number of site-specific requirements are also identified within Policy SD72 and those which relate to highways are listed below:

- (f) Retain the existing vehicular access and, where identified as necessary to provide safe access and egress, improvements to both the vehicular access and to off-site highways;
- Provide a publicly accessible off-road pedestrian route from Petersfield Road to the existing PRoW to the east of the allocation site.

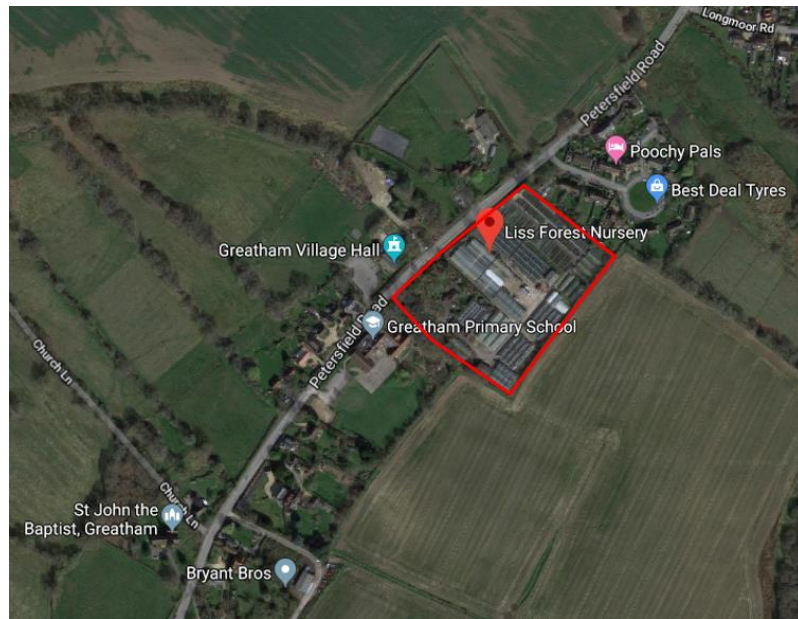
- 1.3 Pre-application discussions were held with SDNP in January 2018 (reference: SDNP/17/05087), with the scope of the highways input required for this application discussed at length with Hampshire County Council (HCC) highway officers. The discussions were positive in nature and the following comments were raised in relation to highways;
- The existing vehicular access to the site should be retained;
  - Parking should conform to East Hampshire parking standards
  - Vehicle trip rates to be revised; and
  - Consideration should be made to link the site to the existing Public Right of Way to the east.
- 1.4 A planning application (reference: SDNP/18/06111/FUL) was submitted in November 2018 on this site for residential development which was ultimately refused in March 2021 for reasons relating to landscape, affordable housing and habit and species regulation. HCC Highways confirmed in their response dated 30<sup>th</sup> December 2020 that they offered no highways objection to the development proposals subject to conditions relating to access and construction and contribution towards public transport improvements.
- 1.5 It is worth noting that the original application submitted in 2018 included a retail unit which has since been removed from the development proposals and therefore highway comments dated 19.02.19 on the above application included references to additional assessment work associated with the retail unit which are no longer considered necessary.
- 1.6 This NTS assesses the recent development proposals for 37 residential dwellings, against the comments raised previously which secured a no highways objection. The retail element is no longer proposed as part of the development (as evident in **Appendix A**) and therefore no further assessment relating to trip generation or swept path analysis for the retail unit is required.
- 1.7 This report has been informed by two sets of traffic survey data (as per correspondence with HCC Highways officers). This includes a 7-day speed and volume survey along Petersfield between 14<sup>th</sup> – 22<sup>nd</sup> July 2017 and a more recent Radar Survey undertaken on Thursday 16<sup>th</sup> July 2020. The time and methodology of the July 2020 survey was agreed in advance with HCC Highway engineers and officers.
- 1.8 In addition, a site visit undertaken on 1<sup>st</sup> February 2018 and attendance at a Public Consultation undertaken on 17<sup>th</sup> July 2018.
- 1.9 This report reviews the existing site conditions and local accessibility, details the development proposals, assesses the car and cycle parking provision, reviews the traffic impact of the proposed

development in comparison to its existing use and details the access and servicing arrangements for the site. However, it should be noted that the proposed development site was considered acceptable from a highways perspective through the previous planning application at this site (application reference: SDNP/18/06111/FUL).

## 2. EXISTING CONDITIONS

### Site and Surroundings

- 2.1 The site is located approximately 6km to the south of Bordon and currently comprises a plant nursery known as Liss Forest Nursery and a residential property. The site is surrounded by greenfield land to the east and west, residential development to the north and a primary school to the south. The existing site and its surroundings are demonstrated in **Figure 2**.



**Figure 2:** Existing Site and Surroundings (Source: Google)

- 2.2 The nursery is currently accessed via a dropped kerb arrangement onto Petersfield Road at its southern extent (as demonstrated in **Photograph 1**). The dropped kerb crossover extends southbound to incorporate an access to a BT utilities hub and is demonstrated in **Photograph 2**.



**Photograph 1:** Existing Access to Liss Forest Nursery



**Photograph 2:** Existing Access to BT utilities hub

### Local Road Network

- 2.3 The site fronts onto Petersfield Road, which runs north to south connecting the A325 with the B3006 and is a predominantly residential road but also provides access to the facilities situated within Greatham village, including the Public House and school. Petersfield Road is subject to a 30mph speed limit across the site frontage, with several speed calming features in place to help encourage low speeds upon entrance into and through Greatham Village.
- 2.4 Speed calming measures have been implemented in the form of build outs, restricting two-way vehicle movements and pinch points which reduces the road width but still allows two-way vehicle movement and one of these is located adjacent to the existing access. The existing conditions along Petersfield Road are demonstrated in **Photograph 3**.



**Photograph 3:** Traffic Calming Measures along Petersfield Road

- 2.5 Two forms of traffic surveys were completed to support this TS, the first involved an Automated Traffic Count (ATC) survey which was undertaken along Petersfield Road between 14<sup>th</sup> – 22<sup>nd</sup> July 2017. This ATC demonstrated 85<sup>th</sup> percentile speeds of 35.2mph (northbound) and 38.5mph (southbound) with 5-day average northbound/southbound traffic volumes of 1,705 and 1,914 respectively over a 24hr period. A second traffic survey was undertaken on 16<sup>th</sup> July 2020 in the form of a Radar Survey in accordance with CA 185 guidance and HCC confirmation. This resulted in 85<sup>th</sup> percentile vehicle speeds of 37mph southbound. The full ATC and Radar surveys outputs are included as **Appendix B**.

### Strategic Road Network

- 2.6 The site is well located in relation to the strategic road network, with the A3 situated in the vicinity of the site along with local distributor roads such as the A325 and B3006. The A325, located approximately 1km north of the site, provides a key commuter route through Bordon and towards the A31 at Farnham. The B3006, located approximately 750m south of the site, provides a route between Greatham and other rural villages towards the A31 just south of Alton Town Centre.
- 2.7 The A3 is located approximately 1.5km north and south of the site and provides access into local centres such as Liphook and Petersfield, as well as to key locations including Guildford, London and Portsmouth.

### Personal Injury Accident Data

- 2.8 As requested at the pre-application stage, Personal Injury Accident (PIA) data has been obtained from Hampshire Constabulary for the latest available 5 year period at the time of obtained up to 24<sup>th</sup> October 2018 to determine the existing safety conditions of the local road network in the vicinity of the site.
- 2.9 The results of the search identified that there have been no incidents recorded in the vicinity of the site during the assessment period and therefore there is no specific highways concern that would worsen as a result of the development or pose a safety concern for future site users. The full output from Hampshire Constabulary is included in **Appendix C**.
- 2.10 Given the time since the original submission, crashmap.co.uk has been reviewed to confirm the existing safety condition in the vicinity of the site. This identified in the most recent five year period between 2016-2020 a single incident has been recorded, located circa 35m to the southwest of Longmoor Road on Petersfield Road. This incident was serious in nature and involved a car passing a cyclist however does not appear to be a result of highway design. The incident report is attached as **Appendix D** for reference. The updated highway safety review re-confirms there are no existing highway safety concerns which would worsen as a result of the proposed development or pose a safety concern for future site uses.

### 3. SITE ACCESSIBILITY

- 3.1 The application site is located within an established residential area in Greatham village, approximately 3.5km north of Liss and 6km south of Bordon. The site is situated within a 5 minute walk of a number of amenities including a public house, bus stops, Greatham Village Hall, a church and Greatham Primary School, presenting a good opportunity to encourage the use of sustainable transport for local journeys. This is confirmed through HCC Highways previous 'no highways objection' to a proposed development on this site.

#### **Pedestrian Network**

- 3.2 The topography experienced in the vicinity of the site and within Greatham in general makes it attractive for use by pedestrians. Petersfield Road benefits from a shared footway/cycleway of varying widths along the southern side of the carriageway which continues approximately 130m south of the site towards the school and 400m north of the site to the junction with Longmoor Road. An additional footway is provided on the northern side of the carriageway outside the school.
- 3.3 The footway and footway/cycleway along Petersfield Road are facilitated by dropped kerbs and guard railings (outside the school only) to allow the safe crossing of pedestrians when accessing the local primary school or residential dwellings. The existing pedestrian infrastructure in the vicinity of the site is demonstrated in **Photograph 4**.



**Photograph 4:** Existing Pedestrian Infrastructure along Petersfield Road

#### **Public Rights of Way**

- 3.4 The site is within close proximity of Public Right of Way (PRoW) Route 10. Route 10 is located to the east of the site and facilitates access to the bus stop on Bakers Field to the north. Local PRoWs surrounding the site provide useful connections to pedestrian infrastructure and provide several leisure walking routes. PRoWs surrounding the site are demonstrated in **Figure 3**.



**Figure 3: PRow Map**

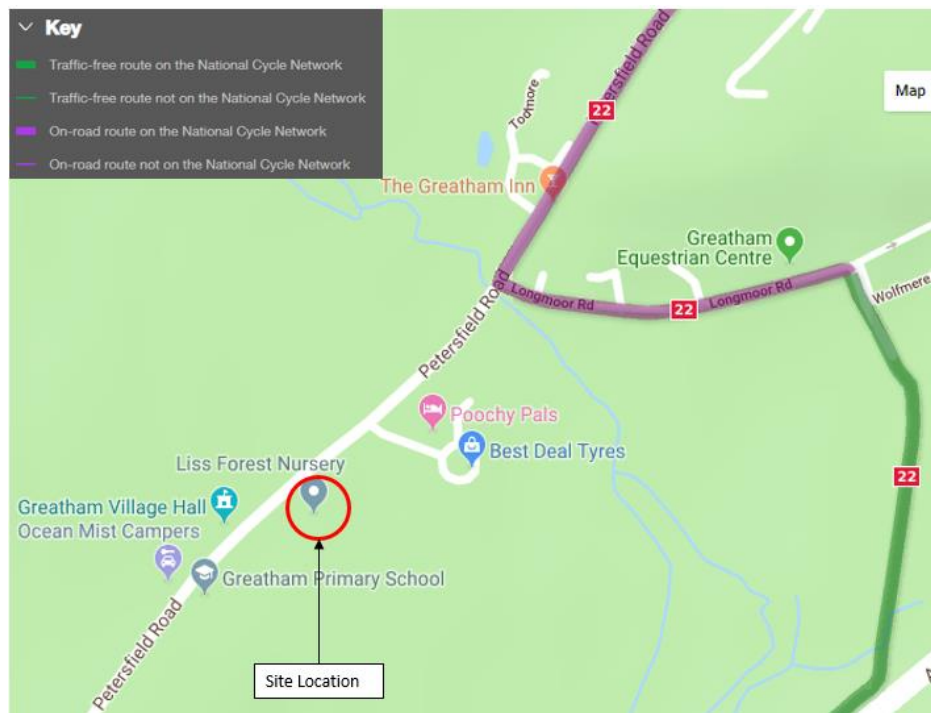
### Cycle Network

- 3.5 The topography also makes the area attractive for use by cyclists. In addition to the aforementioned shared footway/cycleway along the southern side of Petersfield Road, an alternative on-road route is provided for cyclists across the frontage of the BT utilities hub due to the footway narrowing in width. The existing cycling infrastructure across the site frontage is demonstrated in **Photograph 5**.



**Photograph 5: On-road Cycle Provision**

- 3.6 The site is also well located in relation to formal cycle routes with National Cycle Network (NCN) Route 22 located approximately 320m north of the site. NCN Route 22 provides an on and off-road route between Banstead in Surrey and Brockenhurst in Hampshire. The location of the site in relation to NCN Route 22 is demonstrated in **Figure 4**.



**Figure 4:** Local Cycle Routes (Source: sustrans.org.uk)

### Bus Services

- 3.7 The closest bus stops to the site are located on Petersfield Road, both to the north and south of the site and are accessible via a 2-minute walk of the site access. Both sets of bus stops comprise a single pole and timetable and are served by the Stagecoach no.38 bus service with 5 services a day Monday-Friday. The 737 service is also served from these bus stops, and provides a service to Havant and South Downs College with 2 services daily, in the morning and evening.
- 3.8 The Stagecoach no.38 bus service provides access into neighbouring strategic centres such as Alton, Petersfield and Liss, connecting residents to a wider range of local services and amenities. Journeys to Petersfield take approximately 25 minutes whilst journeys to Alton take approximately 30 minutes. The destinations on this route also include both Petersfield and Alton Railway Stations.
- 3.9 The range of destinations served by Stagecoach service no.38 presents a reasonable opportunity to promote sustainable travel for journeys further afield.

### **Rail Services**

- 3.10 The closest railway station to the site is situated in Liss, a 12 minute cycle south of the site. Liss Station is equipped with 22 cycle storage spaces, 40 car parking spaces, a manned ticket office (Monday – Saturday mornings) and a ramp for train access. Liss provides hourly services to both Portsmouth Harbour and London Waterloo with journeys taking approximately 40 minutes and 80 minutes respectively.
- 3.11 In addition, both Alton and Petersfield Railway Stations are accessible via bus service no.38, providing access to alternative destinations along the London Waterloo route.

### **Summary of Site Accessibility**

- 3.12 The site therefore provides a reasonable opportunity to encourage travel by sustainable modes, with walking and cycling likely to materialise as preferred modes for local journeys and the use of public transport for journeys further afield.
- 3.13 Through HCC Highways' previous review of the development proposals and in the South Downs National Park allocation of the site for housing, no concerns were raised with regards to site accessibility and therefore the site is still considered well located to support sustainable development.

## 4. DEVELOPMENT PROPOSALS

- 4.1 The proposed development comprises of 37 dwellings (including affordable housing) and associated car parking. The proposed accommodation schedule is summarised in **Table 1**, with the site layout included in **Appendix A**.

Size of Dwelling	Number of Units
1 bedroom	2
2 bedrooms	13
3 bedrooms	12
4 bedrooms	7
5 bedrooms	3
<b>Total</b>	<b>37</b>

**Table 1:** Proposed Accommodation Schedule

### Car Parking Provision

- 4.2 Car parking would be provided in accordance with South Downs National Park Authority's 'Guidance on Parking for Residential and Non-Residential Development Supplementary Planning Document (April 2021)'. The guidance states that parking will be provided based on the parking calculator provided by SDNP, which is attached as **Appendix E** for this development, while the car parking standards and subsequent provision is summarised within **Table 2** summarising the parking standards and required parking provision based on the accommodation schedule provided in **Table 1**.

Size of Dwelling	Number of Units	Number of Required Spaces as per Calculator
1 bedroom	2	3.52
2 bedrooms	13	29.59
3 bedrooms	12	27.82
4 bedrooms	7	22.40
5 bedrooms	3	9.60
<b>Total (Residential)</b>	<b>37</b>	<b>92.94</b>

**Table 2:** Car Parking Standards and Requirements

- 4.3 The SDNP standards suggest a requirement of 93 residential spaces to serve the 37 units. It is worth noting that SDNP guidance outlines that garages will count for one third of a parking space, therefore meaning that of the 7 garages provided this will only account for 2 car parking spaces. Furthermore, guidance states that garages are required to measure 6m x 3.3m, with the development proposals complying with these dimensions.
- 4.4 A total of 93 parking spaces are provided on site; of which 82 are associated with the residential properties and 11 are provided as visitor/unallocated parking spaces. Of the 82 spaces residential spaces provided, 80 are provided as driveway spaces and two are proposed as garage spaces. The proposed

parking provision therefore accords to South Downs National Park parking standards ensuring that no overspill would be placed on the local road network.

- 4.5 Parking spaces are provided to a minimum of 2.4m x 4.8m, with a 6m reversing distance, in accordance with Manual for Streets guidance.

### Cycle Parking Provision

- 4.6 SDNP's standards (April 2021) also outlines both long stay and short stay cycle parking standards for residential development which are summarised in **Table 3**.

Dwelling Type	Long Stay (Resident)	Short Stay (Visitor)
House	1 space per bedroom	1 space per 5 units

**Table 3:** Cycle Parking Standards and Requirements

- 4.7 Cycle parking would be accommodated within the curtilage of each property, either within a garage or via a rear shed which would also provide sufficient space to accommodate visitor cycles.

### Internal Road Layout

- 4.8 The parameters of the site road hierarchy are designed to create an attractive and permeable pedestrian and cycle environment. The site's main access road measures 6m in width, after which carriageways narrow to approximately 4.1m and become more reflective of MfS design principles. Between the site's original planning submission and this revised planning submission extensive consultation has taken place with the South Downs National Park Planning Authority regarding highway design and the road network. The internal road network is therefore reflective of the 'Roads in the South Downs' report (June 2015) whilst also according to HCC Highway Development Control comments.
- 4.9 A 2m wide footway flanks the northern side of the access road for circa 45m before the layout adopts a shared surface approach. Provision has also been made to ensure the internal pedestrian network connects to the wider pedestrian network with a connection provided in the southern corner of the site (through the open space) to tie into PRow no.10 (in line with pre-application stage discussions and SDNP Local Plan policy requirements).
- 4.10 In accordance with MfS design guidance, all bends within the home zones would be designed to achieve the required forward visibility for vehicles travelling up to 15mph. Any planting provided within the visibility envelope would be maintained to below 600mm in height. Forward visibility splays are included in **Appendix F**.
- 4.11 To confirm, the internal road network is not proposed for adoption.

### **Servicing Arrangement**

- 4.12 Servicing would take place internally within the site boundary in order to reduce the impact on the local road network. It is envisaged that kerbside collection would be undertaken for all the properties and where shared surfaces terminate in cul-de-sacs, the carry and/or reverse distances would be in accordance with Manual for Streets (MfS) best practice guidance of 30m for residents and 25m for refuse collection personnel. A bin collection point is provided in the vicinity of Plots 25-27 to ensure the carry distances are in line with MfS guidance.
- 4.13 Fire tender vehicles can get within 45m of all dwellings in accordance with Building Regulations Part B. Swept path analysis of the site has been undertaken for both refuse vehicles and fire tender vehicles and is included in **Appendix G**.

## 5. TRAFFIC IMPACT ASSESSMENT

- 5.1 This section of the TS assesses the likely vehicular and pedestrian trip generation associated with the proposed development. The TRICS trip rates presented in this NTS remain as per those previously agreed within the site's original planning application (and HCC highway response) and highways pre-application discussions.

### Existing Trip Generation

- 5.2 The site currently comprises a former plant nursery and a residential property, therefore a small number of vehicle movements are associated with the site, generated by the residents, staff and delivery vehicles.
- 5.3 Information has been obtained from the client regarding the existing number of vehicle movements, however this is approximate and fluctuates on a seasonal basis. The information obtained suggests that the 12 hour daily average vehicle movements is approximately 60 vehicle trips, with a weekly total of approximately 300.
- 5.4 Whilst a small number of vehicle trips are generated by the existing site, for the purposes of a robust assessment the land has been treated as greenfield and all trips generated by the proposals will be new to the local road network.

### Proposed Vehicular Trip Generation

- 5.5 The proposed development comprises the erection of 37 dwellings. The agreed trip rates associated with the residential units were generated using the TRICS database using the parameters set out below:
- 'Residential – Houses Privately Owned' Use Class
  - Sites in England and Wales (Excluding Greater London);
  - 'Developments between 20 - 60 units';
  - Edge of Town Locations;
  - Sites with no Travel Plans; and
  - Monday – Friday surveys only
- 5.6 Whilst it is noted that the pre-application response required the trip rates to be increased, it was not possible for the TRICS database to be interrogated to increase the trip rates to the level suggested whilst also remaining comparative of the proposed development site. Therefore, the trip rates set out within the pre-application submission have been used to determine the likely number of vehicle trips associated with the site, a position later agreed by HCC Highways Officers through the planning

application response (dated 19.02.19). The results of the TRICS assessment are summarised in **Table 4**, with the full outputs included in **Appendix H**.

TRICS	AM Peak Period (0800 – 0900)		PM Peak Period (1700 – 1800)		Total Daily Trips
	Arrivals	Departures	Arrivals	Departures	
Trip Rate (per unit)	0.140	0.416	0.360	0.164	4.896
Trip Generation (37 units)	5	15	13	6	181

**Table 4:** Proposed Vehicle Trip Generation

- 5.7 **Table 4** demonstrates that the proposed development would be anticipated to generate 20 vehicle trips in both the AM (0800-0900) peak and 19 vehicle trips in the PM (1700-1800) peak period with 181 daily vehicle trips across a 12 hour day. This therefore equates to an additional vehicle trip onto the local road network approximately every 4 minutes across a 12-hour day.

#### Proposed Multi-Modal Trip Generation

- 5.8 The proposed pedestrian trip rates were also discussed with HCC at the pre-application stage and are considered agreed. The anticipated pedestrian trip generation for the site is summarised in **Table 5**.

TRICS	AM Peak Period (0800 – 0900)		PM Peak Period (1700 – 1800)		Total Daily Trips
	Arrivals	Departures	Arrivals	Departures	
Pedestrian Trip Rate (per unit)	0.073	0.152	0.105	0.052	1.733
Pedestrian Trip Generation (37 dwellings)	3	6	4	2	64

**Table 5:** Proposed Pedestrian Trip Generation

- 5.9 **Table 5** indicates that the proposed residential element of development would be anticipated to generate approximately 9 pedestrian trips in the AM peak period, 6 pedestrian trips in the PM peak period and 64 pedestrian trips across a 12-hour day. The local pedestrian network is anticipated to be sufficient to accommodate this increase in pedestrian footfall.
- 5.10 The highway impact of the scheme is therefore not considered to have a severe or material impact on the operation of the local road network given the low increase in vehicle movements across the peaks and daily 12-hour period.

## 6. ACCESS ARRANGEMENT

### Existing Access Arrangement

- 6.1 The existing site fronts onto Petersfield Road with both the site access and neighbouring BT access setback approximately 3m from the kerb line. White lining is provided across the existing dropped kerb arrangement to act as a virtual kerb line. The existing access arrangements are demonstrated in **Photograph 6**.



**Photograph 6:** Existing Access Arrangements

- 6.2 On-site observations indicate that Petersfield Road is subject to a change in levels, with southbound vehicles travelling uphill towards the site. There is a difference in levels between the site and Petersfield Road to the north and the proposed access is therefore provided as near to the existing access location as possible (as per the SDNP Local Plan policy). The change in gradient along Petersfield Road is demonstrated in **Photograph 7**.



**Photograph 7:** Change in Levels along Petersfield Road

### Proposed Access Arrangement

- 6.3 To ascertain the baseline traffic volumes on Petersfield Road, a seven-day Automated Traffic Count (ATC survey) survey was conducted in the vicinity of the proposed site access between 14<sup>th</sup> – 22<sup>nd</sup> July 2017. A summary of the ATC results is provided in **Table 6**, with the full outputs included in **Appendix B**.

Direction	AM Peak (0800-0900) 5-day Average	PM Peak (1700-1800) 5-day Average	Daily Flow (5-Day, 24 hour Average)	85 <sup>th</sup> Percentile Speeds
Northbound	188	140	1,705	35.2mph
Southbound	179	320	1,914	38.5mph

**Table 6:** ATC Survey Results: Petersfield Road

- 6.4 In addition, to further understand vehicle speed along Petersfield Road a Radar Survey was completed on 16<sup>th</sup> July 2020 which confirmed 85<sup>th</sup> percentile vehicle speeds of 37mph southbound on Petersfield Road. The timings and methodology of this survey was agreed with Hampshire County Council Highway Officers and Engineers prior to the survey and follows the methodology outlined in CA185 'Vehicle Speed Measurement'.
- 6.5 It is anticipated that the site would be most appropriately served via one point of vehicular access onto Petersfield Road with the form of access assessed using the expected development traffic flows (outlined in **Section 5**) and ATC surveys undertaken in 2017. Due to the quantum of development proposed and its associated vehicle trips, the existing access would be upgraded and formalised to facilitate a safer access and egress for all site users.
- 6.6 The site would be served via a new bellmouth junction onto Petersfield Road, with the neighbouring BT access to be maintained as existing with a vehicle crossover. The site access design will include a 6m wide access road supported by 10m corner radii, ensuring that sufficient width is provided to enable two-way movement at the access in accordance with MfS guidance. The access dimensions have been increased in line with the comments raised by HCC highway officers at the pre-application stage and are considered agreed given they accord with those previously considered acceptable with the previous application. The access design is demonstrated in **Appendix I**.
- 6.7 This design includes an adjustment to the kerb line on Petersfield Road and the repositioning of the site access and BT access at right angles with the existing kerb line/white lining on Petersfield Road. The northern radius would tie into the existing speed calming feature, which would become integrated into the site's bellmouth arrangement, while the southern radius would tie into the neighbouring dropped kerb which would be pulled north to create a standard junction arrangement.

- 6.8 Tracking of the neighbouring BT access has been undertaken using a box van to ensure there is no conflict between the two accesses. The access design would provide a clear separation of the two accesses and ensures that ample space is provided to facilitate access into the BT utilities hub (which would only be subject to modest and occasional access requirements for maintenance purposes). This tracking is shown on the access design drawing attached as **Appendix I**.
- 6.9 A Stage 1 Road Safety Audit (RSA) has been undertaken by an independent company in July 2018 to determine the suitability and safety of the proposed access design. The audit identified that a pedestrian crossing facility should be provided across the access, which has been included on the proposed site access. The full report including the designer's response is included in **Appendix J**.
- 6.10 The original set of highway comments for this site referenced a requirement for a swept path analysis assessment of a construction vehicle. This has been completed with the proposed access design which demonstrates a 16.5m long articulated vehicle is able to enter and exit through the site's proposed access. This is attached as **Appendix K** for reference.

#### **Pedestrian/Cycle Access**

- 6.11 The access design would allow the continuation of the existing footway/cycleway on Petersfield Road, retaining a continuous route to local services to be provided for both pedestrians and cyclists. The existing dropped kerb for cyclists will also be re-provided, maintaining the option for cyclists to continue along either the footway/cycleway or along the carriageway.
- 6.12 A 2m wide footway would be provided on the northern side of the access road which connects into the development. A crossing point, supported by dropped kerbs and tactile paving, is provided at the access facilitating the movement of pedestrians and cyclists along the shared footway/cycleway and allows connection from the site onto the existing pedestrian infrastructure.
- 6.13 The layout also demonstrates a pedestrian route in the southern corner of the site which connects onto PROW route 10 as per the Local Plan policies and pre-application discussions.

#### **Horizontal Visibility**

- 6.14 Speed surveys were undertaken across the site frontage to establish the vehicle speeds and resultant visibility splays required at the site access. Petersfield Road is subject to a 30mph speed limit across the site frontage, however, 85<sup>th</sup> percentile speeds were recorded as 37mph southbound (as per 16.07.20 survey) and 38.5mph northbound (as per July 2017 survey).

- 6.15 Based on the recorded speeds, the primary direction visibility splay (southbound) is measured at 2.4m x 56m in accordance with Manual for Streets principles and HCC'S TG3 – Stopping Sight Distances and Visibility Splays and Stopping Sight Distance Calculator for 59.5kph (without applying wet weather speeds). The secondary direction visibility splay (northbound) is calculated to DMRB standards and is measured at 2.4m x 97.2m.
- 6.16 Both visibility splay measurements and dimensions have been discussed and agreed with HCC Highway Officers and Engineers prior to the submission of this ATS.
- 6.17 The visibility from the site access is visually demonstrated in **Photographs 8 and 9**, with a visibility splay assessment included in **Appendix L**.



**Photograph 8:** Primary Direction Visibility



**Photograph 9:** Secondary Direction Visibility

### Vertical Visibility

- 6.18 As aforementioned, Petersfield Road is subject to changes in levels and therefore a vertical visibility splay assessment has also been undertaken to assess the achievable visibility in the primary direction. The assessment indicates that vertical visibility is achievable from 1.05m (driver's eye height) to 600mm over the required 56m distance in accordance with Manual for Streets principles. This is demonstrated in **Appendix L**.

### Access Summary

- 6.19 It is therefore considered that the access can be provided to standards with no Departure from Standards required to support the delivery of the access. The geometries are considered suitable to serve the proposals with adequate two-way movement ability and the horizontal and vertical visibility splays are achievable to their respective standards, particularly for the primary direction visibility in the vertical plane which fully accords with Manual for Streets guidance. The access design was agreed by HCC Highways in the recent 'no highways objection' response to the 2018 planning application at this site and therefore remains suitable.

## 7. SUMMARY AND CONCLUSION

- 7.1 This Transport Statement has been prepared by Paul Basham Associates on behalf of Cove Construction Ltd to support a full planning application the '*development of 37 dwellings (including affordable homes), alterations to existing access onto Petersfield Road, hard and soft landscaping, drainage and all other associated development works*' at Liss Forest Nursery, Petersfield Road, Greatham.
- 7.2 The site, which is located approximately 6km to the south of Bordon, currently comprises a plant nursery and a residential property. The site is surrounded by greenfield land to the east and west, residential development to the north and a primary school to the south.
- 7.3 The proposed development comprises the construction of 37 residential dwellings with access onto Petersfield Road. Both car and cycle parking for the site would be provided in accordance with the South Downs National Park's residential parking standards with 82 residential spaces provided and 11 visitor/unallocated spaces proposed, therefore meaning a total of 93 car parking spaces will be provided. Cycle parking would also be provided in accordance with SDNP standards within sheds in rear gardens or garages.
- 7.4 The internal road network has been designed in accordance with Manual for Streets and the Roads in the South Downs report (June 2015) with the majority of roads widths between 4.1m and 6m and shared surface principles throughout the development. The internal road network is not proposed for adoption.
- 7.5 Servicing and emergency vehicles are able to enter and exit the site in a forward gear with refuse vehicles able to get within the recommended MfS bin carry distances and fire tenders also able to get within the recommended Building Regulation requirements.
- 7.6 A TRICS assessment has demonstrated that the site is anticipated to generate a maximum of 20 vehicle trips in the AM peak period, 19 vehicle trips in the PM peak period and 181 vehicle trips across a daily 12-hour period. In addition, the site is anticipated to generate a minimum of 9 pedestrian trips in the AM peak period, 6 pedestrian trips in the PM peak period and 64 pedestrian trips across a daily 12-hour period. Both the local road and pedestrian networks are considered sufficient to accommodate the increase in movements generated by the site.
- 7.7 Access to the site would be via an upgraded bellmouth junction arrangement onto Petersfield Road provided with a 6m wide access road and 10m corner radii. The access has been designed in a way to ensure suitable access is maintained for the BT utilities hub whilst also retaining and enhancing the

provision for both pedestrians and cyclists. Visibility has been demonstrated as achievable in both the horizontal and vertical axis in accordance with the recorded 85<sup>th</sup> percentile vehicle speeds.

- 7.8 This Transport Statement has demonstrated that the proposed development would not have a significant impact on the operation or safety of the local road network, and we would therefore encourage Hampshire County Council to reaffirm their stance from the previous application achieved through extensive discussions and look favourably upon this development in relation to highways.

## Appendix A



## Appendix B

Site No: 00000772		Site Reference: 00000772															
PETERSFIELD RD GREATHAM		From 14/07/2017 To 22/07/2017				Channel: NORTHBOUND											
Time	Total	85th	Mean	Std.	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12	Bin 13
Begin	Vol.	%ile	Ave.	Dev.	<6	6-11	11-16	16-21	21-26	26-31	31-36	36-41	41-46	46-51	51-56	56-61	=>61
0:00	4	-	32.5	4.1	0	0	0	0	0	1	0	0	0	0	0	0	0
1:00	2	-	33.1	-	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	3	-	36	10.6	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	0	-	34.8	-	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	-	29.6	-	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	9	-	37	6.2	0	0	0	0	0	1	4	2	0	1	0	0	0
6:00	42	40.6	35.1	6.1	0	0	0	0	1	8	15	12	5	0	0	0	0
7:00	102	37.5	32.3	5.3	0	0	0	0	6	33	41	15	4	0	0	0	0
8:00	148	33.6	28.9	4.5	0	0	0	3	30	76	32	7	1	0	0	0	0
9:00	97	34.6	29.7	5	0	0	0	2	14	45	26	7	0	0	0	0	0
10:00	89	34.9	30.2	4.9	0	0	0	1	10	41	28	7	0	0	0	0	0
11:00	89	34.9	30.3	4.5	0	0	0	0	8	42	30	6	0	0	0	0	0
12:00	100	34.8	30	5	0	0	0	3	11	46	30	6	2	0	0	0	0
13:00	103	35	29.9	4.9	0	0	0	2	15	46	28	9	0	0	0	0	0
14:00	96	35.1	30.6	4.7	0	0	0	1	10	42	33	6	1	0	0	0	0
15:00	127	33.2	28	5.1	0	0	1	8	33	56	25	5	0	0	0	0	0
16:00	124	34.4	29.6	4.7	0	0	0	2	20	58	35	7	1	0	0	0	0
17:00	124	34.5	29.7	4.8	0	0	0	0	18	61	36	7	0	0	0	0	0
18:00	91	35.5	30.7	4.7	0	0	0	1	10	40	30	9	1	0	0	0	0
19:00	66	36.7	31.9	4.9	0	0	0	0	4	22	26	10	1	0	0	0	0
20:00	45	35.7	31.8	4.8	0	0	0	0	3	18	18	5	1	0	0	0	0
21:00	29	36	31.7	5.2	0	0	0	0	2	12	9	2	1	0	0	0	0
22:00	27	37.7	32.1	5.1	0	0	0	0	2	10	7	4	0	0	0	0	0
23:00	11	37.2	32.6	5.2	0	0	0	0	0	4	3	1	0	0	0	0	0
12H,7-19	1291	34.8	29.9	4.7	0	0	1	23	184	586	373	90	11	0	0	0	0
16H,6-22	1472	35.1	30.2	4.8	0	0	1	24	195	646	441	120	19	0	0	0	0
18H,6-24	1510	35.1	30.2	4.8	0	0	1	24	197	660	451	125	19	0	0	0	0
24H,0-24	1528	35.2	30.3	4.8	0	0	1	24	197	662	456	127	19	1	0	0	0
Am	8:15	-	2:45	-	-	11:00	9:30	8:30	8:30	8:15	7:15	6:30	6:00	5:30	7:15	-	-
Peak	152	-	37.8	-	-	0	1	4	34	79	42	16	5	1	0	-	-
Pm	15:15	22:15	22:45	20:30	15:30	17:15	15:00	15:15	15:00	15:15	16:45	18:15	13:45	21:45	17:30	-	-
Peak	135	38	32.8	5.5	0	1	1	7	32	63	39	12	2	0	0	-	-
Collated from 15 minute interval data																	

Collated from 15 minute interval data

Created at 14:14:33 on 22 Jul 2017

Site No: 00000772		Site Reference: 00000772															
PETERSFIELD RD GREATHAM		Channel: SOUTHBOUND															
		From 14/07/2017 To 22/07/2017															
Time	Total	85th	Mean	Std.	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9	Bin 10	Bin 11	Bin 12	Bin 13
Begin	Vol.	%ile	Ave.	Dev.	<6	6-11	11-16	16-21	21-26	26-31	31-36	36-41	41-46	46-51	51-56	56-61	>=61
0:00	5	-	36.2	5.8	0	0	0	0	0	0	1	0	0	0	0	0	0
1:00	0	-	34.2	-	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	-	40	-	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	1	-	32.3	-	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	2	-	36.7	3.7	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	6	-	37.4	4.4	0	0	0	0	0	0	2	1	0	0	0	0	0
6:00	21	41.3	35.9	5.8	0	0	0	0	0	4	7	5	3	0	0	0	0
7:00	63	39.8	34.1	5.5	0	0	0	0	3	18	23	16	6	1	0	0	0
8:00	141	35.1	29.7	5.3	0	0	1	5	19	38	21	12	2	0	0	0	0
9:00	100	37.7	32.1	5.6	0	0	0	0	5	36	35	15	4	0	0	0	0
10:00	91	36.8	31.6	5.6	0	0	0	2	7	32	33	12	4	0	0	0	0
11:00	91	36.8	31.6	5.8	0	0	1	2	5	32	33	11	4	1	0	0	0
12:00	91	38.6	33	5.5	0	0	0	0	4	26	35	18	5	0	0	0	0
13:00	83	39.3	33.4	5.7	0	0	0	1	6	19	31	17	6	0	0	0	0
14:00	105	37.8	32.3	5.2	0	0	0	2	8	35	38	19	4	0	0	0	0
15:00	130	37.1	31.5	5.4	0	0	0	2	11	48	44	20	5	0	0	0	0
16:00	177	39	33.1	6.1	0	0	0	1	8	52	66	36	10	2	0	0	0
17:00	251	38.4	32.7	5.6	0	0	0	1	16	82	95	40	14	2	0	0	0
18:00	135	39.4	33.3	5.9	0	0	0	1	8	35	47	30	10	1	0	0	0
19:00	72	39.3	33.5	6.2	0	0	1	0	2	19	27	15	5	3	0	0	0
20:00	45	42.2	35.6	6.3	0	0	0	0	0	10	15	10	6	2	0	0	0
21:00	28	39	33.2	5.9	0	0	0	0	0	10	8	7	1	0	0	0	0
22:00	22	39.9	34.4	6.4	0	0	0	0	2	6	6	6	0	0	0	0	0
23:00	6	-	34.7	5.8	0	0	0	0	0	3	2	1	0	0	0	0	0
12H,7-19	1456	38.2	32.4	5.4	0	0	2	15	102	475	518	246	73	7	0	0	0
16H,6-22	1622	38.5	32.6	5.5	0	0	3	15	104	518	576	283	88	12	0	0	0
18H,6-24	1650	38.5	32.6	5.5	0	0	3	15	106	527	584	289	88	12	0	0	0
24H,0-24	1664	38.5	32.6	5.5	0	0	3	15	106	527	587	290	90	12	0	0	0
Am	8:15	-	2:15	-	11:00	8:00	10:45	8:15	8:15	8:15	8:15	7:30	7:15	7:15	11:00	4:45	6:00
Peak	145	-	44.3	-	0	0	1	5	23	61	38	16	5	1	0	0	
Pm	17:00	-	22:45	22:30	16:00	16:00	14:30	14:30	17:15	17:00	17:00	17:00	16:30	16:30	16:45	22:45	20:15
Peak	251	-	35.7	7.1	0	1	1	3	15	82	96	40	14	3	1	0	0
Collated from 15 minute interval data																	

Collated from 15 minute interval data

Created at 14:14:33 on 22 Jul 2017

Site No: 00000772  
PETERSFIELD RD GREATHAM

Site Reference: 00000772

From 14/07/2017 To 22/07/2017

Channel: NORTHBOUND

Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	5-Day	7-Day
Begin								Av	Av
0:00	0	1	3	0	0	8	12	1	3
1:00	2	0	1	0	0	5	5	1	2
2:00	2	4	3	1	2	1	1	2	2
3:00	1	1	0	0	1	0	1	1	1
4:00	4	0	1	0	1	0	0	1	1
5:00	13	10	12	11	12	3	4	12	9
6:00	49	51	53	57	55	12	15	53	42
7:00	130	141	132	137	118	32	21	132	102
8:00	189	194	187	187	185	57	39	188	148
9:00	115	116	99	103	108	77	67	108	98
10:00	74	103	86	89	92	100	79	89	89
11:00	84	111	69	95	87	95	91	89	90
12:00	110	101	82	91	100	99	109	97	99
13:00	90	86	81	165	97	106	95	104	103
14:00	98	99	116	83	109	84	81	101	96
15:00	178	157	155	105	168	68	59	153	127
16:00	121	150	122	126	177	74	100	139	124
17:00	145	149	136	127	144	93	83	140	125
18:00	102	97	100	100	122	60	61	104	92
19:00	63	66	74	76	79	46	56	72	66
20:00	54	49	45	41	55	31	43	49	45
21:00	33	31	23	38	34	31	19	32	30
22:00	23	18	22	37	34	27	23	27	26
23:00	8	5	13	13	20	14	6	12	11
12H,7-19	1436	1504	1365	1408	1509	944	885	1444	1293
16H,6-22	1635	1701	1560	1620	1732	1065	1018	1650	1476
18H,6-24	1666	1724	1595	1670	1786	1106	1047	1688	1513
24H,0-24	1688	1740	1615	1682	1802	1125	1070	1705	1532
Am	8:15	8:15	8:15	8:00	8:00	10:15	11:00	-	-
Peak	191	213	193	187	185	106	91	194	167
Pm	14:45	15:15	15:15	12:45	15:15	13:30	12:00	-	-
Peak	181	171	158	168	189	107	109	173	155

Collated from 15 minute interval data

Created at 14:14:07 on 22 Jul 2017

Site No: 00000772  
PETERSFIELD RD GREATHAM

Site Reference: 00000772

From 14/07/2017 To 22/07/2017

Channel: SOUTHBOUND

Time	Mon	Tue	Wed	Thu	Fri	Sat	Sun	5-Day	7-Day
Begin								Av	Av
0:00	2	5	3	2	2	5	14	3	5
1:00	0	0	3	0	0	3	2	1	1
2:00	1	0	1	0	0	2	1	0	1
3:00	3	0	0	2	0	0	1	1	1
4:00	4	4	2	4	2	2	0	3	3
5:00	4	10	5	7	7	5	4	7	6
6:00	28	26	28	24	19	14	6	25	21
7:00	82	78	85	74	77	27	20	79	63
8:00	195	175	163	185	179	52	36	179	141
9:00	99	123	86	136	111	82	60	111	100
10:00	76	85	63	102	97	100	112	85	91
11:00	89	83	97	78	91	90	111	88	91
12:00	93	88	68	107	96	94	87	90	90
13:00	86	79	65	82	91	95	73	81	82
14:00	126	129	117	81	138	75	68	118	105
15:00	139	136	138	110	225	83	74	150	129
16:00	175	175	179	188	365	74	83	216	177
17:00	265	402	239	268	428	80	77	320	251
18:00	117	313	103	149	158	62	46	168	135
19:00	91	75	76	79	86	48	52	81	72
20:00	48	57	43	49	42	40	36	48	45
21:00	20	21	29	36	35	33	31	28	29
22:00	28	20	24	20	30	18	13	24	22
23:00	6	8	10	8	4	8	8	7	7
12H,7-19	1542	1866	1403	1560	2057	914	847	1686	1455
16H,6-22	1729	2045	1579	1748	2241	1050	972	1868	1623
18H,6-24	1763	2073	1613	1776	2274	1076	993	1900	1653
24H,0-24	1777	2092	1627	1791	2285	1093	1015	1914	1668
Am	8:15	8:15	8:15	8:00	8:15	10:30	10:00	-	-
Peak	199	180	169	185	187	103	112	184	162
Pm	17:00	17:30	16:45	17:00	17:00	13:15	12:15	-	-
Peak	265	464	249	268	428	100	91	335	266

Collated from 15 minute interval data

Created at 14:14:07 on 22 Jul 2017

# Petersfield Road, Greatham - Radar Speed Survey

Speed Limit

30



Weather:

Dry

Thursday 16th July 2020

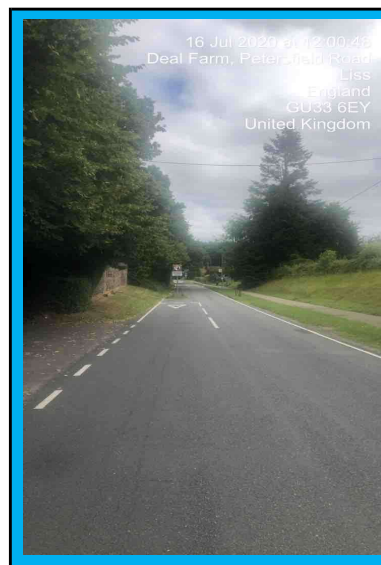
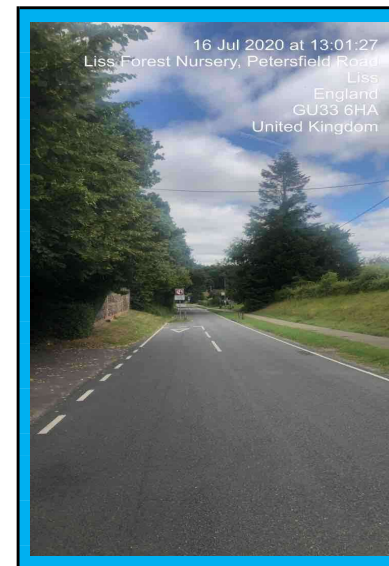
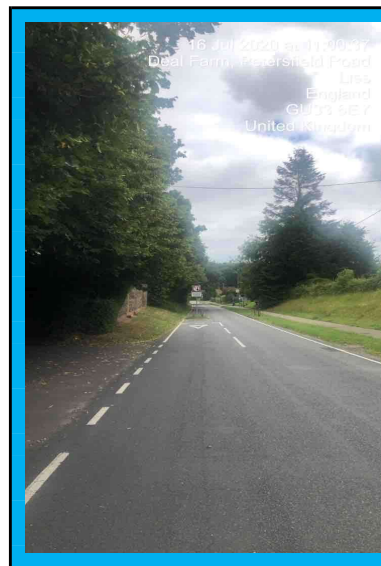
10:00 - 13:00

All speeds are recorded from free flowing vehicles only

Southbound							
	Speeds(mph)		Speeds(mph)		Speeds(mph)		Speeds(mph)
1	21	51	31	101	35	151	-
2	21	52	31	102	35	152	-
3	23	53	31	103	35	153	-
4	25	54	31	104	35	154	-
5	26	55	31	105	36	155	-
6	26	56	31	106	36	156	-
7	26	57	31	107	36	157	-
8	26	58	31	108	36	158	-
9	27	59	31	109	36	159	-
10	27	60	31	110	36	160	-
11	27	61	31	111	36	161	-
12	28	62	31	112	36	162	-
13	28	63	31	113	36	163	-
14	28	64	31	114	36	164	-
15	28	65	31	115	37	165	-
16	28	66	31	116	37	166	-
17	28	67	31	117	37	167	-
18	28	68	32	118	38	168	-
19	28	69	32	119	38	169	-
20	28	70	32	120	38	170	-
21	28	71	32	121	38	171	-
22	29	72	32	122	39	172	-
23	29	73	32	123	39	173	-
24	29	74	33	124	39	174	-
25	29	75	33	125	40	175	-
26	29	76	33	126	40	176	-
27	29	77	33	127	40	177	-
28	29	78	33	128	40	178	-
29	29	79	33	129	40	179	-
30	29	80	33	130	41	180	-
31	29	81	33	131	42	181	-
32	29	82	33	132	42	182	-
33	29	83	34	133	42	183	-
34	30	84	34	134	42	184	-
35	30	85	34	135	43	185	-
36	30	86	34	136	-	186	-
37	30	87	34	137	-	187	-
38	30	88	34	138	-	188	-
39	30	89	34	139	-	189	-
40	30	90	34	140	-	190	-
41	30	91	34	141	-	191	-
42	30	92	34	142	-	192	-
43	30	93	34	143	-	193	-
44	30	94	34	144	-	194	-
45	30	95	34	145	-	195	-
46	30	96	34	146	-	196	-
47	30	97	35	147	-	197	-
48	30	98	35	148	-	198	-
49	30	99	35	149	-	199	-
50	30	100	35	150	-	200	-

ROAD SURFACE - DRY

Site Photos & Road Conditions



Average Southbound (mph)	32.4
85th%ile Southbound (mph)	36.9
% > Speed Limit Southbound	63.0%

# Petersfield Road, Greatham - Radar Speed Survey

Speed Limit

30



Weather:

Thursday 16th July 2020

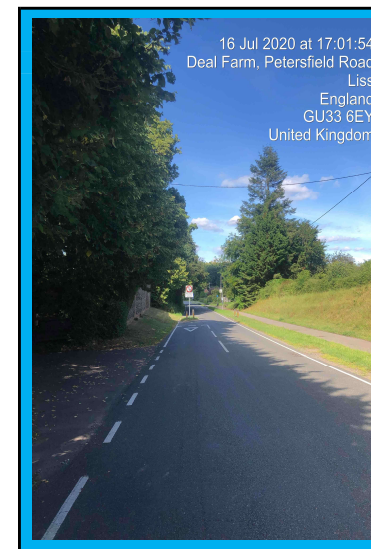
Dry

14:00 - 17:00

All speeds are recorded from free flowing vehicles only

Southbound							
	Speeds(mph)		Speeds(mph)		Speeds(mph)		Speeds(mph)
1	19	51	29	101	32	151	36
2	20	52	29	102	32	152	36
3	22	53	29	103	32	153	36
4	23	54	29	104	32	154	36
5	24	55	29	105	32	155	37
6	24	56	30	106	32	156	37
7	25	57	30	107	32	157	37
8	25	58	30	108	32	158	37
9	25	59	30	109	32	159	37
10	25	60	30	110	32	160	37
11	25	61	30	111	32	161	38
12	25	62	30	112	33	162	38
13	26	63	30	113	33	163	38
14	26	64	30	114	33	164	38
15	26	65	30	115	33	165	38
16	26	66	30	116	33	166	38
17	26	67	30	117	33	167	39
18	26	68	30	118	33	168	39
19	26	69	30	119	33	169	39
20	26	70	30	120	33	170	39
21	27	71	30	121	33	171	40
22	27	72	30	122	33	172	40
23	27	73	30	123	34	173	40
24	27	74	30	124	34	174	40
25	27	75	30	125	34	175	41
26	27	76	30	126	34	176	41
27	27	77	30	127	34	177	41
28	27	78	31	128	34	178	41
29	27	79	31	129	34	179	42
30	27	80	31	130	34	180	42
31	27	81	31	131	34	181	43
32	27	82	31	132	34	182	44
33	28	83	31	133	34	183	44
34	28	84	31	134	34	184	46
35	28	85	31	135	34	185	47
36	28	86	31	136	34	186	47
37	28	87	31	137	34	187	53
38	28	88	31	138	35	188	-
39	28	89	31	139	35	189	-
40	28	90	31	140	35	190	-
41	28	91	31	141	35	191	-
42	28	92	31	142	35	192	-
43	28	93	31	143	35	193	-
44	28	94	31	144	36	194	-
45	28	95	31	145	36	195	-
46	28	96	31	146	36	196	-
47	28	97	31	147	36	197	-
48	28	98	31	148	36	198	-
49	29	99	32	149	36	199	-
50	29	100	32	150	36	200	-
ROAD SURFACE - DRY							

Site Photos & Road Conditions



Average Southbound (mph)	32.1
85th%ile Southbound (mph)	37.0
% > Speed Limit Southbound	58.8%

## Appendix C



Selected map area

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Hampshire Police  
Licence No. 01021C 2018

SCALE	1 : 5910
DATE	24/10/2018
DRAWING NO.	
DRAWN BY	

## Appendix D



crashmap.co.uk

No

**Crash Date:** Monday, October 22, 2018 **Time of Crash:** 3:01:00 PM **Crash Reference:** 2018440397547

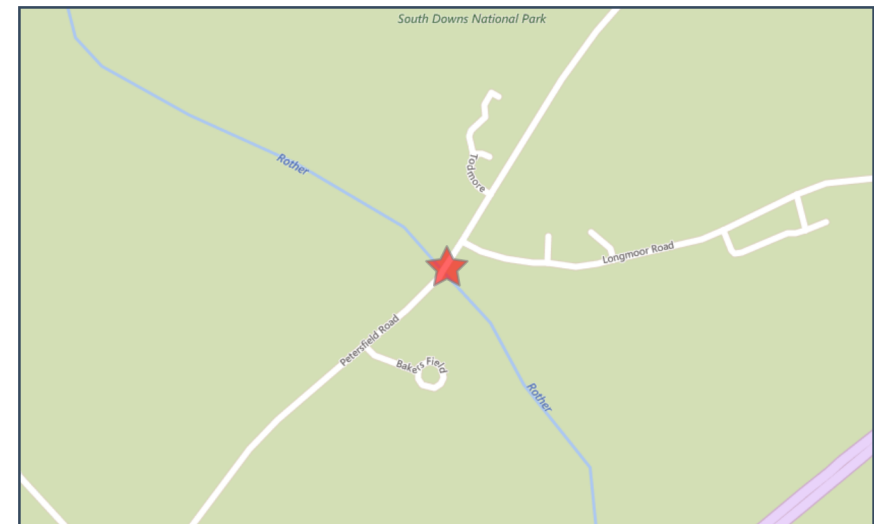
**Highest Injury Severity:** Serious  
**Highway Authority:** Hampshire  
**Local Authority:** East Hampshire District  
**Weather Description:** Fine without high winds  
**Road Surface Description:** Dry  
**Speed Limit:** 30  
**Light Conditions:** Daylight: regardless of presence of streetlights  
**Carriageway Hazards:** None  
**Junction Detail:** Not at or within 20 metres of junction  
**Junction Pedestrian Crossing:** No physical crossing facility within 50 metres  
**Road Type:** Single carriageway  
**Junction Control:** Not Applicable

**Road Number:** U0

**Number of Casualties:** 1

**Number of Vehicles:** 2

**OS Grid Reference:** 477832 130952



For more information about the data please visit: [www.crashmap.co.uk/home/Faq](http://www.crashmap.co.uk/home/Faq)

To subscribe to unlimited reports using CrashMap Pro visit [www.crashmap.co.uk/Home/Premium\\_Services](http://www.crashmap.co.uk/Home/Premium_Services)



No

## Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	-1	Female	Over 75	Vehicle is passing another moving vehicle on its offside	Nearside	Other	None	None
2	Pedal cycle	-1	Female	46 - 55	Vehicle proceeding normally along the carriageway, not on a bend	Offside	Other	None	None

## Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Serious	Driver or rider	Female	46 - 55	Unknown or other	Unknown or other

For more information about the data please visit: [www.crashmap.co.uk/home/Faq](http://www.crashmap.co.uk/home/Faq)

To subscribe to unlimited reports using CrashMap Pro visit [www.crashmap.co.uk/Home/Premium\\_Services](http://www.crashmap.co.uk/Home/Premium_Services)

## Appendix E

Ward 1

District

Ward 2

District

Ward 3

District

Ward Tempro Factor 2011-2033

1.076

District Tempro Factor 2011-2033

1.073

The Hangers and Forest

East Hampshire

STAGE

1

Please input the ward name for your development location by double clicking in the box or click box and use the drop down menu to the right of the box. The spreadsheet will automatically show the District and Ward of this location. If the ward is not known please refer to <https://www.nomisweb.co.uk/reports/lmp/ward2011/contents.aspx> and input postcode. Where Census data contains small samples for certain sized dwellings this is highlighted in red if <20, and green if <50 in the Total Demand column. In such cases, other wards should be selected to achieve a higher sample size, the tool allows for 3 wards. If there is still a low sample then the tool will automatically choose district/borough data.



**GUIDANCE NOTE**

The Parking Demand Tool should be used with reference to South Downs National Park Authority Residential Parking Policy Guidance. The tool uses Census 2011 Car Ownership and Temprow predicted growth to 2033 to predict residential development parking demand. The tool is not a definitive standard but a guide to the expected level of car ownership. For more information please refer to the guidance document or contact [planningpolicy@southdowns.gov.uk](mailto:planningpolicy@southdowns.gov.uk).

STAGE 2												
Please input the unit type, tenure, number of bedrooms, number of units of that type and number of allocated parking spaces												
DEVELOPMENT MIX						ALLOCATED PARKING	PARKING DEMAND					
Ref.	Unit Type	Tenure	Habitable Rooms (Per Unit)	Bedrooms (Per Unit)	No. of Units (Total)	Spaces (Per Unit)	Allocated No.	Unallocated for Residents		Unallocated for Visitors		Total Demand
								per unit	Total	per unit	Total	
A	Houses	Other	3	1	2	1	2	0.56	1.12	0.20	0.40	3.52
B	Houses	Other	4	2	10	2	20	0.08	0.79	0.20	2.00	22.79
C	Houses	Other	5	3	6	2	12	0.11	0.65	0.20	1.20	13.85
D	Houses	Owner-Occupied	4	2	3	2	6	0.07	0.20	0.20	0.60	6.80
E	Houses	Owner-Occupied	5	3	6	2	12	0.13	0.77	0.20	1.20	13.97
F	Houses	Owner-Occupied	6	4	7	3+	21	0.00	0.00	0.20	1.40	22.40
G	Houses	Owner-Occupied	7	5	3	3+	9	0.00	0.00	0.20	0.60	9.60
H												
I												
J												
K												
L												
M												
N												
O												
P												
Q												
R												
S												
Total					37		82	3.54		7.40	92.94	

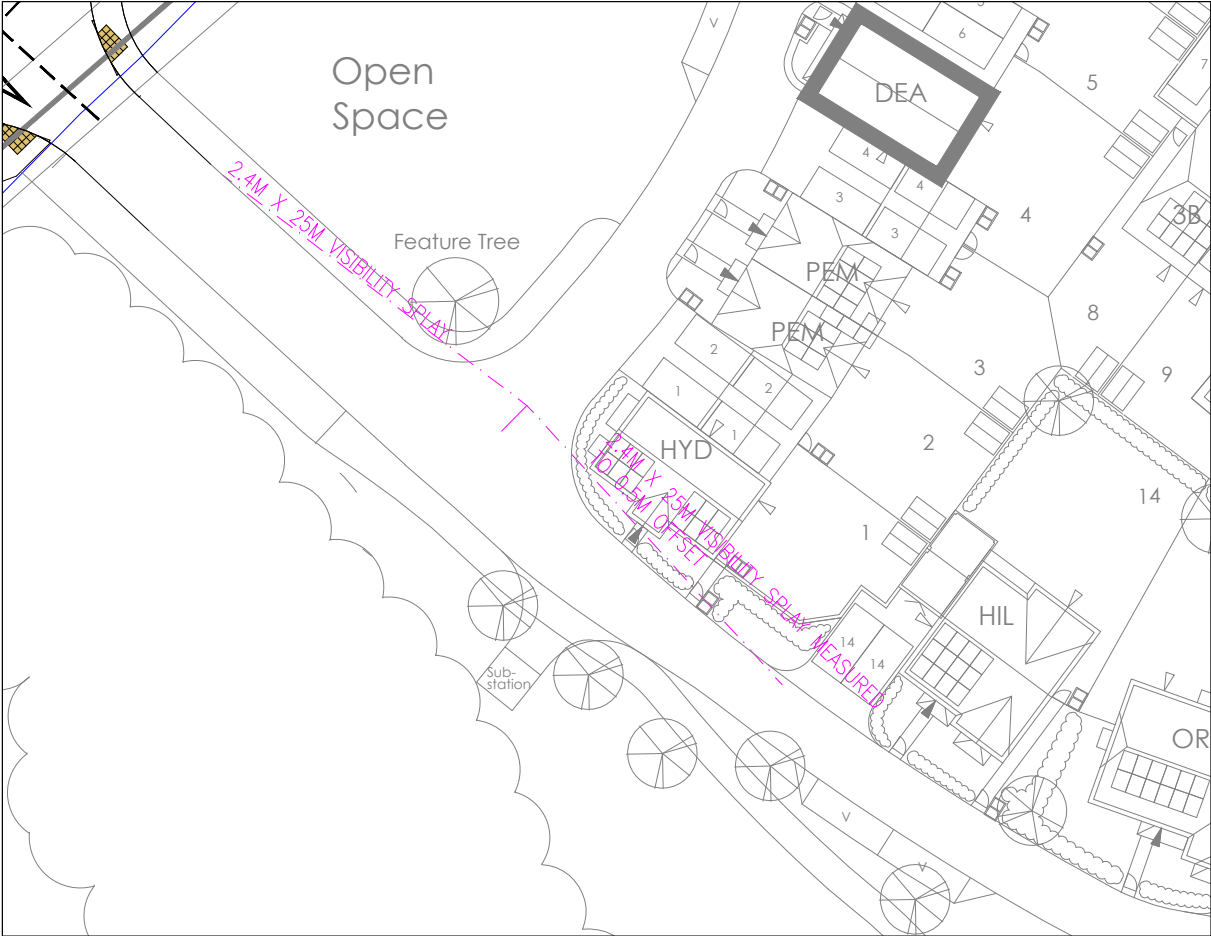
Total Parking Demand for Development

Spreadsheet tool developed by:

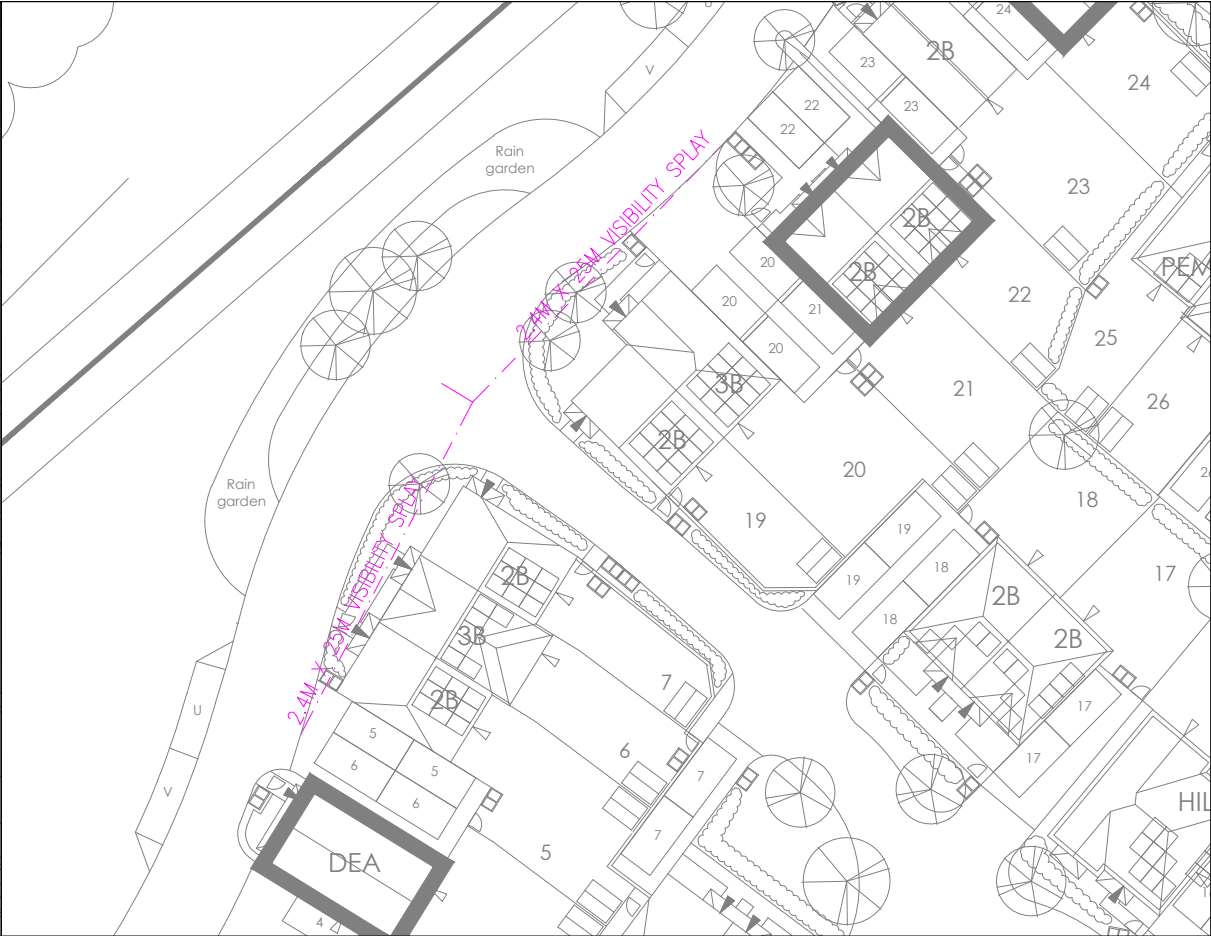


[www.pelhamtransportconsulting.co.uk](http://www.pelhamtransportconsulting.co.uk)

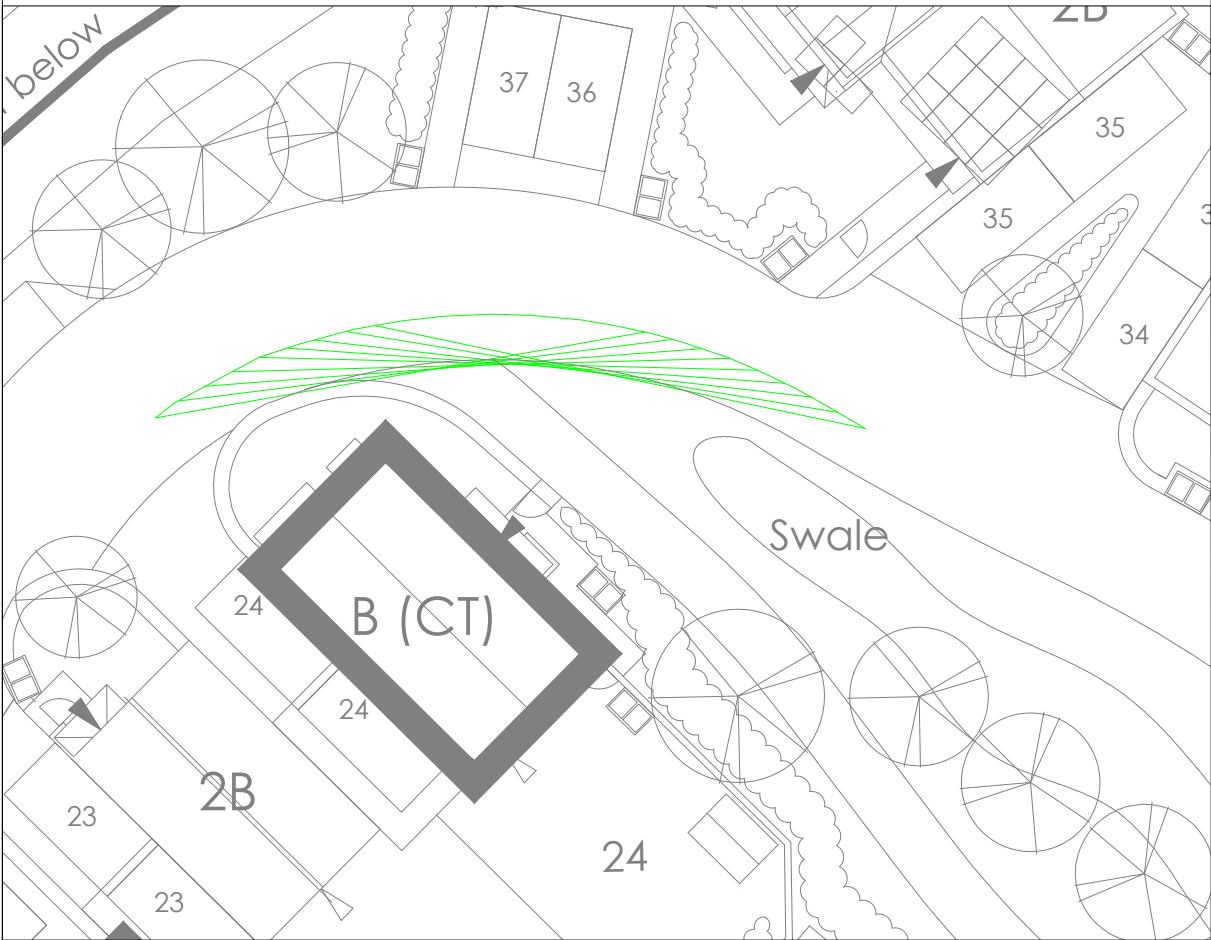
## Appendix F



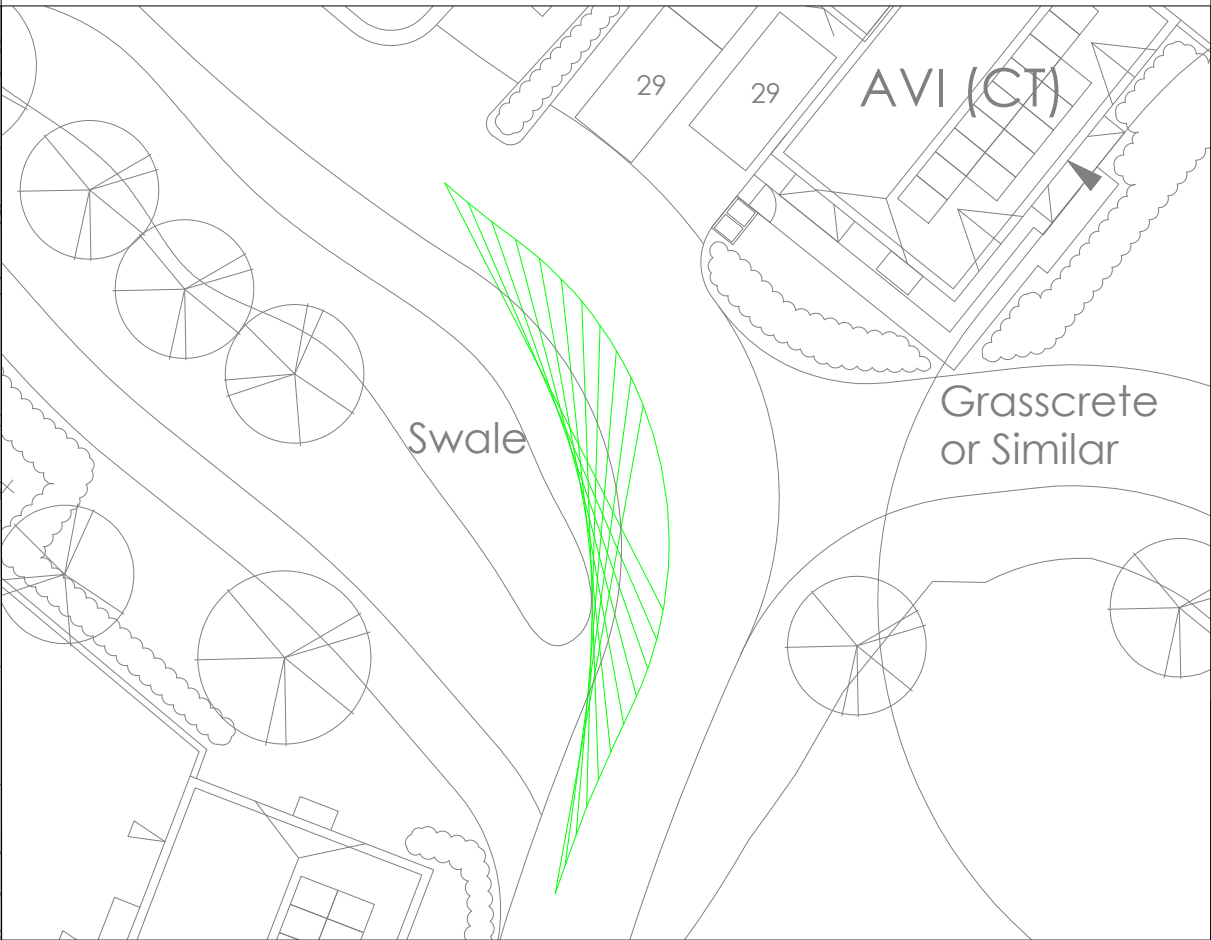
INTERNAL VISIBILITY SPLAY TO 20MPH (PLOT 1) (SCALE 1:500)



INTERNAL VISIBILITY SPLAY TO 20MPH (PLOT 7 AND 19) (SCALE 1:500)



FORWARD VISIBILITY SPLAY TO 15MPH (PLOT 24) (SCALE 1:250)





FORWARD VISIBILITY SPLAY TO 15MPH (PLOT 28) (SCALE 1:250)

GENERAL NOTES

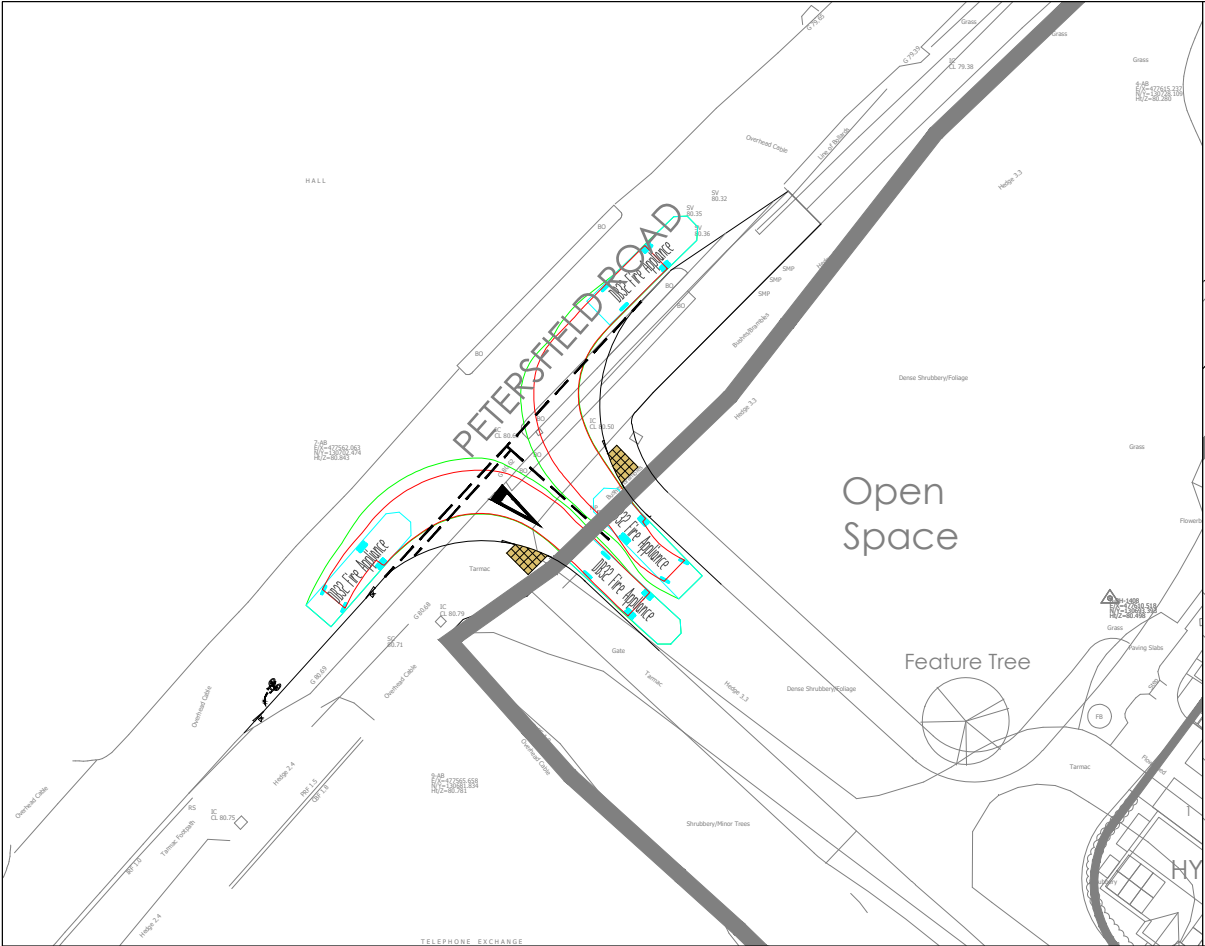
1. THIS DRAWING IS INTENDED TO BE VIEWED IN COMBINATION WITH ALL RELEVANT ARCHITECTS, ENGINEERS, SERVICES AND SPECIALIST DRAWINGS AND SPECIFICATION.
2. ANY VARIATIONS OR DISCREPANCIES BETWEEN THESE DRAWINGS IN TERMS OF DIMENSIONS OR DETAILS SHOULD BE DRAWN TO THE ATTENTION OF THE ARCHITECT AND/OR THE ENGINEER FOR CLARIFICATION.
3. PAUL BASHAM ASSOCIATES ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF BACKGROUND INFORMATION PRODUCED BY THIRD PARTIES – THIS MUST BE TREATED AS INDICATIVE ONLY.
4. ALL DIMENSIONS AND LEVELS ARE IN METRES. DO NOT SCALE THIS DRAWING, PRINT, PLOT OR DISK.
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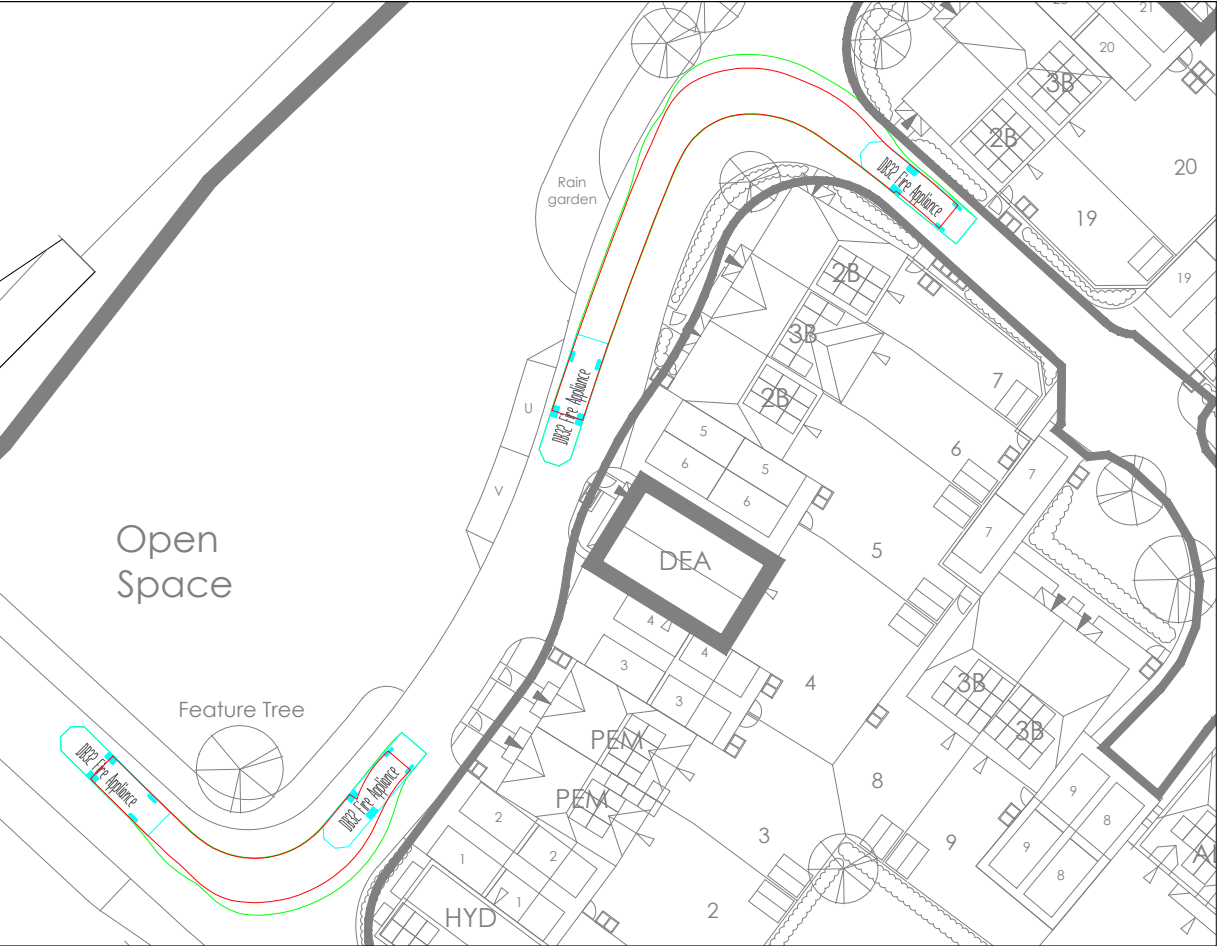
F	UPDATED SITE LAYOUT	25.06.21	ID	MS
E	UPDATED SITE LAYOUT	13.10.20	JL	MS
D	UPDATED SITE LAYOUT	15.10.19	LS	JL
C	FINAL SITE LAYOUT	21.11.18	SB	JH
B	UPDATED SITE LAYOUT	09.11.18	SB	JH
A	REVISED VISIBILITY SPLAYS FOR 15MPH DESIGN SPEED	16.10.18	SB	MS
Rev	Description	Date	By	Chkd

Project Name LISS FOREST NURSERY GREATHAM	Title INTERNAL VISIBILITY SPLAY ASSESSMENT	 Paul Basham Associates Ltd Lancaster Court, 8 Barnes Wallis Road, Fareham, PO15 5TU 01489 668134 info@paulbashamassociates.com www.paulbashamassociates.com	Client 	Checked By JH	Checked Date 11.10.18	Scale AS SHOWN (AT A3 SIZE)
Project Phase PRELIMINARY				Drawn By LF	Drawn Date 11.10.18	Client Drawing No. - PBA Drawing No. 096.0004.006 Revision F

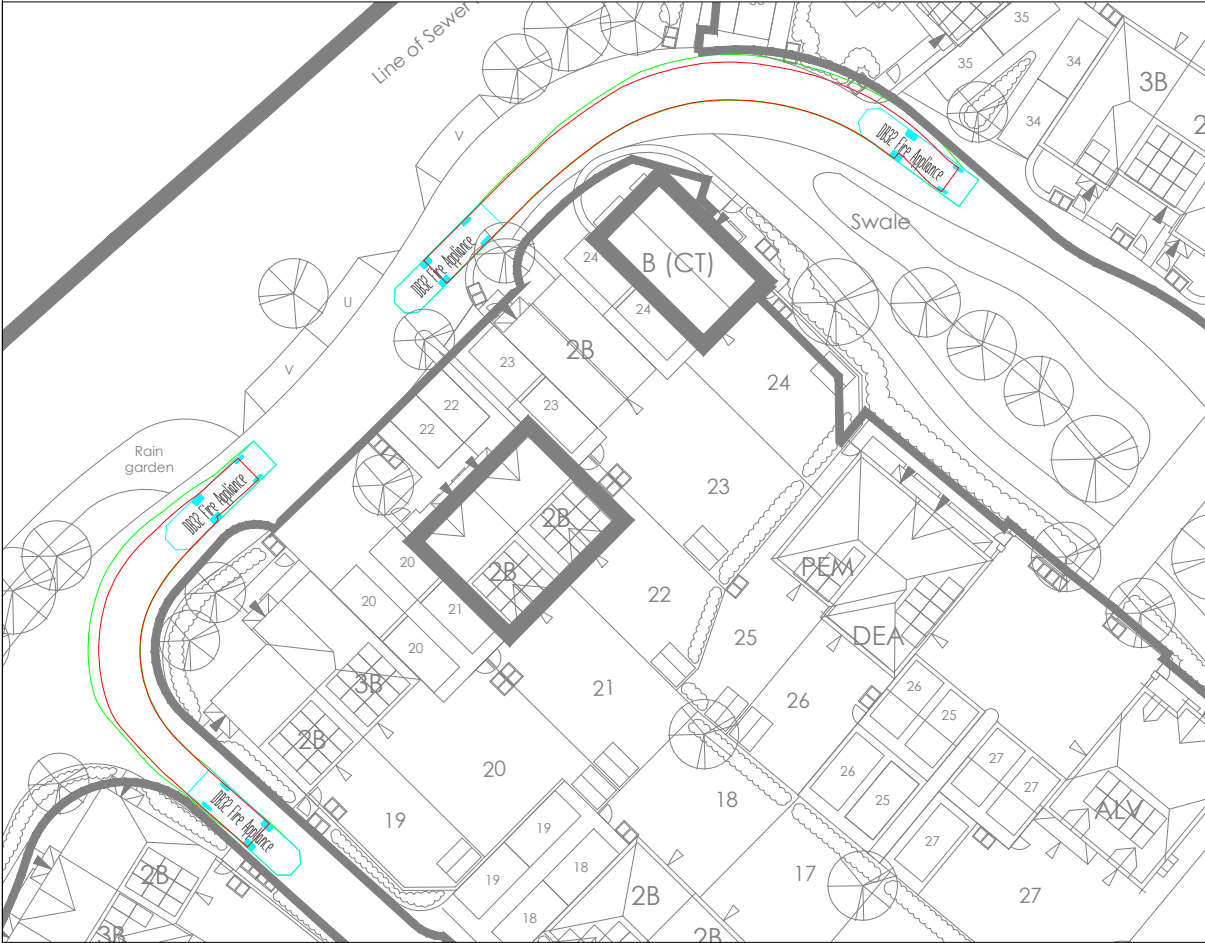
## Appendix G



EMERGENCY VEHICLE TRACKING AT SITE ACCESS (SCALE – 1:500)



EMERGENCY VEHICLE TRACKING BY PLOTS 1, 7 AND 19 (SCALE – 1:500)



EMERGENCY VEHICLE TRACKING BY PLOTS 19 AND 24 (SCALE – 1:500)

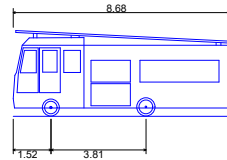


EMERGENCY VEHICLE TRACKING TURNING HEAD AND SOUTHERN SECTION (SCALE – 1:1000)

## GENERAL NOTES

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## VEHICLE PROFILE

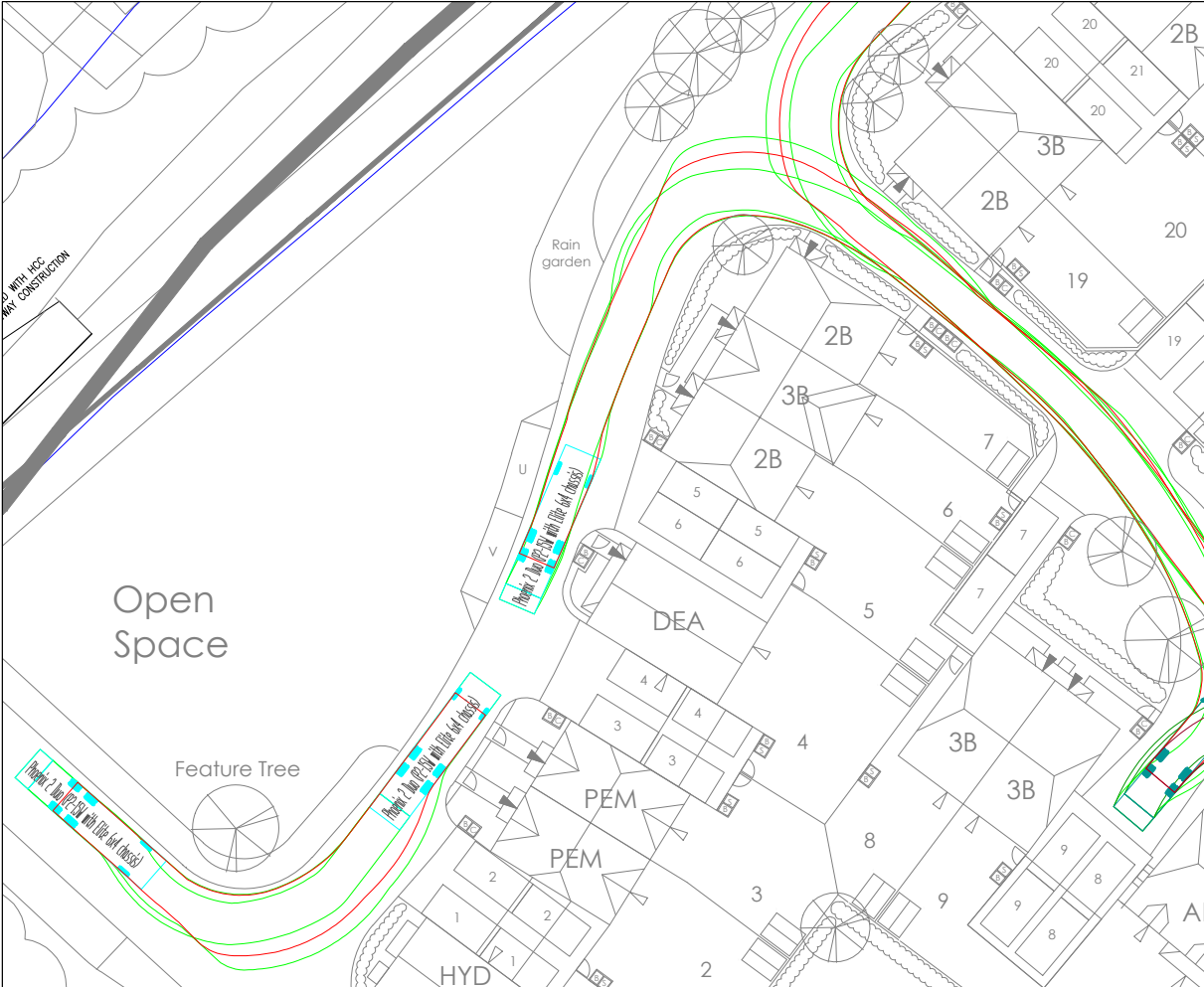


DB32 Fire Appliance  
Overall Length 8.680m  
Overall Width 2.180m  
Overall Body Height 3.452m  
Min Body Ground Clearance 0.337m  
Max Track Width 2.121m  
Lock to lock time 6.00s  
Kerb to Kerb Turning Radius 7.910m

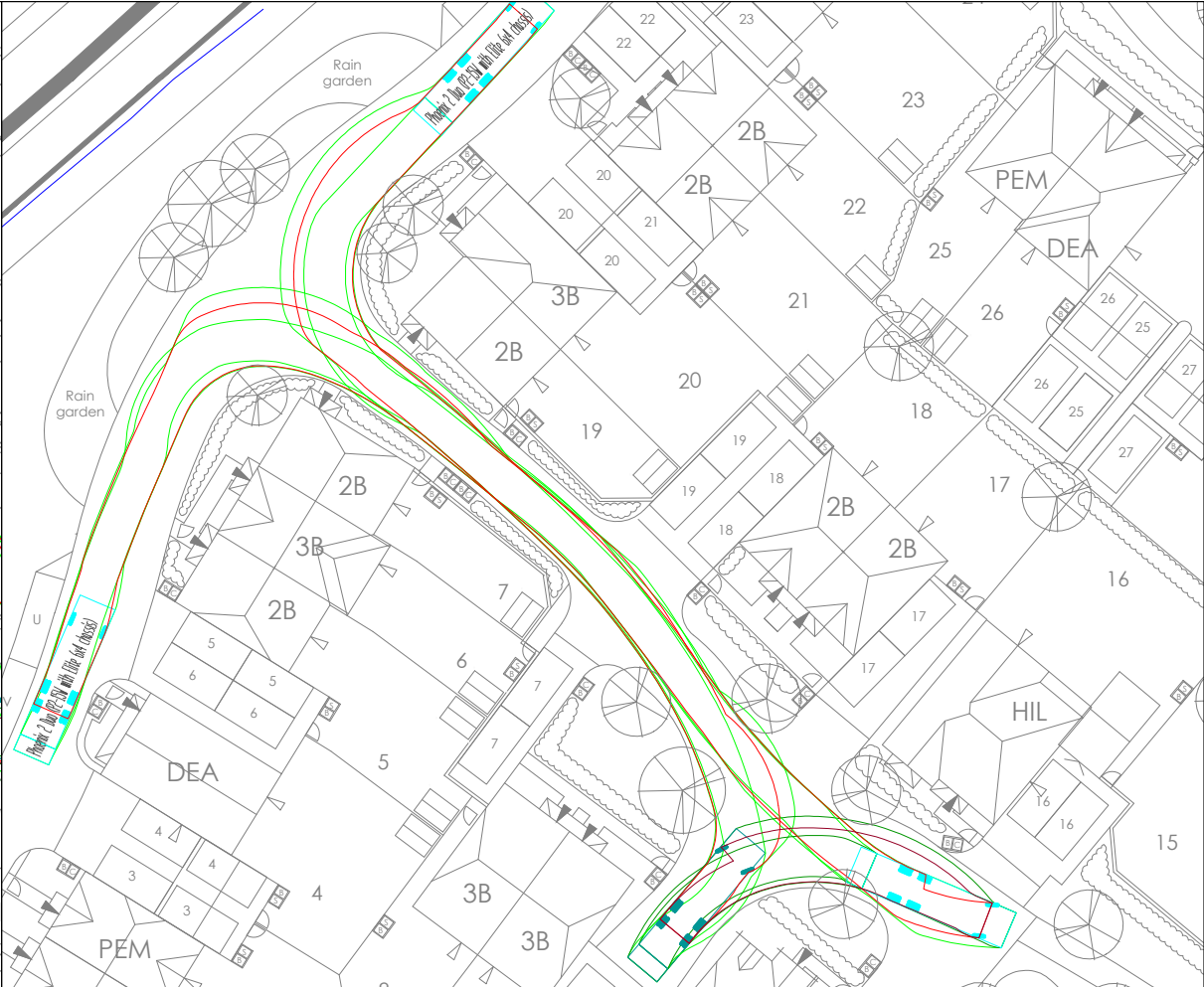


E	UPDATED SITE LAYOUT	25.06.21	ID	MS
D	UPDATED SITE LAYOUT	15.10.20	JL	MS
C	UPDATED SITE LAYOUT	15.10.19	LS	JL
B	FINAL SITE LAYOUT	21.11.18	SB	JH
A	UPDATED SITE LAYOUT	09.11.18	SB	JH
Rev	Description	Date	By	Chkd

Project Name LISS FOREST NURSERY GREATHAM	Title EMERGENCY VEHICLE TRACKING	Client COVE HOMES	Checked By JH	Checked Date 11.10.18	Scale AS SHOWN (AT A3 SIZE)
Project Phase PRELIMINARY		Paul Basham Associates Ltd Lancaster Court, 8 Barnes Wallis Road, Fareham, PO15 5TU 01489 668134 info@paulbashamassociates.com www.paulbashamassociates.com	Drawn By LF	Drawn Date 11.10.18	Client Drawing No. - PBA Drawing No. 096.0004.008 Revision E



REFUSE VEHICLE TRACK BY PLOTS 1, 7 AND 19 (SCALE: 1:500)



REFUSE VEHICLE TRACK BY PLOTS 8 TO 19 (SCALE: 1:500)



REFUSE VEHICLE TRACK BY PLOTS 19 AND 24 (SCALE: 1:500)

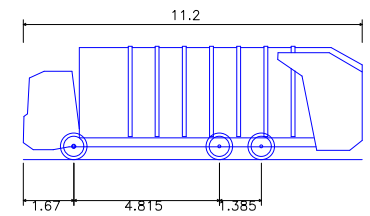


REFUSE VEHICLE TRACK SOUTHERN SECTION (SCALE: 1:1000)

## GENERAL NOTES

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## VEHICLE PROFILE



Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)  
Overall Length 11.200m  
Overall Width 2.530m  
Overall Body Height 3.751m  
Min Body Ground Clearance 0.304m  
Track Width 2.500m  
Lock to lock time 4.00s  
Kerb to Kerb Turning Radius 9.500m



J	UPDATED SITE LAYOUT	25.06.21	ID	MS
I	UPDATED SITE LAYOUT	02.05.21	ID	JL
H	UPDATED SITE LAYOUT	28.05.21	ID	JL
G	UPDATED SITE LAYOUT	17.05.21	JL	MS
F	UPDATED SITE LAYOUT	15.10.20	JL	MS
E	UPDATED SITE LAYOUT	30.07.20	ID	MS
D	UPDATED SITE LAYOUT	23.03.20	JL	MS
C	UPDATED SITE LAYOUT	15.10.19	LS	JL
B	FINAL SITE LAYOUT	21.11.18	SB	JH
A	UPDATED SITE LAYOUT	09.11.18	SB	JH
Rev	Description	Date	By	Chkd

Project Name LISS FOREST NURSERY GREATHAM	Title  REFUSE VEHICLE TRACKING	 Paul Basham Associates Ltd Lancaster Court, 8 Barnes Wallis Road, Fareham, PO15 5TU 01489 668134 info@paulbashamassociates.com www.paulbashamassociates.com	 Client	Checked By JH	Checked Date 11.10.18	Scale AS SHOWN (AT A3 SIZE)		
Project Phase PRELIMINARY				Drawn By LF	Drawn Date 11.10.18	Client Drawing No. -	PBA Drawing No. 096.0004.010	Revision J

## Appendix H

Calculation Reference: AUDIT-247601-180207-0223

#### TRIP RATE CALCULATION SELECTION PARAMETERS:

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

##### Selected regions and areas:

03	SOUTH WEST	
	DC DORSET	1 days
	SM SOMERSET	1 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	2 days
08	NORTH WEST	
	CH CHESHIRE	1 days
	GM GREATER MANCHESTER	1 days

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

#### Secondary 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: Number of dwellings  
 Actual Range: 23 to 54 (units: )  
 Range Selected by User: 20 to 60 (units: )

##### Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/09 to 28/03/17

*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
Wednesday	2 days
Thursday	2 days

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

##### Selected survey types:

Manual count	7 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 undertaken using machines.*

##### Selected Locations:

Edge of Town	7
--------------	---

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

##### Selected Location Sub Categories:

Residential Zone	6
No Sub Category	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:

C1	1 days
C3	6 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®.*

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	1 days
10,001 to 15,000	1 days
15,001 to 20,000	1 days
20,001 to 25,000	1 days
25,001 to 50,000	1 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	2 days
25,001 to 50,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	1 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:

1.1 to 1.5	7 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:

No	7 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	7 days
-----------------	--------

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

LIST OF SITES relevant to selection parameters

1	CH-03-A-09	TERRACED HOUSES			CHESHIRE
	GREYSTOKE ROAD				
	HURDSFIELD				
	MACCLESFIELD				
	Edge of Town				
	Residential Zone				
	Total Number of dwellings:		24		
	Survey date: MONDAY		24/11/14		Survey Type: MANUAL
2	DC-03-A-08	BUNGALOWS			DORSET
	HURSTDENE ROAD				
	CASTLE LANE WEST				
	BOURNEMOUTH				
	Edge of Town				
	Residential Zone				
	Total Number of dwellings:		28		
	Survey date: MONDAY		24/03/14		Survey Type: MANUAL
3	GM-03-A-10	DETACHED/SEMI			GREATER MANCHESTER
	BUTT HILL DRIVE				
	PRESTWICH				
	MANCHESTER				
	Edge of Town				
	Residential Zone				
	Total Number of dwellings:		29		
	Survey date: WEDNESDAY		12/10/11		Survey Type: MANUAL
4	NY-03-A-07	DETACHED & SEMI DET.			NORTH YORKSHIRE
	CRAVEN WAY				
	BOROUGHBRIDGE				
	Edge of Town				
	No Sub Category				
	Total Number of dwellings:		23		
	Survey date: TUESDAY		18/10/11		Survey Type: MANUAL
5	NY-03-A-11	PRIVATE HOUSING			NORTH YORKSHIRE
	HORSEFAIR				
	BOROUGHBRIDGE				
	Edge of Town				
	Residential Zone				
	Total Number of dwellings:		23		
	Survey date: WEDNESDAY		18/09/13		Survey Type: MANUAL
6	SH-03-A-05	SEMI -DETACHED/TERRACED			SHROPSHIRE
	SANDCROFT				
	SUTTON HILL				
	TELFORD				
	Edge of Town				
	Residential Zone				
	Total Number of dwellings:		54		
	Survey date: THURSDAY		24/10/13		Survey Type: MANUAL
7	SM-03-A-01	DETACHED & SEMI			SOMERSET
	WEMBDON ROAD				
	NORTHFIELD				
	BRIDGWATER				
	Edge of Town				
	Residential Zone				
	Total Number of dwellings:		33		
	Survey date: THURSDAY		24/09/15		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 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED  
VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	31	0.121	7	31	0.238	7	31	0.359
08:00 - 09:00	7	31	0.140	7	31	0.416	7	31	0.556
09:00 - 10:00	7	31	0.159	7	31	0.196	7	31	0.355
10:00 - 11:00	7	31	0.145	7	31	0.140	7	31	0.285
11:00 - 12:00	7	31	0.220	7	31	0.229	7	31	0.449
12:00 - 13:00	7	31	0.187	7	31	0.178	7	31	0.365
13:00 - 14:00	7	31	0.187	7	31	0.196	7	31	0.383
14:00 - 15:00	7	31	0.182	7	31	0.168	7	31	0.350
15:00 - 16:00	7	31	0.224	7	31	0.168	7	31	0.392
16:00 - 17:00	7	31	0.355	7	31	0.182	7	31	0.537
17:00 - 18:00	7	31	0.360	7	31	0.164	7	31	0.524
18:00 - 19:00	7	31	0.238	7	31	0.103	7	31	0.341
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		2.518			2.378			4.896	

*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.*

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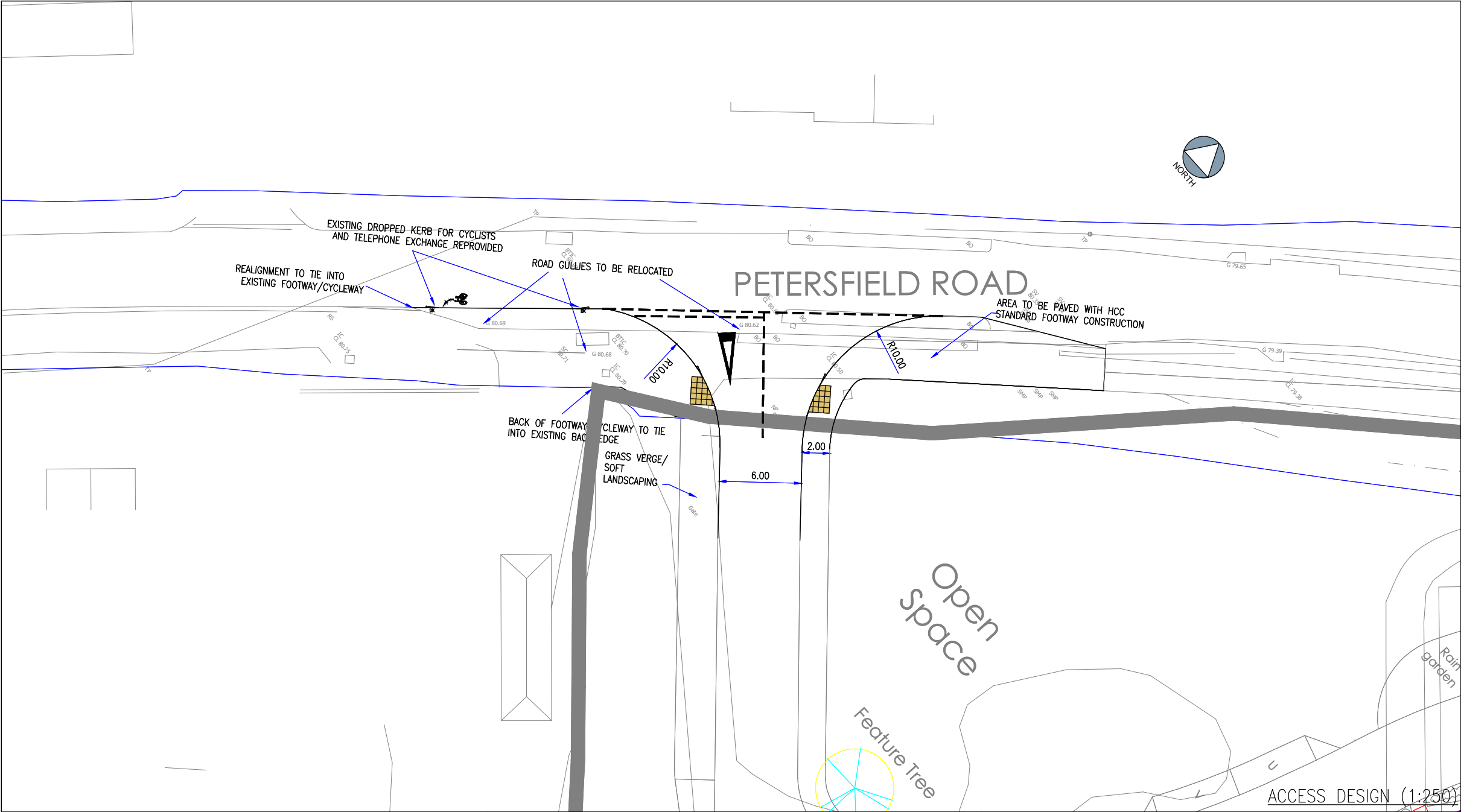
The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

#### Parameter summary

Trip rate parameter range selected:	23 - 54 (units: )
Survey date date range:	01/01/09 - 28/03/17
Number of weekdays (Monday-Friday):	7
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.*

## Appendix I

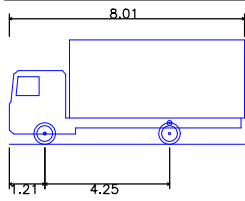


GENERAL NOTES

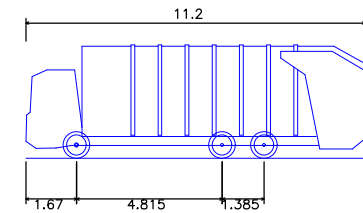
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- 6. ROAD GULLIES WILL REQUIRE RELOCATING AS PART OF THE ACCESS WORKS. THIS WILL BE CONSIDERED AT THE DETAILED SECTION 278 DESIGN WORKS STAGE.

KEY:  
INDICATIVE HIGHWAY BOUNDARY

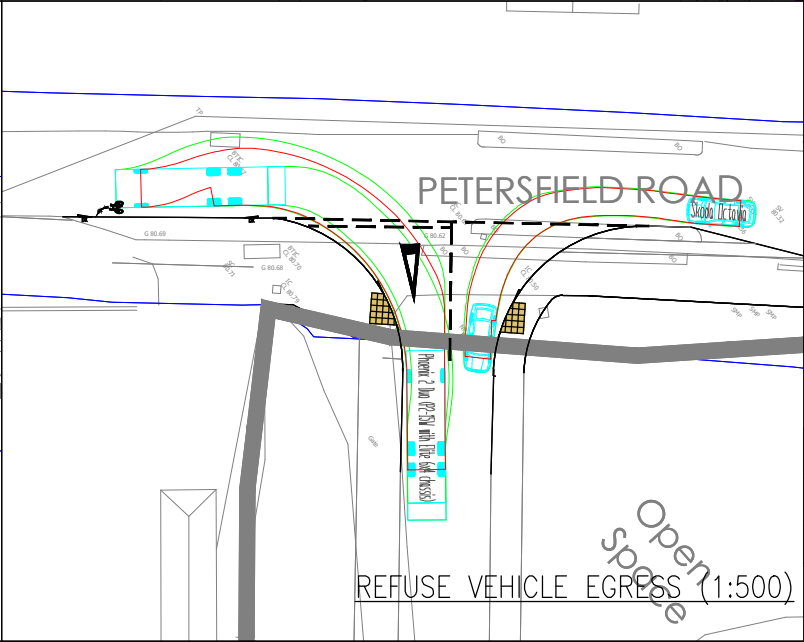
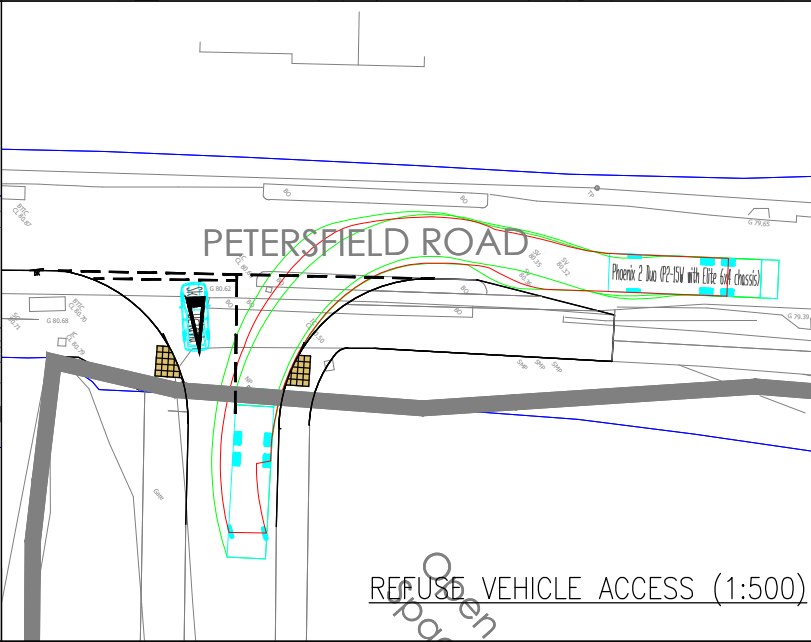
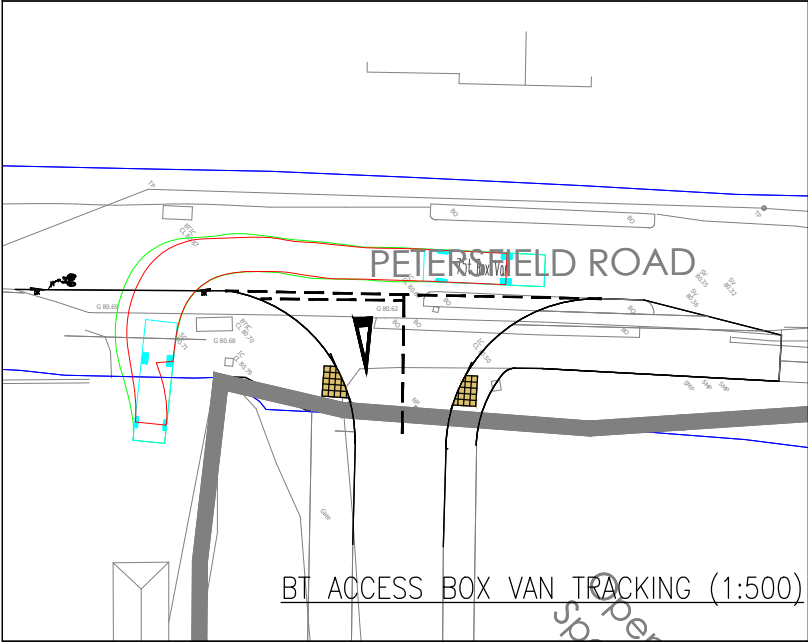
VEHICLE PROFILES:



7.5t Box Van  
Overall Length 8.010m  
Overall Width 2.100m  
Overall Body Height 3.556m  
Min Body Ground Clearance 0.351m  
Track Width 2.064m  
Lock to Lock Time 4.00s  
Curb to Curb Turning Radius 7.400m



Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)  
Overall Length 11.200m  
Overall Width 2.530m  
Overall Body Height 3.751m  
Min Body Ground Clearance 0.304m  
Track Width 2.500m  
Lock to lock time 4.00s  
Kerb to Kerb Turning Radius 9.500m



D	UPDATED SITE LAYOUT	25.06.21	ID	MS
C	UPDATED SITE LAYOUT	15.10.20	JL	MS
B	CLIENT COMMENTS	06.08.20	JL	MS
A	UPDATED DESIGN	13.09.18	SN	JH
Rev	Description	Date	By	Chkd

Project Name

LISS FOREST NURSERY  
GREATHAM

Project Phase

PRELIMINARY

Title

ACCESS DESIGN AND TRACKING

paulbasham  
associates

Paul Basham Associates Ltd

Lancaster Court, 8 Barnes Wallis Road, Fareham, PO15 5TU

01499 668134

info@paulbashamassociates.com www.paulbashamassociates.com

Client

Checked By

JH

Checked Date

15.02.18

Scale

AS SHOWN

Drawn By

SN

Drawn Date

06.02.18

Client Drawing No.

-

PBA Drawing No.

096.0004.003

Revision

D

(AT A3 SIZE)

## Appendix J

**LISS FOREST NURSERY  
PETERSFIELD ROAD  
GREATHAM**


**PROPOSED ACCESS ARRANGEMENTS**

**STAGE 1 ROAD SAFETY AUDIT**

**JULY 2018**

# GM TRAFFIC CONSULTANTS

---

Revision Status	Prepared by: (Name)	Checked by: (Name)	Approved by: (Signature)	Date Approved:
Original	Mark Barrett	Ian Medd		13 July 2018
Designer's Response				
Authority's Response				
Audit Response				

**Client:**  
**Paul Basham**  
**Associates**

**Engineer:**  
**GM**  
**Traffic Consultants Ltd**  
33 Riverside Gardens  
Romsey  
SO51 8HN

Date: 13 July 2018

**TABLE OF CONTENTS**

1.0	INTRODUCTION .....	3
2.0	ITEMS CONSIDERED .....	4
3.0	MATTERS ARISING FROM THIS STAGE 1 RSA .....	5
4.0	AUDITOR STATEMENT .....	6

<b>APPENDIX A</b>	Location Plan
<b>APPENDIX B</b>	Designers Response
<b>APPENDIX C</b>	Local Highway Authority Response

## **1.0 INTRODUCTION**

### **1.1 General**

- 1.1.1 This report results from a Stage 1 Road Safety Audit (RSA) carried out on the proposed access arrangements associated with a residential development of between 35 and 50 dwellings on land at Liss Forest Nursery on Petersfield Road in Greatham.
- 1.1.2 The existing access will be formalised to form a simple priority junction. Visibility splays will be provided based on 85<sup>th</sup>% speeds.
- 1.1.3 The RSA was carried out at the request of Paul Basham Associates.
- 1.1.4 GM Traffic Consultants Ltd carried out the Audit between 10<sup>th</sup> July and 13<sup>th</sup> July 2018. The Auditors were:  
Mark Barrett Highways England Cert. of Comp  
Ian Medd MCIHT FSoRSA
- 1.1.5 The Audit Team are independent of the project design team and have had no other involvement with the design of the project.
- 1.1.6 The report has been prepared in accordance with the Design Manual for Roads and Bridges (DMRB) Highways Directive (HD) 19/15.
- 1.1.7 Whilst reference is made to certain design standards, where safety may be compromised by a reduction in standard, this report is not intended to provide a design check. The Auditors have only reported on matters that might have an adverse effect on road safety in the context of the chosen design. No attempt has been made to comment on the justification of the scheme or the appropriateness of the design. Consequently, the Auditors accept no responsibility for the design or construction of the scheme.
- 1.1.8 The Audit consisted of a desk top study and a site visit, which was carried out on Tuesday 10<sup>th</sup> July 2018 at 14:00. Traffic flows were light and the weather dry and sunny.
- 1.1.9 The recommendations in this report are aimed at addressing the road safety problems; however, there may be other alternative acceptable ways to overcome a specific problem, when other practical issues are considered. The recommendations contained herein do not absolve the Designer of his/her responsibilities.
- 1.1.10 The Auditors would be pleased to discuss the acceptability of alternative solutions to problems identified during the Audit and would encourage the Designer to consult them on this matter.
- 1.1.11 The Local Highway Authority (LHA) response to the RSA should be formally recorded and reported to the Designer and the RSA Team so that a record of the Audit process is contained in the *As Built* design pack to be provided and retained by the LHA on final completion.

## 2.0 ITEMS CONSIDERED

- 2.1 The Road Safety Audit was undertaken on the scheme detailed in the following documentation.

Drawing No.	Rev	Title
096.0004.003	A	Option 2 Access Design and Tracking
096.0004.003	B	Option 2 Horizontal and Vertical Visibility Assessment

- 2.2 The Audit Team have been informed that the vertical visibility is sub-standard due to the gradient changes on Petersfield Road. They have no issues with the Departure.

**3.0 MATTERS ARISING FROM THIS STAGE 1 RSA**

**3.1 PROBLEM**

LOCATION: Access

SUMMARY: No crossing facility

It is unclear if a crossing facility will be provided on either side of the access.  
Failure to provide a dropped crossing could result in pedestrians stumbling/tripping on full height kerbs.

**RECOMMENDATION**

Provide dropped kerbs and tactile paving on either side of the access.

## 4.0 AUDITOR STATEMENT

4.1 We certify that this audit has been carried out in compliance with HD 19/15.

### AUDIT TEAM LEADER

Mark Barrett

**GM Traffic Consultants Ltd**



Signed: .....

TEL: 07787 158 834

### AUDIT TEAM MEMBER

Ian Medd



Signed: ...

**Date: 13 July 2018**



## **APPENDIX B: DESIGNERS RESPONSE**

Auditors: Mark Barrett (Team Leader) and Ian Medd (Team Member)

Scheme: Liss Forest Nursery, Petersfield Road, Greatham - Proposed Access Arrangements

Date Audit Completed: 13 July 2018

This response is to a Stage 1 Road Safety Audit to the design standard detailed within HD19/15 of Volume 5, Section 2, Part 2, of the Design Manual for Roads and Bridges, as detailed by the Highways Agency.

<b>Problem no. in safety audit report</b>	<b>Problem accepted (yes/no)</b>	<b>Recommended measure accepted (yes/no)</b>	<b>Alternative measure (detail description)</b>
<b>3.1</b>	<b>Yes</b>	<b>Yes</b>	<b>Details of tactile paving location provided on revised access drawing design.</b>

**APPENDIX C: LOCAL HIGHWAY AUTHORITY RESPONSE**

**Principal Engineer's Statement:**

**Road Safety Audit for Liss Forest Nursery, Petersfield Road, Greatham - Proposed Access Arrangements**

I certify that I have considered the items that have arisen in the Stage 1 Road Safety Audit Report and I am content to accept all of its recommendations except for the ones listed above. I have stated my reasons for not accepting them and I seek the Chief Engineer's endorsement of my proposals.

..... Date.....

Principal Engineer

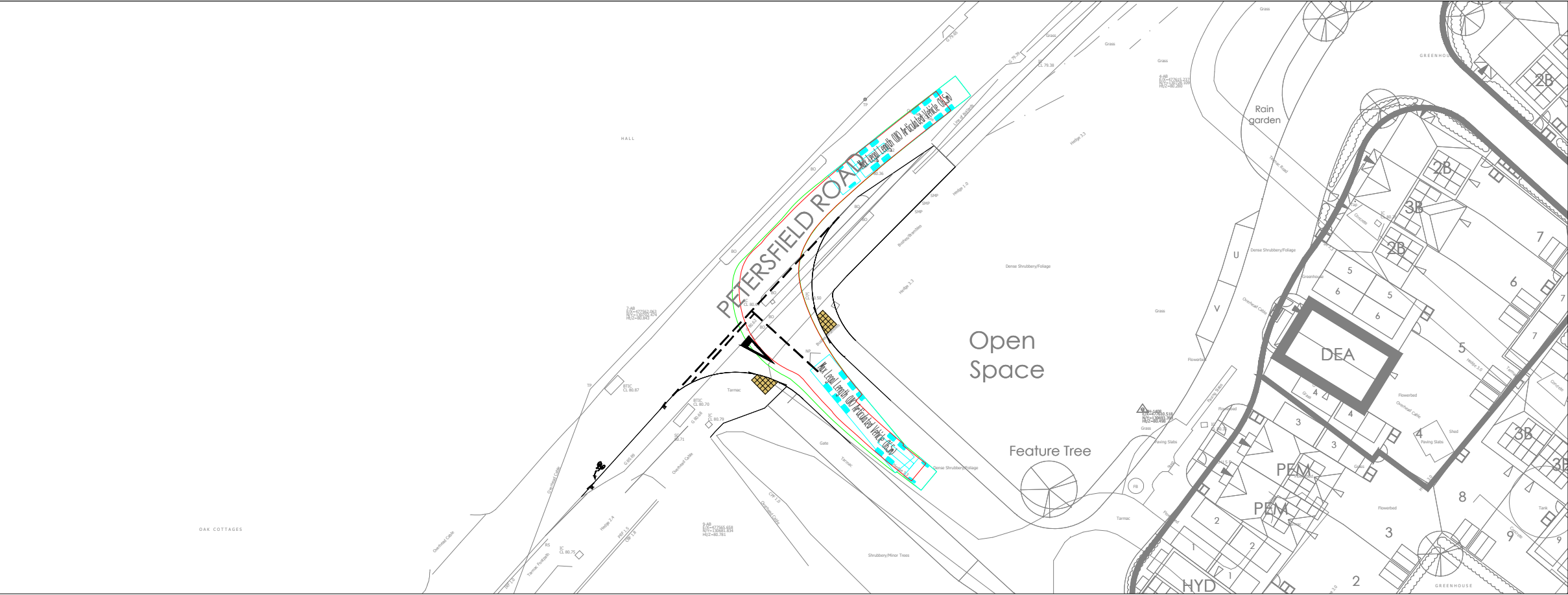
**Chief Engineer's Decision:**

I accept these proposals by the Principal Engineer.

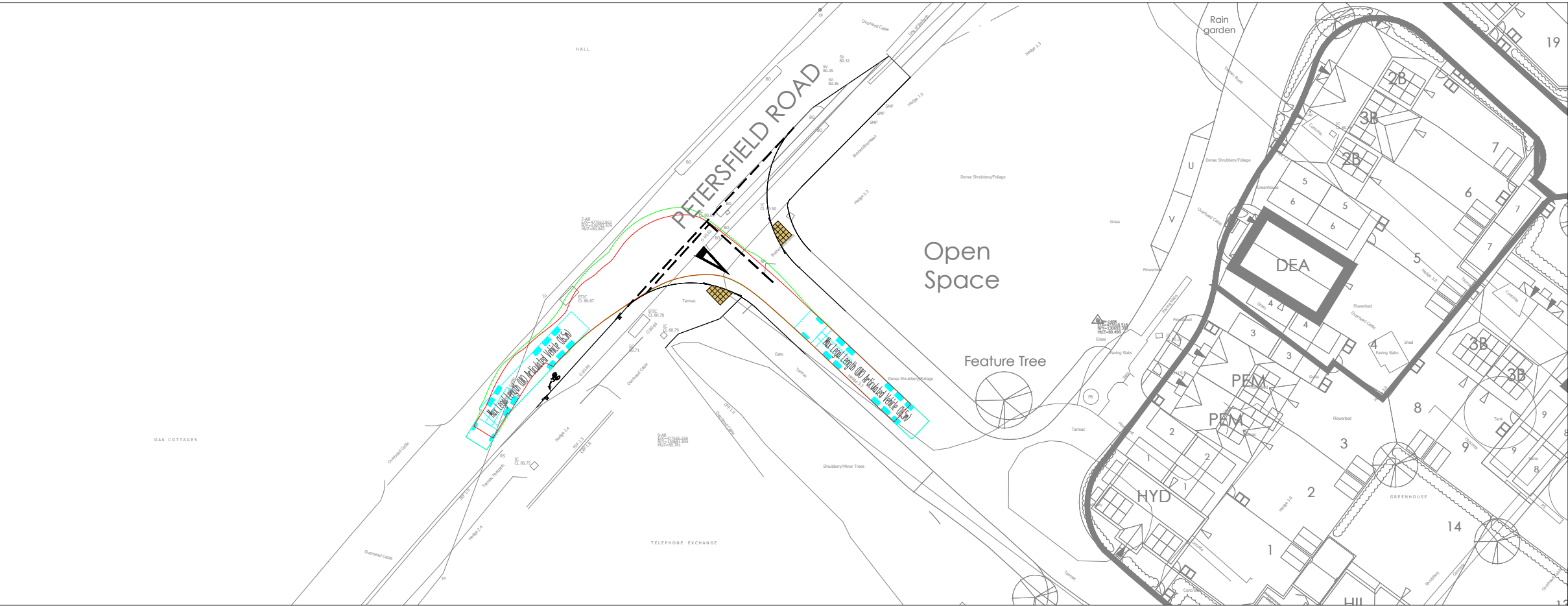
..... Date.....

Chief Engineer

## Appendix K



ARTICULATED VEHICLE LEFT IN

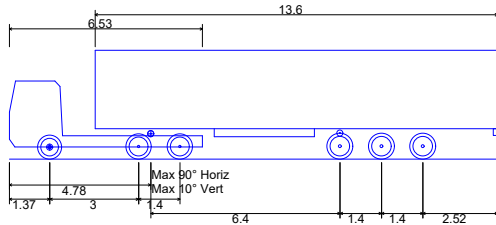


ARTICULATED VEHICLE LEFT OUT

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VEHICLE PROFILE



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



B	REVISED SITE LAYOUT	25.06.21	ID	MS
A	REVISED SITE LAYOUT	15.10.20	JL	MS
Rev	Description	Date	By	Chkd

Project Name LISS FOREST NURSERY GREATHAM	Title  CONSTRUCTION VEHICLE TRACKING	 Paul Basham Associates Ltd Lancaster Court, 8 Barnes Wallis Road, Fareham, PO15 5TU 01489 668134 info@paulbashamassociates.com www.paulbashamassociates.com	Client 	Checked By MS	Checked Date 06.03.20	Scale 1:500  (AT A3 SIZE)		
Project Phase PRELIMINARY				Drawn By JL	Drawn Date 06.03.20	Client Drawing No. -	PBA Drawing No. 096.0004.012	Revision B

## Appendix L