



**B R I G H T P L A N**

**LAND AT RIDGEWAY LANE & LOWER  
PENNINGTON LANE**

**RESIDENTIAL DEVELOPMENT**

Transport Assessment

Prepared on Behalf of

Cicero Estates

6181

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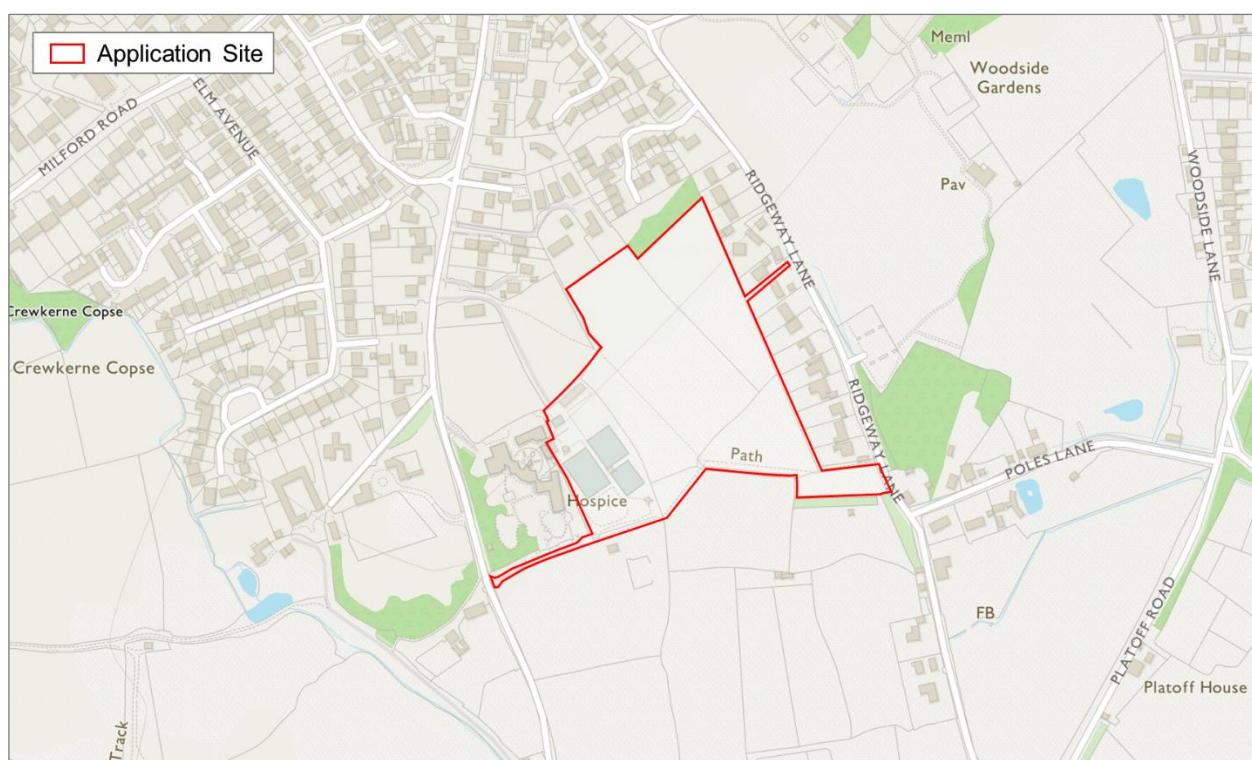
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## 1 INTRODUCTION

- 1.1.1 This Transport Assessment (TA) has been prepared by Bright Plan on behalf of Cicero Estates to inform pre-application consultation for a prospective residential development on land adjoining Ridgeway Lane and Lower Pennington Lane, Lymington. The site is allocated for at least 100 dwellings within New Forest District Council's Local Plan 2016 – 2036, under Policy SS6 "Land to the east of Lower Pennington Lane, Lymington".
- 1.1.2 The site encompasses an area of c.6ha between Ridgeway Lane and Lower Pennington Lane, circa 1.4km to the south-west of Lymington town centre. The site location is demonstrated in **Figure 1.1** and in **Plan 01**.



**Figure 1.1: Site Location**

- 1.1.3 The existing site is currently occupied by the Northfield Nursery (a horticultural nursery), a large area of agricultural land, open fields and horse paddocks. Development of the site would involve the demolition of the nursery and the construction of 84 new residential dwellings. The prospective site would also provide a new link road connecting Ridgeway Lane and Lower Pennington Lane.
- 1.1.4 As part of the site allocation works, extensive assessment of the proposed scheme has been undertaken with HCC Highways Officers and S278 engineers to establish the feasibility of the development.
- 1.1.5 This TA identifies the site's key highways and transport characteristics and assesses the site's impact on the local road network. The remainder of this report is comprised of the following:
- Section 2** provides a review of the relevant national, regional, and local policies which the proposed development adheres to.
  - Section 3** sets out the baseline transport conditions in the local area and highway network, and provides a review of highway safety.



- iii. **Section 4** provides an assessment of the proposed access arrangements and indicative internal layout considered design against relevant design guidance.
- iv. **Section 5** assesses the site's anticipated trip generation using the TRICS database and the anticipated traffic impact on the local highway network.
- v. **Section 6** provides a review of the suitability of Ridgeway Lane and Lower Pennington Lane.
- vi. **Section 7** provides a summary of the TA's conclusions.



## 2 POLICY REVIEW

2.1.1 This section summarises the key relevant national and local transport policies relevant to the prospective development site which the development would be required to adhere to.

### 2.2 National Planning Policy Framework (February 2019)

2.2.1 National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied. The NPPF assumes a presumption in favour of sustainable development and urges local planning authorities to support development that facilitates the use of sustainable modes of transport.

2.2.2 Paragraph 108 states: "In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

- i. *appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
- ii. *safe and suitable access to the site can be achieved for all users; and*
- iii. *any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree."*

2.2.3 Paragraph 109 states: "Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."

2.2.4 Paragraph 110 states: "Within this context, applications for development should:

- i. *give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*
- ii. *address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*
- iii. *create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
- iv. *allow for the efficient delivery of goods, and access by service and emergency vehicles; and*
- v. *be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations."*

2.2.5 Paragraph 111 states: "All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed."





## 2.3 New Forest District Council's Local Plan 2016 – 2036

2.3.1 New Forest District Council's (NFDC) Local Plan "Part 1: Planning Strategy" was adopted in July 2020. The document sets out the council's plan for the New Forest District outside the New Forest National Park and provides strategic policies, including strategic site allocations.

2.3.2 The application site is allocated within the new Local Plan under "Strategic Site 6: Land to the east of Lower Pennington Lane, Lymington." For at least 100 homes. A number of planning objectives are set out for the site as follows:

*"Create a well-designed extension to the settlement of Lymington with a character and density that is respectful of the low density and rural edge character of the locality and surrounding properties.*

*Provide a central greenspace serving as a focal point for the development that also defines a new rural edge and softens the transition to the open countryside of the adjoining New Forest National Park.*

*Retain and enhance important tree belts, rights of way, hedge rows and incidental open spaces around the site boundaries as landscape features forming an important part of the character of the site and providing some screening for existing residential areas.*

*Integrate the site into the built-up area of Lymington connecting to its footpath networks to central Lymington, Woodside Park and to the countryside.*

*Provide points of vehicular access to the site from both Lower Pennington Lane and from Ridgeway Lane, connecting to provide a vehicular route through the site."*

2.3.3 In relation to site access, the Local Plan states:

*"Vehicular access to the site is by rural lanes with a distinctive character requiring a careful balance between providing safe access and maintaining their character. Visibility and safety will need to be addressed for the site access onto Ridgeway Lane. The main pedestrian access towards the town centre should be provided via Woodside Lane and Forest Gate Gardens."*



### 3 BASELINE CONDITIONS

- 3.1.1 The site covers an approximate area of 6ha located between Ridgeway Lane and Lower Pennington Lane, circa 1.4km to the south-west of Lymington town centre. As shown in **Plan 01**, there is a wide range of services and amenities within walking and cycling distance of the site.
- 3.1.2 The site is bordered by residential properties to the north and east, open fields to the south, and Oakhaven Hospice and Lower Pennington Lane to the west. The site context is demonstrated in **Figure 3.1**.



**Figure 3.1: Aerial View of Site Location**

- 3.1.3 Vehicle access to the site is currently served from a c.6m wide bellmouth junction adjoining the eastern side of Lower Pennington Lane. The access currently serves the Northfield Nursery site as well as Oakhaven Hospice. The existing access adjoining Lower Pennington Lane is demonstrated in **Figure 3.2**.





**Figure 3.2: Existing Access Adjoining Lower Pennington Lane**

- 3.1.4 A secondary access is located on the western side of Ridgeway Lane. The access takes the form of a c.4m wide field access with a gate set back c.8m from the carriageway edge. The existing access adjoining Ridgeway Lane is demonstrated in **Figure 3.3**.



**Figure 3.3: Existing Field Access Adjoining Ridgeway Lane**

## **3.2 Local Highway Network**

- 3.2.1 The site is situated between Ridgeway Lane and Lower Pennington Lane. Both roads serve as local distributor roads serving a number of residential areas, businesses and local amenities. Ridgeway Lane and Lower Pennington Lane are two-way single carriageways of variable width (c.5.0m in the vicinity of the site) and are subject to a 30mph speed limits.
- 3.2.2 Ridgeway Lane and Lower Pennington Lane are bordered by a mixture of thick vegetation, grass banks, shallow ditches, and driveways. Ridgeway Lane and Lower Pennington Lane's carriageway characteristics are demonstrated in **Figures 3.4** and **3.5**.





**Figure 3.4: Ridgeway Lane**



**Figure 3.5: Lower Pennington Lane**

### **3.3 Wider Highway Network**

- 3.3.1 The A337 is located circa 400m to the north of the site and can be accessed via both Ridgeway Lane and Lower Pennington Lane. The A337 provides a route between Christchurch to the west and Lymington town centre to the north east. Further north of the site, the A337 meets the M35 which provides a link to the Strategic Road Network at the A31 / M27. The A31 / M27 provides a route along the south coast, facilitating access to Bournemouth, Southampton, and Portsmouth. The sites wider highway context is demonstrated in **Figure 3.6**.





Figure 3.6: Wider Highway Network

### 3.4 Existing Accessibility Credentials

#### **Pedestrian Accessibility**

- 3.4.1 There is no existing pedestrian infrastructure on Ridgeway Lane or Lower Pennington Lane in the vicinity of the site however the low speed environment means walking in the carriageway is common place. To the north of the Rookes Lane junction, Ridgeway Lane is flanked by footways providing a connection with the wider footway network in Lymington.
- 3.4.2 There are a number of Public Rights of Way (PROW) footpaths in the surrounding area including 2 paths running through the site. PROW route numbers 82 and 83 provide a pedestrian link between Ridgeway Lane and Lower Pennington Lane. The PROW footpaths running through the site and in the surrounding area are demonstrated in **Plan 01**.
- 3.4.3 The Chartered Institute of Highways and Transportation's (CIHT) publication 'Providing for Journeys on Foot' (2000) states that the average length of a journey on foot is 1km. It further recommends a preferred maximum walking distance of 2km for commuting journeys. As shown on **Plan 01**, a wide range of local amenities are situated within 1km of the application site and are therefore accessible on foot.

#### **Cycle Accessibility**

- 3.4.4 Lower Pennington Lane and North Street are listed as an approved on-road route in The New Forest National Park cycle route map attached at **Appendix A**. On and off-street cycle lanes and crossing facilities are provided at the A337 / Ridgeway Lane / North Street Roundabout junction facilitating movements across the roundabout and along the A337 which is supported by cycle lanes through Lymington. The on-street cycle infrastructure on the A337 is demonstrated in **Plan 01** and is shown in **Figures 3.7** and **3.8**.



**Figure 3.7: Lower Pennington Lane Cycle Signage**



**Figure 3.8: A337 / Ridgeway Lane / North Street Cycle Infrastructure**

- 3.4.5 Additionally, the Lymington 'Sway Loop' cycle route is identified in the immediate vicinity of the development site as identified on the New Forests National Park's website. The route provides an attractive lightly trafficked route around Lymington. Whilst the route is predominantly a leisure route, parts of the route can be used for short journeys into Lymington.
- 3.4.6 The New Forest National Park Authority identifies that SANG's and other green open space can serve as a connection between neighbourhoods by sustainable transport modes and should be considered in the master planning process. To the east of the development site, Woodside Park provides an opportunity to connect the prospective development site and other strategic development's open space enhancing local cycle and pedestrian connectivity.
- 3.4.7 The topography of the local area is relatively flat making it suitable for cyclists to use the local road network to access the site. The CIHT's publication 'Cycle Friendly Infrastructure' (1996), suggests that reasonably fit individuals can comfortably cycle a distance of 8km to workplace destinations. The entirety of Lymington as well as the smaller settlements of Milford on Sea, Everton, and Hordle are therefore accessible by bicycle from the site.





### Accessibility by Bus

3.4.8 The application site is within walking distance of multiple bus stops, the closest being Pennington Fox Pond circa 500m from the site. The stops provide hourly services to Bournemouth and New Milton, as well as providing a number of services to local schools and colleges. A summary of services available from local stops is provided in **Figure 3.8**.

Service	Route Summary	Typical Frequency	Operating Hours
X1	Lymington – Highcliffe – Christchurch – Bournemouth	Mon-Sat: 1 every hour Sun: 1 every 2 hours	Mon-Fri: 06:32 – 17:48 Sat: 06:38 – 17:48 Sun: 09:38 – 15:53
X2	Lymington – Bournemouth	Mon-Sat: 1 every hour	Mon-Fri: 06:03 – 16:44 Sat: 07:45 – 16:45
119	Lymington – Pennington – Everton – New Milton	Mon-Fri: 1 every hour	Mon-Fri: 09:14 – 14:14
780	Lymington – St Peters School Bournemouth	Mon-Fri: 1 per school day	Mon-Fri: 07:28 – 16:30
789	Lymington – Bournemouth Grammar Schools	Mon-Fri: 1 per school day	Mon-Fri: 06:56 – 16:44
Bluestar 6	Lymington – Southampton	Mon-Sat: 1 every hour Sun: 1 every 2 hours	Mon-Fri: 07:01 – 17:26 Sat: 08:45 – 17:25 Sun: 09:46 – 17:26
Brock Bus C8	Milford on Sea – Pennington – Lymington – Buckland – Brockenhurst College	Mon-Fri: 1 per school day	Mon-Fri: 08:24 – 16:50
Brock Bus C9	Keyhaven – Everton – Pennington – Upper Pennington – Brockenhurst College	Mon-Fri: 1 per school day	Mon-Fri: 08:21 – 16:50

**Figure 3.7: Bus Services from Local Bus Stops**

### Accessibility by Rail

3.4.9 Lymington Town railway station is located circa 1.8km to the north of the site and is therefore accessible on foot or by cycle based on the aforementioned CIHT guidance. The station is served by South West Trains and provides routes to Lymington Pier and Brockenhurst where a wider range of destinations including London Waterloo are available. A summary of services from Lymington Town railway station is provided in **Figure 3.8**.

Destination	Route Summary	Typical Journey Time	Typical Frequency
Lymington Pier	Lymington Town – Lymington Pier	2 min	2 every hour
Farnborough Main (change at Brockenhurst)	Lymington Town – Brockenhurst – Southampton Central – Winchester – Farnborough Main	1 hr 30min	2 every hour
Weymouth (change at Brockenhurst)	Lymington Town – Brockenhurst – Bournemouth – Poole – Weymouth	1 hr 46min	2 every hour
London Waterloo (change at Brockenhurst)	Lymington Town – Brockenhurst – Southampton Central – Winchester – London Waterloo	1 hr 51 min	2 every hour

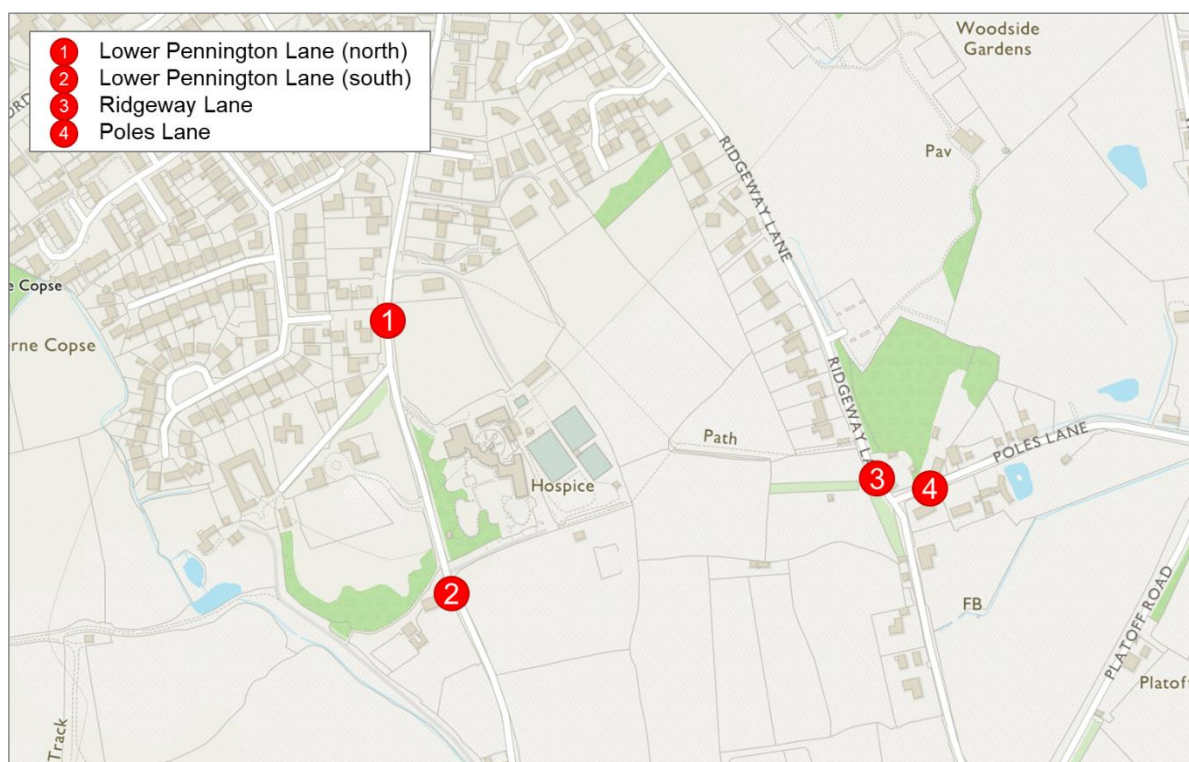
**Figure 3.8: Services Available from Lymington Town Railway Station**



3.4.10 Full details regarding these services including timetable information and route details are available online from [www.nationalrail.co.uk](http://www.nationalrail.co.uk).

### 3.5 Traffic Survey Data

3.5.1 To establish the speeds of vehicles in the vicinity of the site, 7-day Automatic Traffic Count (ATC) surveys were undertaken between 12th – 18th December 2017 on the surrounding road network. The surveys were undertaken on Lower Pennington Lane (north and south), Ridgeway Lane, and Poles Lane. The locations of the surveys are shown in **Figure 3.9** and the results of the surveys are summarised in **Figure 3.10**. The full ATC data output is attached at **Appendix B**.



**Figure 3.9: ATC Survey Locations**

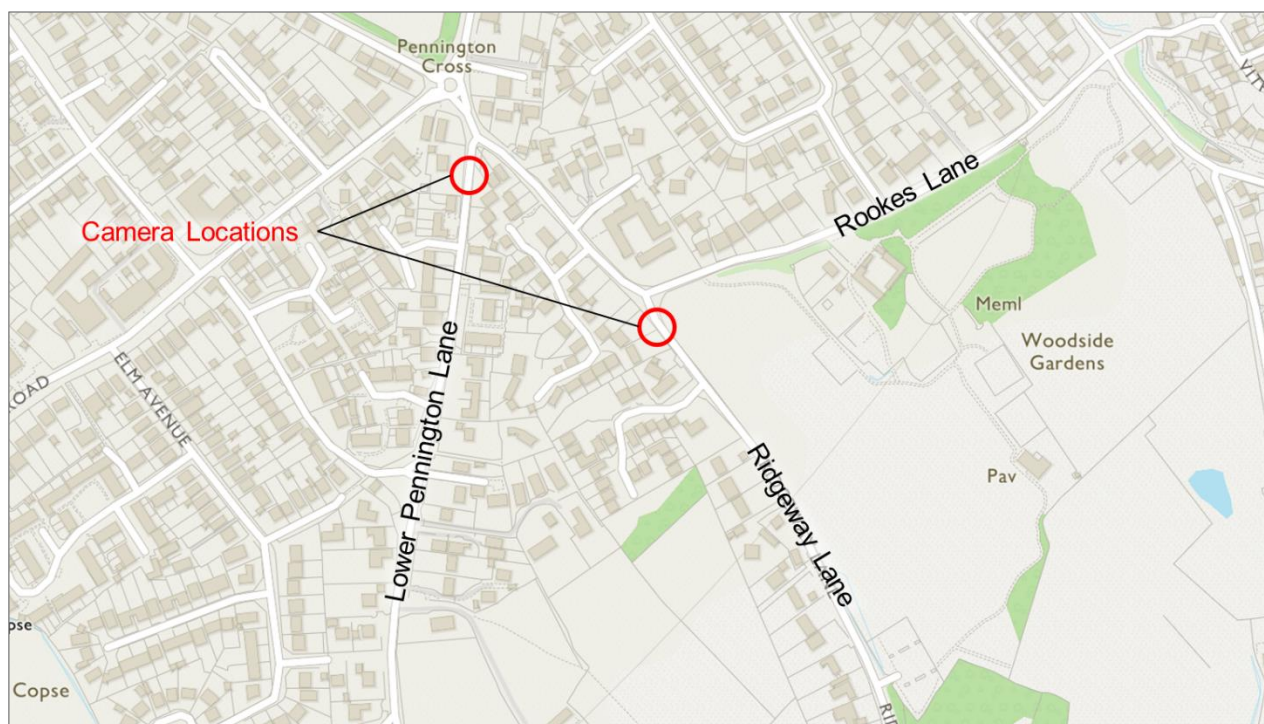
Location	Direction	Average Speed	85th Percentile Design Speed
Lower Pennington Lane (North)	Northbound	22.4mph	25.5mph
	Southbound	23.6mph	27.1mph
Lower Pennington Lane (South)	Northbound	24.9mph	29.5mph
	Southbound	25.7mph	30.9mph
Ridgeway Lane	Northbound	19.8mph	23.5mph
	Southbound	20.2mph	23.9mph
Poles Lane	Eastbound	19.3mph	23.9mph
	Westbound	18.6mph	23.5mph

**Figure 3.10: Summary of ATC Data**





3.5.2 To establish the existing volumes and composition of traffic using Ridgeway Lane and Lower Pennington Lane multi-modal traffic surveys were undertaken on Thursday the 27th of September 2018. The survey location on Ridgeway Lane captures all movements south of the junction with Rookes Lane, and similarly the Pennington Lane survey location captures all movements south of the road junction with Ridgeway Lane. The survey locations as shown in **Figure 3.11**.



**Figure 3.11: Multimodal Survey Locations**

3.5.3 Owing to Ridgeway Lane and Lower Pennington Lane's position within the local road network, the survey location provides robust baseline traffic flow numbers, which in reality would reduce in the vicinity of the site as many carriageway users turn off into side roads, properties and businesses. The multi-modal traffic movements on Ridgeway Lane and Lower Pennington Lane are summarised in **Figure 3.12** the full survey data output is attached **Appendix C**.

Multi Modal Traffic Surveys				
Location	Mode	AM Peak (08:00 - 09:00)	PM Peak (08:00 - 09:00)	Daily Movements (12 Hour 07:00 -19:00)
Ridgeway Lane	Vehicle	66	91	935
	Cyclist	1	10	33
	Pedestrian	9	3	48
Lower Pennington Lane	Vehicle	150	118	1771
	Cyclist	0	0	4
	Pedestrian	13	26	153

**Figure 3.12: Multimodal Survey Summary**

3.5.4 To assess the operation of local junctions, turning count surveys were undertaken at the Ridgeway Lane/Lower Pennington Lane and Ridgeway Lane/Rookes Lane junctions. The surveys were undertaken by Obtrada on 8th May 2019. The turning movements are summarised in **Figures 3.13** and **3.14** and the full survey data output is attached at **Appendix D**.



AM Peak Hour Flows		Destination		
		Ridgeway Lane (S)	Lower Pennington Lane	Ridgeway Lane (N)
Origin	Ridgeway Lane (S)	0	3	167
	Lower Pennington Lane	4	0	55
	Ridgeway Lane (N)	227	82	0

PM Peak Hour Flows		Destination		
		Ridgeway Lane (S)	Lower Pennington Lane	Ridgeway Lane (N)
Origin	Ridgeway Lane (S)	0	8	219
	Lower Pennington Lane	10	0	44
	Ridgeway Lane (N)	213	54	0

**Figure 3.13: Ridgeway Lane/Lower Pennington Lane Turning Movements**

AM Peak Hour Flows		Destination		
		Rookes Lane	Ridgeway Lane (S)	Ridgeway Lane (N)
Origin	Rookes Lane	0	1	140
	Ridgeway Lane (S)	3	0	22
	Ridgeway Lane (N)	173	38	0

PM Peak Hour Flows		Destination		
		Rookes Lane	Ridgeway Lane (S)	Ridgeway Lane (N)
Origin	Rookes Lane	0	4	194
	Ridgeway Lane (S)	1	0	40
	Ridgeway Lane (N)	175	39	0

**Figure 3.14: Ridgeway Lane/Rookes Lane Turning Movements**

### 3.6 Accident Data

- 3.6.1 To determine highway safety on the road network in the vicinity of the site, assessment of personal injury accident (PIA) data has been undertaken using data obtained from Hampshire Constabulary for a five-year period between January 2012 and January 2018. PIAs are classified as 'slight', 'serious' and 'fatal' depending on the severity of the injuries sustained.
- 3.6.2 Patterns displayed in the PIA data can be assessed with regard to the proximity, frequency and severity to establish whether there are underlying highway design issues on the local road network that may require a more detailed investigation.
- 3.6.3 The study area considered includes Ridgeway Lane, Lower Pennington Lane and the A337 / Ridgeway Lane / North Street roundabout to the north of the site. A map demonstrating the extent of the study area and each recorded PIA is demonstrated in **Figure 3.11** and a summary of the incident circumstances is provided in **Figure 3.12**. The full report is attached at **Appendix E**.



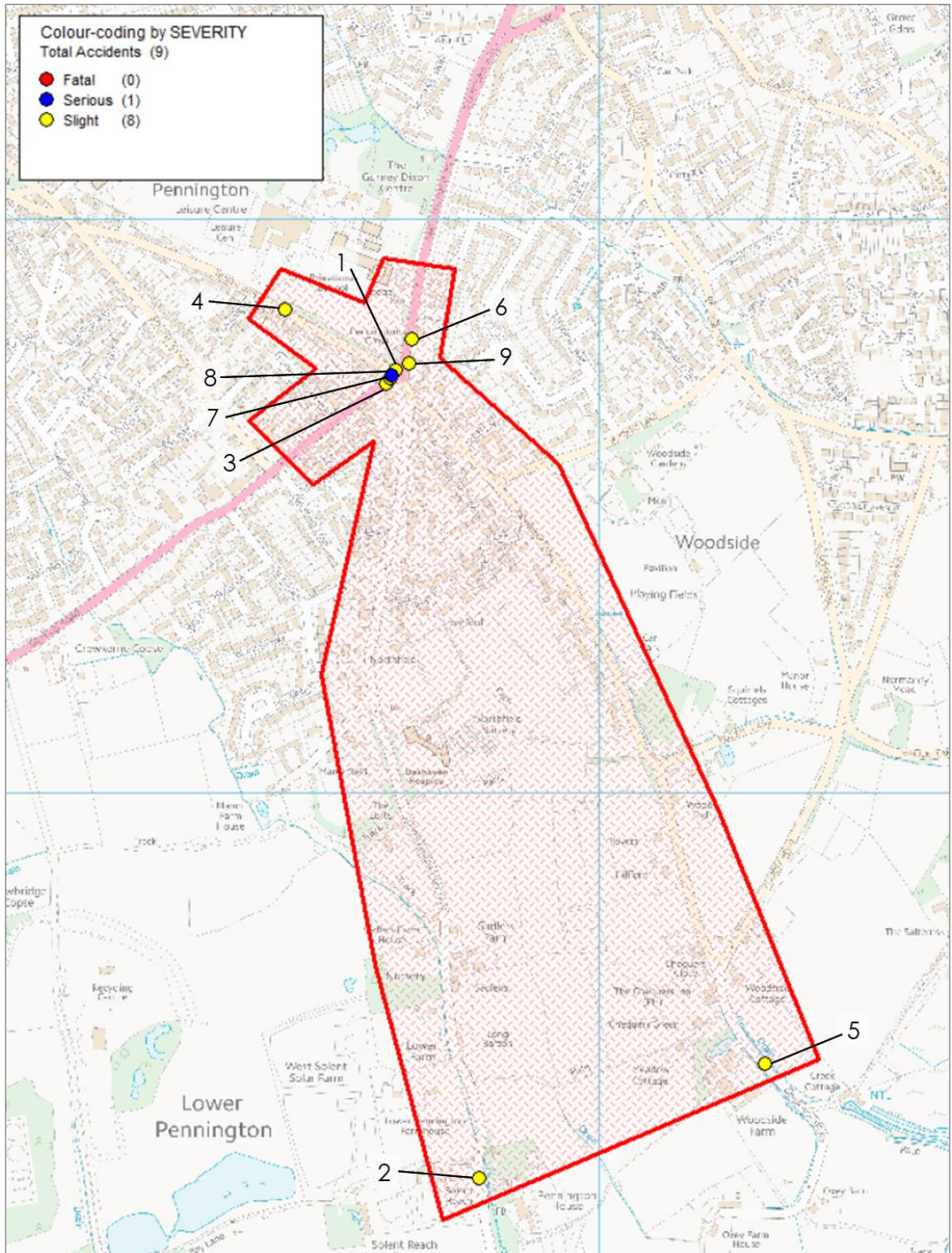


Figure 3.11: PIA Study Area



No.	Time/Date	Vehicles / Casualties / Severity	Description	Factor (Vehicle)	Confidence
1	17/06/14 22:03	2 / 1 / Slight	VEH 1 (P/CYCLE) TRAVELLING NE ALONG A337 MILFORD ROAD WAS CROSSING THE RBT AT NORTH STREET. VEH 2 (CAR) THE NEAR SIDE OF VEH 1 TRAVELLING SE ENTERED THE RBT FROM NORTH STREET AND COLLIDED WITH	Junction overshoot (2) Failed to look properly (2) Failed to judge other persons path or speed (1)	Possible
2	27/07/14 18:00	2 / 1 / Slight	VEH 1 (P/CYCLE) WAS TRAVELLING N ALONG LOWER PENNINGTON LANE WHEN A CARAVAN TOWED BY VEH 2 (CAR) CLIPPED VEH 1 WHILST OVERTAKING, CAUSING THE RIDER TO FALL.	Careless/Reckless/In a hurry (2) Passing too close to cyclist, horse rider or pedestrian (2)	Very Likely
3	30/03/15 16:50	3 / 1 / Slight	VEH 1 (CAR) TRAVELLING SW ALONG A337 MILFORD ROAD COLLIDED WITH REAR OF VEH 2 (CAR) TRAVELLING IN FRONT. VEH 2 WAS PUSHED INTO REAR OF VEH 3 (CAR) TRAVELLING IN FRONT.	Following too close (1) Sudden braking (1) Failed to judge other persons path or speed (1) Fatigue (1) Failed to look properly (1)	Possible
4	27/05/15 15:20	1 / 1 / Slight	VEH 1 (LORRY) TRAVELLING SE ALONG NORTH STREET TOWING A CARAVAN THAT WAS OVERHANGING OVER THE PAVEMENT WHEN THE CARAVAN HIT CAS 1 (PEDESTRIAN) TRAVELLING SE ALONG NORTH PAVEMENT OF NORTH STREET. VEH 1 FAILED TO STOP.	Passing too close to cyclist, horse rider or pedestrian (1)	Possible
5	23/10/15 21:00	1 / 1 / Slight	VEH 1 (CAR) TRAVELLING SE ALONG LOWER WOODSIDE CLIPPED CAS 1 (PEDESTRIAN) WALKING SE, CAUSING CAS 1 TO FALL FORWARDS.	Failed to look properly (1) Pedestrian wearing dark clothing at night	Very Likely
6	03/11/15 17:45	3 / 1 / Slight	VEH 3 (CAR) TRAVELLING S ALONG A337 MILFORD ROAD IN HEAVY TRAFFIC FAILED TO STOP IN TIME AND COLLIDED WITH THE REAR OF VEH 2 (CAR), PUSHING VEH 2 INTO THE REAR OF VEH 1 (CAR).	Failed to judge other persons path or speed (3) Following too close (3)	Possible
7	24/03/16 17:30	3 / 1 / Slight	VEH 1 (CAR) TRAVELLING NE ALONG A337 MILFORD ROAD WAS WAITING AT THE RBT AT NORTH STREET. VEH 2 (CAR) FAILED TO STOP IN TIME AND COLLIDED WITH THE REAR OF VEH 1, PUSHING VEH 1 INTO THE REAR OF VEH 3 (CAR).	Failed to look properly (2) Careless/Reckless/In a hurry (2)	Very Likely
8	02/05/17 06:00	2 / 1 / Serious	VEH 2 (CAR) TRAVELLING NE ALONG A337 MILFORD ROAD ENTERED RBT AND COLLIDED WITH VEH 1 (P/CYCLE) TRAVELLING NW AROUND A337 MILFORD ROAD RBT KNOCKING RIDER OFF.	Failed to look properly (2) Careless/Reckless/In a hurry (2) Failed to judge other persons path or speed (2)	Very Likely
9	21/11/17 09:58	2 / 1 / Slight	VEH1 (P/CYCLIST) TRAVELLING S ON A337 MILFORD ROAD CYCLE PATH COLLIDES WITH VEH2 (VAN) PULLING OUT OF OLD FORGE COURT DRIVEWAY KNOCKING OFF AND CAUSING MINOR INJURY TO RIDER OF VEH1.	Failed to look properly (2) Poor turn or manoeuvre (2) Failed to judge other persons path or speed (1)	Very Likely

**Figure 3.12: Summary of PIA Incidents**



- 3.6.4 A total of 9 PIAs were recorded over the five-year study period, comprised of 8 'slight' incidents and 1 'serious' incident. 5 of the incidents occurred at the roundabout to the north of the site. The level of accidents is typical of traffic volumes using the roundabout. The PIA casualty types do not reveal a statistically significant pattern, with 3 of the 9 incidents involving vehicles, 4 involving cyclists, and 2 involving pedestrians.
- 3.6.5 The PIA data does not reveal any wider pattern in terms of frequency or distribution of incidents in the study area that would require a more detailed examination. It is concluded that there are no underlying incident patterns that could be exacerbated by the prospective development.



## 4 PROPOSED DEVELOPMENT

### 4.1 Overview

4.1.1 The development would comprise 84 dwellings served by 2 vehicle access points. The site would also include a new pedestrian link and two dedicated cycle links. The internal carriageways would provide an east to west link road between Ridgeway Lane and Lower Pennington Lane. The proposed layout attached at **Appendix F**, and the proposed accommodation schedule is shown in **Figure 4.1**.

Housing Type	Unit Type	No. of Units
Affordable Housing	2 Bedroom House	24
	3 Bedroom House	18
Market Housing	2 Bedroom House	11
	3 Bedroom House	21
	4 Bedroom House	10
<b>Total</b>		<b>84</b>

**Figure 4.1: Accommodation Schedule**

### 4.2 Access Arrangements

4.2.1 The site's accesses would be located in the proximity of the aforementioned existing access points to Lower Pennington Lane and Ridgeway Lane. The Lower Pennington Lane access would utilise the existing access serving Northfield Nursery and Oakhaven Hospice. The Ridgeway Lane access would be located in the position of the existing field access. The access points would be reformed to provide T-junctions with priority arrangements according with DMRB CD 123.

4.2.2 The proposed accesses would take the form of 5.5m bellmouth junctions with 2.75m lane widths. Ridgeway Lane's prospective bellmouth would provide corner radii of 6.0m in accordance with DMRB CD 123 Figure 5.6. Lower Pennington Lane's prospective bellmouth would provide corner radii of 8.0m. The proposed accesses are demonstrated in **Drawing 001**.

4.2.3 The prospective accesses have been subject to a vehicle swept path analysis, demonstrating concurrent vehicle turning manoeuvres and negotiation by a large refuse freighter. The refuse vehicle used in the swept path analysis is larger and less manoeuvrable than a fire tender (the largest emergency service vehicle), thereby serving to demonstrate appropriate emergency access. The access vehicle swept path analysis are demonstrated in **Drawing 002**.

4.2.4 DMRB CD 123 Figure 2.3.1 identifies that right-turn lane facilities are typically required when the minor arm of a junction exceeds 300 AADT and the major arm exceeds 13,000 AADT. The threshold for a right turn lane facility as set out in the DMRB is not exceeded at either access point due to the AADT on Ridgeway Lane and Lower Pennington Lane, and the number of vehicle movements generated by the proposed development and their distribution across the 2 access points (see **Section 5**).

### 4.3 Ridgeway Lane / Poles Lane Junction

4.3.1 The prospective development provides an opportunity to improve the carriageway alignment of Ridgeway Lane and the junction of Poles Lane / Ridgeway Lane. Ridgeway Lane currently deviates and narrows in the vicinity of Poles Lane. Visibility from Poles Lane offers less than 20m looking in the lead direction (looking north) falling well below the required 85th percentile requirement of 31.4m stopping site distance.





4.3.2 As part of the prospective development Ridgeway Lane would be straightened and the carriageway widened to 6.0m in the vicinity of the Poles Lane / Ridgeway Lane junction. The realignment of the carriageway would enable the Poles Lane / Ridgeway Junction to be repositioned such that visibility conditions from Poles Lane would achieve the required visibility splays of 2.4m x 31.4m to the north and 30.7m to the south in accordance with MfS design guidance.

4.3.3 The realignment of the carriageway would additionally improve visibility conditions from the site's prospective access (although the site's access would not be dependent upon this improvement to provide appropriate visibility). The visibility requirements from the site's prospective access are addressed subsequently in **Section 4.4**. The improvements to Poles Lane / Ridgeway Lane junction are demonstrated in **Drawing 006** and **007**.

## 4.4 Visibility

4.4.1 Visibility requirements at the accesses have been based on the 85th percentile design speeds identified during the 7-day ATC surveys on Ridgeway Lane and Lower Pennington Lane (see **Figure 3.10**). Using the calculation coefficients set out in Manual for Streets (MfS) guidance, the following stopping site distances (adjusted for bonnet length) would be required:

- i. Lower Pennington Lane Southern Access: 44.7m lead direction (looking north), and 41.9m trailing direction (looking south)
- ii. Ridgeway Lane Access: 31.4m trailing direction (looking north), and 30.7m lead direction (looking south).

4.4.2 The necessary sight lines are achievable in both the lead and trailing directions from both access points. Visibility splays from the access points are demonstrated in **Drawing 001**. Visibility to right turning vehicles has also been demonstrated using the stopping site distances identified above as shown on **Drawing 001**.

## 4.5 Pedestrian & Cycle Access

4.5.1 The development would provide 2 new shared footway/cycleway access points adjoining Ridgeway Lane, Lower Pennington Lane and Forest Gate Gardens. The link adjoining Lower Pennington Lane would direct pedestrians and cyclists onto Lower Pennington Lane's carriageway which is an existing approved on road cycle route (**Appendix A**). The proposed pedestrian/cycle link adjoining Lower Pennington Lane is shown in **Drawing 018**.

4.5.2 The footway/cycleway access adjoining Ridgeway Lane would connect with a new shared footway/cycleway link through Woodside Park from the site to Rookes Lane. The new route would additionally connect via Forest Gate Gardens. The proposed pedestrian/cycle link adjoining Ridgeway Lane is shown in **Drawing 025** and the proposed footway/cycleway between Woodside Park is shown in **Drawing 027**.

4.5.3 The link to Ridgeway Lane offers a connection between the site's green open space and Woodside Park compliant with the NFDC national park authority's policy which encourages the provision connective networks of mitigation space. The link to the Woodside Park would also have the potential to connect the site to other potential strategic development in the locale improving local connectivity and permeability for the wider public.



4.5.4 A proposed link road would additionally run through the site between the aforementioned vehicular access points on Ridgeway Lane and Lower Pennington Lane. The route would follow the existing PROWs no. 82 and 83 with some minor deviation, and would in places tie in with the site's internal footways. The network of links would improve the site's permeability and the accessibility of the wider area. The proposed pedestrian and cycle strategy is demonstrated in **Drawing 019**.

4.5.5 A 1.8m footway connecting with the existing PROW No.82 would be provided along the western end of the access road adjoining Lower Pennington Lane. The footway is shown in **Drawing 019**.

#### **4.6 Emergency Access**

4.6.1 The site would allow fire tenders (the largest emergency vehicle) to comfortably negotiate the proposed access and perform turning manoeuvres on-site. In accordance with Building Regulations Part B the following design compliances are met:

- i. Fire tenders would be able to access within 45.0m of all dwellings.
- ii. Fire tenders could achieve an appropriate level of access without requiring reversing distances greater than 20.0m.
- iii. A minimum carriageway width of 3.7m is maintained throughout the site (excluding traffic calming features).

4.6.2 A vehicle swept path analysis has been undertaken demonstrating fire tenders negotiating the site access, internal carriageways and performing turning manoeuvres in **Drawing 2020/6178/006**.

#### **4.7 Servicing Arrangements**

4.7.1 The site's internal carriageway geometries would be such that large service vehicles can negotiate the internal roads and perform turning manoeuvres within the site, allowing service vehicles to safely enter and exit the site in a forward gear. A vehicle swept path analysis has been undertaken in **Drawing 003** demonstrating these manoeuvres on the indicative site layout.

4.7.2 Bin carry distances between properties and refuse collectors would be within the maximum thresholds set out in MfS from all properties (25m for collectors 30m for residents).

#### **4.8 Stage 1 Road Safety Audit**

4.8.1 The site's proposed vehicular, pedestrian and cycle access arrangements were subject to a Stage 1 Road Safety Audit (RSA) undertaken by Road Safety Answers in May 2019. The audit identified 4 minor issues with the proposals. All problems were agreed, and the recommendations incorporated into the design. A copy of the Stage 1 RSA including the Designer's Response is attached at **Appendix G**.

#### **4.9 Internal Layout**

4.9.1 The prospective site would provide a link road between Lower Pennington Lane and Ridgeway Lane as per NFDCs Local Plan Core Strategy 'Part 1: Planning Strategy' policy 'Strategic Site 6: Land to the east of Lower Pennington Lane, Lyminster'. The proposed link road would also serve as the site's main estate road from which secondary routes would branch leading to a number of side roads and smaller cul-de-sacs serving dwellings. The prospective site layout is demonstrated in **Drawing 017**.





- 4.9.2 Within the site a dendritic network of internal footways would be provided to facilitate pedestrian movements around the site. An appropriate hierarchy of footways would be provided with; 3.0m widths along sections of unsegregated shared cycle / footway; 2.0m on the east – west link road; 1.8m - 1.5m wide footways on secondary or lesser routes; and shared surface arrangements on sections of carriageway with low speeds, traffic flow, and no-through status.
- 4.9.3 The site's primary footways / footpaths would tie in with the primary pedestrian access points served from Forest Gate Gardens, the pedestrian / cycle access at the northwest corner of the site, and the secondary link between 'Brocklands Cottage' and 'Buccaneer'. The indicative internal footway network is demonstrated in **Drawing 019**.
- 4.9.4 The cul-de-sacs would use a shared surface arrangement in accordance with MfS design guidance which states that shared surfaces are appropriate for cul-de-sacs, where parking is controlled or takes place in designated areas and the vehicle flow is below 100 movements per hour. Secondary routes and cul-de-sacs would remain in private ownership.
- 4.9.5 A number of traffic calming features would be provided along the east west link to calm vehicle speeds and discourage use of the through route for rat-running (the potential for rat running along the east-west link road and the impact on local traffic movements is addressed subsequently in **Section 5.4** of this report). The traffic calming features would take the form of build outs and pinch points. The traffic calming features are demonstrated in **Drawing 017**.

## 4.10 Parking Provision

### Car Parking

- 4.10.1 Car parking would be provided in accordance with the recommended provision set out in NFDC's Parking Standards SPD (October 2012). A summary of the required and proposed car parking provision is shown in **Figure 4.1**.

Unit Type	Number of Units	NFDC Recommended Average Car Parking Provision		Proposed Provision	
		Spaces per Unit (on-plot)	Total Required	Spaces per Unit	Total Proposed
2 Bed House	35	2	70	2	70
3 Bed House	39	2.5	97.5	2.5	98
4 Bed House	10	3	30	3.4	34
Visitor	-	-	-	-	6
<b>Total</b>	<b>84</b>	<b>-</b>	<b>197.5</b>	<b>-</b>	<b>208</b>

**Figure 4.1: Car Parking Provision**

- 4.10.2 Whilst the development would provide a slight overprovision of spaces for the 4 bedroom houses, these provisions include garages which may not all be used for car parking. As such, the provision is considered appropriate.
- 4.10.3 Parking would be provided in a mixture of driveways and garages providing spaces with minimum dimensions of 2.4m x 4.8m and 3.0m x 6.0m respectively in accordance with MfS and NFDC guidance. A vehicle swept path analysis has been undertaken demonstrating car parking manoeuvres in **Drawing 005**.

### Cycle Parking



4.10.4 Cycle parking would be provided in accordance with the minimum standards set out in NFDC's Parking Standards SPD. A summary of the required and proposed cycle parking provision is shown in **Figure 4.2**.

Unit Type	Number of Units	NFDC Minimum Cycle Parking Standard per Unit	Proposed Provision
2 Bed House	35	1	1
3 Bed House	39	2	2
4 Bed House	10	2	2

**Figure 4.2: Cycle Parking Provision**

4.10.5 Cycle parking would be provided within the curtilage of the properties, either in garages or secure cycle stores.

#### **4.11 Travel Plan**

4.11.1 The proposed development would be supported by a Travel Plan which would identify a range of measures to encourage travel to/from the site by sustainable modes. The measures would include the following:

- i. Travel information pack for residents providing:
  - a. Details of the financial, environmental and personal health benefits associated with the 'active' travel modes of walking and cycling.
  - b. Maps of local walking and cycling routes / bus stops / railway stations.
  - c. Information for public transport fares including a cost comparison with car travel.
  - d. Information about Hampshire's multi-modal journey planning website.
  - e. Information relating to the benefits of car sharing including details of Liftshare.com.
  - f. Details of local facilities / services within the surrounding area.
  - g. Contact details of the appointed Travel Plan Co-ordinator.
- ii. Financial incentive comprising a voucher to be used towards either the purchase of a bike/cycling equipment or bus/rail tickets.
- iii. Promotion of Liftshare to encourage residents to car share with others who live nearby.
- iv. Provision of information regarding public transport opportunities in the vicinity of the site including timetables and fares.
- v. Provision of information regarding walking and cycling including route maps and local facilities.



## 5 TRIP GENERATION & TRAFFIC IMPACT

### 5.1 Overview

5.1.1 In addition to the 84 dwellings proposed at the site, there is the potential for an additional 19 new dwellings situated on an adjacent plot at the northwest corner of the site which could be served through the proposed site accesses. As such, this assessment takes a robust approach by considering the trip generation associated with 103 dwellings (84 + 19).

### 5.2 Trip Generation Assessment

5.2.1 The TRICS database (version 7.7.1) has been interrogated to anticipate the likely multi-modal trip generation associated with the prospective development.

5.2.2 As a result of the development, trips associated with Northfield Nursery would no longer be generated reducing the site's net trip generation. In the absence of horticultural nurseries trip data in the TRICS database, the site's existing trip generation cannot be quantified. All trips associated with the site are therefore considered to be new to the local road network making the assessment robust.

5.2.3 To establish the number of vehicle trips associated with the dwellings the following parameters shown in **Figure 5.1** have been used to filter the TRICS database.

TRICS (Version 7.7.1)	
Filtering Parameter	Criteria Selected
i. Land use	Residential – Houses, Privately Owned
ii. Regions	England (excluding Greater London)
iii. Scale of development	50 to 300 Units
iv. Date range	01/01/12 to 19/11/19
v. Selected survey days	Weekdays
vi. Selected locations	<ul style="list-style-type: none"> <li>• Suburban Area – 5 surveys</li> <li>• Edge of Town – 10 surveys</li> </ul>
vii. Population within 1 mile	<ul style="list-style-type: none"> <li>• 1,000 or Less – 1 survey</li> <li>• 1,001 to 5,000 – 1 survey</li> <li>• 5,001 to 10,000 – 8 surveys</li> <li>• 10,001 to 15,000 – 5 surveys</li> </ul>
viii. Population within 5 miles	<ul style="list-style-type: none"> <li>• 5,001 to 25,000 – 4 surveys</li> <li>• 25,001 to 50,000 – 3 surveys</li> <li>• 50,001 to 75,000 – 1 survey</li> <li>• 75,001 to 100,000 – 6 surveys</li> <li>• 100,001 to 125,000 – 1 survey</li> </ul>

**Figure 5.1: TRICS Database Filtering Parameters**

5.2.4 A summary of the weekday peak hour and daily trips are displayed in **Figure 5.2**. The full results of the TRICS interrogation are provided in **Appendix H**.



TRICS Trip Rate per Dwelling									
Mode	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)			Daily (07:00 – 19:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total
All modes	0.247	0.812	1.059	0.696	0.263	0.959	4.493	4.551	9.044
Vehicles	0.144	0.363	0.507	0.349	0.147	0.496	2.327	2.314	4.641
Cycle	0.006	0.017	0.023	0.012	0.007	0.019	0.068	0.073	0.141
Pedestrian	0.042	0.091	0.133	0.062	0.025	0.087	0.572	0.581	1.153
TRICS Trip Generation (103 Dwellings)									
All modes	25	84	109	72	27	99	463	469	932
Vehicles	15	37	52	36	15	51	240	238	478
Cycle	1	2	2	1	1	2	7	8	15
Pedestrian	4	9	14	6	3	9	59	60	119

**Figure 5.2: Anticipated Trip Generation**

- 5.2.5 The TRICS assessment suggests that the prospective development would generate an additional 478 daily vehicle trips, with an additional 52 and 51 trips in the networks AM and PM peak traffic hours respectively (08:00-09:00 and 17:00-18:00). The peak trip generation equates to 1 additional vehicle movement accessing/egressing the site every minute.
- 5.2.6 The assessment identifies that the site would generate an additional 119 daily pedestrian trips, with an additional 14 and 9 trips occurring in the networks AM and PM peak traffic hours respectively. The peak pedestrian trip generation equates to 1 additional pedestrian movement accessing/egressing the site every 4-5 minutes.
- 5.2.7 The assessment identifies that the site would generate an additional 15 daily cycle trips, with an additional 2 trips occurring in each of the networks AM and PM peak traffic hours. The peak cycle trip generation equates to 1 additional cycle movement accessing/egressing the site every c.30 minutes.

### 5.3 Traffic Assignment Model

- 5.3.1 To assess the vehicular traffic impact of the prospective site, a traffic assignment model has been produced to determine the traffic distribution on the local road network. Through this assessment the impact at local junctions can be determined and the need for junction capacity modelling established. The traffic assignment model has been based on the local road networks weekday AM / PM peak hours when the greatest traffic impact would occur.
- 5.3.2 The peak hour traffic distribution has been determined using the 2011 census 'Location of usual residence and place of work' dataset which identifies commuting destinations for residents in a particular ward or lower output level. The work place destinations can then be assigned to a key traffic routes using a Geographic Information System (GIS) algorithm to determine the most likely traffic routing from the development, accounting for average weekday journey times in typical network AM / PM traffic flow conditions.
- 5.3.3 For this assessment data has been gathered from the 'New Forest 023 E super output lower layer'. The 2011 Census data is attached at **Appendix I** and the distribution of traffic is represented as a percentage in **Appendix J**. Based on the percentage distribution shown in **Appendix J** the site's AM and PM traffic generation has been assigned to determine the flows through local road junctions. The traffic assignment model is attached at **Appendix K**.



## 5.4 Impact on A337 Roundabout

5.4.1 The assignment model reveals that 99.6% (100% adjusted for rounding) of development traffic would travel north from the site through the A337 roundabout. This equates to an additional 52 and 51 vehicles travelling through the A337 roundabout to the north of the site during the AM and PM peak hours respectively.

### Junction Capacity Modelling

5.4.2 The A337 / North Street / Ridgeway Lane roundabout has been subject to an ARCADY capacity modelling assessment to demonstrate the impact on the roundabout's operation. The ARCADY assessment considers peak weekday AM / PM traffic hours during a future year scenario of 2025 when the development is expected to be occupied. The baseline traffic data has been growthed using a TEMPRO growth factor to account for population growth and increased car ownership (**Appendix L**). The results of the preliminary ARCADY model are shown below in **Figure 5.3**.

Scenario	Max RFC	Max Queue (Veh)
AM 2018 Baseline	0.80 (A337 West)	3.7 (A337 West)
AM 2025 Baseline + Development	0.86 (A337 West)	5.5 (A337 West)
PM 2018 Baseline	0.51 (A337 West)	1.0 (A337 West)
PM 2025 Baseline + Development	0.55 (A337 West)	1.2 (A337 West)

**Figure 5.3: ARCADY Model Results Summary**

5.4.3 The ARCADY assessment of the AM peak hour revealed a maximum Ratio Flow Capacity (RFC) value of 0.86 on the A337 Milford Road (west) arm for the 2025 + development scenario. A maximum queue length of 5.5 vehicles would occur on the A337 Milford Road (west) arm during the AM peak.

5.4.4 The ARCADY assessment of the PM peak hour revealed a maximum Ratio Flow Capacity (RFC) value of 0.55 on the A337 Milford Road (west) arm for the 2025 + development scenario. A maximum queue length of 1.2 vehicles would occur on the A337 Milford (west) arm during the PM Peak. The ARCADY model reports and baseline turning counts are attached at **Appendix M**.

5.4.5 The junction capacity modelling assessments identified that the roundabout would operate within maximum capacity (RFC below 1.00) in a future year scenario with the prospective development. Whilst the junction can accommodate the development traffic and background traffic growth, design improvements should be explored where RFC values exceed 0.85.

5.4.6 Accordingly, potential design options were explored to improve the operational capacity of the roundabout comprising a new left turn lane on Arm 3 (A337 Milford Road). The roundabout's redesign was presented to HCC highways as part of the allocation proposal. Whilst the alterations would improve the capacity of the roundabout, they would impact on pedestrian amenity as users would increase crossing distances. Given the maximum RFC value only marginally exceeds 0.85, HCC considered it preferable not to amend the roundabout design.

## 5.5 Impact on Local Junctions

### Ridgeway Lane / Lower Pennington Lane

5.5.1 The results of the PICADY assessment for the Lower Pennington Lane is summarised in **Figure 5.4** whilst the PICADY report is attached at **Appendix N**.



Scenario	Max RFC	Max Queue (Veh)
AM 2025 Baseline + Development	0.19 (Ridgeway Lane north)	0.3 (Ridgeway Lane north)
PM 2025 Baseline + Development	0.16 (Ridgeway Lane north)	0.3 (Ridgeway Lane north)

**Figure 5.4: PICADY Capacity Assessment – Ridgeway Lane/Lower Pennington Lane**

5.5.2 The RFC values are all well below the 0.85 threshold at which design alteration needs to be considered and well below the 1.00 RFC capacity threshold. The maximum queue length is below 1 vehicle (0.3).

### **Ridgeway Lane / Rookes Lane**

5.5.3 The results of the PICADY assessment for the Lower Pennington Lane is summarised in **Figure 5.5** whilst the PICADY report is attached at **Appendix O**.

Scenario	Max RFC	Max Queue (Veh)
AM 2025 Baseline + Development	0.30 (Ridgeway Lane north)	0.4 (Ridgeway Lane north)
PM 2025 Baseline + Development	0.40 (Rookes Lane)	0.7 (Rookes Lane)

**Figure 5.5: PICADY Capacity Assessment – Ridgeway Lane/Rookes Lane**

5.5.4 The RFC values are all well below the 0.85 threshold at which design alteration needs to be considered and well below the 1.00 RFC capacity threshold. The maximum queue length is below 1 vehicle (0.7).

## **5.6 Link Road Traffic Impact**

5.6.1 The prospective link road between Ridgeway Lane and Lower Pennington Lane would allow the through flow of vehicle traffic thereby altering the existing traffic flow characteristics of the local road network. There are limited benefits to local traffic using the through route, however improved accessibility to Poles Lane located to the south east of the site would provide a potential opportunity for the site's future residents and local traffic to travel to/from Lymington town centre.

5.6.2 The Poles Lane route is inefficient and journey times suggest that traffic is unlikely to use this route, as shown in the traffic assignment model attached at **Appendix K**. It is however, recognised that this route could be intensified, and as such, a theoretical traffic assignment model has been prepared to provide a robust assessment of the potential traffic intensification at the Poles Lane junction resulting from the link road's provision.

### **Method**

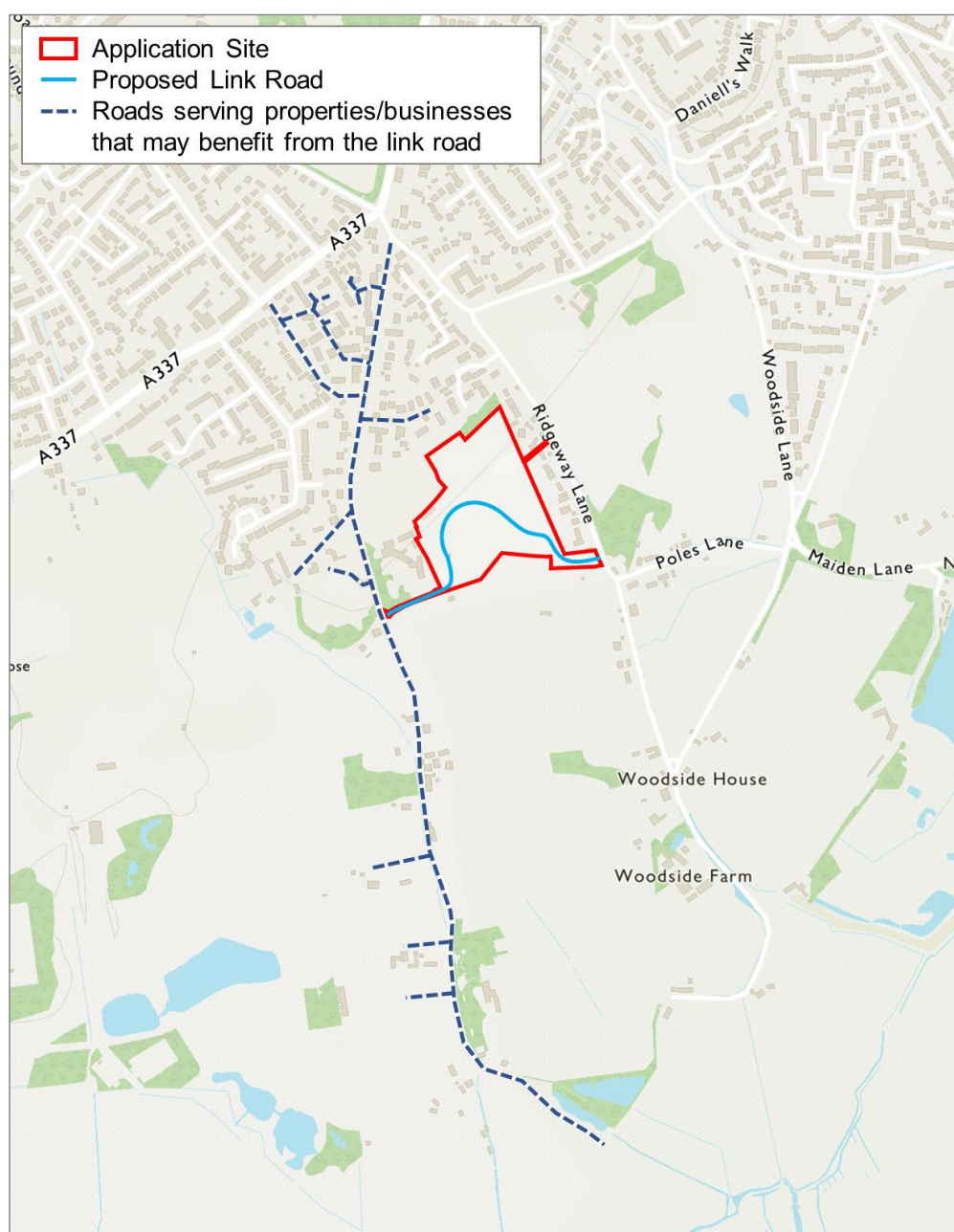
5.6.3 The proportion of traffic from the site travelling to Lymington town centre has been calculated using the 2011 census data (see **Appendix I**). The data identifies that 19.9% of local residents in the 'New Forest 023 E super output lower layer' work in Lymington town centre. To provide a robust estimate of percentage of traffic that would use Poles Lane, it has been assumed that up to half of all traffic travelling to/from Lymington town centre from the site could use the Poles Lane route (c.10%).

5.6.4 This assumption is robust given that the GIS algorithm identified the A337 route to be more efficient route to/from Lymington town centre even when factoring in typical AM / PM congestion on the local road network. A second theoretical traffic distribution model adjusted for the potential rat running demonstrates the distribution as percentage in **Appendix P**. The corresponding traffic assignment model based on the theoretical distribution is attached at **Appendix Q**.





5.6.5 In terms of the effects existing local traffic, the link road would provide a new alternative route for residences / businesses on Lower Pennington Lane only. The link road would not offer additional benefit to areas outside Lower Pennington Lane, as areas outside of Lower Pennington Lane are already able to efficiently access the Poles Lane rat-run via Ridgeway Lane. Therefore, no additional local traffic movements would be generated at Poles Lane outside of residences / businesses on Lower Pennington Lane. The areas that could more expediently reach Poles Lane as a consequence of the link road are demonstrated in **Figure 5.6**.



**Figure 5.6: Areas with improved access to Poles Lane**

5.6.6 To calculate the level of local traffic that could use the prospective link road and intensify the Poles Lane rat-run, the multi-modal traffic survey data of Lower Pennington Lane has been used. The multi-modal traffic survey captures all vehicular movements on Lower Pennington Lane as demonstrated in **Section 3.5**. To provide a robust estimate that is consistent with the assumptions made when distributing the site's traffic, half of the traffic travelling to/from Lymington (c.10%) has been considered to use the Poles Lane rat-run.



5.6.7 The AM / PM vehicle traffic from the multi-modal traffic survey and the site's TRICS trip assessment has been summed and 10% of the traffic broken out to determine the level of additional traffic that could use the Poles Lane rat-run. The estimated peak hour traffic that would travel on Poles Lane is shown in **Figure 5.7**.

Trip Origin	Total Peak Hour Trips		10% Peak Hour Trips Utilising Poles Lane Rat-Run	
	AM Peak	PM Peak	AM Peak	PM Peak
Development Traffic	52	51	5	5
Local Traffic (Lower Pennington Lane)	150	118	15	12
<b>Total</b>	<b>202</b>	<b>169</b>	<b>20</b>	<b>17</b>

**Figure 5.7: Peak Hour Traffic Intensification Poles Lane Following Implementation of Link Road**

5.6.8 It is robustly estimated that the prospective link road would result in a maximum of 20 2-way vehicle movements travelling through the Ridgeway Lane/Poles Lane junction during the PM peak hour. The anticipated volume of traffic would have a negligible impact on Poles Lane in terms of capacity and safety and falls below the threshold that would typically require junction capacity modelling.

5.6.9 In addition to this, the ATC surveys on Poles Lane (**Appendix B**) revealed low baseline flows with only 131 daily traffic movements passing through the junction, further demonstrating that capacity assessment would not be warranted.

## 5.7 Junction Capacity Modelling – Site Accesses

5.7.1 The prospective accesses adjoining Ridgeway Lane and Lower Pennington Lane have been subject to a PICADY capacity modelling assessment to demonstrate that the access points would operate within capacity during the network's peak weekday AM / PM traffic hours.

5.7.2 To provide a robust assessment, the existing AM / PM traffic flows have been based on the theoretical traffic assignment model which has been adjusted to account for rat running traffic through the prospective link road (addressed in **Section 6.4**). The traffic assignment model is attached at **Appendix Q**.

5.7.3 The PICADY assessment considers a future year scenario of 2025 to account for population growth and increased car ownership in the locale. The baseline traffic data has been growthed using TEMPRO data. The TEMPRO data output is attached at **Appendix L**. The following scenarios were modelled for the capacity assessment:

- i. 2018 AM / PM Baseline Traffic + Proposed Development Traffic Scenario
- ii. 2025 AM / PM Growthed Traffic + Proposed Development Traffic Scenario

5.7.4 The PICADY assessment identifies Ratio Flow Capacity (RFC), queue lengths and delay. RFC values above 0.85 indicate a point at which design alterations would need to be considered to increase the junction's capacity. RFC values in excess of 1.00 indicate a junction that has exceeded its operational capacity.

### Lower Pennington Lane Access

5.7.5 The site's access on to Lower Pennington Lane would also serve Oakhaven Hospice's rear car park. To determine the trip generation associated with the hospice, the TRICS database has been reviewed. The trip rate has been established based on the number of parking spaces, thereby allowing the hospice's rear car park trips to be established in isolation.





5.7.6 To establish the number of vehicle trips associated with the hospice the following parameters shown in **Figure 5.8** have been used to filter the TRICS database:

TRICS (Version 7.7.1)	
Filtering Parameter	Criteria Selected
i. Land use	Health – Hospice
ii. Regions	England (excluding Greater London)
iii. Scale of development	25 to 121 Units
iv. Date range	01/01/11 to 18/09/18
v. Selected survey days	Weekdays
vi. Selected locations	<ul style="list-style-type: none"> <li>Suburban Area – 1 survey</li> <li>Edge of Town – 2 surveys</li> </ul>
vii. Population within 1 mile	<ul style="list-style-type: none"> <li>5,001 to 10,000 – 2 surveys</li> <li>15,001 to 20,000 – 1 survey</li> </ul>
viii. Population within 5 miles	<ul style="list-style-type: none"> <li>50,001 to 75,000 – 1 survey</li> <li>125,001 to 250,000 – 1 survey</li> <li>250,001 to 500,000 – 1 survey</li> </ul>

**Figure 5.8: TRICS Database Filtering Parameters**

5.7.7 A summary of the weekday peak hour and daily trips are displayed in **Figure 5.9**. The full results of the TRICS interrogation are provided in **Appendix R**.

TRICS Trip Rate per Parking Space			
	Arrivals	Departures	Two-way Total
AM Peak Hour	0.232	0.057	0.289
PM Peak Hour	0.088	0.219	0.307
Daily Traffic	1.791	1.776	3.567
Anticipated Trip Generation (27 Parking Spaces)			
AM Peak Hour	6	2	8
PM Peak Hour	2	6	8
Daily Traffic	48	48	96

**Figure 5.9: Anticipated Trip Generation – Hospice**

5.7.8 The trip generation identified above has accordingly been summed with the prospective development's trips which were distributed based on the assignment model at **Appendix K**. Owing to the position on the local road network, it has been assumed that all traffic using the Hospice's rear car park would arrive and depart from the north reflecting the traffic assignment model (**Appendix K**). The results of the PICADY assessment for the Lower Pennington Lane access are summarised in **Figure 5.10** whilst the full models are attached at **Appendix S**.

Scenario	Max RFC	Max Queue (Veh)
AM 2025 Baseline + Development	0.05 (site access)	0.1 (site access)
PM 2025 Baseline + Development	0.03 (site access)	0.0 (site access)

**Figure 5.10: PICADY Capacity Assessment - Lower Pennington Lane**



5.7.9 The maximum queue length identified was less than 1 PCUs at the Lower Pennington Lane / site access road junction in the PM peak 2025 model. These values are well below the 0.85 RFC threshold, which if exceeded, junction design alterations would need to be considered and below the junction's theoretical capacity RFC value of 1.00.

### **Ridgeway Lane Access**

5.7.10 The site's access on to Ridgeway Lane is less complex as it would not be required to support any extant uses on the site. The model of the Ridgeway Lane access therefore simply models the prospective development site's arrival and departure flows based on the traffic assignment model at **Appendix K**. The results of the PICADY assessment for the Ridgeway Lane access are summarised in **Figure 5.11** whilst the full models are attached at **Appendix T**.

<b>Scenario</b>	<b>Max RFC</b>	<b>Max Queue (Veh)</b>
AM 2025 Baseline + Development	0.04 (site access)	0.0 (site access)
PM 2025 Baseline + Development	0.03 (access/Ridgeway Ln north)	0.0 (access/Ridgeway Ln north)

**Figure 5.11: PICADY Capacity Assessment – Ridgeway Lane**

5.7.11 The PICADY assessments revealed negligible flow restriction and queue lengths at both of the site's prospective access points for all modelled scenarios. A maximum Ratio Flow Capacity (RFC) value of 0.05 on Stream B – AC (site access) occurred at the Lower Pennington Lane junction in the AM peak 2025 model.

5.7.12 The maximum queue length identified was less than 1 PCUs at the Ridgeway Lane / site access road junction in the PM peak 2025 model. These values are well below the 0.85 RFC threshold, whereby junction design alterations would need to be considered and below the junction's theoretical capacity RFC value of 1.00.



## 6 RIDGEWAY LANE & LOWER PENNINGTON LANE IMPACT ASSESSMENT

### 6.1 Overview

6.1.1 An assessment of the prospective site's impact on Ridgeway Lane and Lower Pennington Lane was undertaken as part of the allocation proposal following a request from HCC. The assessment has been updated in this report to reflect the updated scheme, following the same methodology. The assessment includes the following:

- i. A **Design Assessment** of Ridgeway Lane and Lower Pennington Lane identifying suitability of the lanes in design terms to accommodate additional traffic.
- ii. A **Trip Comparison** identifying the extant level of use and the proportional increase in traffic.
- iii. A **Vehicle Interaction Probability & Frequency Model** to demonstrate the increased potential for vehicle and NMU interaction at constrained sections of Ridgeway Lane and Lower Pennington Lane.
- iv. A **Traffic Delay and Vehicle Queue Assessment** which identifies the potential for vehicle queuing / delay at constrained sections of the carriageways.

### 6.2 Design Assessment

6.2.1 To establish the suitability of Ridgeway Lane and Lower Pennington Lane from a design perspective, the following design parameters have been considered:

- i. Carriageway geometries and the ability of the carriageway to accommodate two-way vehicular movements
- ii. Forward Visibility determining whether appropriate level of inter-visibility could be achieved between vehicles, cyclists and pedestrians.

#### **Geometric Design**

6.2.2 In order to accurately establish the suitability of the carriageway widths along Ridgeway Lane and Lower Pennington Lane both carriageways have been subject to topographical surveys. This information has been used to determine where carriageway widths drop below 4.1m wide – a width which is identified in MfS as insufficient for two-way vehicle movements. These sections are therefore designated as pinch points.

6.2.3 Ridgeway Lane and Lower Pennington Lane have varying carriageway width and as such, a vehicle tracking exercise has been undertaken to establish sections of the road where cars and HGVs can pass. **Drawings 023** and **024** demonstrate the sections of carriageway where cars and HGVs can pass as well as identifying informal passing locations and opportunities to provide passing bays.

6.2.4 The multimodal trip generation assessment at **Appendix H** identifies that a significant majority of vehicular movements associated with the proposal would be car sized vehicles. The multi-modal traffic surveys in **Section 3.5** similarly identified a low proportion of HGV movements on both Ridgeway Lane and Lower Pennington Lane at 1.5% and 0% respectively. The key design parameter used in this assessment is therefore the requirement for two-way passing manoeuvres between cars.



- 6.2.5 A vehicle swept path analysis has also been undertaken to verify the results of the geometric assessment demonstrating that two-way passing all sections of carriageway apart from those sections designated as pinch points. The geometric design assessment and vehicle swept path analysis is shown in **Drawings 008** and **009**.
- 6.2.6 The geometric design assessment demonstrated that there are no pinch points along Lower Pennington Lane, however there are 3 locations along Ridgeway Lane where there is insufficient width for two-way vehicle car movements. The implications of the pinch points are addressed subsequent in **Section 6.4**.

### **Visibility**

- 6.2.7 An assessment of forward visibility along Ridgeway Lane and Lower Pennington Lane has been provided to demonstrate that vehicles would be able to see obstructions on the road including slow moving or stationary vehicles, pedestrians and cyclists.
- 6.2.8 MfS prescribes that the minimum forward visibility required is equal to the minimum stopping sight distance (43.0m), measuring between points on a curve along the centreline of the traffic lane. An assessment of forward visibility has robustly been measured from a 1.0m offset from the carriageway edge, recognising that cyclists and pedestrians may be in close proximity to the carriageway edge. The forward visibility assessment is demonstrated in **Drawings 010** and **011**.
- 6.2.9 The assessment of forward visibility demonstrates that slow moving or stationary vehicles, pedestrians and cyclist would be visible to oncoming traffic for the entire length of both Ridgeway lane and Lower Pennington Lane in both northbound and southbound approach directions. Some maintenance of vegetation may be required to ensure the forward visibility is retained.

### **6.3 Traffic Intensification**

- 6.3.1 To understand the existing level of multi-modal trips and the resultant level of trip intensification on Ridgeway Lane and Lower Pennington Lane, the multi-modal traffic count surveys and the site's multi-modal TRICS trip assessment were considered cumulatively. The survey locations are demonstrated in **Figure 3.11**. The traffic survey results are attached at **Appendix C** and summarised in **Figure 3.12**.
- 6.3.2 The survey location on Ridgeway Lane captures all movements south of the junction with Rookes Lane, and similarly the Pennington Lane survey captures all movements south of the road junction with Ridgeway Lane. The survey locations provide robust baseline traffic flows, which in reality would significantly reduce in the vicinity of the site toward the southern end of the lanes as carriageway users turn off into sides roads and accesses.
- 6.3.3 To account for future increases in population and car use, the multi-modal traffic surveys were growthed using TEMPRO for a development year of 2025. The TEMPRO output is attached at **Appendix L**. A comparative summary of existing and post development multi-modal traffic flows during weekday AM / PM peak hours (when the highest proportional impact would be exhibited) is summarised below in **Figures 6.1** and **6.2**.



Ridgeway Lane		2018 Survey	2025 Growthed Scenario	2025 Post Development Scenario	Net Increase
Vehicle Movements	AM Peak	66	69	96	+26
	PM Peak	91	96	121	+26
Cycle Movements	AM Peak	1	1	2	+1
	PM Peak	10	10	11	+1
Pedestrian Movements	AM Peak	9	9	16	+7
	PM Peak	3	3	8	+4

**Figure 6.1: Ridgeway Lane Existing and Post Development Multi-Modal Traffic Comparison**

Lower Pennington Lane		2018 Survey	2025 Growthed Scenario	2025 Post Development Scenario	Net Increase
Vehicle Movements	AM Peak	150	158	184	+26
	PM Peak	118	124	149	+25
Cycle Movements	AM Peak	0	0	1	+1
	PM Peak	0	0	1	+1
Pedestrian Movements	AM Peak	13	14	21	+7
	PM Peak	26	29	33	+4

**Figure 6.2: Lower Pennington Lane Existing and Post Development Multi-Modal Traffic Comparison**

6.3.4 The trip comparison demonstrates that both Ridgeway Lane and Lower Pennington Lane would continue to have relatively low baseline traffic flows in the AM / PM hours in post development scenario. Due to the lower baseline flows the proportional impact on Ridgeway Lane is greatest, increasing by approximately one third in the AM peak (26 vehicles). The highest number of movements occur on Lower Pennington Lane with 184 movements taking place during the AM peak.

6.3.5 The highest proportional increase in pedestrian movements is anticipated along Ridgeway Lane, due to the relatively low existing flows. The numbers of pedestrian movements would remain low with a maximum 33 movements on Lower Pennington Lane in the PM peak hour. Cycle movements are negligible in both the existing and post development scenarios, with only 1 additional movement anticipated.

## 6.4 Vehicle Interaction - Probability & Frequency Modelling

6.4.1 During consultation undertaken as part of the allocation proposal, HCC highway officers also requested an assessment of constrained sections of carriageway on Ridgeway Lane and the implications of intensification post development. The assessment has accordingly been updated to reflect the revised scheme. The probability assessment identifies the level of vehicle-vehicle and vehicle-NMU passing at designated pinch points identified in **Section 6.2**.

6.4.2 From this assessment the degree of hazard and requirement for mitigating design measures can be determined. The geometric design assessment in **Section 6.2** identified three sections of carriageway on Ridgeway Lane that are designated as pinch points in **Drawing 009**. The following probability modelling scenarios have been modelled for each of the 3 pinch points:

- i. The probability of Vehicle – Vehicle passing during the AM/PM peak hours
- ii. The probability of Vehicle – Cycle passing during the AM/PM peak hours



iii. The probability of Vehicle – Pedestrian passing during the AM/PM peak hours

- 6.4.3 The increase in NMU traffic associated with the development would be accommodated by the proposed infrastructure, with pedestrian movements using the new footway infrastructure on Ridgeway Lane and cyclists using the site's internal cycle paths. However, as a point of robustness this assessment assumes that all NMU traffic would travel on-street to and from the site's vehicular access points.
- 6.4.4 A 'Monte Carlo' simulation model has been used to calculate the probability of the above passing manoeuvres through the pinch points on Ridgeway Lane based on the geometric parameters of the carriageway and the recorded vehicle, cyclist and pedestrian flows. Based on the established probability, the resulting increase in frequency of such manoeuvres can be quantified and the existing and post development scenarios compared.
- 6.4.5 The simulation model runs multiple simulations using the geometry and traffic survey coefficients from which an average number of passing instances can be established. The simulation model's methodology and its raw data output is provided at **Appendix U**.
- 6.4.6 The model is initially run to establish the baseline i.e. the existing probability and frequency of passing occurrences based on the survey data without the proposed developments increase in traffic. The model is subsequently run to derive the increased probability and frequency of the passing manoeuvres. A summary of the simulation results is summarised below in **Figures 6.3, 6.4 and 6.5**.

Pinch Point 1					
Passing Manoeuvre	Peak Hour	Existing Scenario		Post Development Scenario	
		Occurrences	Frequency	Occurrences	Frequency
Vehicles Passing Vehicles	AM	1.91	31mins 25secs	4.34	13mins 49secs
	PM	3.94	15mins 14secs	6.9	8mins 42secs
Vehicles Passing Cyclists	AM	0.14	7hrs 8mins 34secs	0.45	2hrs 13mins 20secs
	PM	2.13	28mins 10secs	3.13	19mins 10secs
Vehicles Passing Pedestrians	AM	4.39	13mins 40secs	11.15	5mins 23secs
	PM	1.97	30mins 27secs	6.11	9mins 49secs

**Figure 6.3: Ridgeway Lane Pinch Point 1 – Vehicle / NMU Passing Summary**

Pinch Point 2					
Passing Manoeuvre	Peak Hour	Existing Scenario		Post Development Scenario	
		Occurrences	Frequency	Occurrences	Frequency
Vehicles Passing Vehicles	AM	0.34	2hrs 56mins 28secs	0.79	1hr 15mins 57secs
	PM	0.71	1hr 24mins 30secs	1.24	48mins 23secs
Vehicles Passing Cyclists	AM	0.02	50hrs	0.08	12hrs 30mins
	PM	0.39	2hrs 33mins 51secs	0.56	1hr 47mins 9secs
Vehicles Passing Pedestrians	AM	0.79	1hr 15mins 57secs	2.01	29mins 51secs
	PM	0.36	2hrs 46mins 40secs	1.11	54mins 3secs

**Figure 6.4: Ridgeway Lane Pinch Point 2 – Vehicle / NMU Passing Summary**



Pinch Point 3					
Passing Manoeuvre	Peak Hour	Existing Scenario		Post Development Scenario	
		Occurrences	Frequency	Occurrences	Frequency
Vehicles Passing Vehicles	AM	1.06	56mins 36secs	2.41	24mins 54secs
	PM	2.18	27mins 31secs	3.83	15mins 40secs
Vehicles Passing Cyclists	AM	0.08	12hrs 30mins	0.25	4hrs
	PM	1.18	50mins 51secs	1.74	34mins 29secs
Vehicles Passing Pedestrians	AM	2.44	24mins 35secs	6.21	9mins 40secs
	PM	1.1	54mins 33secs	3.41	17mins 36secs

**Figure 6.5: Ridgeway Lane Pinch Point 3 – Vehicle / NMU Passing Summary**

- 6.4.7 The models demonstrate increases in passing manoeuvres at all pinch points, however the probability and resulting frequency of passing at these locations remains extremely low. The highest probability of passing at pinch points would occur between vehicles at Pinch Point 1 with an anticipated occurrence frequency of 5mins 23seconds.
- 6.4.8 The potential for a vehicle to pass a pedestrian would have a maximum anticipated occurrence frequency of 5mins 23seconds at Pinch Point 1 in the AM peak hour. It is however considered unlikely that pedestrians, and in particular those associated with the prospective development would walk in the carriageway given the new infrastructure provided. The occurrences of vehicle - pedestrian passing manoeuvres would therefore reduce in reality.
- 6.4.9 The potential for a vehicle to pass a cyclist would have a peak anticipated occurrence frequency of 19mins 10 seconds at Pinch Point 1 in the PM peak hour. As previously identified the carriageways provide sufficient forward visibility and width for passing enabling NMU's to be passed safely even at constrained section.

## 6.5 Flow Restriction

- 6.5.1 HCC's requested an assessment of potential flow restriction and queueing at the pinch points on Ridgeway Lane. As such, calculations have been undertaken based on the number of vehicles traversing Ridgeway Lane post development, the length of the pinch points, and the speeds of vehicles travelling through the pinch points. For robustness, the assessment anticipates the likelihood of queueing occurring assuming vehicles meet at the longest pinch point (Pinch Point 1).

### Calculation Parameters

- 6.5.2 To anticipate the number of vehicles travelling on Ridgeway Lane post development, the peak hour movements recorded during the 7-day ATC survey have been growthed to a future year 2025 using TEMPRO (see **Appendix L**). The growthed flows have then been summed with the proposed development traffic on Ridgeway Lane established within the TRICS assessment and distributed within the traffic assignment model (**Appendix K**). A summary of the figures is shown in **Figure 6.6**.

	AM Peak Hour		PM Peak Hour	
	Northbound	Southbound	Northbound	Southbound
<b>2025 Growthed Traffic</b>	43	25	47	46
<b>Development Traffic</b>	19	7	8	18
<b>Total</b>	<b>62</b>	<b>33</b>	<b>55</b>	<b>64</b>

**Figure 6.6: Vehicles on Ridgeway Lane**



- 6.5.3 As shown in **Figure 6.6**, the PM peak hour period is anticipated to experience the highest volume of vehicle movements, equating to 1 northbound vehicle every 65 seconds, and 1 southbound vehicle every 56 seconds.
- 6.5.4 The longest pinch point on Ridgeway Lane measured 36m. Based on a robust assumption that vehicles would slow to 10mph when negotiating the narrow section of carriageway, it would take a vehicle approximately 8 seconds to travel the length of the pinch point. Therefore, a driver encountering an opposing vehicle at the pinch point would have to wait for approximately 8 seconds while the opposing vehicle clears the narrow section before continuing.

### **Results**

- 6.5.5 As shown above, the frequency of vehicles during the busiest period equates to 1 northbound vehicle every 58 seconds and 1 southbound vehicle every 56 seconds, and drivers who encounter an opposing vehicle at the pinch point would be required to wait approximately 8 seconds for the opposing vehicle to clear the narrow sections of carriageway.
- 6.5.6 It is therefore anticipated that were opposing vehicles to meet at the pinch point, assuming an even flow distribution, the narrow section of carriageway would be cleared before another vehicle arrives at the pinch point and would not cause any queuing on Ridgeway Lane.

### **Summary**

- 6.5.7 Ridgeway Lane and Lower Pennington Lane would appropriately serve the increase vehicle traffic with appropriate geometries, suitable forward visibility and low occurrences of vehicles meeting at pinch points. When vehicles are required to meet at pinch points the traffic flow is sufficiently low that no queuing is anticipated.





## 7 SUMMARY AND CONCLUSIONS

7.1.1 This Transport Assessment has been prepared by Bright Plan on behalf of Cicero Estates to inform pre-application consultation regarding a prospective residential development on land at Ridgeway Lane and Lower Pennington Lane, Lymington. The prospective site would accommodate 84 residential dwellings served from 2 accesses adjoining Ridgeway Lane and Lower Pennington Lane. The findings from this report are as follows:

- i. The site is situated in an accessible location within walking and cycling distance of Lymington town centre providing convenient access to a range of services, amenities and public transport links.
- ii. A study of PIA incidents on the local road network showed no pattern in terms incident frequency or severity that could be exacerbated by the prospective development.
- iii. The site would be served from 2 existing access points on Ridgeway Lane and Lower Pennington Lane. The accesses would be reformed to provide T-junctions with simple priority arrangements that accord to design standards.
- iv. A vehicle swept path analysis has been provided demonstrating the operation of the access arrangements to accommodate a range of vehicles and all direction turning manoeuvres.
- v. Visibility from the accesses achieves the necessary sight lines in the primary and secondary directions in accordance with the recorded 85th percentile design speeds using calculation coefficients set out in MfS.
- vi. Improvements would be made to the Poles Lane / Ridgeway Lane junction through the straightening and widening of Ridgeway Lane and the formalisation of the junction.
- vii. The site's pedestrian access would be served from an internal footpath adjoining the southern end of Forest Gate Gardens and between 'Brocklands Cottage' and the 'Buccaneer'. This would be supported by a new section of footpath through Woodside Park linking Forest Gate Gardens and Rookes Lane providing a continuous link to Lymington's footway network.
- viii. A shared cycle / foot link would be provided at the site's north west corner tying in with the existing approved on-road cycle route on Lower Pennington Lane. The link would run along the route of PROW 83.
- ix. A second shared cycle / pedestrian link would be provided via a strip of land to the east of the site between the properties 'Brocklands Cottage' and the 'Buccaneer' adjoining Ridgeway Lane.
- x. Links to the Woodside Park would have the potential to connect the site to other potential strategic development in the locale improving local connectivity and permeability for the wider public in line with NFDC policy.
- xi. The prospective site would provide a link road between Lower Pennington Lane and Ridgeway Lane as per NFDC planning policy. The link road would serve as a estate road from which secondary routes would be served.
- xii. Existing PROWs would remain navigable to pedestrians via the site's internal footways flanking the link road, thereby retaining the site's existing level of permeability.
- xiii. The site's internal carriageway geometries are such that large service vehicles can negotiate internal roads and perform turning manoeuvres within the site, allowing service vehicles to enter and exit the site in a forward gear.



- xiv. The site would provide car and cycle parking in line with New Forest District Council's residential parking standards.
- xv. The TRICS trip assessment suggests that the development will generate an additional 503 daily vehicle trips, with an additional 54 trips in the network AM peak hour, and 53 trips in the PM peak hour.
- xvi. A traffic assignment model using 2011 Census Data has been provided. The assessment has revealed 100% of traffic would use the A337 roundabout to the north of the site, with a maximum entry input of 54 vehicle movements.
- xvii. The A337 roundabout has been subject to an ARCADY junction capacity modelling assessment which identified that the roundabout would operate within capacity in a post development scenario during network peak hours.
- xviii. To assess the impact of the link road and potential traffic intensification at Poles Lane, an assignment model adjusted for rat-running has been prepared. The model identifies that input flows to Poles Lane remain low.
- xix. The site accesses have been subject to PICADY junction capacity modelling assessments which identified that the site would generate negligible levels of flow restriction during peak hours.
- xx. Ridgeway Lane and Lower Pennington Lane would appropriately serve the increase vehicle traffic with appropriate geometries, suitable forward visibility and low occurrences of vehicles passing at pinch points.
- xxi. When vehicles are required to meet at pinch points the traffic flow is sufficiently low that no queuing is anticipated.



## PLANS














**Plan 01**      Accessibility Plan

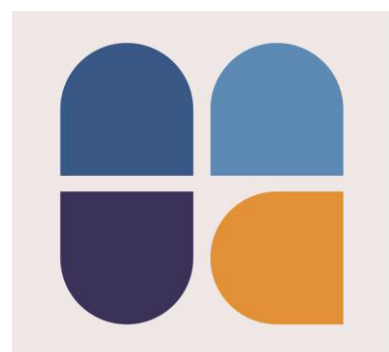
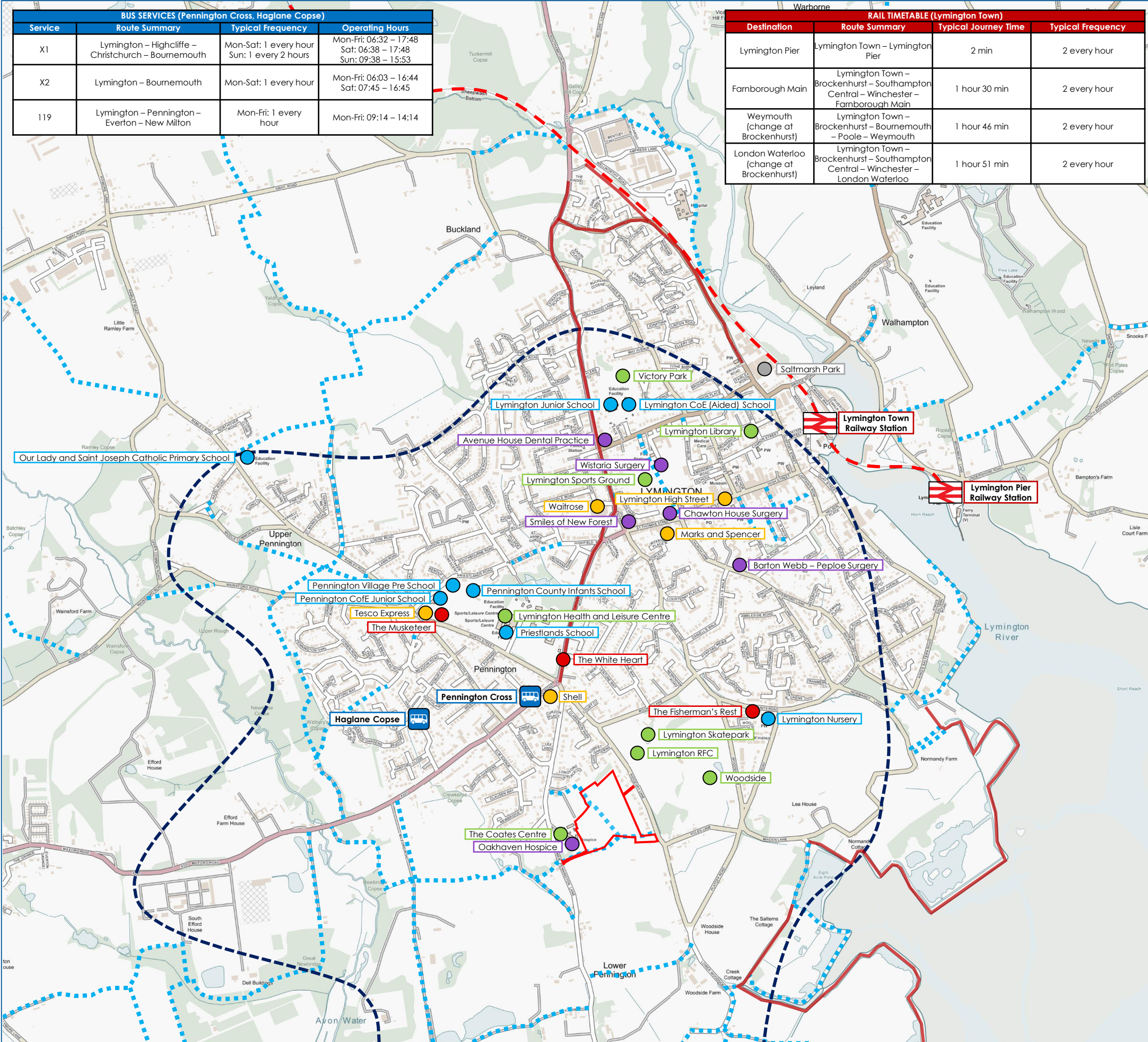


BUS SERVICES (Pennington Cross, Haglane Copse)			
Service	Route Summary	Typical Frequency	Operating Hours
X1	Lymington – Highcliffe – Christchurch – Bournemouth	Mon-Sat: 1 every hour Sun: 1 every 2 hours	Mon-Fri: 06:32 – 17:48 Sat: 06:38 – 17:48 Sun: 09:38 – 15:53
X2	Lymington – Bournemouth	Mon-Sat: 1 every hour	Mon-Fri: 06:03 – 16:44 Sat: 07:45 – 16:45
119	Lymington – Pennington – Everton – New Milton	Mon-Fri: 1 every hour	Mon-Fri: 09:14 – 14:14

RAIL TIMETABLE (Lymington Town)			
Destination	Route Summary	Typical Journey Time	Typical Frequency
Lymington Pier	Lymington Town – Lymington Pier	2 min	2 every hour
Farnborough Main	Lymington Town – Brockenhurst – Southampton Central – Winchester – Farnborough Main	1 hour 30 min	2 every hour
Weymouth (change at Brockenhurst)	Lymington Town – Brockenhurst – Bournemouth – Poole – Weymouth	1 hour 46 min	2 every hour
London Waterloo (change at Brockenhurst)	Lymington Town – Brockenhurst – Southampton Central – Winchester – London Waterloo	1 hour 51 min	2 every hour

### LEGEND

-  SITE LOCATION
-  2KM ISOCHRONE
-  RAIL STATION
-  RAILWAY
-  BUS STOPS
-  CYCLE ROUTES
-  PUBLIC RIGHT OF WAY
-  RETAIL
-  EDUCATION
-  LEISURE
-  HEALTH CARE
-  FOOD & DRINK
-  EMPLOYMENT



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Client:		Cicero Estates	
Project:		Land at Ridgeway Lane, Lymington	
Title:		Accessibility Plan	
Scale:	Date:	Drawn By:	Checked By:
NTS	July 2020	EJD	ALB
Plan No:	Job No:	Rev:	
Plan 01	6181	-	