
Technical Note

Project No: ITB12174
Project Title: Land west of Old Manor Farm, south of Lower Road, Bedhampton
Title: Planning Application Highways Response
Ref: SJ/BC/ITB12174-015A TN
Date: 1 March 2022

SECTION 1 Information

- 1.1.1 This note has been prepared following Hampshire County Councils (HCC) highways consultation response letter (ref: 6/3/13/182) dated 7 December 2021, to the planning application on Land west of Old Manor Farm, south of Lower Road, Bedhampton. It also follows a post application virtual meeting between i-Transport LLP and HCC on Monday 24 January 2022.
- 1.1.2 The main comments that have been addressed as part of this note have been split into the following headings:
- Sustainable Access – Walking and Cycle. This includes a walking and cycling route audit to Warblington Secondary School;
 - Pedestrian and Cycle Flow from Forty Acre Farm Development;
 - Site Access; and
 - Bedhampton Hill Roundabout Junction Modelling.
- 1.1.3 Comments were also provided on the Residential Travel Plan (RTP) and a request for outline Construction Traffic Management Plan (CTMP). The RTP has been updated in line with HCC highways comments and an outline CTMP has been prepared.
- 1.1.4 The comments from HCC Highways are included in **Appendix A**. HCC comments have been summarised separately along with a response to each point raised below.

SECTION 2 Sustainable Access – Walking and Cycling

2.1 Local Facilities and Services

HCC Comment

The applicant has based desirable walking and cycling distances on the 2019 National Travel Survey and set out the distances within table 5.3 of the TA. However, the Highway Authority do not deem this acceptable. As requested during pre-application discussions, the assessment should be carried out to identify any local facilities that are within or exceed the recommended walking and cycling distances as set out within 'Providing for Journeys on Foot' (CIHT, 2000) which are not superseded by the NTS documents. A revised analysis should be undertaken to understand which facilities are situated within an acceptable walking distance from the site.

i-Transport Response

2.1.1 The HCC consultation response comments that the National Travel Survey is not acceptable for walk and cycle distances and should be provided on CIHT guidance, Providing for Journeys on Foot.

2.1.2 The National Travel Survey shows that 33% of journeys between 1 and 2 miles (up to 3.2km) will be on foot i.e. a significant proportion of people are prepared to walk for journeys of up to 2 miles (3.2km) meaning that just because a destination is over 2km away it does not mean it is not 'walkable'. However, to provide an assessment in line with HCC requirements, the local facilities with Table 5.3 of the Transport Assessment have been revised for the shorter walking distance (up to 2km), these are should in **Table 2.1**, with the walk distances further than 2km crossed out, following this further review some additional facilities have been added.

It can be seen in **Table 2.1** that despite some of the previous facilities being over a 2km walk distance, there remain a very wide range of services and facilities below 2km that residents of the site will be able to easily walk and cycle to.

Table 2.1: Key Destinations and Local Facilities

Type of Facility	Destination	Approximate Distance from Site (m)	Walking Distance	Cycling Distance
Leisure	Beefeater Rusty Cutter Restaurant	900	✓✓	✓✓✓
	Bedhampton Mariners Cricket Club	850	✓✓	✓✓✓
	Bidbury & Bedhampton Park	900	✓✓	✓✓✓
	The Golden Lion pub	1300	✓✓	✓✓✓
	Massala Lounge at the Golden Lion	1300	✓✓	✓✓✓
	~~Havant Leisure Centre~~	~~2600~~	✗	✓✓✓
	Havant Rugby Football Club	1650	✓✓	✓✓✓
	The Swan Inn Restaurant	1700	✓✓	✓✓✓
	~~Havant Park~~	~~2700~~	✗	✓✓✓

Type of Facility	Destination	Approximate Distance from Site (m)	Walking Distance	Cycling Distance
	Recreation Ground	1200	✓✓	✓✓✓
Employment	Volvo Cars Havant	1300	✓✓	✓✓✓
	~~Industrial Estate~~	~~2500~~	✗	✓✓✓
	~~Langstone Technology Park~~	~~3000~~	✗	✓✓✓
	~~Endeavour Business Park~~	~~3100~~	✗	✓✓✓
	~~Havant Town Centre~~	~~2300~~	✗	✓✓✓
	~~Havant Industrial Estate~~	~~2200~~	✗	✓✓✓
Retail	Belmont News	900	✓✓	✓✓✓
	Cutting Crew hair salon	900	✓✓	✓✓✓
	Belmont Barbers shop	900	✓✓	✓✓✓
	Deep Blue Takeaway	1150	✓✓	✓✓✓
	Londis convenience store	1150	✓✓	✓✓✓
	~~Tesco Extra~~	~~2500~~	✗	✓✓✓
	~~Asda Superstore~~	~~2500~~	✗	✓✓✓
	~~Aldi~~	~~2300~~	✗	✓✓✓
	~~Havant Town Centre~~	~~2300~~	✗	✓✓✓
	Post Office	1300	✓✓	✓✓✓
	Convenience Store	1250	✓✓	✓✓✓
Education	~~Havant College~~	~~2100~~	✗	✓✓✓
	~~Trosnant Junior School~~	~~2400~~	✗	✓✓✓
	Bidbury Junior School	1650	✓✓	✓✓✓
	Bidbury Infant School	1650	✓✓	✓✓✓
	St Thomas More's Pre School	1700	✓✓	✓✓✓
	Barncroft Primary School	1900	✓✓	✓✓✓
	~~South Down College~~	~~3500~~	-	✓✓✓
	~~Bosmere Junior School~~	~~2900~~	✗	✓✓✓
Health	Rowlands Pharmacy	1150	✓✓	✓✓✓
	Park Lane Medical Centre	1800	✓✓	✓✓✓
	~~Damira Dental Care~~	~~2700~~	✗	✓✓✓
Others	St Thomas Church	700	✓✓✓	✓✓✓
	Saint Nicholas Church	1000	✓✓	✓✓✓
	Bedhampton Methodist Church	1300	✓✓	✓✓✓

Note to walking distance column: ✓✓✓ up to 800m distance and reasonable cycle distance, ✓✓ - 800m – 2km distance, ✓ 2km – 3.2km – “maximum” walking distance.

- 2.1.3 In addition, the site is very well served by bus with service number 21 and 23 serving the bus stops on Bedhampton Road approximately a 700m walk (less than 10 minutes) from the site. These services run 7 days a week with up to six services per hour on a weekday, providing a very high frequency service to Portsmouth, Havant and Southsea. Therefore, residents will have realistic and genuine opportunities to access facilities and services further afield on a regular basis should they not wish to walk more than 2km.

2.2 Walking and Cycling Route Audit to Warblington Secondary School

HCC Comment

Warblington School has been identified as the catchment secondary school from the site and is located circa 3.7km away. The walking distance therefore sits above the 'preferred maximum' walking distance identified within 'Providing for Journeys on Foot' and has not been assessed further to understand how pedestrians will access the school. The applicant is required to undertake an audit of the walking and cycling route to the school to understand whether there are any deficits which could be improved through the development. Havant Borough Council's 'Cycling and Walking Infrastructure Plan' identify Bedhampton Road as a key cycle route and a location where infrastructure provision is currently lacking.

i-Transport Response

- 2.2.1 The site was revisited the site on Wednesday 12 January and Wednesday 2 February 2022 to undertake an audit of the route between the proposed development and Warblington School. The full audit is included with site photographs in **Appendix B**, with a summary provided below.
- 2.2.2 As indicated in HCC response, Warblington School is circa 3.7km away from the site (45-minute walk time), and although walkable for some students, other quicker travel options exist including:
- Via public transport:
 - Bedhampton rail station is a circa 1.4km walk (17 minutes), then a six or seven minute train journey arriving at Warblington station at 07:35 or 08:21, and then a two minute walk to the school; or
 - Bus stops are located on Bedhampton Road which is a circa 10-minute walk (700m) from the centre of the site. Bus service 23 runs every 15 minutes to Havant bus station. From here students can safely walk the remaining 1.4km in circa 17 minutes to Warblington School; or
 - Cycling via at least three different routes, of which some are on signposted route (part of a National Cycle Network), suggested route for cycling, and some sections are provided by off road cycle track (hard surfaced).

- 2.2.3 The preferred cycle route between the site and Warblington School most suitable for students is via Lower Road, Bidbury Lane, Bedhampton Road/New Road, Elmleigh Road, Eastern Road/Centenary Gardens and School Lane. This route includes signposted sections, suggested route for cycling and a section of off-road cycle track. Two other cycle routes between the site and school have also been briefly audited.
- 2.2.4 Considering the multiple cycle routes currently available between the site and Warblington School no specific infrastructure deficiencies have been reported following the audit.
- 2.2.5 The walking route from the site to the Warblington Secondary school is straight forward and pleasant in many locations, with good provision of street crossings where required and through a pedestrianised area of West Street with retail frontage.

SECTION 3 Pedestrian and Cycle Flow from Forty Acre Farm Development

HCC Comment

Consideration has been given by the applicant towards pedestrian and cycle movements associated with the recently consented Forty Acre Farm development. The applicant summarises that the desire line for the development will be along Bedhampton Hill instead of Lower Road. The Highway Authority disagrees with this position as Lower Road would offer an alternative walking route away from Bedhampton Road which is not much further than the route along Bedhampton Hill. The applicant should therefore provide a revised assessment which includes pedestrian and cycle movements from the Forty Acre Farm site.

To date, the assessment of Lower Road has demonstrated existing pedestrian trips of 11 in the AM peak hour and 10 in the PM peak hour. The data also identified between 24 cycle movements in the AM peak hour and 10 in the PM peak hour. Vehicle movements averaged at 44 and 50 in the respective peak hours. The Phase One development is forecast to add 23 vehicle trips in the AM and PM peak hours, 1 cycle trip in each peak and 16 AM peak and 7 PM peak pedestrian trips.

Until consideration has been given towards pedestrian and cycle flows from the Forty Acre Farm development, the Highway Authority are unable to comment on the acceptability of the additional development flow against the future pedestrian and cycle flows along Lower Road. This will need to be considered across the full day in terms of AADT and the peak hour assessment.

i-Transport Response

3.1.1 Following a further review of the Forty Acre Farm TA and the associated mitigation, the applicant retains its position that the expected demand of pedestrians and cyclists is likely to be predominantly along Bedhampton Hill rather than along Lower Road. This is due to the specific mitigation proposed as part of the Forty Acre Farm site at the Rusty Cutter roundabout and along Bedhampton Hill, as presented in the S106 agreement, shown in **Image 3.1**. The proposal includes:

- Provision of 3m footway/cycleway along Havant Road;
- Extend existing footway/cycleway from Rusty Cutter roundabout up to junction of Bedhampton Hill and Rusty Cutter Beefeater restaurant;
- Upgrade to existing pedestrian crossing;
- Implementing new pedestrian island to facilitate east-west movements across Bedhampton Hill; and
- Provision of signalised crossing across A3(M) NB on slip.

3.1.2 It can be seen in **Image 3.1** that the proposed movement of pedestrians and cyclists is from the site to the centre of the roundabout (via two signal crossings), routing around the roundabout to the north towards Bedhampton Hill (two further signal crossings) northwards towards the Rusty Cutter Beefeater where a new foot/cycle crossing is provided across Bedhampton Hill with 2.5m wide refuge island. To access Lower Road, pedestrians and cyclists would instead need to cross Bedhampton Hill on a wide section of carriageway at uncontrolled crossings.

3.1.3 None the less, the applicant has undertaken a thorough review of the Forty Acre Farm Development trip generation to ascertain the proposed pedestrian and cycle movements.

3.1.4 An assessment in the consented Forty Acre Farm Development Travel Plan (TP) calculated the likely modal share using 2011 Census data. Table 7 of the Framework TP, reproduced as **Table 3.1** below, outlines the calculated likely modal split for the residential development.

Table 3.1: Forty Acre Development Residential Walking & Cycling Mode Share

Distance travelled to work	Bicycle	On foot
Less than 2km	5%	27%
2km to less than 5km	4%	7%
5km to less than 10km	4%	1%
10km to less than 20km	2%	2%
20km and over	0%	4%
Overall Mode Share	3%	9%

Source: Forty Acre Farm Proposed Development, Framework Travel Plan, Table 7.

3.1.5 As shown above, the expected overall mode share of cycles and pedestrians is likely to be 3% and 9%, respectively for the Forty Acre Farm Development.

3.1.6 For the Care Home element of the development, the mode share is outlined in Table 8 of the TP, reproduced in **Table 3.2** below.

Table 3.2: Forty Acre Development Care Home Modal Split

Mode of Travel	Percentage
Single Occupancy Vehicle	47%
Passenger in vehicle	27%
Walk	18%
Bike	0%
Public Transport	8%

Source: Forty Acre Farm Proposed Development, Framework Travel Plan, Table 8.

3.1.7 The above table shows that the expected mode share of those travelling to the care home on foot or by bike will be 18% and 0% respectively.

3.1.8 Table 7 of the Forty Acre Farm Transport Assessment (TA) sets out the proposed trip generation of the development. Applying the modal split as shown in the two tables above to the trip generation, the expected walking and cycling trips can be calculated, these are presented in **Table 3.3** below.

Table 3.3: Forty Acre Farm Proposed Trip Generation – On Foot and Bicycle

Mode	Development Element	AM Peak			PM Peak			Total Daily Trips
		Arr	Dep	Two Way	Arr	Dep	Two Way	
On Foot	320 Residential Dwellings	4	11	15	9	5	15	132
	66 Unit Care Home	1	1	2	1	1	2	22
	Total	5	12	16	10	7	16	154
Bicycle	320 Residential Dwellings	1	4	5	3	2	5	44
	66 Unit Care Home	0	0	0	0	0	0	0
	Total	1	4	5	3	2	5	44

Source: Forty Acre Farm Transport Assessment & Consultant's Calculations.

- 3.1.9 The Forty Acre Farm TA provided a vehicle trip distribution to destinations based on Census 'Travel to Work' data. The destinations have been summarised whether they are located north, east or south and west of the site (south and west are combined as few destinations are located directly south of the site), this summary is provided in **Table 3.4**, the full destination list provided within the Forty Acre Farm TA is reproduced within **Appendix C**.

Table 3.4: Forty Acre Farm TA - 2011 Census 'Travel to Work' Data

Destination	Percentage
North (examples includes: Waterloooville, East Hampshire)	26%
East (examples includes: Bedhampton, Chichester, West Leigh, Emsworth)	26%
South & West (examples includes: Portsmouth, Cosham, Hilsea, Fareham, Farlington,	48%

Source: Forty Acre Farm TA, Table 8.

- 3.1.10 It can be seen in the table above, travel to the east of the site based on Census 'Journey to Work' data suggests circa 26% of trips will head to the east, of which a proportion of walk/cycle trips may head along Lower Road.
- 3.1.11 A route assignment of the vehicles associated with the Forty Acre Farm site was undertaken in the associated TA, this is reproduced in **Table 3.5**.

Table 3.5: Forty Acre Farm Development Route Assignment

Route Assignment	Percentage
A27 Westbound	35%
A27 Eastbound	20%
A3 (M)	25%
Bedhampton Hill / Bedhampton Road	5%
Havant Road Westbound	15%
Total	100%

Source: Forty Acre Farm TA, Table 11.

3.1.12 It can be seen in the above table that the vehicle trips along Bedhampton Hill/ Bedhampton Road was circa 5%, far lower than the broad distribution of 26% heading east, this is likely due to vehicle trips routing along the A27 eastbound to further afield destinations rather than going through Havant via Bedhampton Hill, which in total add up to 25%.

3.1.13 The Forty Acre Farm TA development does not provide a distribution for more local trips undertaken by foot or bicycle. Therefore, the applicant has undertaken a first principles assessment to determine the likely distribution of these modes, as a comparison to the distribution undertaken as part of the Forty Acres Farm TA. This is to ascertain the number of those travelling on foot and by cycling via Lower Road, from the Forty Acre development.

3.1.14 The following assumptions have been made on the distribution of these trips:

- The nearest bus stops to the site are along Havant Road within 200m either side of the site accesses (*Para 2.25 of Forty Acre Farm TA*), i.e. bus users are unlikely to walk along Lower Road to Bedhampton Road, as closer bus stops exist which serve the same routes;
- Bedhampton railway station is the closest rail station to the site at circa 2km to east of the Forty Acre Farm site (*Para 2.32 of Forty Acre Farm TA*), which is at the upper limit of walk distance 26 minutes, but some residents may still walk and cycle;
- Distribution has also been weighted according to distance to nearby local facilities and services. Those within 2km (a 'walkable' distance) of the site in are considered to be more likely visited by walking and cycling. Some of these include a Tesco Express (1.1km), Sainsburys supermarket (2.0km), East Lodge recreation ground/playground (1.0km), and other amenities.

Table 3.6 sets out some examples of the amenities within walking distance;

- Some facilities located over 2km from the site in Cosham, Bedhampton and Havant such as Solent Retail Park (2.8km), Asda Havant (2.9km) and Havant town centre (3.0km) are accessible by bicycle. This has also been considered in the distribution, and **Table 3.6** sets out some examples of the amenities within cycling distance;
- Forty Acre Farm is considered to be an urban extension of Drayton, with the Rusty Cutter Roundabout, A27 and A3(M) acting as an informal barrier to some residents traveling eastbound on foot or by cycling. However, there will still be trips that route eastbound due to the number of facilities and services offered in Havant and Bedhampton with the new footway/cycleway being constructed as part of the Forty Acre Farm development; and
- The trips toward Bedhampton have been split between both Lower Road and Bedhampton Hill. Those travelling to facilities north of Lower Road are likely to use Bedhampton Hill as the desire line runs along this route.

Table 3.6: Distances to Local Facilities – Forty Acre Farm

Amenity	East or West	Distance	Walking Distance	Cycling Distance
Bus Stops – Havant Road	West	200m	✓✓✓	✓✓✓
Beefeater Rusty Cutter Restaurant	East	650m	✓✓✓	✓✓✓
East Lodge Recreation Ground/Playground	West	1.0km	✓✓	✓✓✓
The Sunshine Inn Pub	West	1.0km	✓✓	✓✓✓
Pearl of the Orient	West	1.0km	✓✓	✓✓✓
Tesco Express	West	1.1km	✓✓	✓✓✓
Farlington Post Office	West	1.2km	✓✓	✓✓✓
Chic Hair & Beauty	West	1.3km	✓✓	✓✓✓
Belmont News	East	1.4km	✓✓	✓✓✓
Cutting Crew hair salon	East	1.4km	✓✓	✓✓✓
Belmont Barbers shop	East	1.4km	✓✓	✓✓✓
Bedhampton Mariners Cricket Club	East	1.5km	✓✓	✓✓✓
Solent Infant School	West	1.8km	✓✓	✓✓✓
Sainsbury's Supermarket	West	2.0km	✓	✓✓✓
B&M Home Store with Garden Centre	West	2.0km	✓	✓✓✓
Bedhampton Rail Station	East	2.0km	✓	✓✓✓
Bedhampton Local Centre	East	2.0km	✓	✓✓✓
Havant Rugby Football Club	East	2.6km	✓	✓✓✓
Solent Retail Park	East	2.8km	✓	✓✓✓

Amenity	East or West	Distance	Walking Distance	Cycling Distance
Asda Havant	East	2.9km	✓	✓✓✓
Havant Local Centre	East	3.0km	✓	✓✓✓
Cosham Local Centre	West	3.4km	-	✓✓

Source: Consultant's Calculations. East potentially via Lower Road

3.1.15 It can be seen in the table above that the closest local facilities are located to the west of the Forty Acre Farm development, however there are some alternative destinations such as Solent Retail Park (via Harts Farm Way), Havant Local Centre (via Bedhampton Hill or Lower Road) and Asda (via Bedhampton Hill) to the east of the development, which are at the upper end of walk distance but within cycling distance.

3.1.16 Based on the above assumptions, local facility locations, and the distribution proposed in the Forty Acre Farm TA, the distribution and assignment of walking and cycling trips from Forty Acre Farm is presented in **Table 3.7**.

Table 3.7: Foot and Cycle Distribution from Forty Acre Farm Development

Route 1	% Trips	Route 2	% Trips	Destination
Havant Road (W)	60%	Havant Road (W)	60%	Drayton
Havant Road (E)	40%	Bedhampton Hill	15%	Bedhampton (N)
		Lower Road	15%	Bedhampton / Havant
		Harts Farm Way	10%	Solent Retail Park / Havant

Source: Consultants Calculations

3.1.17 As can be seen in the table above, 60% of walking and cycling trips have been assigned westbound on Havant Road (A2030) towards Drayton. This is due to services such as a Tesco Express, Sainsburys superstore and Argos all within a 2km walking distance, as well as bus stops. The remaining 40% has been assigned eastbound on Havant Road towards Bedhampton and Havant via the Rusty Cutter roundabout. There are fewer facilities and services within walking distance in this direction, but Bedhampton rail station and the larger retail parks are located in this direction. Comparing the overall assignment to the east (40%) against the Census 'Travel to Work' data (26% as per Table 3.4), the assessment is considered robust. However, from initial discussion with HCC, the percentage of walking and cycling trips along Lower Road seems low, a sensitivity scenario has also been undertaken, doubling the percentage (30%) of walking and cycling movements as a worst case, this is detailed at the end of this section.

3.1.18 From Havant Road eastbound, the trips have been split between Bedhampton Hill (with proposal from Forty Acre site to provide footway/cycleway and upgrade to existing pedestrian crossing), Lower Road (signposted cycle route) and Harts Farm Way (part of the National Cycle Network route 22).

3.1.19 The above distribution has been applied to the expected foot and cycle trip generation set out in Table 3.3. From this, **Table 3.8** presents the likely trips associated with these modes that would route via Lower Road.

Table 3.8: Foot and Cycle Trips via Lower Road

Mode	Development Element	AM Peak			PM Peak			Total Daily Trips
		Arr	Dep	Two Way	Arr	Dep	Two Way	
On Foot	320 Residential Dwellings	1	2	2	1	1	2	20
	66 Unit Care Home	0	0	0	0	0	0	3
	Total	1	2	2	1	1	2	23
Bicycle	320 Residential Dwellings	0	1	1	0	0	1	7
	66 Unit Care Home	0	0	0	0	0	0	0
	Total	0	1	1	0	0	1	7

Source: Consultant's calculations. Note: Numbers may not sum due to rounding

3.1.20 As can be seen in the table above, on Lower Road there are likely to be 2 two-way walking movements in both peak hours, with 23 daily trips expected from the Forty Acre Farm development. Regarding cycling, there is one trip expected in both peak hours with 7 daily trip likely to route from Forty Acre Farm development via Lower Road.

3.1.21 Based on the above, **Table 3.9** outlines the expected total pedestrian and cycle movements on Lower Road, including existing flows, phase 1, proposed phase 2 and the Forty Acre Farm development movements. All flows (excluding Forty Acre Farm movements) are taken from Table 6.4 of the Proposed Development Transport Assessment (*Ref: ITB12174-012B*).

Table 3.9: Existing, Phase 1, Proposed Phase 2, and Forty-Acre Farm Pedestrian & Cycle movements on Lower Road

Weekday Average	Cyclist Movements					Pedestrian Movements				
	Existing	Phase 1	Proposed Development	Forty Acre Farm	Total	Existing	Phase 1	Proposed Development	Forty Acre Farm	Total
AM Peak Hour	19	2	1	1	23	20	12	14	2	48
PM Peak Hour	33	2	1	1	37	21	8	6	2	37
Daily	100	13	6	7	126	135	84	76	23	318

Source: ITB12174-012B R Transport Assessment and Consultant's calculations.

Note: Input errors noted in peak hours of Table 6.4 of the Transport Assessment have been rectified above.

3.1.22 The table above demonstrates that there could be 23 cycle movements and 48 pedestrian movements in the AM peak hour, and 37 cycle and 37 pedestrian movements in the PM peak hour along Lower Road. 126 typical daily cycle movements are expected with 318 typical daily pedestrian movements along Lower Road. These results demonstrate there will be a negligible difference in the number of pedestrian and cycle movements on Lower Road from the Forty Acre Farm development.

3.1.23 Using the vehicular trips rates set out in the Transport Assessment, **Table 3.10** shows the average existing weekday vehicle and pedestrian / cyclist movements on Lower Road from Forty Acre Farm site, alongside the Phase 1 and the proposed development movements.

Table 3.10: Existing, Phase 1, Proposed Phase 2, and Forty-Acre Farm Pedestrian and Cyclists vs. Vehicles on Lower Road

Weekday Average	Vehicular Movements					Cyclist Movements					Pedestrian Movements				
	Existing	Phase 1	Proposed Dev	Forty Acre Farm	Total	Existing	Phase 1	Proposed Dev	Forty Acre Farm	Total	Existing	Phase 1	Proposed Dev	Forty Acre Farm	Total
07:45 – 08:45	44	26	23	0	92	19	2	1	1	23	20	12	14	2	48
16:15 – 17:15	50	26	23	0	98	33	2	1	1	37	21	8	6	2	37
07:00 – 19:00	504	227	218	0	949	100	13	6	7	126	135	84	76	23	318

Source: ITB12174-012B R Transport Assessment and Consultant's calculations.

3.1.24 The above table demonstrates that the number of pedestrians and cyclists using Lower Road against the number of vehicles will continue to be high when both phases of the development are completed along with Forty Acre Farm development. The forecast number of pedestrian and cycling movements as a total of all forecast movements on Lower Road will range between 44% (Morning peak: 48

pedestrians and 23 cyclists divided by 163 all movements) and 43% (Evening peak: 37 pedestrians and 37 cyclists divided by 172 all movements) in the evening peak hour.

3.1.25 Table 3.10 also shows that over a day, the amounts of pedestrians and cyclists using Lower Road against the number of vehicles will continue to be high when the development is completed. Some 32% of daily movements will be in the form of pedestrians and cyclists (318 pedestrians and 126 cyclists divided by 1,393) i.e. it will continue to be a genuine shared surface during busier times and throughout the day.

3.1.26 Therefore, the percentage of pedestrians and cyclists forecast to use Lower Road when both the proposed development and Forty Acre Farm development are complete will be higher than it is now with a proportionate increase in vehicles, pedestrian and cyclists. The breakdown is:

- Weekday morning peak 44%;
- Weekday evening peak 43%; and
- Weekday daily 32%.

Sensitivity Scenario

3.1.27 As mentioned earlier in this section a sensitivity scenario has also been undertaken as a worst case, this includes doubling the expected percentage of walking and cycling trips along Lower Road associated with the Forty Acre Farm site, these are shown in **Table 3.11**.

Table 3.11: Sensitivity Scenario – Foot and Cycle Trips via Lower Road

Mode	Development Element	AM Peak			PM Peak			Total Daily Trips
		Arr	Dep	Two Way	Arr	Dep	Two Way	
On Foot	320 Residential Dwellings	1	3	4	3	2	4	40
	66 Unit Care Home	0	0	0	0	0	0	7
	Total	1	4	5	3	2	5	46
Bicycle	320 Residential Dwellings	0	1	1	1	1	2	13
	66 Unit Care Home	0	0	0	0	0	0	0
	Total	0	1	1	1	1	2	13

Source: Consultant's calculations. Note: Numbers may not sum due to rounding

3.1.28 Again, using the vehicular trips rates set out in the Transport Assessment, **Table 3.12** shows the average existing weekday vehicle and pedestrian / cyclist movements on Lower Road from Forty Acre Farm site as a sensitivity test, alongside the Phase 1 and the proposed development movements.

Table 3.12: Sensitivity Scenario – Existing, Phase 1, Proposed Phase 2, and Forty-Acre Farm Pedestrian and Cyclists vs. Vehicles on Lower Road

Weekday Average	Vehicular Movements					Cyclist Movements					Pedestrian Movements				
	Existing	Phase 1	Proposed Dev	Forty Acre Farm	Total	Existing	Phase 1	Proposed Dev	Forty Acre Farm	Total	Existing	Phase 1	Proposed Dev	Forty Acre Farm	Total
07:45 – 08:45	44	26	23	0	92	19	2	1	1	23	20	12	14	5	51
16:15 – 17:15	50	26	23	0	98	33	2	1	2	38	21	8	6	5	40
07:00 – 19:00	504	227	218	0	949	100	13	6	13	132	135	84	76	46	341

Source: ITB12174-012B R Transport Assessment and Consultant's calculations.

3.1.29 The above table demonstrates that the number of pedestrians and cyclists using Lower Road against the number of vehicles will continue to be high when both phases of the development are completed along with Forty Acre Farm development. The sensitivity scenario forecast number of pedestrian and cycling movements as a total of all forecast movements on Lower Road will range between 45% (Morning peak: 51 pedestrians and 23 cyclists divided by 166 all movements) and 44% (Evening peak: 38 pedestrians and 40 cyclists divided by 176 all movements) in the evening peak hour.

3.1.30 Table 3.12 also shows that over a day, the amounts of pedestrians and cyclists using Lower Road in the sensitivity scenario against the number of vehicles will continue to be high when the development is completed. Some 33% of daily movements will be in the form of pedestrians and cyclists (341 pedestrians and 132 cyclists divided by 1,422) i.e. the same conclusion as above, it will continue to be a genuine shared surface during busier times and throughout the day in the sensitivity scenario.

3.1.31 The sensitivity scenario of doubling the percentage of pedestrian and cycle movements along Lower Road, associated with the Forty Acre Farm development, results in a single percentage point increase in the weekday morning, evening and daily movements when compared to the original assessment within his note., this is a minor change for a robust assessment and therefore does not change the overall conclusions.

SECTION 4 Site Access

HCC Comment

The Highway Authority have concerns with the current access arrangement. Drawing number GA-018 shows that the forward visibility around the curved alignment will cross private front gardens. This may result in future impediment to visibility which is essential given the narrow access road into the site.

Tracking has been provided for a super large refuse vehicle passing a family car which shows that the manoeuvre is tight on the straight section of road around the bend. No tracking has been provided around the bend but it is considered unlikely that the two vehicles would be able to pass based on the current alignment. Whilst the Highway Authority have noted concerns regarding forward visibility above, the splay shown would still require a vehicle entering the site to reverse should a delivery or refuse vehicle be routing to the site access. Similarly, a car attempting to egress could need to reverse should a larger vehicle turn into the site and begin to travel along the access road. This would not be considered as acceptable.

The Highway Authority require the comments above to be addressed before the access can be considered acceptable. The applicant should also provide a Stage 1 Road Safety Audit to confirm that there are no safety issues associated with the proposal.

i-Transport Response

- 4.1.1 Following the meeting with HCC on Monday 24 January 2022, the applicant prepared the below response with associated drawings in relation to the site access, this was sent to HCC via email, seeking agreement in principle to the access design prior to undertaking a Stage 1 Road Safety Audit.

The forward visibility shown in drawing GA-018 (submitted with the TA) was based on a generic design speed of 20mph through Phase 1. The actual design speed from phase 1 to the proposed development can be calculated from the centreline radius of the bend on approach to the site. The centreline radius is measured as 10.2m, this relates to a 15mph design speed and associated 17m forward visibility (based on Manual for Streets guidance). The forward visibility is shown on revised drawing ITB12174-GA-018A, this is therefore reduced compared to that shown previously. There is circa 1m distance between the southern edge of the forward visibility splay and the adjacent property boundary to the south, to allow access to the rear gardens. The client is prepared to ensure the land in which the forward visibility passes over is free of obstructions (above 600mm) through a surface/boundary treatment, which can be secured through the planning process.

A vehicle swept path analysis has been undertaken on drawing ITB12174-GA-021 that shows that a large 11.2m refuse vehicle can pass an estate car on both straight sections of the revised phase 1 access road. The forward visibility detailed above suggests that a car accessing the proposed development would be able to see an oncoming large vehicle and wait before proceeding, likewise a car exiting the development would be able to see a large vehicle entering the development and also wait before proceeding.

Further vehicle swept paths has been undertaken on drawings ITB12174-GA-022 and 023. These demonstrates that an estate car can enter the proposed development from phase 1, whilst another estate car exits with no conflicts, also that an estate car can pass a medium transit van along the access route without conflict. These are a more likely scenario due to the infrequent nature of heavy good's vehicles in residential developments. Refuse vehicles are expected up to twice per week, with current collections on Lower Road on a Wednesday for waste and recycling and Friday for garden waste.

4.1.2 Subsequently HCC responded via email noting they “**do not consider the current alignment of the access road to be suitable... ..the proposed access could result in safety concerns for day to day movements in and out of the development.**” Therefore, although the applicant is still content with the access proposal as shown on drawing ITB12174-GA-018A, a revised site access alignment has been considered, this is detailed below.

Updated site access design

4.1.3 The alignment of the site access within the phase 1 site as it leads into the Proposed Development has been altered, this is shown in revised **drawing ITB12174-GA-018 Rev D**. The access alignment is based on a 20mph design speed and associated visibility (Manual for Streets 25m). The path to the north of plot 26 within phase 1 has now been repositioned to the south of plot 28. The forward visibility splay along the access road can be kept clear, with land retained and managed by the appointed management company. The access also includes enlarged radii on the bend for a 20mph design speed, with local widening at the bend to assist further with vehicles passing. The revised site access takes on board comments following a Stage 1 Road Safety Audit (detailed below).

4.1.4 A revised vehicle swept path analysis has also been undertaken on the revised site access design, these include the same vehicles and manoeuvres as detailed above, with details provided below:

- **Drawing ITB12174-GA-021 Rev C** shows a large 11.2m refuse vehicle passing an estate car on the revised phase 1 access road;
- **Drawing ITB12174-GA-022 Rev C** shows two estate cars easily passing along the revised site access road; and
- **Drawing ITB12174-GA-023 Rev C** shows an estate car can pass a medium transit van along the access route without conflict.

4.1.5 It can be seen above that the revised site access design eases the movement of vehicles.

Stage 1 Road Safety Audit

- 4.1.6 A Stage 1 Road Safety Audit (RSA) has been undertaken of the proposed site access including changes to the Phase 1 layout by an independent auditor Courzons Ltd in February 2022. A safety audit brief was prepared for the RSA. A copy of the Stage 1 RSA (Document Ref: 22001-3) is included within **Appendix D** along with i-Transport's response acting as the design organisation.
- 4.1.7 The RSA raised a total of 3 items, one was regarding the junction and the other two were in relation to non-motorised user provision. A couple of the points raised in the RSA will be addressed through later detailed design. The proposed access road width by the bell mouth (which was not widened as part of the updated access design) was widened from 5.0m to 5.5m following the RSA comment, this design change has been included in the revised **drawing ITB12174-GA-018 Rev D** and the associated vehicle swept path drawings detailed above. The Road Safety Auditor has confirmed that there are no residual road safety issues with the proposed design.

SECTION 5 Bedhampton Hill Roundabout Junction Modelling

HCC Comment

Within the Technical Note supporting the Phase 1 planning application, sensitivity testing for the roundabout was undertaken to a 2024 future year at the request of the Highway Authority. The modelling indicated RFC's of 0.92 in the AM peak hour and 1.08 in the PM peak hour on the Portsdown Hill Road approach. These values are higher than the 0.85 and 0.98 RFC's modelled in the respective peak hours under the current application. Clarity is sought from the applicant on this point. The Highway Authority also requires the provision of the junction modelling file to undertake a review of the model build.

i-Transport Response

- 5.1.1 The difference in the modelling outputs is due to the change in background traffic growth.
- 5.1.2 The 2024 sensitivity test in the Technical Note supporting the Phase 1 planning application was based on a worst case unadjusted TEMPro growth which includes Forty Acre Farm. The TEMPro calculation was based on the NTM AF15 dataset. This resulted in background growth of circa 1.11 (11%) in the AM peak and 1.10 (10%) in the PM peak.
- 5.1.3 The proposed development TA included the Forty Acre Farm site as a separate committed development, calculating vehicle trips from the associated TA. TEMPro was used to calculate further background growth using the most recent dataset at the time, RTF scenario 1 dataset (covering 2015

to 2050¹). Alternative assumptions were applied to reduce the future households by 254 (maximum possible for Havant 018 area) to cover the Land at Forty Acre Farm committed development (320 units) to ensure no double counting in the future year. This resulted in background growth (without committed development) of circa 1.05 (5%) in the AM peak and 1.04 (4%) in the PM peak.

5.1.4 Therefore, the reason why the newer traffic models show a reduction in RFC's is predominantly due to the reduction in background growth as a result of a newer dataset within the TEMPro software.

5.1.5 The Junctions 10 model file of Bedhampton Roundabout will be issued with this technical note to HCC.

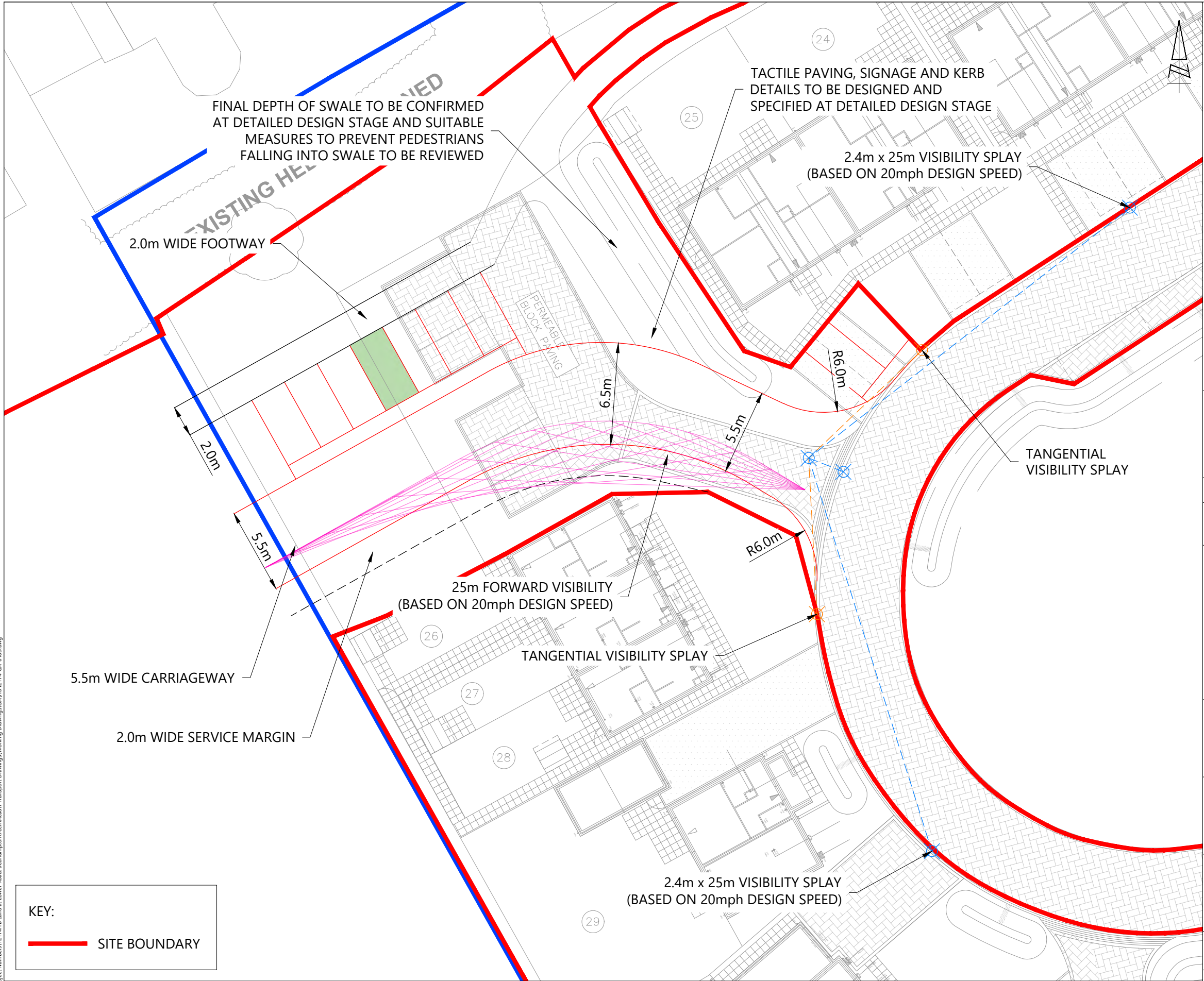
¹ It is understood from Department for Transport, Road Traffic Forecast, that this dataset was a substantial update, with a recalibration of the NTM to a new base year of 2015 and an updated National Trip End Model (NTEM) extending the forecast horizon to 2050.

SECTION 6 Summary and Conclusion

- 6.1 This note has been prepared following Hampshire County Council's (HCC) highways consultation response letter dated 7 December 2021, to the planning application on Land west of Old Manor Farm, south of Lower Road, Bedhampton. It addresses four main areas questioned by HCC or where further details were requested, including sustainable access including a walking/cycling route audit to Warblington Secondary School, pedestrian and cycle flows from the Forty Acre Farm development, details on the site access and junction modelling of Bedhampton Hill roundabout.
- 6.2 Following HCC's comments on the local facilities and services, a new search was undertaken with a maximum walk distance of 2km. The revised assessment shows that despite some of the previous facilities being over a 2km walk distance, there remain a very wide range of services and facilities below 2km that residents of the site will be able to easily walk and cycle to.
- 6.3 Following recent site visits in January and February 2022, an audit of the route between the proposed development and Warblington Secondary School was undertaken. It was concluded that there are good walking routes exist to the school, although walkable for some students, other quicker travel options exist including via rail from Bedhampton Station, via bus from stops located on Bedhampton Road or by cycling via one of three routes. The preferred cycling route most suitable for students was along New Road/Elmleigh Road/School Lane, which includes signposted sections, suggested route for cycling and a section of off-road cycle track. No specific infrastructure deficiencies were reported following the audit.
- 6.4 The walking route from the site to the Warblington Secondary school is straight forward and pleasant in many locations, with good provision of street crossings where required and through a pedestrianised area of West Street with retail frontage.

- 6.5 A detailed review of the Forty Acre Farm Development trip generation to ascertain the proposed pedestrian and cycle movements was undertaken in addition to a first principles distribution assessment for local trips to nearby facilities. The results demonstrate that the number of pedestrians and cyclists using Lower Road against the number of vehicles will continue to be high when both phases of the development are completed along with Forty Acre Farm development. This is also true for the results of the daily assessment, with Lower Road continuing to be a genuine shared surface during busier times and throughout the day. The addition of a sensitivity scenario where doubling the percentage of pedestrian and cycle movements along Lower Road, associated with the Forty Acre Farm development was also undertaken, resulted in a single percentage point increase in the weekday morning, evening and daily movements when compared to the original assessment within this note., this is a minor change for a robust assessment and therefore does not change the overall conclusions.
- 6.6 Following the meeting with HCC on Monday 24 January 2022, the applicant prepared a response with associated drawings in relation to the site access, this was sent to HCC via email, seeking agreement in principle to the access design prior to undertaking a Stage 1 Road Safety Audit.
- 6.7 This response included a revised forward visibility splay shown for the site access based on the design speed of the proposed centreline radius of the alignment of access from first phase into the proposed development. Vehicle swept path analysis was also undertaken that showed that a refuse vehicle can pass an estate car on both straight sections of the revised phase 1 access road. The forward visibility shows that a car accessing or exiting the proposed development would be able to see an oncoming large vehicle and wait before proceeding. A further vehicle tracking exercise indicates that two estate cars can pass one another through the proposed site access including bend and junction. Given the infrequent nature of heavy good's vehicles at the proposed development, no changes are deemed required to the site access. However, subsequently HCC responded via email noting they, do not consider the current alignment of the access road to be suitable. Therefore, although the applicant is still content with the access proposal as currently shown, a revised site access alignment has been designed easing the movement of vehicles and improving the forward visibility. This revised site access proposal has been independently audited via a Stage 1 Road Safety Audit, with i-Transport responding as the design organisation. Subsequent to the Stage 1 Road Safety Audit, the width of the proposed site access at the bell mouth has been widened from 5.0m to 5.5m.
- 6.8 HCC queried the modelling outputs of the Bedhampton Hill Roundabout against those previously prepared for the phase 1 planning application. It is confirmed that the difference is due to the background traffic growth using an updated dataset within the TEMPro software.

DRAWINGS



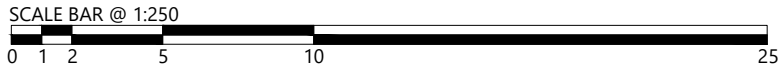
KEY:

— SITE BOUNDARY

T:\Projects\12000 Series Project Numbers\12174\1TB Land at Lower Road, Bedhampton\Tech\Acad\Transport Drawings\Working Drawings\GA\1TB 12174-GA-01BD.dwg

REPRODUCED FROM THE ORDNANCE SURVEY
MAP WITH THE PERMISSION OF THE
CONTROLLER OF HER MAJESTY'S STATIONERY
OFFICE. LICENCE No. 100044286.
© CROWN COPYRIGHT RESERVED.

DRAWING ISSUED FOR FEASIBILITY CONSIDERATION AND PLANNING PURPOSES ONLY.
DRAWING NOT TO BE USED FOR CONSTRUCTION. I-TRANSPORT LLP ACCEPT NO RESPONSIBILITY
FOR ERRORS MADE BY OTHERS IN SCALING FROM THIS DRAWING. MEASUREMENTS SHOULD BE
TAKEN FROM FIGURED DIMENSIONS ONLY. CDM REQUIREMENTS CONSIDERED AT FEASIBILITY
STAGE ONLY. FURTHER CONSIDERATION REQUIRED BY DETAILED DESIGN TEAM.



D	01.03.22	JD	RSA COMMENTS INCORPORATED	BC	SJ
C	15.02.22	JD	SITE ACCESS UPDATED	BC	SJ
B	10.02.22	JD	SITE ACCESS UPDATED	BC	SJ
A	26.01.22	JD	SITE ACCESS UPDATED	BC	SJ

REV	DATE	BY	DESCRIPTION	CHK	APD
-----	------	----	-------------	-----	-----

STATUS: FOR INFORMATION

i-Transport

The Square, Basing View,
Basingstoke, Hampshire, RG21 4EB

Tel: 01256 637940

www.i-transport.co.uk

TITLE:
PROPOSED SITE ACCESS ARRANGEMENT FROM PHASE 1 SITE

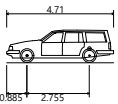
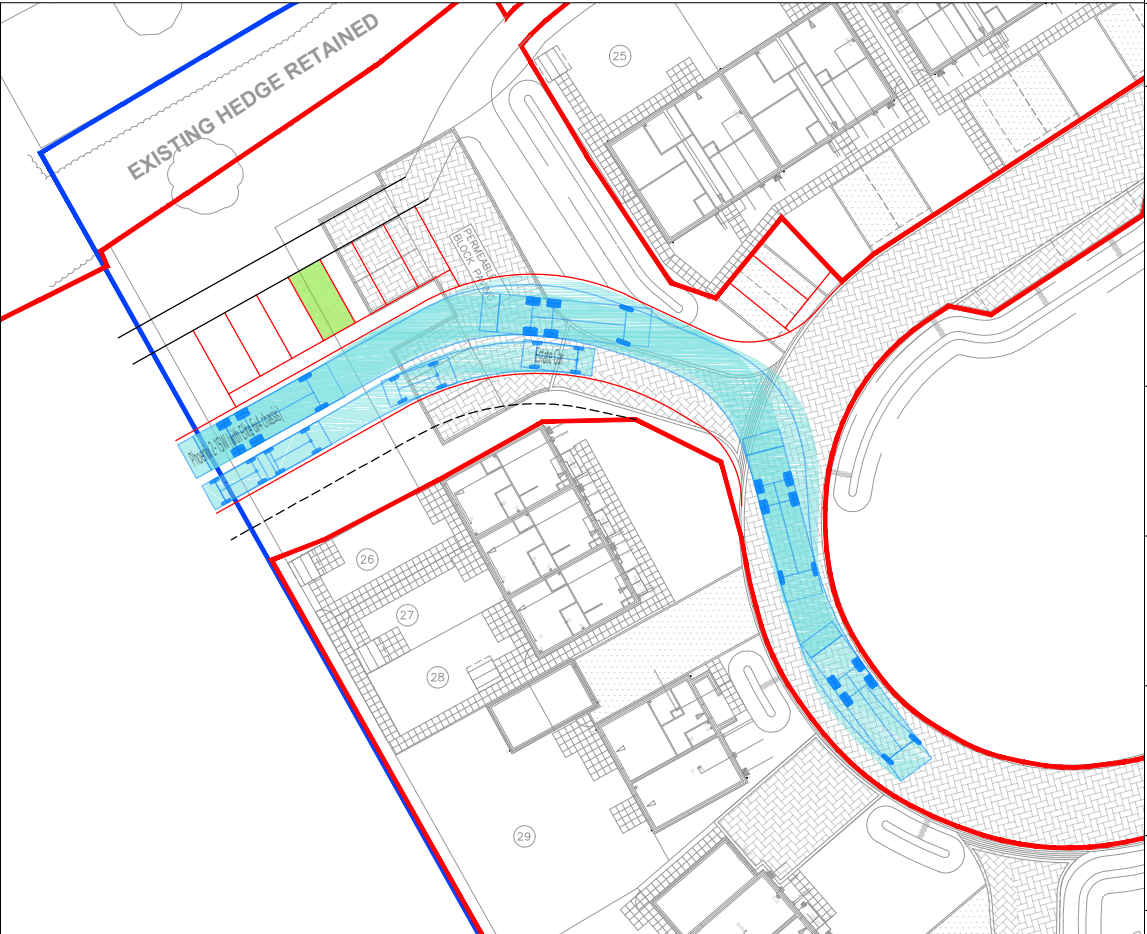
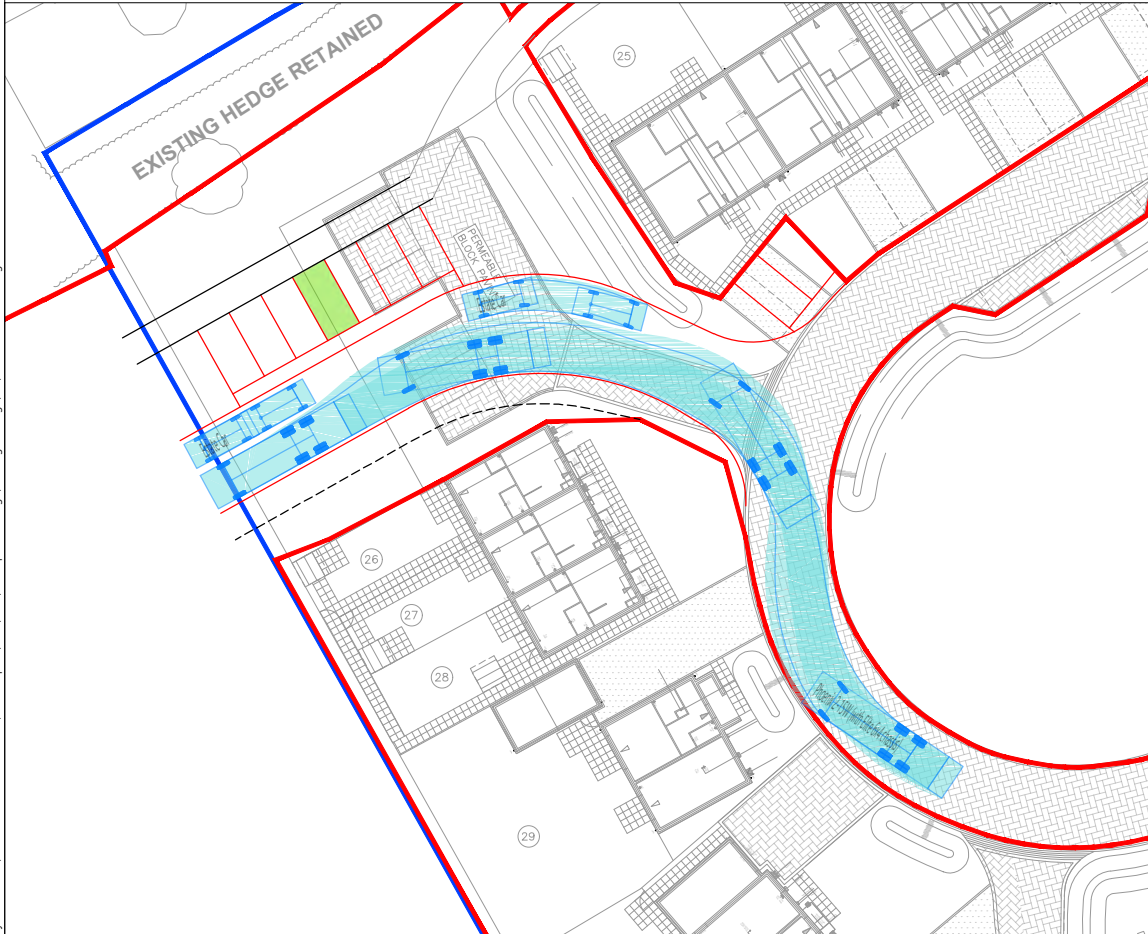
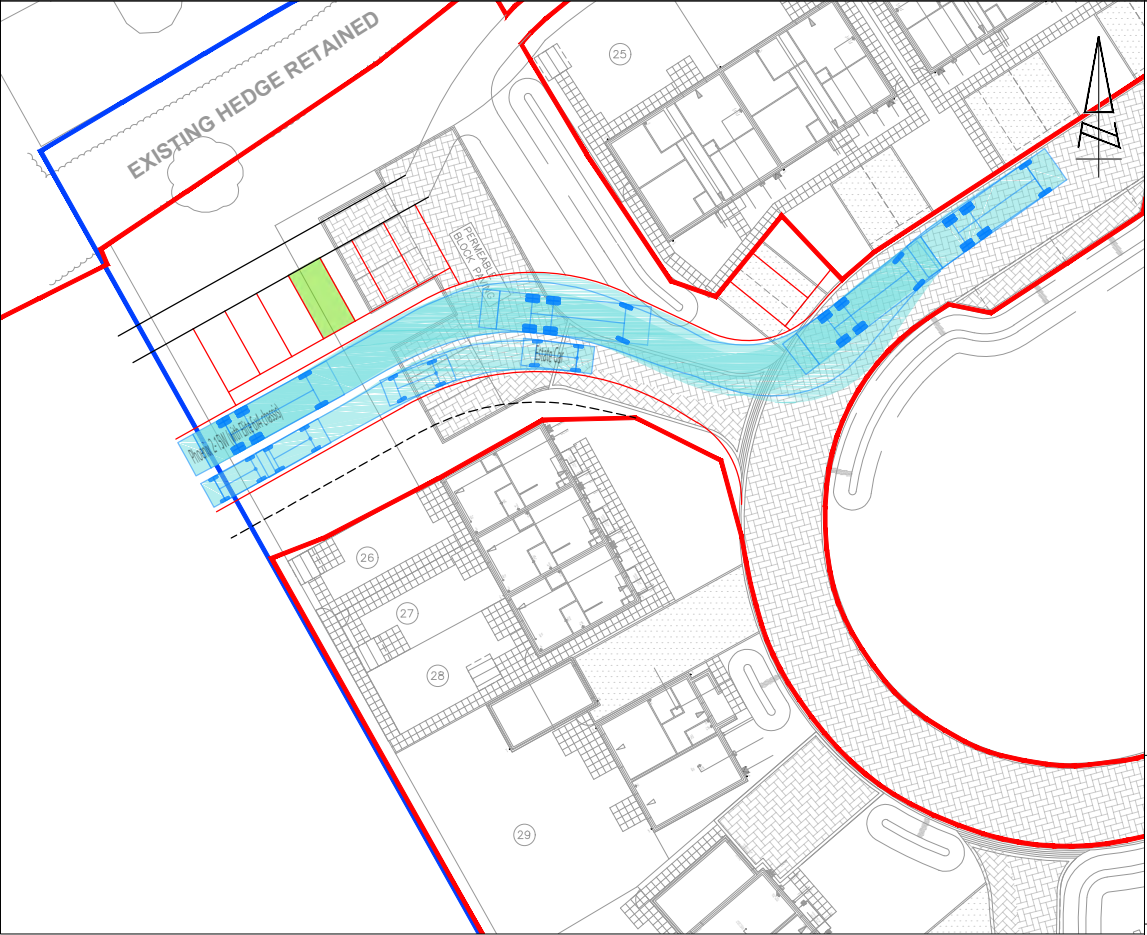
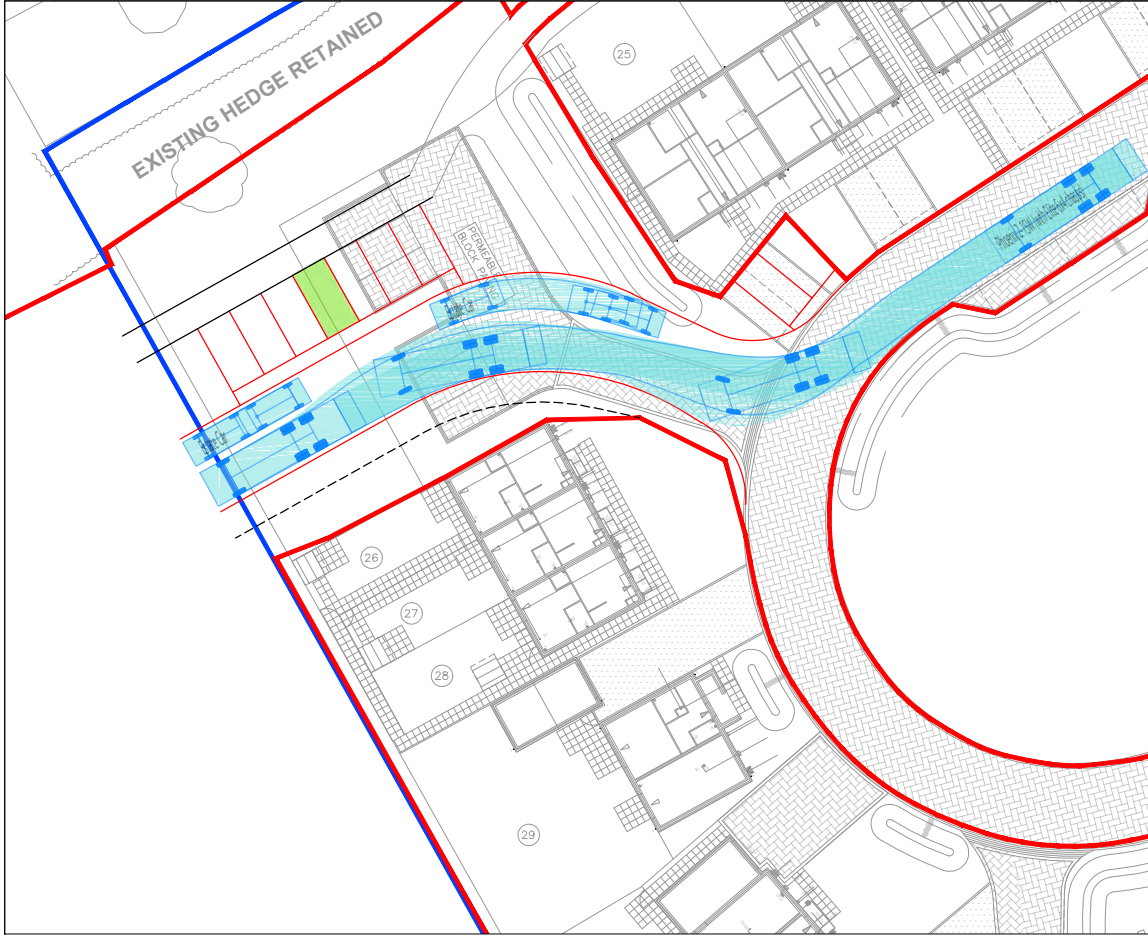
PROJECT:
LAND WEST OF OLD MANOR FARM, BEDHAMPTON

CLIENT:
BARGATE HOMES

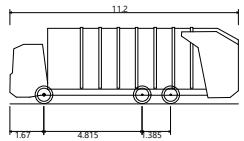
DRAWN:	CHECKED:	APPROVED:
JMc	BC	SJ

PROJECT No:	SCALE @ A3:	DATE:
ITB12174	1:250	23.08.21

DRAWING No:	REV:
ITB12174-GA-018	D



Estate Car
Overall Length 4.710m
Overall Width 1.804m
Overall Body Height 1.442m
Min Body Ground Clearance 0.207m
Max Track Width 1.756m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 5.950m



Phoenix 2-15W (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

REV	DATE	BY	DESCRIPTION	CHK	APD
C	01.03.22	JD	SITE ACCESS UPDATED	BC	SJ
B	17.02.22	JD	ACCESS ARRANGEMENT AMENDED	BC	SJ
A	11.02.22	JD	ACCESS ARRANGEMENT AMENDED	BC	SJ

STATUS: FOR INFORMATION



Grove House, Lutyens Close, Chineham
Basingstoke, Hampshire, RG24 8AG
Tel: 01256 338640
www.i-transport.co.uk

TITLE:
PROPOSED SITE ACCESS ARRANGEMENT FROM PHASE 1 SITE
SWEPT PATH ANALYSIS - REFUSE VEHICLE AND ESTATE CAR

PROJECT:
LAND WEST OF OLD MANOR FARM, BEDHAMPTON

CLIENT:
BARGATE HOMES

DRAWN: JD	CHECKED: BC	APPROVED: SJ
PROJECT No: ITB12174	SCALE @ A3: 1:500	DATE: 26.01.22

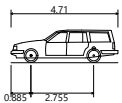
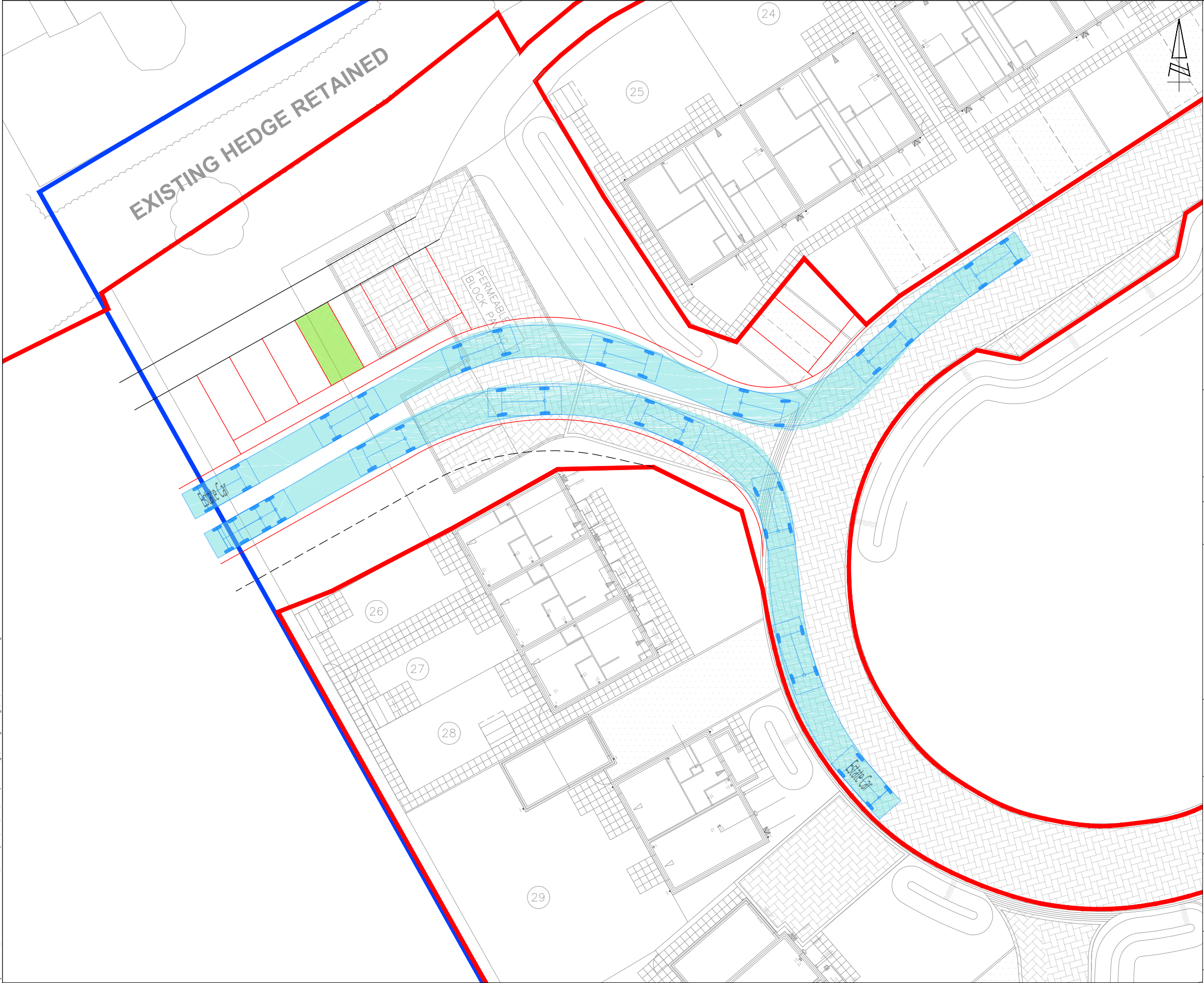
DRAWING No: ITB12174-GA-021
REV: C

T:\Projects\12000 Series Project Numbers\12174\ITB Land at Lower Road, Bedhampton\Tech\Acad\i-Transport Drawings\Working Drawings\GA\ITB12174-GA-021C.dwg

REPRODUCED FROM THE ORDNANCE SURVEY
MAP WITH THE PERMISSION OF THE
CONTROLLER OF HER MAJESTY'S STATIONERY
OFFICE. LICENCE No. 100044286.
© CROWN COPYRIGHT RESERVED.

DRAWING ISSUED FOR FEASIBILITY CONSIDERATION AND PLANNING PURPOSES ONLY.
DRAWING NOT TO BE USED FOR CONSTRUCTION. I-TRANSPORT LLP ACCEPT NO RESPONSIBILITY
FOR ERRORS MADE BY OTHERS IN SCALING FROM THIS DRAWING. MEASUREMENTS SHOULD BE
TAKEN FROM FIGURED DIMENSIONS ONLY. CDM REQUIREMENTS CONSIDERED AT FEASIBILITY
STAGE ONLY. FURTHER CONSIDERATION REQUIRED BY DETAILED DESIGN TEAM.





Estate Car	Overall Length	4.710m
	Overall Width	1.804m
	Overall Body Height	1.442m
	Min Body Ground Clearance	0.207m
	Max Track Width	1.756m
	Lock to lock time	4.00s
	Kerb to Kerb Turning Radius	5.950m

C	01.03.22	JD	SITE ACCESS UPDATED	BC	SJ
B	17.02.22	JD	ACCESS ARRANGEMENT AMENDED	BC	SJ
A	11.02.22	JD	ACCESS ARRANGEMENT AMENDED	BC	SJ
REV	DATE	BY	DESCRIPTION	CHK	APD

STATUS: FOR INFORMATION



Grove House, Lutyens Close, Chineham
Basingstoke, Hampshire, RG24 8AG
Tel: 01256 338640
www.i-transport.co.uk

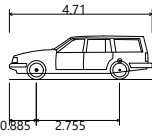
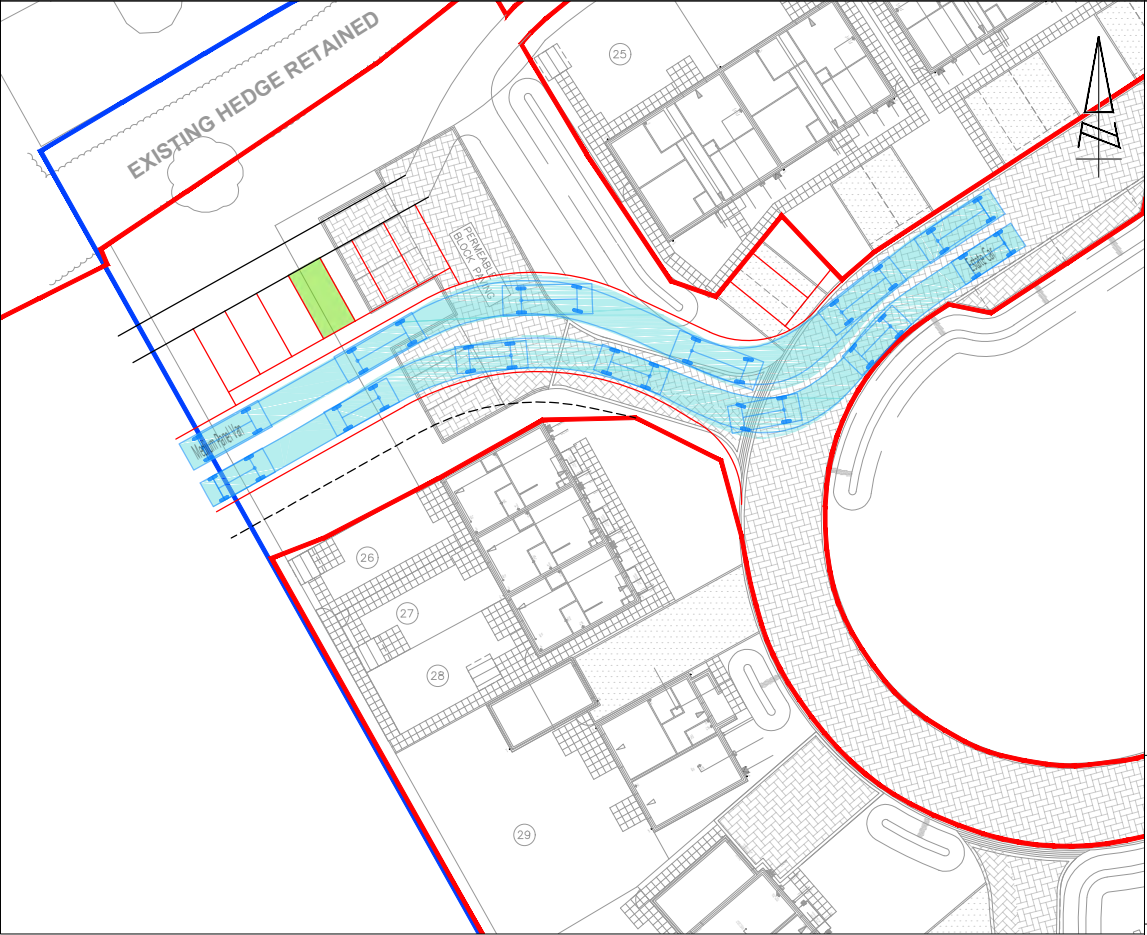
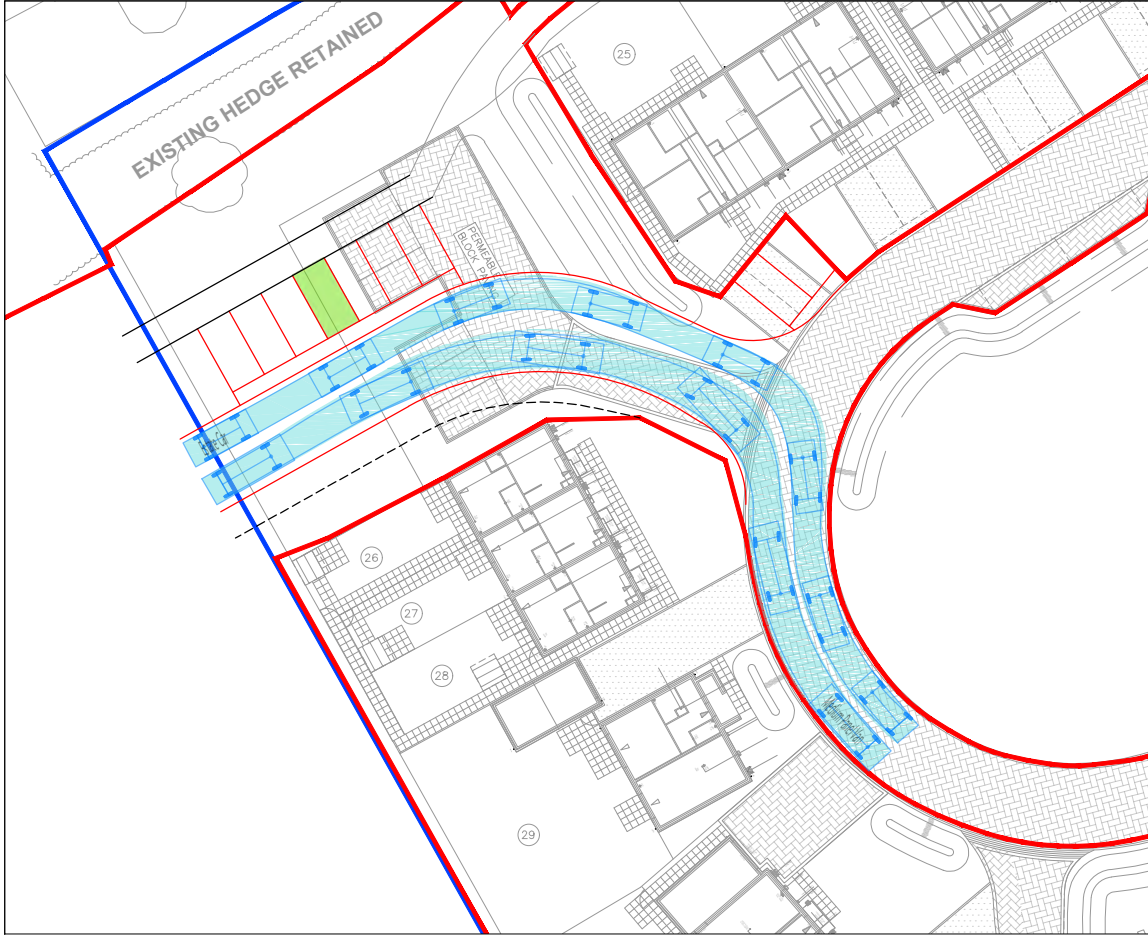
TITLE:
PROPOSED SITE ACCESS ARRANGEMENT FROM PHASE 1 SITE
SWEPT PATH ANALYSIS - ESTATE CAR

PROJECT:
LAND WEST OF OLD MANOR FARM, BEDHAMPTON

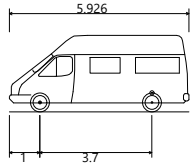
CLIENT:
BARGATE HOMES

DRAWN:	CHECKED:	APPROVED:
JD	BC	SJ
PROJECT No:	SCALE @ A3:	DATE:
ITB12174	1:250	26.01.22

DRAWING No: ITB12174-GA-022
REV: C



Estate Car
Overall Length 4.710m
Overall Width 1.804m
Overall Body Height 1.442m
Min Body Ground Clearance 0.207m
Max Track Width 1.756m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 5.950m



Medium Panel Van
Overall Length 5.926m
Overall Width 1.993m
Overall Body Height 2.526m
Min Body Ground Clearance 0.299m
Track Width 1.765m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 6.000m

C	01.03.22	JD	SITE ACCESS UPDATED	BC	SJ
B	17.02.22	JD	ACCESS ARRANGEMENT AMENDED	BC	SJ
A	11.02.22	JD	ACCESS ARRANGEMENT AMENDED	BC	SJ

REV	DATE	BY	DESCRIPTION	CHK	APD
-----	------	----	-------------	-----	-----

STATUS: FOR INFORMATION



Grove House, Lutyens Close, Chineham
Basingstoke, Hampshire, RG24 8AG
Tel: 01256 338640
www.i-transport.co.uk

TITLE:
PROPOSED SITE ACCESS ARRANGEMENT FROM PHASE 1 SITE
SWEPT PATH ANALYSIS - MEDIUM VAN AND ESTATE CAR

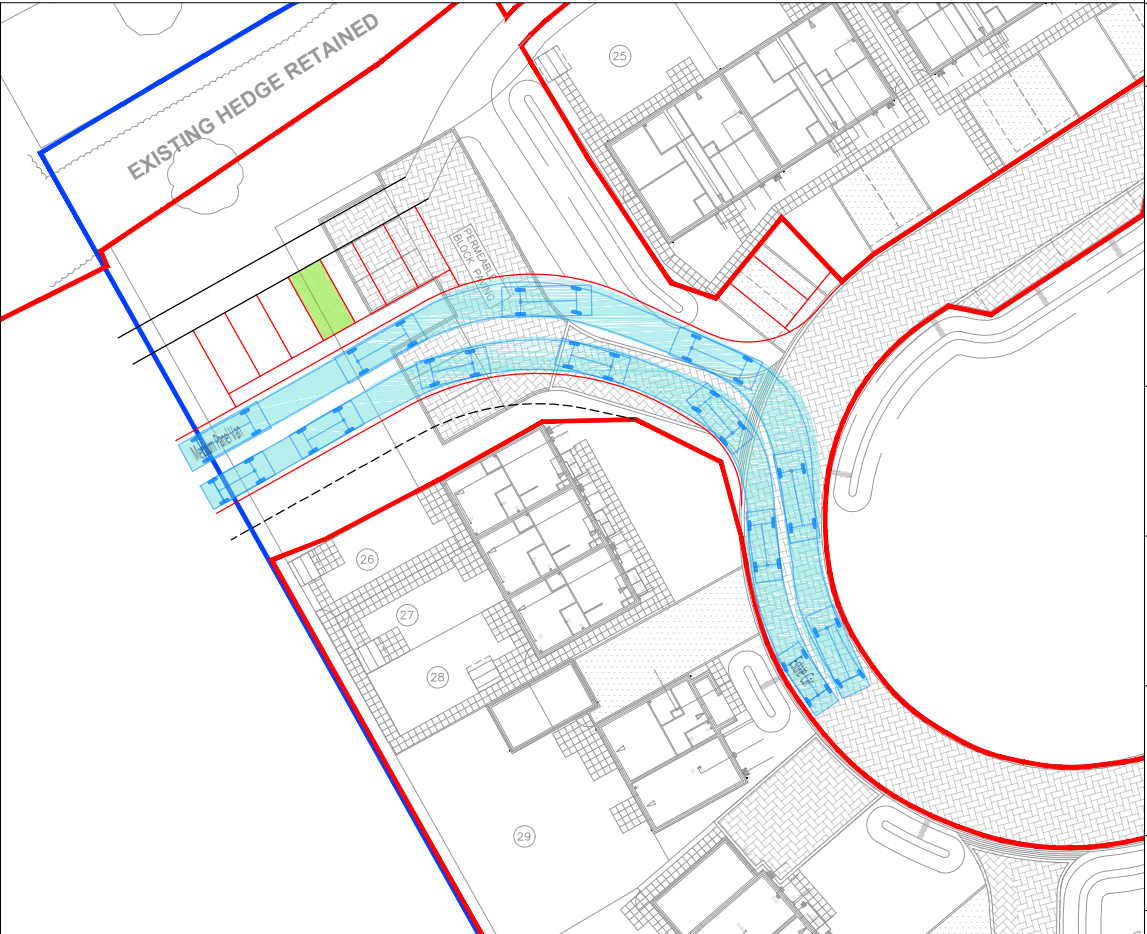
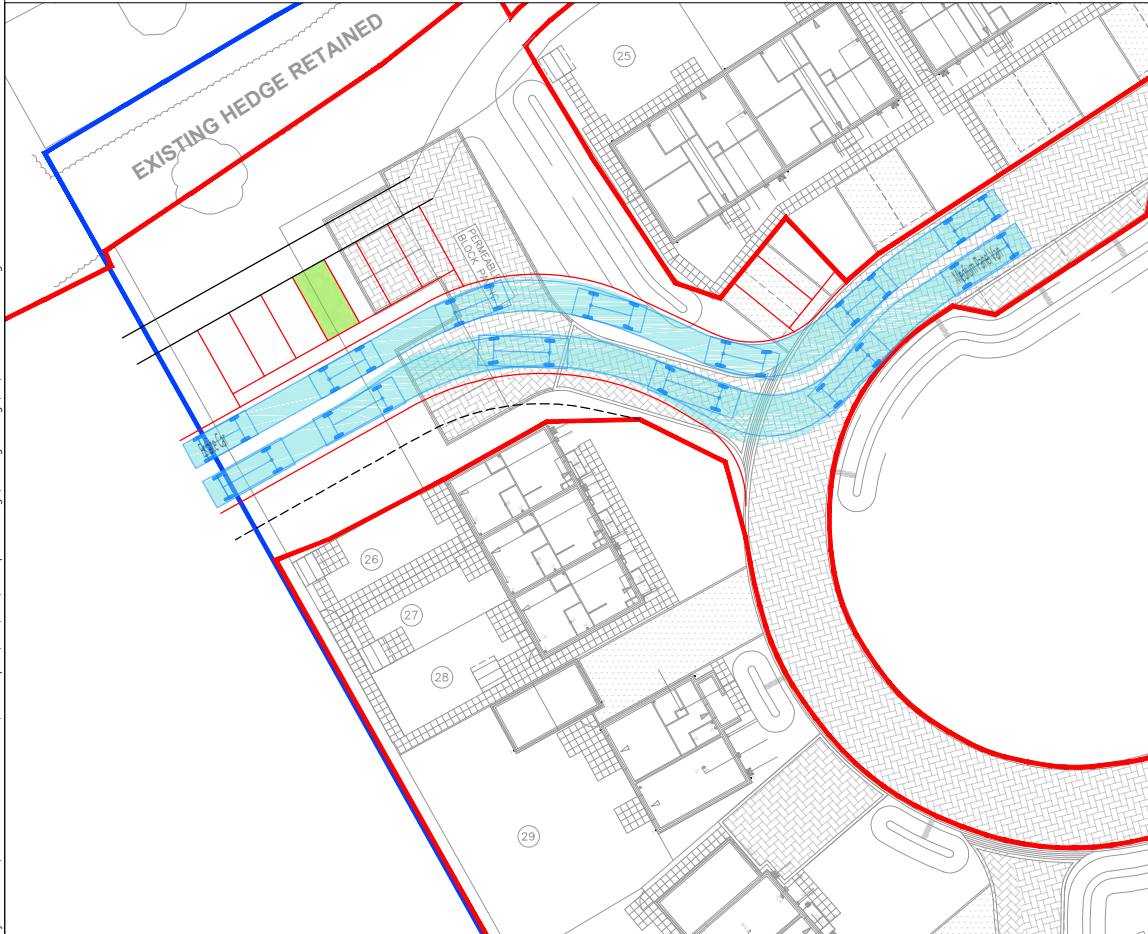
PROJECT:
LAND WEST OF OLD MANOR FARM, BEDHAMPTON

CLIENT:
BARGATE HOMES

DRAWN: JD
CHECKED: BC
APPROVED: SJ

PROJECT No: ITB12174
SCALE @ A3: 1:500
DATE: 26.01.22

DRAWING No: ITB12174-GA-023
REV: C



T:\Projects\12000 Series\Project Numbers\12174\ITB Land at Lower Road, Bedhampton\Tech\Acad\i-Transport Drawings\Working Drawings\GA\ITB12174-GA-023C.dwg

REPRODUCED FROM THE ORDNANCE SURVEY
MAP WITH THE PERMISSION OF THE
CONTROLLER OF HER MAJESTY'S STATIONERY
OFFICE. LICENCE No. 100044286.
© CROWN COPYRIGHT RESERVED.

DRAWING ISSUED FOR FEASIBILITY CONSIDERATION AND PLANNING PURPOSES ONLY.
DRAWING NOT TO BE USED FOR CONSTRUCTION. I-TRANSPORT LLP ACCEPT NO RESPONSIBILITY
FOR ERRORS MADE BY OTHERS IN SCALING FROM THIS DRAWING. MEASUREMENTS SHOULD BE
TAKEN FROM FIGURED DIMENSIONS ONLY. CDM REQUIREMENTS CONSIDERED AT FEASIBILITY
STAGE ONLY. FURTHER CONSIDERATION REQUIRED BY DETAILED DESIGN TEAM.



APPENDIX A. HAMPSHIRE COUNTY COUNCIL
HIGHWAYS CONSULTATION
RESPONSE LETTER



Hampshire
County Council

Head of Development Planning

Havant Borough Council

Civic Offices

Civic Centre Road

HAVANT

Hampshire

PO9 2AX

*Economy, Transport and Environment Department
Elizabeth II Court West, The Castle
Winchester, Hampshire SO23 8UD*

Tel: 0300 555 1375 (General Enquiries)
0300 555 1388 (Roads and Transport)
0300 555 1389 (Recycling Waste & Planning)
Textphone 0300 555 1390
Fax 01962 847055

www.hants.gov.uk

<i>Enquiries to</i>	Chris Hirst	<i>My reference</i>	6/3/13/182
<i>Direct Line</i>	0370 779 0563	<i>Your reference</i>	APP/21/01071
<i>Date</i>	7 th December 2021	<i>Email</i>	Chris.Hirst@hants.gov.uk

For attention of Ms J Mansi

Dear Madam,

Re: Outline Planning Application - Up to 43 dwellings, with access from Lower Road and associated landscaping, open space, and allotments with all other matters reserved at land south of, Lower Road, and west of Old Manor Farm, Havant

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

Site Location

The proposed development is located to the south of Lower Road. Access to the site is proposed via the first phase of the development (APP/19/00427) which is located directly to the east. The development is further surrounded by Old Manor Farm to the north, the A27 and Rusty Cutter Roundabout to the west and a railway line to the south.

Phase One Planning Application

The Highway Authority previously recommended no objection to the planning application for phase one, subject to planning conditions and S106 agreement obligations. Whilst the planning application was refused by HBC (not due to highways requirements), planning permission was granted at appeal for 50 dwellings along with a new access, landscaping, and open space following examination by an Inspector.

Pre-application advice

The applicant has engaged in pre-application with the Highway Authority. Comments raised within the pre-application response have been noted with the TA.

*Director of Economy, Transport and Environment
Stuart Jarvis BSc DipTP FCIHT MRTPI*

Sustainable Access

Walking and Cycling:

The applicant has based desirable walking and cycling distances on the 2019 National Travel Survey and set out the distances within table 5.3 of the TA. However, the Highway Authority do not deem this acceptable. As requested during pre-application discussions, the assessment should be carried out to identify any local facilities that are within or exceed the recommended walking and cycling distances as set out within '*Providing for Journey's on Foot*' (CIHT, 2000) which are not superseded by the NTS documents. A revised analysis should be undertaken to understand which facilities are situated within an acceptable walking distance from the site.

Through the phase one application, a new footway will be provided from within the site onto the southern side of Lower Road, with a crossing provided to Lodge Road to connect with the existing footway. Lower Road and other local residential streets in the vicinity of the proposed development typically have footways on one side of the carriageway although there are two short sections near the site without any footway. A further walking route is accessible from Lower Road westwards to connect with the Rusty Cutter Roundabout and Bedhampton Hill.

As part of the phase one planning application, a 'routes to school audit' was undertaken by the applicant. To satisfy the Highway Authority's previous concerns, a scheme was prepared which set out improvements on the walking route to school from the site. The applicant agreed to make a financial contribution of £23,489 under a S106 agreement allowing HCC to carry out works as part of the phase one development, improving routes to Bidbury school (including improved crossings and footway surfacing along the route).

Warblington School has been identified as the catchment secondary school from the site and is located circa 3.7km away. The walking distance therefore sits above the 'preferred maximum' walking distance identified within '*Providing for Journey's on Foot*' and has not been assessed further to understand how pedestrians will access the school. The applicant is required to undertake an audit of the walking and cycling route to the school to understand whether there are any deficits which could be improved through the development. Havant Borough Council's 'Cycling and Walking Infrastructure Plan' identify Bedhampton Road as a key cycle route and a location where infrastructure provision is currently lacking.

Lower Road is part of Havant Borough Council's formal cycle network and has been identified as suitable for on-street cycling. Lower Road provides a cycle connection to the National Cycle Route Network at the 'Rusty Cutter' Bedhampton roundabout where NCN 22 can be accessed, providing cycle connections to Portsmouth and the wider network.

Whilst reviewing the suitability of Phase 1, the Highway Authority undertook a detailed review of the walking route along Lower Road, specifically the section of the route where there is no footway. A combination of extended accident data, vehicle speeds, pedestrian/cycle/vehicular flow, pedestrian and vehicle

inter-visibility and safety auditor views were sought on the suitability of the route to determine whether Lower Road would continue to operate in a safe manner should the proposed development obtain planning permission.

Following this detailed review, the Highway Authority were satisfied that Lower Road would continue to operate safely with the additional development flows, a position agreed with by the Inspector during their review of the proposed development.

To assess the impact of the proposed development above and beyond the consented scheme, the applicant has undertaken further work to understand the impact on the existing shared surface arrangement. This work involved obtaining updated traffic volumes and vehicles speeds along Lower Road via an ATC survey. The ATC survey on Lower Road was undertaken in July 2021 and demonstrated 85th percentile vehicle speeds of 20.6mph eastbound around the corner bend of Lower Road and 18.2mph westbound on the same stretch of road which are below the posted 30mph speed limit. Video footage has also been utilised to determine the current level of pedestrian and cycle movements along the road, along with the route that pedestrians currently take when navigating the section of Lower Road which does not benefit from a footway. The video footage demonstrated that the majority of the pedestrians walk along the western side of Lower Road, a position which was corroborated previously when the Highway Authority responded to the Phase One application.

Consideration has been given by the applicant towards pedestrian and cycle movements associated with the recently consented Forty Acre Farm development. The applicant summarises that the desire line for the development will be along Bedhampton Hill instead of Lower Road. The Highway Authority disagrees with this position as Lower Road would offer an alternative walking route away from Bedhampton Road which is not much further than the route along Bedhampton Hill. The applicant should therefore provide a revised assessment which includes pedestrian and cycle movements from the Forty Acre Farm site.

To date, the assessment of Lower Road has demonstrated existing pedestrian trips of 11 in the AM peak hour and 10 in the PM peak hour. The data also identified between 24 cycle movements in the AM peak hour and 10 in the PM peak hour. Vehicle movements averaged at 44 and 50 in the respective peak hours. The Phase One development is forecast to add 23 vehicle trips in the AM and PM peak hours, 1 cycle trip in each peak and 16 AM peak and 7 PM peak pedestrian trips.

Until consideration has been given towards pedestrian and cycle flows from the Forty Acre Farm development, the Highway Authority are unable to comment on the acceptability of the additional development flow against the future pedestrian and cycle flows along Lower Road. This will need to be considered across the full day in terms of AADT and the peak hour assessment.

Buses:

The closest bus stops to the site are located on Bedhampton Road circa 700m north of the site, serviced by bus route 21 and 23. Approximately six services an hour are provided from these bus stops providing connections to Havant, Portsmouth, and Southsea.

Two existing walking routes are available from the site to the Bedhampton Road bus stops. Both require walking through the first phase of the development, with one walking route going via Lodge Road and the other via Lower Road and Brookside Road. Whilst the Highway Authority note that the walking distances sit above the preferred 400m walking distance, the stops consist of sheltered waiting facilities and RTI which is considered conducive for encouraging trips via bus.

Rail:

Bedhampton railway station is the closest train station to the development approximately 1.0km northeast of the proposed site. Bedhampton station is served by circa. 1 service per hour to Portsmouth, Chichester and London.

Havant railway station is located 2.4km northeast of the proposed development site. Whilst not being within the desirable walking distance as laid out in CIHT (2000) '*Providing Journeys on Foot*', it is within a desirable cycle distance.

Personal Injury Accidents (PIA)

PIA data for a 5-year period between the 1st January 2016 and 31st December 2020 has been obtained using Hampshire Constabulary records. The Highway Authority had previously agreed the study area for the PIA data during pre-application discussions.

The Highway Authority has undertaken a review of more recent accident data until June 2021 which confirms that there have still been no accidents along Lower Road. As noted above, further information is required before the Highway Authority can determine whether the additional flow along Lower Road is considered acceptable.

Site Access

The proposed access to the site is through an extension of the existing cul-de-sac within the phase one development, with changes required to the alignment, parking court and SuDs within phase one to facilitate the link. The access is proposed to include a 5.5m wide carriageway and 2.0m footway. The proposed development will route through the phase one development and connect to Lower Road via the previously approved access to phase one.

A separate footpath from the south-eastern side of this site is proposed to connect within the phase one layout. Alterations to the phase one layout are indicated to facilitate three pedestrian routes from the proposed development towards Lower Road.

The Highway Authority have concerns with the current access arrangement. Drawing number GA-018 shows that the forward visibility around the curved

alignment will cross private front gardens. This may result in future impediment to visibility which is essential given the narrow access road into the site.

Tracking has been provided for a super large refuse vehicle passing a family car which shows that the manoeuvre is tight on the straight section of road around the bend. No tracking has been provided around the bend but it is considered unlikely that the two vehicles would be able to pass based on the current alignment. Whilst the Highway Authority have noted concerns regarding forward visibility above, the splay shown would still require a vehicle entering the site to reverse should a delivery or refuse vehicle be routing to the site access. Similarly, a car attempting to egress could need to reverse should a larger vehicle turn into the site and begin to travel along the access road. This would not be considered as acceptable.

The Highway Authority require the comments above to be addressed before the access can be considered acceptable. The applicant should also provide a Stage 1 Road Safety Audit to confirm that there are no safety issues associated with the proposal.

Internal Road Network

The internal road network will be subject to a reserved matters application should outline planning consent be granted and all matters relating to the internal layout are reserved at this stage.

It is understood that, as with Phase 1, the internal road layout will remain private. This will therefore prevent this further development from coming forward for adoption. It should be noted that the internal layout for Phase 1 is currently under consultation and comments within this response may have bearing on that internal layout. The two schemes should be considered cohesively to ensure that, should this site come forward, it would not require changes to the Phase 1 layout.

Parking Provision

The applicant proposes that the parking provision for the development proposal will be designed in accordance with Havant Borough Council's Parking Supplementary Planning Document. This will be addressed as part of a reserved matters planning application following any outline planning consent.

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

Trip Generation

The previously agreed with the Highway Authority trip rates for the first phase of the development have been used to generate proposed trip rates for the second phase. The trip generation and agreed trip rates are shown below:

Phase	AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)		
	In	Out	Total	In	Out	Total
Trip Rates	0.133	0.385	0.518	0.348	0.169	0.517
Phase one vehicle trips (50 dwellings) trip generation	7	19	26	17	8	25
Phase two vehicle trips (43 dwellings) trip generation	6	17	23	15	7	22
Total vehicle trips to/from Lower Road trip generation	13	36	49	32	15	47

Traffic Distribution/Assignment

Traffic distribution for the proposed phase two development (based on 43 units) suggests that all development traffic will head onto Lower Road, with the majority of traffic heading north onto Brookside Road and towards the B2177 Roundabout.

Junction Assessments

The study area for junction assessments was previously agreed with the Highway Authority during pre-application discussions which comprises of the following:

- Phase one site access with Lower Road;
- Brookside Road / Bedhampton Road priority junction; and
- Bedhampton Road / Bedhampton Hill roundabout junction

Committed Developments:

HCC requested that the Land South of Lower Road (APP/19/00427) application and the Co-op store at 37 Belmont Grove (APP/20/00316) were included within junction assessments as committed developments. The applicant has also included the Forty Acre Farm development which has recently obtained planning consent. The extent of committed development is considered acceptable.

Traffic Growth:

The applicant has derived traffic growth factors by utilising TEMPRO. The growth rates utilised within the assessment are considered acceptable.

Junction Modelling

The applicant has carried out their modelling to the following assessment scenarios (as previously agreed with the Highway Authority during pre-application discussions):

- 2021 base traffic flows;

- 2026 future year baseline traffic flows; and
- 2026 with development traffic flows.

As agreed during pre-application discussions, the applicant has modelled the following junctions:

- Phase One Site Access / Lower Road;
- Brookside Road / Bedhampton Road; and
- Bedhampton Road / Bedhampton Hill Roundabout.

The maximum RFC values for the assessed junctions using the 2026 'with development' scenario are noted below:

Phase 1 Site Access / Lower Road:

Under the 2026 future year scenario plus development, the site access will continue to operate within design capacity. The highest Ratio to Flow Capacity (RFC) is 0.07 on the site access arm of the junction in the AM peak hour.

Brookside Road / Bedhampton Road Junction:

The Brookside Road / Bedhampton Road junction will also continue to operate within design capacity under the future year scenario with a worst-case RFC of 0.21 observed in the AM peak hour on the Brookside Road approach.

Bedhampton Road / Bedhampton Hill Roundabout:

The Bedhampton Road / Bedhampton Hill roundabout is forecast to operate over theoretical design capacity in the 2021 base with an RFC of 0.97 on the Portsdown Hill Road approach. Under the 2026 without development scenario, the RFC on this approach increases to 0.98, further approaching actual design capacity.

Within the Technical Note supporting the Phase 1 planning application, sensitivity testing for the roundabout was undertaken to a 2024 future year at the request of the Highway Authority. The modelling indicated RFC's of 0.92 in the AM peak hour and 1.08 in the PM peak hour on the Portsdown Hill Road approach. These values are higher than the 0.85 and 0.98 RFC's modelled in the respective peak hours under the current application. Clarity is sought from the applicant on this point. The Highway Authority also requires the provision of the junction modelling file to undertake a review of the model build.

Comments will be provided on the impact of the development at the junction once this additional information has been provided.

Travel Plan

This Full Travel Plan (FTP) has been assessed using Hampshire County Council's (HCC's) evaluation criteria for the assessment of travel plans – "A

guide to development related travel plans". Whilst the quality of this FTP is generally good, it still requires some amendments before it can be approved.

Background:

The Travel Plan should reference the developer's policies on sustainable travel. If the developer does not have a policy on sustainable travel, a statement of support for the aims of the Travel Plan from a senior member of staff Bargate Homes and Vivid Homes would suffice.

Measures:

The Travel Plan provides a good range of measures which will help for the Travel Plan targets to be met. However, it is expected for a Residential Development, a Sustainable Travel Voucher be offered to each household. Please include this measure in the Travel Plan.

An action plan is included in Section 7 of the Travel Plan. However, it does not include a Cost Estimate for each measure. Please include a cost estimate for the proposed measures (including the cost of the Travel Plan coordinator)

Monitoring:

A minimum 35% response rate must be attained in order for travel questionnaire surveys to be considered statistically significant. If this cannot be achieved, then discussions should be had with HCC regarding carrying out TRICS SAM or ATC surveys.

There are currently no measures in place to encourage members of staff to complete a questionnaire survey. Entry into a prize draw could be offered to those who complete a survey, although it should be noted that the prize should not be travel-related (e.g., bus tickets, cycle vouchers, etc).

Delivery and Enforcement:

A commitment to pay HCC's [monitoring and approval](#) fees should be included in the Travel Plan.

The changes above are required before the Travel Plan can be considered acceptable.

Construction Traffic Management Plan

Given the ongoing discussions for construction traffic achieving safe and suitable access to Phase One of the site, the Highway Authority require a framework Construction Traffic Management Plan (fCTMP) to be provided by the applicant. This is to ensure that it is clear at the outline stage the scope of controls which would need to be put in place to manage deliveries and contractor movements along Lower Road to ensure the site can be accessed safely during the construction phase of the development.

Recommendations

The Highway Authority require the following additional information before a formal recommendation can be made on the proposed development:

- An audit of the walking route to Warblington School;
- Consideration towards pedestrian and cycle flow from the Forty Acre Farm development along Lower Road;
- Amendments to the site access;
- Clarification regarding the junction modelling for the Bedhampton Hill Roundabout;
- Amendments to the travel plan; and
- Provision of an outline CTMP.

I trust that the above is clear. Should you have any queries, please do not hesitate to contact Chris Hirst on the number noted above.

Yours Sincerely,

Chris Hirst

APPENDIX B. ROUTE AUDIT BETWEEN SITE AND
WARBLINGTON SCHOOL

Technical Note

Project No: ITB12174
Project Title: Land west of Old Manor Farm, south of Lower Road, Bedhampton
Title: Routes to Warblington School
Ref: SJ/BC/LJ/ITB12174-014 TN
Date: 8 February 2022

SECTION 1 Introduction

- 1.1.1 This note has been prepared following the Hampshire County Council (HCC) highways consultation response letter (ref: 6/3/13/182) dated 7 December 2021, to the planning application on Land west of Old Manor Farm, south of Lower Road, Bedhampton. It also follows a post application virtual meeting between i-Transport LLP and HCC on Monday 24 January 2022.
- 1.1.2 The note addresses the comment made on Sustainable Access – Walking and Cycling. As a result, an on-site walking and cycling route audit to Warblington Secondary School was undertaken on Wednesday 12th January 2022 and a follow up site visit audit was undertaken (with further photographs taken) on Wednesday 2nd February 2022.

SECTION 2 Walking and Public Transport

- 2.1.1 Warblington Secondary School has been identified as the catchment secondary school for the site, located circa 3.7km away, which is approximately a 45-minute walk. The most direct route from the site to the school is shown on **Figure 2.1** which routes along Lower Road, Bidbury Lane, Bedhampton Road (towards the rail station), along West Street (including retail pedestrianised section), East Street, Emsworth Road and Southleigh Road.
- 2.1.2 The distance to Warblington Secondary School sits above the 'preferred maximum' walking distance for an individual. More attractive faster routes via public transport are available, providing a suitable alternative for students to use in order to reach the school for an 8:30am start time. Although following discussion with a highways officer at HCC, the full walking route above has been assessed on site and is detailed later in this section.

2.1.3 The site is circa 1.4 km away from Bedhampton Rail Station, a 17-minute walk and circa 700m from Bedhampton Road bus stops situated north of Brookside Road, a 10-minute walk. Both of these public transport facilities are within a 'comfortable' walking distance and can be accessed from the site via Lower Road.

2.1.4 As part of the first phase of development a route to school audit was undertaken to Bidbury and Barncroft schools. It was summarised that the route to Bidbury School, which is past Bedhampton rail station, included a pleasant walk on a street lit, tarmac path through Bidbury Meads recreation ground and then onto Bedhampton Road.

2.1.5 Bedhampton rail station is a short walk further east (300m / three-minute walk) along Bedhampton Road from the junction of King's Croft Lane, this walk requires crossing only minor side streets including Brunswick Gardens which is a cul-de-sac. As part of the first phase of development the applicant agreed to make a financial contribution under Section 106 to allow HCC to bring the following works forward to improve the walking route along Lower Road and Bidbury Lane:

- A footway connection on Lower Road (at the Lower Road / Brookside Road / Bidbury Lane junction) along with a short length of footway and tactile paving on the north and south side of the road;
- Widening of the footway on the south side of Lower Road / Bidbury Lane tying back into the existing footway on Bidbury Lane;
- Localised kerb re-alignment at the bottom of the path leading from Bidbury Lane through to Bedhampton Road to provide improved visibility for pedestrians on their home bound journey in the traffic direction; and
- The introduction of tactile paving at the junction of Bedhampton Road and Kings Croft Lane.

2.1.6 A summary of the rail times from Bedhampton and Havant rail stations to and from Warblington rail station from are provided below in **Table 2.1**.

Table 2.1: Summary of Rail times to Warblington Station (School Times)

Train Station	Destination	To Warblington	From Warblington
Bedhampton	Warblington	07:29 and 08:14	14:31 and 15:31
Havant	Warblington	07:32 and 08:19	

Source: TrainLine

2.1.7 From Bedhampton rail station to Warblington rail station is a six to seven-minute train journey, with a two-minute walk to school, students can arrive before school start time.

- 2.1.8 There are frequent bus services from Brookside Road to Havant Bus Station where it is possible to then walk to Warblington School (circa 1400m, 17-minute walk), or walk to Havant Rail Station (circa 260m, 4-minute walk) for rail services to Warblington. A summary of the bus times to/from Havant Bus Station from the Brookside Road bus stop are detailed in **Table 2.2**.

Table 2.2: Summary of Bus times to Havant Bus Station (School Times)

Bus Stop	Service	Route (Operator)	To Bus Station	From Bus Station
Bedhampton, opp Brookside Road (circa 700m/10-min walk)	23	Stagecoach Portsmouth (Southsea – Leigh Park)	07:27,07:37,07:50,08:04, 08:14,08:24	14:40,14:50,15:00,15:10,15:20,15:30

Source: Bustimes.org

- 2.1.9 The above shows that there are good opportunities to reach the school via public transport. The buses are frequent from Bedhampton/Brookside Road to Havant Bus Station where there is then the option to walk to school or get a train at Havant Rail Station. Warblington station is opposite the school and the two-minute train journey from Havant and short 100m walk means students will arrive on time when boarding the 07:32 or 08:19 service. The train from Bedhampton Rail Station is also suitable for students to walk from the site and get on the 07.29 or 08:14 service.
- 2.1.10 Further to the discussion with the highway officer at HCC, the full walking route to Warblington Secondary School was requested to be audited and not just up to the nearest bus stops and rail station. Therefore, the section below considers the remaining walking route from Bedhampton rail station to Warblington Secondary School, this is detailed below each street section at a time with site photographs to supplement, the full walking route is shown in **Figure 2.1**.

West Street

- 2.1.11 Following the level crossing at Bedhampton rail station, footways are provided on each side of the carriageway at circa 1.3m-1.5m wide. On the southern footway of West Street pedestrians cross at the junction of Palk Road cul-de-sac and Meyrick Road where dropped kerbs are provided. Further along West Street the footways narrow to circa 1m in width, to where a staggered junction exists with Staunton Road and Brockhampton Road, dropped kerbs are provided. Continuing eastwards along the route the footways vary between 1.3m and 1.7m in width, traffic levels were observed to be quiet along this section of West Street. Another staggered crossing is then present at Boundary Way and the head office of Portsmouth Water where dropped kerbs are provided.

- 2.1.12 Footways continue along West Street eastwards past Union Road junction, with dropped kerbs provided, there is a short section on the southern side of the West Street link where no footway is provided outside two residential properties, but a wider footway is provided on the northern side at circa 2.5m. The short section of West Street with no footway and northern side with generous width footway is shown in **Image 2.1**.

Image 2.1: Photograph of West Street looking east



Source: i-Transport LLP on-site photographs

- 2.1.13 The route eastwards crosses Liberty Close (private road) where dropped kerbs and tactile paving are provided. Prior to connecting to Park Road South, the southern side of the link crosses Brockhampton Lane, dropped kerbs are provided however pedestrian intervisibility is limited when crossing eastwards.
- 2.1.14 The link connects to Park Road South where a wide (circa 7.2m) raised crossing with tactile paving is provided, this shown in **Image 2.2**.

Image 2.2: Photograph of Raised Crossing Across West Street adjacent to Park Road South



Source: i-Transport LLP on-site photographs

- 2.1.15** Given the short section of West Street with no footway on the southern side and the limited visibility at the Brockhampton Lane junction, the northern footway of West Street is more desirable for pedestrian movements with fewer side roads to cross. There are no dedicated crossings across West Street on the western end of the link near Bedhampton rail station, however, during the site visit vehicle volumes were observed to be low with plenty of crossing opportunities via existing drop kerbs.
- 2.1.16** Park Road South is a busy trafficked street with four lanes of traffic to cross towards Warblington School. A wide (circa 6m) controlled toucan crossing exists connecting West Street across Park Road South ensuring safe crossing for pedestrians and cyclists.

West Street pedestrianised area

- 2.1.17** The route to Warblington School then continues through the wide pedestrianised section of West Street which has retail fronted units and seating areas, it also provides access to the Meridian shopping centre. This section of the route was pleasant to walk along during the site visit.
- 2.1.18** **Image 2.3** shows a photograph from the site visit along West Street pedestrianised area.

Image 2.3: Photograph of West Street Pedestrianised Area



Source: i-Transport LLP on-site photographs

- 2.1.19 The pedestrianised area changes to a shared space and then a more traditional street as it passes St Faith's Church, it then connects at the junction of North, East, and South Streets. At this junction there are uncontrolled raised crossings with tactile paving across both West Street and South Street, providing an appropriate pedestrian connection between West Street and East Street, these are shown in **Image 2.4**.

Image 2.4: Photograph of West Street and South Street Raised Crossings



Source: i-Transport LLP on-site photographs

There is also a controlled zebra crossing across East Street with dropped kerbs and tactile paving, this is shown in **Image 2.5**.

Image 2.5: Photograph of Controlled Zebra Crossing across East Street



Source: i-Transport LLP on-site photographs

East Street

- 2.1.20 The next part of the route towards the school leads eastwards along East Street where footways are provided along both sides of the carriageway. This area of East Street is fronted by retail businesses up until the crossroads junction of Town Hall Road and Beechworth Road, dropped kerbs and tactile paving are provided along each of the three streets.
- 2.1.21 Footways are continuous on both sides of East Street at circa 1.2m-1.7m width, up to the end of the street which changes to Emsworth Road at the junction of Bellair Road and Lymbourn Road where dropped kerbs are provided.
- 2.1.22 **Image 2.6** shows photographs from the site visit along East Street showing the existing pedestrian surroundings.

Image 2.6: Photographs of East Street



Source: i-Transport LLP on-site photographs

Emsworth Road

2.1.23 Emsworth Road leads from East Street, eastwards towards Southleigh Road. On the northern side of the street only one crossing point is required across Meadowlands cul-de-sac where dropped kerbs are provided. On the southern side of Emsworth Road, three side road junctions require crossing including White Ladies Close (dropped kerbs provided), Wade Court Road (cross over arrangement) and Netherfield Close cul-de-sac. The northern side of Emsworth Road is a more pleasant walk with wider footways, grass verges and partially tree lined, it also leads directly onto Southleigh Road northwards towards Warblington School.

2.1.24 **Image 2.7** shows photographs from the site visit along Emsworth Road showing the existing pedestrian footways, crossing points and surroundings.

Image 2.7: Photographs of Emsworth Road



Source: i-Transport LLP on-site photographs

- 2.1.25 The junction of Emsworth Road, Southleigh Road and Pook Lane is signalised for vehicles with a separate phase for pedestrians crossing Emsworth Road and Southleigh Road, these crossing include dropped kerbs, tactile paving and pedestrian refuge islands. **Image 2.8** shows the existing signalised crossing arrangement across Emsworth Road at the junction with Southleigh Road.

Image 2.8: Photograph of Signalised Crossing Across Emsworth Road



Source: i-Transport LLP on-site photographs

Southleigh Road

- 2.1.26 From the junction of Emsworth Road northwards a footway only exists on the western side of Southleigh Road. Two side road junctions of Berkeley Square require crossing, each have drop kerbs and tactile paving. A further circa 120m is the main pedestrian entrance to Warblington School. **Image 2.9** shows photographs from the site visit along Southleigh Road showing the existing pedestrian footway and crossings.

Image 2.9: Photographs of Southleigh Road



Source: i-Transport LLP on-site photographs

Summary

2.1.27 The distance to Warblington Secondary School sits above the 'preferred maximum' walking distance for an individual, with other attractive faster routes via public transport available. However, the walking route from the site to the school is straight forward and pleasant in many locations, with good provision of street crossings where required and through a pedestrianised area of West Street with retail frontage. There is a small section of no footway on the southern side of West Street and limited visibility at the junction of Brockhampton Lane, however, the northern side of West Street provides a good continuous footway with fewer side road crossings.

SECTION 3 Cycling

3.1.1 A cycling route audit has been undertaken to analyse the various route cyclists can take from the site in order to reach Warblington School. Three routes were identified and assessed on-site as presented in **Figure 3.1**, with an identified preferred primary route which leads north from the site, along Lower Road, onto Bedhampton Road, then New Road, Elmleigh Road, New Lane and then the pedestrian, cycle lane along School Lane to Warblington School.

3.1.2 The preferred route is provided in detailed below, followed by the two alternative routes.

3.2 Preferred Cycling Route

3.2.1 This route begins by leaving the site through the neighbouring first phase to head east on Lower Road towards Bibury Lane and onto Kingscroft Lane. There is currently formal no cycling provision on these streets, but Lower Road is a signposted route ideal for cyclists and being quite residential roads with low traffic flows are safe and suitable for on-road cycling.

3.2.2 The route then leads onto Bedhampton Road. Havant Borough Council have assigned Bedhampton Road and New Road as suggested routes for cyclists (but not signposted). During the site visit Bedhampton Road and New Road were observed with low traffic flows, with generous carriageway widths (with adjacent verges and sections of parallel on-street parking along New Road) and available street lighting. A short section of New Road includes an advisory on-street cycle lane on approach to the roundabout with Park Road North and Elmleigh Road. Overall, this part of the route is safe and suitable for students to cycle, up to Bedhampton rail station to change travel mode or continue northeast towards Havant. **Image 3.1** shows a photograph from the site visit along New Road.

Image 3.1: Photograph of New Road looking east – HBC Suggested Cycle Route



Source: i-Transport LLP on-site photographs

- 3.2.3** Safe crossing facilities are provided across New Road (via a signalised toucan crossing) and at the B2149, New Road, Elmleigh Road roundabout with dropped kerbs, tactile paving, and reflective bollards on the southern arm as shown in **Image 3.2**. This is part of an off-road cycle track across the roundabout and leads either south towards National Cycle Network route (NCN) 22 or east onto Elmleigh Road which is a signposted route.)

Image 3.2: Photograph of B2149 / Elmleigh Road / New Road Roundabout Crossings



Source: i-Transport LLP on-site photographs

- 3.2.4 Cyclists can then continue along Elmleigh Road east on-street up to Leigh Road and then following the signed NCN route (as shown in **Image 3.4**) along Eastern Road. Both Elmleigh Road and Eastern Road were observed during the site visit to have very few vehicle movements and are part of the NCN and thus are suitable for student cycling.

Image 3.4: Photograph of National Cycle Network Signs



Source: i-Transport LLP on-site photographs

- 3.2.5 The preferred route continues along the NCN route 22 on Eastern Road turning onto quiet residential road Centenary Gardens which is a cul-de-sac with a shared footway/cycle way connecting to New Lane, as shown in **Image 3.5**.

Image 3.5: Photograph of Centenary Gardens Shared Footway/Cycleway



Source: i-Transport LLP on-site photographs

- 3.2.6** Dropped kerbs, tactile paving and keep-clear markings are provided at the outlet of the Centenary Gardens shared footway/cycleway for cyclists to join the carriageway of New Lane and continue over the level crossing, before turning into School Lane.
- 3.2.7** School Lane is part of NCN route 2, it is a modern residential road mostly laid with block paving and areas of shared space, where cycling is safe and suitable on-street. At the end of the vehicular cul-de-sac School Lane becomes a shared footway/cycleway leading directly to Warblington School as shown in **Image 3.6**.

Image 3.6: Shared Footway/Cycleway Route along School Lane towards Warblington School



Source: i-Transport LLP on-site photographs

3.3 **Alternate Route 1 – via New Road / Park Road North / Havant Park**

- 3.3.1 The alternative cycle route from the proposed development to Warblington School initially follows the same routing as the preferred route up until the B2149, New Road, Elmleigh Road Roundabout but instead of continuing eastwards, it leads south along Park Road North towards Havant Town Centre. Park Road North includes a shared pedestrian/cycleway along its western side until a controlled signal crossing and entrance to Park Way / Central Retail Park as shown in **Image 3.7**, where NCN route 22 leads through the retail park car park underneath Park Road North into Havant Park.

Image 3.7: NCN 22 Route through Central Retail Car Park



Source: i-Transport LLP on-site photographs

- 3.3.2 The alternative route continues following NCN Route 22, through Havant Park via a shared pedestrian/cycle path it connects with Havant rail station, as shown in **Image 3.8**.

Image 3.8: Path through Havant Park Connecting with Havant Rail Station



Source: i-Transport LLP on-site photographs

- 3.3.3 Cyclists then continue east through the drop-off/pick-up area of Havant rail station and into the associated car park where a signed cycle lane is marked out in the carriageway, leading to the access of New Lane, as shown in **Image 3.9**. Cyclists can then cross New Lane to School Lane as per the preferred route to Warblington School.

Image 3.9: Photograph of Cycle Lane through Havant Rail Station Car Park



Source: i-Transport LLP on-site photographs

- 3.3.4 This alternative route has many benefits and is a safe alternative to the preferred route. However, requires students to cycle through the Central Retail Park car park and under Park Road North via the subway, so may not be as attractive to all students less comfortable with cycling alone.

3.4 **Alternate Route 2 – via Harts Farm Way and Langstone Technology Park**

- 3.4.1 This alternative route 2 follows much of the NCN routes 2 and 22 therefore includes good provision for cyclists, however, was considered to be more appropriate for more experienced cyclists. This route heads out of the site onto Lower Road westwards along the shared footway/cycleway towards the A3(M) Junction 5 Roundabout. The NCN route 22 is signposted along the A27 roundabout towards Harts Farm Way, as shown in **Image 3.10**. Along Harts Farm Way there is a shared footway/cycleway for the duration on the southern side of the carriageway which cyclists can safely cycle up to the Brockhampton Road, Brookside Road, Southmoor Lane roundabout.

Image 3.10: Photograph of A27 Roundabout Shared Footway/Cycleway and Harts Farm Way



Source: i-Transport LLP on-site photographs

- 3.4.2 The NCN route 22 then continues east over the roundabout and joins a traffic free route behind the Langstone Technology Park car park, this is a suitable route for cyclists and leads to a subway under the A27 as shown in **Image 3.11**.

Image 3.11: Photograph of Pedestrian/Cycle Route alongside Langstone Technology Park and Subway under A27



Source: i-Transport LLP on-site photographs

- 3.4.3 Cyclists then cross Solent Road where a refuge island, drop kerbs, tactile paving and keep-clear markings are provided, continuing adjacent to the Solent Retail Park where the route then continues over a small bridge into the centre of Havant on Park Road South, as shown in **Image 3.12**.

Image 3.12: Photograph of NCN Route 22 continuing into Havant Town Centre



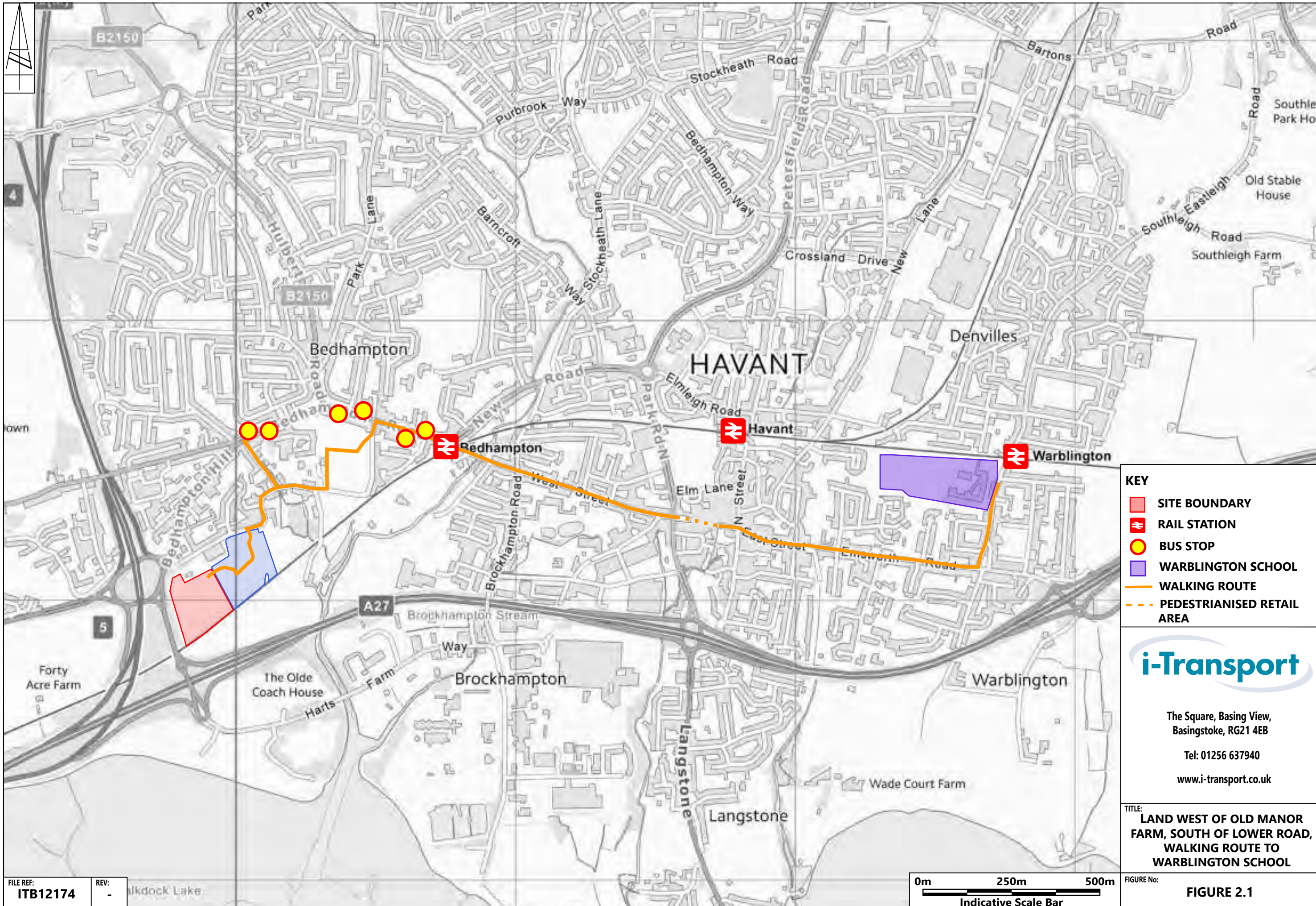
Source: i-Transport LLP on-site photographs

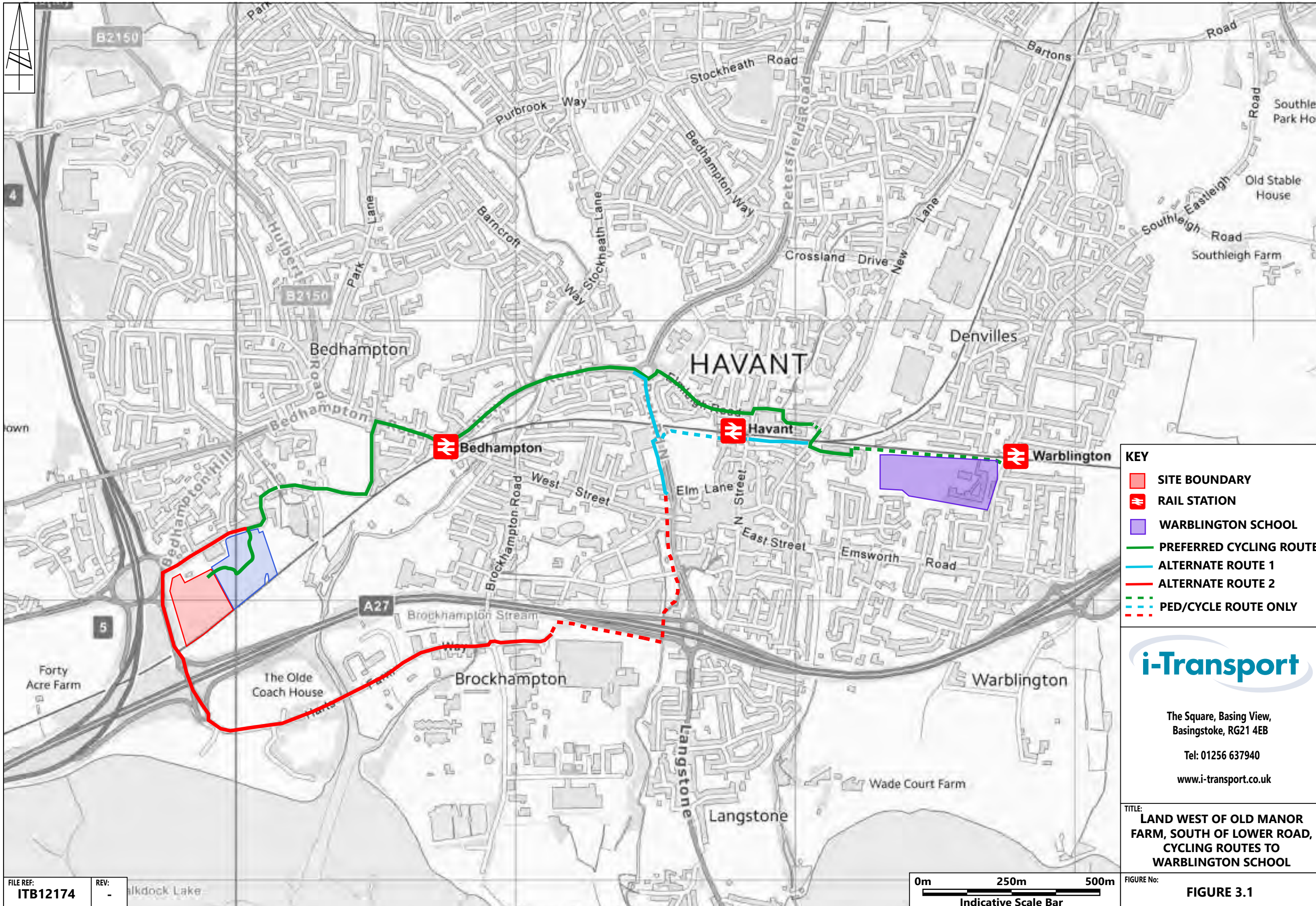
- 3.4.4** From Park Road South the route is on a wide shared footway/cycleway on the side of the carriageway that continues northwards. The route crosses West Street where a wide (circa 7.2m) raised crossing with tactile paving is provided. The route continues as a shared footway/cycleway on the western side set back from the carriageway towards a staggered toucan crossing over Park Way. Cyclists continue along NCN Route 22 into the Central Retail Park car park as per the first alternative route detailed above which leads through Havant Park, Havant rail station car park and onto School Lane.

SECTION 4 **Summary and Conclusion**

- 4.1.1 A comprehensive on-site walking and cycling route audit to Warblington Secondary School was undertaken on Wednesday 12th January and Wednesday 2nd February 2022.
- 4.1.2 The audit demonstrates that there are suitable routes students can take to reach Warblington Secondary School. The distance from the site to the school is circa 3.7km away, and therefore above the 'preferred maximum' walking distance and although walkable for some students, other quicker travel options exist including via:
- Bedhampton rail station is a circa 1.4km walk (17 minutes), then a six or seven minute train journey arriving at Warblington station at 07:35 or 08:21, and then a two minute walk to the school; or
 - Bus stops are located on Bedhampton Road which is a circa 10-minute walk (700m) from the centre of the site. Bus service 23 runs every 15 minutes to Havant bus station. From here students can safely walk the remaining 1.4km in circa 17 minutes to Warblington School; or
 - Cycling via at least three different routes, of which some are on signposted route (part of a National Cycle Network), suggested route for cycling, and some sections are provided by off road cycle track (hard surfaced).
- 4.1.3 The preferred cycle route between the site and Warblington School most suitable for students is via Lower Road, Bidbury Lane, Bedhampton Road/New Road, Elmleigh Road, Eastern Road/Centenary Gardens and School Lane. This route includes signposted sections, suggested route for cycling and a section of off-road cycle track. Two other cycle routes between the site and school have also been audited.
- 4.1.4 Considering the multiple cycle routes currently available between the site and Warblington School no specific infrastructure deficiencies have been reported following the audit.
- 4.1.5 The walking route from the site to the Warblington Secondary school is straight forward and pleasant in many locations, with good provision of street crossings where required and through a pedestrianised area of West Street with retail frontage.

FIGURES





APPENDIX C. FORTY ACRE FARM TA - CENSUS
'TRAVEL TO WORK' DATA

Destination	Percentage	Route Assignment
Portsmouth	11.0%	A27 WB
Bedhampton	9.0%	Bedhampton Hill/Bedhampton Road
Waterlooville	7.5%	A3 (M)
Cosham	6.7%	Havant Road WB
Hilsea	6.6%	A27 WB
Chichester	5.5%	A27 EB
Fareham	4.1%	A27 WB
West Leigh, Havant	3.9%	Bedhampton Hill/Bedhampton Road
Farlington	3.8%	Havant Road WB
Emsworth, Chidham, Bosham	3.7%	A27 EB
Winchester	3.4%	A27 WB
East Hampshire	3.3%	A27 EB
Hayling Island	2.9%	A27 EB
London	2.8%	A3 (M)
Southampton	2.7%	A27 WB
Southsea	2.4%	A27 WB
Cowplain	2.3%	A3 (M)
Widley, Havant	2.2%	A3 (M)
Portchester	1.9%	A27 WB
Purbrook Way, Havant	1.9%	A3 (M)
Gosport	1.8%	A27 WB
Surrey	1.7%	A3 (M)
Eastleigh	1.5%	A27 (WB)
Bedfordshire/Hertfordshire/Berkshire	1.1%	A3 (M)
West Sussex	0.8%	A27 EB
Fratton	0.7%	A27 WB
South and South West (Bath, Wiltshire, Cornwall)	0.6%	A27 WB
Horndean	0.6%	A3 (M)
North	0.4%	A3 (M) NB
Basingstoke	0.4%	A27 WB
Dorset	0.3%	A27 WB
Hart	0.3%	A3 (M)
Witterings	0.3%	A27 EB
Chandlers Ford	0.3%	A27 WB
Test Valley	0.3%	A27 WB
Rushmoor	0.2%	A3 (M)
East Sussex	0.2%	A27 EB
New Forest	0.1%	A27 WB
Essex	0.1%	A27 EB
Isle of Wight	0.1%	A27 WB
TOTAL	100%	N/A

Table 8. 2011 Census 'Travel to Work' Data

APPENDIX D. SITE ACCESS STAGE 1 ROAD SAFETY AUDIT AND DESIGNERS' RESPONSE



Stage 1 Road Safety Audit

Incorporating Design Organisation Response to items raised

Land West of Old Manor Farm, South of Lower Road,
Bedhampton

Proposed Shared Use Priority Site Access Arrangement

On behalf of: **i-Transport**

Report Ref: 22001-3

Date: 01 March 2022

Courzons Ltd
23 Oaktree Drive
Hook
Hampshire
RG27 9RA

Email: office@courzons.co.uk

COPYRIGHT

The contents of this document must not be copied or reproduced in whole or in part without the express written consent of Courzons Ltd



Contents

Page

SECTION 1	DOCUMENT CONTROL	1
SECTION 2	INTRODUCTION	2
SECTION 3	SAFETY ISSUES RAISED AT PREVIOUS AUDITS.....	5
SECTION 4	ITEMS RAISED AT THIS STAGE 1 AUDIT	6
SECTION 5	AUDIT TEAM STATEMENT	10

Appendices

APPENDIX A	LIST OF DRAWINGS AND DOCUMENTS SUBMITTED FOR AUDITING	11
APPENDIX B	ITEM LOCATION PLAN	12
APPENDIX C	DRAWINGS ASSOCIATED WITH THE DESIGN ORGANISATION RESPONSE	13



SECTION 1 DOCUMENT CONTROL

Report Title:	Stage 1 Road Safety Audit
Date:	March 22
Document reference and revision:	22001-3
Prepared by:	Courzons Limited
On behalf of the Overseeing Organisation:	Hampshire County Council
Design Organisation:	i-Transport
Project Sponsor:	Bargate Homes & Vivid Homes

REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
0	Draft for Audit Team Review	ZB			24 th February 2022
1	Report finalised and issued to the Design Organisation	ZB	JJF	ZB	25 th February 2022
2	Report format amended to incorporate Design Organisation Response	ZB			25 th February 2022
3	Design Organisation Response Incorporated	B. Chadwick on behalf of i-Transport			1 st March 2022



SECTION 2 INTRODUCTION

2.1 Background

2.1.1 This report has been prepared by Courzons Limited and describes a Stage 1 Road Safety Audit carried out on a proposed simple priority access and segregated footway on Land west of Old Manor Farm, south of Lower Road in Bedhampton.

2.1.2 The works that form part of this audit include the provision of a 5 metre wide carriageway, with localised widening to 6.5 metres provided where the access road bends by some 60° upon entering the application site before narrowing to 5.5 metres, a segregated 2.0 metre wide footway to the north of the carriageway, separated by six residential parking spaces, and amendments to two car parking spaces located to the north of the proposed access. Junction visibility splays of 2.4 x 25 metres to the north-east and south-east have been illustrated at the access, in accordance with the design speed of 20mph.

2.1.3 The access is to serve Phase 2 of a residential development, comprised of 43 dwellings, and is to be taken through the western side of Phase 1, a residential development of 50 dwellings.

2.1.4 The Road Safety Audit has been undertaken by an Audit Team whose qualifications and experience accord with the requirements of GG119 and have been approved by Mr George Carpenter of the Highway Development Agreements Team at Hampshire County Council to undertake Road Safety Audits of all stages within the County. The Audit Team comprised:

Audit Team Leader

Zane Beswick – MCIHT, MSoRSA Road Safety / Highway Engineer – Courzons Limited

Audit Team Member

Jamie Fenning - BSc(Hons), MIHE, MCIHT, MSoRSA, Highways England RSA Certificate of Competency, Road Safety / Highway Engineer – Courzons Limited

2.1.5 The audit was carried out in accordance with GG 119 of The Design Manual for Roads and Bridges (DMRB).



-
- 2.1.6 The Audit took place during February 2022 and comprised an examination of the drawings and other information provided, as is listed in **Appendix A**.
- 2.1.7 A site visit and inspection was undertaken by the Audit Team Leader and Audit Team Member during the afternoon on the Wednesday 23rd February 2022 between 12:50pm and 1:10pm. The weather during the site visit was dry and cloudy, the road surface was wet and visibility was good. Vehicular traffic to include cars and vans were observed during the site visit. A number of pedestrians and cyclists were also observed during the site visit.
- 2.1.8 The audit team have not been informed of any Departures from Standard (DfS) in the scheme subject to this Stage 1 Road Safety Audit.
- 2.1.9 A scheme drawing illustrating where the locations of specific problems are referenced is included in **Appendix B**.
- 2.1.10 This Road Safety Audit has been compiled, only with regards to the safety implications for road users of the proposals presented in the supplied documentation. It has not been examined or verified for compliance with any other standards or criteria. This safety audit does not perform any “Technical Check” function on these proposals.



2.2 Design Organisation Response

2.2.1 In accordance with national standards, this Road Safety Audit was finalised and issued to the Design Organisation as per the Road Safety Audit Report Template within Appendix D of GG119, which can be provided upon request from either the Audit Team or Design Organisation. The format of the Audit Report was subsequently revised to incorporate these paragraphs under the sub-heading as well as sufficient space beneath the items and recommendation, within Section 4, for the inclusion of a Design Organisation Response. This is generally contained within a separate Design Organisation Response Report but is included within this document in order to maintain a single record of all problems, recommendations and responses for the benefit of a concise Road Safety Audit trail to be held on file for Quality Assurance purposes.

2.2.2 The Design Organisation Response has been prepared by:

Name: B. Chadwick
Position / Organisation: Associate, i-Transport

2.2.3 If applicable, any drawings or documents associated with the Design Organisation Response are listed at **Appendix C**.



SECTION 3 SAFETY ISSUES RAISED AT PREVIOUS AUDITS

- 3.1** The auditors are unaware of any previous road safety audits associated with the current proposals for a simple priority junction arrangement in this location. However, the Audit Team have been provided with copies of the Stage 1 Road Safety Audit undertaken by others of the proposed access onto Lower Road for Phase 1 of the development (dated January 2017, reference i-T/12174/1/BS) and the Stage 1/2 Road Safety Audit undertaken by others of the on-site highway layout for Phase 1 (dated October 2017, reference GM 19/3377). No items associated with the proposals that form part of this audit were identified.

SECTION 4 ITEMS RAISED AT THIS STAGE 1 AUDIT

4.1	LOCAL ALIGNMENT
	No road safety concerns raised at this stage.
4.2	GENERAL
	No road safety concerns raised at this stage.
4.3	JUNCTIONS
4.3.1	Problem
Location:	Proposed Access
Summary:	Restricted carriageway width results in tight manoeuvres
The scheme includes the provision of a simple priority access to serve Phase 2 of a residential development that is to be taken through the western side of Phase 1. The scheme drawings provided with the Audit Brief illustrate the access is to comprise a 5 metre wide carriageway at the bellmouth that narrows to 5.5 metres within the site, after the provision of localised widening to 6.5 metres on the bend. Swept path analysis provided with the Audit Brief illustrates a medium panel van and a car negotiating the access simultaneously and appears to indicate the access arrangement to be tight, with little room for manoeuvre. The audit team have concerns that the tight nature of the access at the point where it meets Phase 1 could lead to sideswipe type collisions between vehicles entering and exiting simultaneously.	
Recommendation:	
It is recommended that the point at which the access meets Phase 1 is widened to 5.5 metres to enable improved manoeuvring.	
Location Plan:	
	
DESIGN ORGANISATION RESPONSE provided by i-Transport on the 1st March 2022 following formal issue of this Stage 1 Road Safety Audit on the 25th February 2022.	

Noted and accepted. The access design by the bell mouth has been widened to ensure a minimum width of 5.5m. The revised design is shown in drawing ITB12174-GA-018D, the vehicle swept path analysis has been revised shown in drawings ITB12174-GA-021C, ITB12174-GA-022C and ITB12174-GA-023C.

4.4 NON-MOTORISED USER PROVISION

4.4.1 Problem

Location: Proposed Access

Summary: Pedestrians unaware of change in route characteristics

The scheme drawings provided with the Audit Brief indicate that the proposed access is to be taken from a section of carriageway within the Phase 1 approved development that forms part of a shared use carriageway. A segregated 2.0 metre wide footway that runs from east / west to the north of the carriageway is illustrated, with a further section of footway shown that runs north / south and provides a connection between the proposed segregated footway and the shared use carriageway. It is unclear if suitable measures will be provided to ensure users will be informed of the change in route characteristics. Insufficient advance warning could lead to users, including the visually impaired, stepping into the carriageway and into the path of vehicles, resulting in vehicle to pedestrian collisions.

Recommendation:

It is recommended that the edge of carriageway where users transition from the footway to the shared use carriageway is not formed with kerbs in excess of 6mm and that suitable measures, such as corduroy paving and signs, are provided on approach to the shared use carriageway to ensure that footway users are made aware of the change in route characteristics.

Location Plan:



DESIGN ORGANISATION RESPONSE provided by i-Transport on the 1st March 2022 following formal issue of this Stage 1 Road Safety Audit on the 25th February 2022.

Accepted. The inclusion of appropriate tactile paving and signage, and the kerb details including height will be designed and specified at the detailed design stage. A note has been added to the revised planning design drawing ITB12174-GA-018D.

4.4.2

Problem

Location:

Proposed Access

Summary:

Pedestrians could fall into adjacent swale / ditch

The scheme includes the provision of a simple priority access to serve Phase 2 of a residential development that is to be taken through the western side of Phase 1. The scheme drawings provided with the Audit Brief illustrate a swale located to the north of the access which appears to encroach into the proposed access carriageway. It is believed the location of the swale is on the basis of the original Phase 1 scheme and therefore the swale will be revised such that it does not encroach the carriageway and that sufficient separation will be provided. No retaining details have been provided at this stage, however, the audit team are concerned a pedestrian negotiating along the shared use carriageway or the segregated footway could fall into the adjacent swale / ditch, resulting in personal injury.

Recommendation:

It is recommended that suitable measures are provided to prevent pedestrians falling into the swale / ditch.

Location Plan:



DESIGN ORGANISATION RESPONSE provided by i-Transport on the 1st March 2022 following formal issue of this Stage 1 Road Safety Audit on the 25th February 2022.

Accepted. If required based on the final depth of the swale, the inclusion of suitable measures to prevent pedestrians falling into the swale will be reviewed as part of the detailed design stage. A note has been added to the revised planning design drawing ITB12174-GA-018D.



4.5	ROAD SIGNS, CARRIAGEWAY MARKINGS AND LIGHTING
	No road safety concerns raised at this stage.

SECTION 5 AUDIT TEAM STATEMENT

- 5.1 We certify that this Road Safety Audit has been carried out in accordance with GG119.

Audit Team Leader

Zane Beswick – MCIHT, MSoRSA

Signed: 

Position: Road Safety / Highway Engineer

Organisation: Courzons Limited

Date: 1st March 2022

Audit Team Member

Jamie Fenning - BSc(Hons), MIHE, MCIHT, MSoRSA, Highways England RSA
Certificate of Competency

Signed: 

Position: Road Safety / Highway Engineer

Organisation: Courzons Limited

Date: 1st March 2022



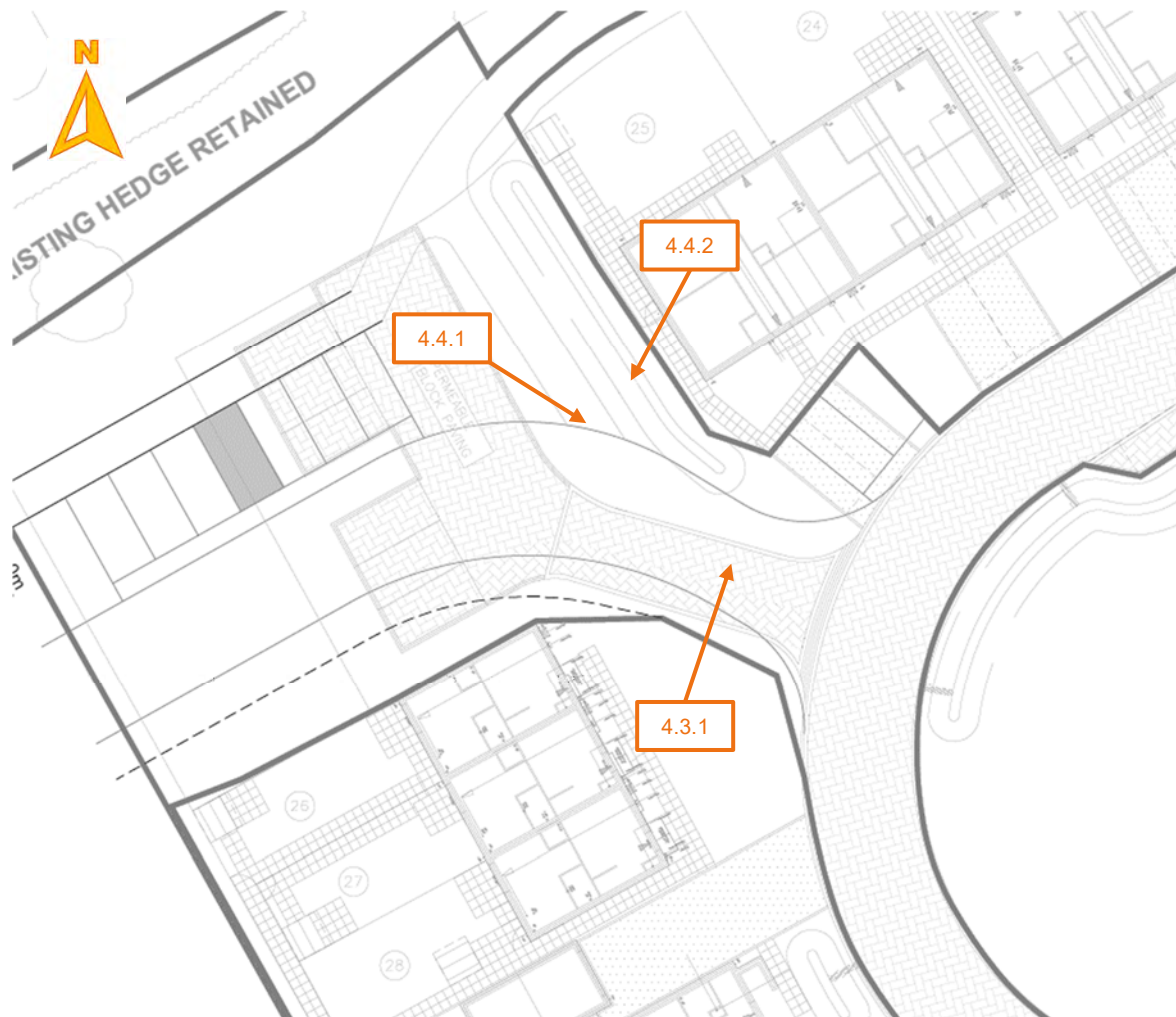
APPENDIX A LIST OF DRAWINGS AND DOCUMENTS SUBMITTED FOR AUDITING

List of items examined as part of this Stage 1 Road Safety Audit

Documents

Document Reference	Document Title
ITB12174-016A	TN Stage 1 RSA Brief

APPENDIX B ITEM LOCATION PLAN



APPENDIX C DRAWINGS ASSOCIATED WITH THE DESIGN ORGANISATION RESPONSE

Drawings

Drawing Reference	Drawing Title
ITB12174-GA-018D	Proposed Site Access Arrangement from Phase 1 Site
ITB12174-GA-021C	Swept Path Analysis – Refuse Vehicle and Estate Car
ITB12174-GA-022C	Swept Path Analysis – Estate Cars
ITB12174-GA-023C	Swept Path Analysis – Medium Van and Estate Car

