TECHNICAL NOTE

Job Name:	Hartnolls Farm, Tiverton
Job No:	332310088 (48582)
Note No:	TN002
Date:	April 2022
Prepared By:	Jack Harris / Neha Kataria
Subject:	**Response to Highway Consultation Comments**

1 Introduction

1.1 Project Context

1.1.1 Stantec UK Ltd were commissioned by Waddeton Park Ltd ('the Client') to prepare a Transport Assessment (TA) and corresponding Travel Plan (TP) in relation to a proposed mixed-use development at Hartnolls Farm, Tiverton.

1.1.2 The TA has subsequently been reviewed by Devon County Council (DCC) in their role as the Local Highway Authority (LHA), and a Highway Consultation reply was received in September 2021. The report sets out several queries pertaining to the proposed site access strategy and the assessment of the transport impacts within the TA and identifies points where further clarification is required from the technical team before the LHA could recommend the scheme for approval.

1.2 Purpose of Technical Note

1.2.1 This Technical Note (TN) therefore seeks to respond to each point identified for clarification by the LHA in the Highway Consultation reply or indicate where further detail, which has been previously provided, can be found.

2 Responses

2.1 Page 1, Para. 5

"*Residential Development – up to 150 residential units with access road, open space and landscaping.*

Employment Development – up to 3.9h, specified for 4 land uses of 9,287sqm. In more detail 3,250m² (B1 and B2 employment), 1,858m² (B8 employment) and 929m² (Gym/Leisure uses). This leaves approximately 3.0ha available for other uses. Could this deficit of 3 ha be clarified".

Response

2.1.1 The additional ("deficit") land is associated with canal breach area / landscape provision, further clarification is provided in Design and Access statement.

2.2 Page 2, Para. 1

"*The access drawing number 48582/5501/SK02 rev E shows the visibility splays to 4.5 metres x 120 metres which is suitable for the speeds in this location. This Drawing has been superseded by Rev H and no longer shows this visibility splay, which should be addressed*".

Response

2.2.1 Please see the submitted drawing; the visibility splays are shown on Drawing 48582/5501/SK02 rev H in a purple colour.

2.3 Page 2, Para. 2

"*The applicant has proposed a replacement layby as the proposed access, as this is being dealt with at this stage as full, a full set of engineering drawings would be required for this layby and proposed new access*"

Response

2.3.1 This in an outline application and concept drawings are provided for the access junction, layby, and associated improvements. The proposed design is based on the existing speed limits and is in accordance with the DMRB standards (no departures from standards), and that there are no other topographical / highway safety concerns which would require detailed engineering drawings at this stage. Detailed design drawings are therefore not necessary at this stage and we would anticipate a suitably worded condition which requires the subsequent detailed design of the access proposals 'generally in accordance with' that submitted at this stage. The detailed drawings will be provided at the s278 Detailed Design / Reserved Matters Application stage.

2.4 Page 2, Para. 3

"Internal access roads provided connecting to the existing Hartnoll Business Centre with 20mph speed limit allowing for on carriageway cycling. Parking layout to be provided at Reserved Matters stage".

2.4.1 **Response**

2.4.2 Agreed; the parking layout will be provided at the Reserved Matters Application stage.

2.5 Page 2, Paras. 8 and 9

"*2021 June Base survey was validated against 2020 February ATC, showing a significantly higher recorded traffic, which was assumed to be the worst-case baseline scenario and is appropriate for use within the traffic impact assessment.*

It is considered better practice to validate data against the same month in different years due to seasonality. Hence recommended comparing June 2021 flows to pre-pandemic conditions in June 2019. The average weekday traffic flows for the first week in June 2019 and 2021 on Heathcoat Way differ by 3%, which is insignificant change".

Response

2.5.1 Agreed and noted.

2.6 Page 2, Para. 10

"*However, comparing traffic flow on Blundell's Road would be more appropriate as the site access directly joins it. The average weekday traffic flows for the first week in June 2019 and 2021 on Blundell's Road differ by 45%, which is a significant decrease of traffic flows from 662 in 2019 to 355 in 2021 in the AM peak, and significant decrease of traffic flows from 717 in 2019 to 394 in 2021 in the PM peak. These have been validated against full June data to make sure no special events occurred on the first week in June, and the flows are almost identical. This suggests traffic flows were significantly lower in June 2021 when the surveys were carried out and suggests they are not an appropriate baseline*".

Response

2.6.1 Stantec were sent details of the available traffic data in the vicinity of the study area by DCC's Traffic and Highways Data team (see attached plan). This did include some survey data on Blundell's Road, but the available data was incomplete. As shown on the plan, one survey was only available for 1 week in January 2020 (with no flows available for 2021 when the independent traffic surveys were undertaken), a second included only westbound flows, and a third only included data up until 2018.

2.6.2 None of these were considered appropriate for use to determine the impact of COVID-19 on traffic flows, i.e. to compare survey flows captured during June 2021 with pre-pandemic flows ideally being captured in June 2019 or the closest available period before March 2020. Therefore, the most appropriate site available was the ATC on the A396, which was used in the analysis. This site had continuous ATC data available from both February 2020 (immediately before the impact pf COVID-19) and June 2021 (the time of the surveys). This allowed for a comparison to be made between the two datasets to indicate the changes in traffic before and after the pandemic. This was discussed within the scoping note issued to DCC Highways in May 2021, and was agreed during the scoping meeting.

2.6.3 Table 7.10 within the TA sets out the junction capacity assessment for the site access junction. This demonstrates that there is significant spare capacity, within minimal queuing predicted across all scenarios.

2.6.4 As the approach to the assessment was discussed and agreed at the scoping stage, and the change in flows will not alter the conclusions of the assessment, it is considered that no further work is required in order for DCC to come to an informed opinion on this matter. That said, should further work be necessary, we would be grateful for clarification.

2.7 Page 3, Para. 3

"*Outline planning application from 2014 (14/00881/MOUT) for mixed use development comprising up to 70 dwellings and 22,000sqm of B1/B8 employment land, care home, primary school and neighbourhood centre. Outline planning application from 2013 (13/01616/MOUT) for development up to 330 dwellings and trip rates suggested for the 40,000sqm for the employment within the masterplan area*"

Response

2.7.1 The trip rates were provided in the Scoping Note, and it was discussed with DCC Highways that the use of TRICS was considered appropriate for this TA.

2.8 Page 3, Para. 4

"*Happy with residential trip rates as they are similar with the other planning applications in the vicinity*".

Response

2.8.1 Noted that residential trip rates are acceptable.

2.9 Page 3, Para. 6

"*It was found that the Gym/Leisure trips in Table 6.6 in the TA were calculated incorrectly assuming the trip rate provided in Table 6.5 and the 929 sqm allocated area are correct. It should be 4 in the AM and 4 in the PM both ways, not 8 in the AM and 16 in the PM. Please correct or provide explanation for the difference".*

Response

2.9.1 Agreed; the trip rates provided in Table 6-5 of the TA are incorrect. The correct trip rates have been used within the spreadsheet calculations, and therefore the trip generation shown in Table 6-6 is correct.

2.9.2 The correct trip rates used within the calculations are shown below, and the TRICS output report is attached.

	AM Peak			PM Peak		
	Arr	Dep	Tot	Arr	Dep	Tot
Trip rates	0.390	0.509	0.899	1.169	0.599	1.768
Trips (as shown in Table 6-6)	4	5	8	11	6	16

Table 1: Corrected gym / leisure trip rates and trip generation

2.10 Page 3, Para. 7

2.10.1 "*It was also found that 6.2.8 states the land use 02/C Industrial Estate was used, however the 7th footnote states the category was Employment D – Industrial Estate. Please confirm which one was used*".

Response

2.10.2 The Industrial Unit land use 02/C was used as stated in para. 6.2.8 of the TA.

2.11 Page 3, Para. 8

"*DCC has calculated the trip rates from TRICS using the same selection criteria as described in the TA. They are significantly different to the ones provided in the TA: were any of these surveys carried out during COVID?"*

Response

2.11.1 The trip rates presented in Table 6-3 of the TA are based on the TRICS database, which included one site (of a total 9 sites) for which the survey was undertaken in October 2020. Revised trip rates showing the exclusion of this survey are presented below, and the TRICS output attached.

	AM Peak			PM Peak		
	Arr	Dep	Tot	Arr	Dep	Tot
Trip rates as presented in TA	0.432	0.099	0.531	0.042	0.398	0.440
Trip rates (excluding October 2020 site)	0.426	0.091	0.517	0.043	0.395	0.438

Table 2: Trip rates with and without the inclusion of the October 2020 surveyed site

2.11.2 The above trip rates are marginally different, and Table 3 below provides a comparison between the presented TA trips and the revised trip generation based on the above trip rates.

	AM Peak			PM Peak		
	Arr	Dep	Tot	Arr	Dep	Tot
Trip generation as presented in TA	14	3	17	1	13	14
Revised trip generation (trip rates excluding the October 2020 site)	14	3	17	1	13	14

Table 3: Trip generation calculated from trip rates with and without the inclusion of the October 2020 surveyed site)

2.11.3 It is noted that the surveyed sites during the pandemic should have been removed from the TRICS analysis, however, the above tables show that there is no change in the trip generation between

the trip rates presented in the TA and the trip rates without the October 2020 site. As previously mentioned, the use of TRICS was established during the scoping discussion and the scoping note presented the trip rates for employment and residential use, which were agreed at that stage.

2.12 Page 4, Para. 5

"*Changes to working from home have not been accounted for in the analysis. Why has this not been accounted for?"*

Response

2.12.1 It is agreed that travel trends have shown that the share of people working from home has increased over the years, and the pandemic brought a sudden change to the way people travel and work, with significant proportions of staff working from home during the national lockdowns. The approach to determining vehicular trip rates was discussed and agreed at the scoping stage, as set out within Section 6.2 of the TA. In particular, Para's 6.2.15 to 6.2.17 set out DCC request for a TRICS Guidance (Implementation of Decide and Provide Approach) Scenario 1 approach to establishing vehicle trip generation – i.e., not including any adjustments for extrapolation, internalisation or working from home. It is acknowledged that the resulting traffic flows are therefore extremely robust, and this should be taken into account by DCC when assessing the reported impacts.

2.13 Page 4, Para. 10 – Page 5, Para. 1

"*According to section 7.5.10, the TEMPro factor 1.008 was used to increase adjusted 2021 Base flows to 2024 Base flows. However, out of the 12 turning movements, the straight on movement along Blundell's Road east to west has been increased by 1.07. Please check or provide reasoning why this is the case. In some cases, there is an increase of 1.7% why have different increases for each stage just require a reasoning for this* [sic]

Similarly, for 2029 Base flows, only the same straight on movement has been increased by 1.08, the rest was increased by TEMPro factor 1.02. Please check as above".

2.13.1 Response

2.13.2 Please note that the Future 2024 flows and Future 2029 flows are the result of two factors:

1) Adjustment to 2021 flows due to redistribution of traffic, with the implementation of the new A361 junction. The flow adjustment percentages are based on SATURN flows for the 'with' and 'without' junction scenarios and are provided in Figures 7.3 and 7.4. They are additionally explained in section 7.3 of the TA. This was also discussed within the Scoping Note under 'base traffic redistribution'".

2) Application of the TEMPro factors, which have been noted.

2.13.3 The adjustment of flows is different for different turning movements, and therefore the resultant growth factors are not constant for a junction and as commented by you, are varied between junction movements.

2.14 Page 5, Para. 3

"*Update the Residential and Employment distributions in Figure 7.15 and Figure 7.16 around J27 as turning movement proportions and flow are missing. Please also correct traffic flow at J27. There are trips towards A38, please provide MSOAs that were assumed as the origins / destinations for these trips*"

Response

2.14.1 Noted that the distribution flows for Junction 27 are missing on Figure 7.15 and 7.16. This was due to the fact that the junction was not modelled specifically within impact assessment and we do not have base flows. We can provide forecast development flows in this location in due course, subject to agreement on the below point.

2.15 Page 5, Paras. 5

"*Concern over distribution of residential trips leaving the development site. DCC looked at the distribution in table 7.4, and manually assigned route choices using google maps. DCC's assumptions are provided in the table below, with the distributions from table 7.4*.

The rest of the trips (47%) are expected to be made to Junction 27 on the M5 via the new junction on A361, turning west onto Blundell's Road from the Proposed Development Site. 21% travel towards Halberton (agree with TA), 47% travel to the M5 using the new A361 junction (disagree with TA suggested 28%), 5% travel along the A361 westbound (agree with TA) and 26% travel on the A396 towards Tiverton (disagree with TA suggested 49%).

Please provide a list against table 7.4 and 7.5, both for residential and employment, what assumptions were made for route choice to understand the difference in distribution".

2.15.1 The distribution of residential traffic has been undertaken using Census data, as agreed at the scoping stage. Traffic has then been distributed onto the road network using online route mapper tools. The distribution at the locations identified, i.e., the proportions of traffic accessing the A361 via the new junction, and via the A396 south, via Tiverton. The locations in question are predominantly considered to be MSOAs in and around Exeter.

2.15.2 As the new junction is not yet in place on the A361, it is not possible to calculate exact journey times from the site to Exeter using the new road link. Using the existing road network from the site, journeys to south and east Exeter are quicker via the M5, whilst journeys to the North and the city centre are quicker via the A396. There is very little variation in travel times, with only 2 or 3 minutes difference. Attempts have been made to estimate the journey time between the site and A361 via the new link, and this indicates that journey times across the two options are very comparable.

2.15.3 The assessment has split traffic to the Exeter MSOAs (MSOAs: Exeter 003, 004, 006, 07, 008, 009, 011, 013, 014, 015) evenly between using the new junction, the A361, the M5, or via the A396. Given the marginal difference in journey times, this is considered to be reasonable.

2.15.4 Furthermore, the route taken for trips to / from Exeter may be determined by the time of day; at peak times, the route via the M5 may have high levels of congestion, particularly between Junction 29 of the M5 and the city centre, and so the alternative route may be chosen. Equally, some drivers may prefer to use the A351 / M5 routes due to the ease of driving on dual carriageways / motorways as opposed to the more circuitous A396.

2.15.5 We consider that in reality, the choice of route will likely come down to subjective factors such as individual preference / traffic conditions etc. Notwithstanding that, we have estimated that by using DCC's suggested traffic distribution the impact on the junction 27 of M5 will increase by approximately 36 and 37 trips during the AM and PM peak periods respectively, when compared with the distribution calculated by Stantec and presented within the TA for the full development. This is equivalent to approximately an additional 1 vehicle every 2 minutes and is considered to be insignificant.

2.15.6 Equally, the impact on the Blundells road roundabout and traffic routing via Tiverton town will reduce by circa 32 trips if using DCC's distribution approach. This level of additional or reduced number of trips is unlikely to result in any alternative conclusions to the assessment presented in the submitted report, and so therefore we do not consider the requirement to undertake any further analysis or modelling.

2.15.7 Furthermore, the impact of the alternative distribution approach on the local junctions will result in a reduction of traffic and as such development impact. Therefore the approach undertaken within the TA can be considered robust in terms of traffic impact.