Substantive response of the Local Highway Authority to a planning consultation received under The Development Management Order.

Leicestershire County Council

Response provided under the delegated authority of the Director of Environment & Transport**.**

APPLICATION DETAILS:

Planning Application Number: P/21/2639/2

Highway Reference Number: 2021/2639/02/H/R2

Application Address: Land North of Barkby Road Syston Leicestershire

Application Type: Outline (with access)

Description of Application:

Re-consultation. Outline application for up to 195 dwellings with all matters reserved except access.

GENERAL DETAILS

Planning Case Officer: Louise Winson

Applicant: Taylor Wimpey (UK) Ltd

County Councillor: Mr Tom Barkley

Parish: Syston

Road Classification: Class C

Substantive Response provided in accordance with article 22(5) of The Town and Country Planning (Development Management Procedure) (England) Order 2015:

The Local Highway Authority does not consider that the application as submitted fully assesses the highway impact of the proposed development and further information is required as set out in this response. Without this information the Local Highway Authority is unable to provide final highway advice on this application. Under the current Covid-19 situation we would ask that any such work is carried out in accordance with the latest Government guidance.

Advice to Local Planning Authority

Background

The Local Highway Authority (LHA) has been re-consulted on an outline with access planning application for up to 195 dwellings to be located on land north of Barkby Road, Syston.

In its previous response dated 13th May 2022, the LHA requested further information to be submitted with regard to a number of elements.

These highway observations are in response to the following document which has now been submitted to Charnwood Borough Council in support of the planning application.

- Highways Response Note (HRN) prepared by David Tucker Associates dated 16th June 2022.

Site Access

As set out in the LHA's previous observations, it is proposed to access the site via a new priority junction off Barkby Road, Syston, with a ghost right turn lane into the site.

The LHA previously requested visibility splays to be calculated from recorded 85th percentile speeds.

The Applicant has obtained the results of a speed survey which was undertaken in the vicinity of the proposed site access on Barkby Road in June 2021. The survey confirms the 85th percentile speeds to be 42.9mph eastbound and 39.9mph westbound.

Visibility splays of 120m to the right (eastbound approach) and 75m to the left (westbound approach) are achievable and demonstrated on drawing 20060-02 Rev C (Appendix C) of the HRN. The LHA are satisfied that the required visibility splays are achievable and in accordance with the LHA's guidance as set out in Table DG4 in Part 3 of the Leicestershire Highway Design Guide (LHDG), which is available at:
https://resources.leicestershire.gov.uk/sites/resource/files/field/pdf/faq/2022/3/18/Part-3-design-guidance-interim.pdf

Whilst the Applicant has submitted swept path analysis for a large refuse vehicle, the LHA has noted that the correct vehicle used by Charnwood Borough Council has not been adopted for the analysis. Therefore revised swept path analysis should be undertaken using a Phoenix 2-23 W 6x4 as shown on the attached specification.

A ghost island major-minor priority junction is considered acceptable for the quantum of development, however it is noted that no design layout dimensions have been shown for the proposed ghost island and right turn lane provision. These need to be advised at this stage so as to ensure that adequate distance is available to accommodate requirements for the deceleration length, ghost island tapers, direct tapers and turning length requirements. The adjacent signalised crossroads junction with Queniborough Road is located less than 100m away from the proposed

access. No information has been provided for proposed lane widths and these will also need to be provided for review.

Drawing 20060-02 Rev C which is part of the Transport Assessment (TA) submitted in support of this application indicates a footway to the west of the access that links with the existing footway at Empingham Drive. A wide verge provision is shown between the footway and the carriageway edge. The LHA requires that this be amended so that the proposed footway runs adjacent to the kerbline. No information has been shown for the proposed footway width which would need to be 2.0m to comply with requirements listed in Part 3 of the Leicestershire Highway Design Guide (LHDG) available at. https://resources.leicestershire.gov.uk/sites/resource/files/field/pdf/faq/2022/3/18/Part-3-design-guidance-interim.pdf.

A revised dimensioned plan should be submitted submitted in addition to a Stage 1 RSA and Designer's Response

In its previous comments, the LHA had concerns that the development proposals may not have been considered in light of emerging local plan sites HA1 and HA2. For example, the LHA was concerned that the proposed site access for HA3 could have an adverse effect on any potential access strategy for site HA1.

In Response, the Applicant has stated that:

'In terms of interaction with potential access to the southern parcel of land (proposed allocation HA1-Land southeast of Syston), the promotors are the same (Taylor Wimpey). Given that this site is expected to proceed ahead of HA1, an independent access has been designed to ensure delivery. However, this has been designed to be capable of being upgraded to a roundabout in the future to serve both the northern and southern parcels.'

The indicative arrangement of a roundabout is shown on Drawing 19407-02 (Appendix C) of the HRN. The LHA welcome the Applicant's proposal that the proposed access has been designed to be capable of being upgraded to a roundabout in the future to serve both parcels of land. Notwithstanding this, as there is insufficient design layout information the LHA are unable to comment on the suitability of the roundabout design. The LHA request that a more detailed scheme, fully dimensioned including roundabout design criteria, be submitted for review at this stage.

No information has been shown for the highway boundary, and a topographical survey would also be required to confirm areas of land that would need to be transferred into the publicly maintained highway.

The LHA would also request for the roundabout to be modelled using the ACRADY module of Junctions software at this stage so it can be demonstrated, at least indicatively, whether it will be likely operate within capacity.

The LHA would also require some comfort at this stage over how the further roundabout could be built at the location of the proposed site access, whilst still maintaining access to the site, given that it is likely to be at least partially occupied at the time of construction of the roundabout. Has consideration been given to bringing the roundabout forward at the outset?

Accessibility

In its previous comments, the LHA stated that it:

'…would require that the Applicant should to [sic] explore/develop options for a flexible form of transport provision, which whilst not necessarily adhering to the minimum hourly frequency, does cover the whole of the day 7-7pm (Monday-Friday) and 8-6pm Saturday. It could take the form of a demand based model. The Applicant should explore options and then submit proposals to the LHA for approval, after which they would then go and secure the service/provision.'

The HRN indicates that the Applicant has held discussions with the bus operator Arriva. The LHA understands that Arriva have confirmed in principle that an early phase of a strategy would be to extend the Service 6 into Syston, along Goodes Lane to then U-turn at the Saxby Drive / Barkby Lane junction. The LHA understands that this could comprise a twice hourly service for the addition of one extra Bus.

The HRN goes on to indicate that options for a local 'Arriva Click' type service within Syston could be provided as an alternative. However, the HRN also states that Arriva are currently unable to commit to a form of 'Arriva Click', so it could not be confirmed as a proposal at the current time.

Further to reviewing the HRN, the LHA has given consideration to the fact that the bus service 100 passes the site frontage. While this does not offer an hourly service, it does provide four return journeys a day Monday to Saturday to Syston centre and back. It is noted however, that these trips do not offer peak-time journeys to and from the local centre. It is also further acknowledged that some residents may at times choose to undertake journeys into the local centre on foot due to its relative proximity. Whilst it is a walk of over 800 metres, this is nevertheless still within a reasonable walking distance and an option for some residents. Service 100 is subsidised by LCC and the contract has recently been re-tendered for a period of two years, through to the end of July 2024. This service is therefore not guaranteed beyond that period and it is most likely the build out of this development and occupation would extend beyond that timeframe.

The LHA also recognise that an hourly bus service may not be suitable for this development taking in to consideration its size and location.

Based on the above, the LHA therefore advise that rather than the proposals set out in the HRN, the Applicant should explore the provision of peak time passenger transport from the site to the local centre (to discourage residents from making car journeys at those times and to encourage more sustainable modes of travel generally). In addition, should service 100 cease to operate or the service level reduce beyond its current level within five years of first occupation, the LHA would require the Applicant to secure alternative provision providing a commensurate service level. The LHA will also require the Applicant to install or fund the installation of two new bus stops at a

suitable, but yet to be determined location on Barkby Road to better serve the site frontage. This step would provide closer access for residents to any passenger transport provision.

The LHA note that the Applicant has suggested that a public transport strategy could be secured by a condition should planning consent be granted. Subject to a response from the Applicant regarding the suggestions set out above, the LHA consider a suitably worded condition could be imposed if and when the LHA is in a position to advise a positive recommendation to the planning application.

Trip Generation

The LHA considered the previously submitted trip rates, which are demonstrated in Table 1 which has been extracted from the HRN below, to be low. The LHA therefore requested for the TRICS analysis to be re-run with revised trip rates and applying the journey to work census mode share data to the person trips.

Table 1: DTA Derived Trip rates and generations- 195 Dwellings

Housing- 195 Units	AM Peak			PM Peak		
	Arr	Dep	Total	Arr	Dep	Total
Trip Rate	0.132	0.387	0.520	0.418	0.215	0.633
Trip Generation	26	75	102	82	42	123

The Applicant has reviewed trip rates previously provided by the LHA for a proposed development at Oadby Grange, Oadby. The trip rates previously received from the LHA are demonstrated in Table 2 which has been extracted from the HRN.

Table 2: LCC Vehicular Trip Rates

Housing - Private	AM Peak			PM Peak		
	Arr	Dep	Total	Arr	Dep	Total
Trip Rate	0.253	0.503	0.756	0.466	0.283	0.749

The Applicant notes that, given the above trip rates are significantly higher than those presented within the TA, and that for robustness, ‘these are adopted here as a sensitivity test’. It is unclear whether these have been adopted in the modelling included in the HRN and which is considered later in this response.

The Applicant goes onto to set out in Table 3 below extracted from the HRN that the proposed development would generate the following traffic in the peak hours using the ‘sensitivity test’ trip rates.

Table 3: Traffic Generation- 195 Units

Housing - Private	AM Peak			PM Peak		
	Arrival	Dep	Total	Arrival	Dep	Total
Trip Rate	49	98	147	91	55	146

Table 3 which has been extracted from the HRN shows that a total of 195 dwellings would be predicted to generate around 150 two way vehicle movements in the peak periods when using the 'sensitivity test' rates. The LHA notes that, across the peak, this equates to broadly three vehicles every minute, an increase of a vehicle every 1-2 minutes when compared to the rates from the TA.

Noting the above, the LHA requests that the 'Oadby' trip rates be used as the actual predicted trip rates in the assignment.

Junction Capacity Assessments

Traffic Flow Scenarios and Junction Capacity Assessments

The LHA previously requested for classified turning counts to be undertaken at the following junctions, with covid factors applied, as the previous surveys were more than three years old:

- High Street/Melton Road/Barkby Road;
- Barkby Road/ Queniborough Road;
- Goodes Lane/ St Pauls' Drive;
- Barkby Road/ Pembroke Avenue; and
- Goodes Lane/ Melton Road

The LHA also requested that once the new surveys have been undertaken to re-run the capacity assessments and also include the Fosse Way/ High Street and Barkby Road/ Pembroke Avenue junctions. The LHA also requested that the 2022 base flows should be factored up to a future year of 2027 following application of Covid factors, with the TEMPro growth factors to also be revised and committed developments added.

The HRN sets out that a 'sensitivity test' has been carried out using updated traffic counts. These include three junctions counted in 2021 (extracted from TA supporting allocated site HA2 application) and in June 2022 (commissioned by DTA and undertaken by LCC) survey data to examine the impact of the development. For the HA2 flows, the Applicant is requested to confirm that these had a survey permit by contacting ndi@leics.gov.uk. Further, the LHA does not consider the use of the more recent surveys to be a sensitivity test given that the data is within date (if undertaken under a permit).

The Applicant states that a review of those surveys shows the 2021 / 2022 counts are comparable with the previous 2019 surveys. No further calibration or application of 'Covid' factors is therefore considered reasonable. This is unacceptable to the LHA, which requires Covid factors to be applied consistently for surveys undertaken prior to 2nd September 2022 as for all other applications using data during the affected time periods. The Applicant is therefore required to contact ndi@leics.gov.uk for the appropriate factors and adjust their traffic flow scenarios accordingly,

The Applicant has factored the 2021 and 2022 base flows to a future assessment year assessment of 2027 using rates obtained from TEMPro for the local area. The applicant has stated that the TEMPro factors include all known committed development not captured by the recently collected traffic count data, however the LHA seeks further confirmation of this given that TEMPro is not updated frequently. The resulting growth factors are shown in Table 4 below which has been extracted from the HRN.

Table 4: TEMPro Growth Factors

Years	AM Growth Figure	PM Growth Figure
2021-2027	1.0516	1.0516
2022-2027	1.0426	1.0426

To establish if the 2021/2022 traffic survey data used within the sensitivity test is appropriate for use, the Applicant has compared the data to the 2018 traffic survey data that was used within the TA. This was undertaken to establish how peak hour traffic flows have changed between 2018 and 2021/2022. The Applicant's analysis presented in the HRN suggests that peak hour traffic decreased at both junctions in the AM between 2018 and 2022 and remains similar in the PM peak. The Applicant believes that this reinforces the robustness of the 2021/2022 surveyed flows and junction capacity assessments presented within the HRN. However, as set out above, the LHA requires 'within date' survey data to be used, with Covid factors applied, so as to be robust and consistent with other planning applications. If the Applicant does not wish to apply Covid factors, then they are able to commission new surveys which would no longer be applicable to a Covid factor.

The assessment results which have been extracted from the HRN are summarised below and the full outputs are contained within Appendix E of the HRN. It should be noted that, whilst the LHA comments on the results, the analysis is required to be repeated with acceptable traffic flow scenarios.

High Street/Melton Road/Barkby Road

Junction 1: High Street/Melton Road/Barkby Road

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
	2022					
1 - Melton Road N	1.5	8.38	0.59	1.5	8.77	0.59
2 - Barkby Road	1.1	19.24	0.53	2.1	27.17	0.69
3 - Melton Road S	1.3	10.39	0.55	2.1	13.73	0.67
4 - High Street	1.1	9.59	0.52	2.9	19.36	0.74
	2027					
1 - Melton Road N	1.6	9.04	0.62	1.7	9.57	0.62
2 - Barkby Road	1.3	21.62	0.57	2.6	32.47	0.73
3 - Melton Road S	1.5	11.17	0.58	2.4	15.34	0.70
4 - High Street	1.2	10.34	0.55	3.7	23.52	0.79
	2027 + Development					
1 - Melton Road N	1.7	9.24	0.62	**1.7**	**10.10**	**0.63**
2 - Barkby Road	1.7	24.86	0.64	**3.3**	**39.12**	**0.78**
3 - Melton Road S	1.5	11.61	0.59	**2.5**	**15.96**	**0.71**
4 - High Street	1.3	10.82	0.57	**4.7**	**28.90**	**0.83**

The LHA are satisfied based on the traffic flows currently adopted that the results show that the junction currently operates within capacity and will continue to operate within capacity in the future year scenario following proposed development. However, the analysis is required to be revisited with traffic flows which are acceptable to the LHA.

Barkby Road/Queniborough Road

Junction 2: Barkby Road/ Queniborough Road

Arm	AM Peak		PM Peak	
	DoS (%)	Queue	DoS (%)	Queue
2021 Base				
Queniborough Road South	63.4	9	52.7	9
Barkby Road West	64.6	7	53.1	5
Queniborough Road North	64.3	11	51.7	7
Barkby Road West	2.6	0	6.9	0
2027				
Queniborough Road South	66.9	10	55.5	9
Barkby Road West	68.0	8	53.2	5
Queniborough Road North	67.6	12	55.8	8
Barkby Road West	2.6	0	6.9	0
2027 + Development				
Queniborough Road South	73.2	11	59.1	10
Barkby Road West	70.8	9	60.4	6
Queniborough Road North	71.6	12	58.7	8
Barkby Road West	2.6	0	6.9	0

The LHA are satisfied based on the traffic flows currently adopted that the results demonstrate that the junction operates with reserve capacity in all scenarios. However, the analysis is required to be revisited with traffic flows which are acceptable to the LHA.

Goodes Lane/St Pauls' Drive

The HRN notes that the Goodes Lane / St Pauls' Drive was not assessed within the previous versions of the TA and that a desktop review of the layout indicated St Pauls Drive is a cul-de-sac serving circa 85 dwellings.

The HRN sates that:

'The development trip assignment, as shown on Figure 2 of the TA indicates that no development trips are forecast to travel to/from St Pauls Drive, with all development traffic expected to travel

along Goodes Lane. This amounts to 39 two way trips in both peak periods. On this basis no further assessment has been considered.'

On the basis of the above, the LHA are satisfied no assessment is required for the Goodes Lane/St Pauls' Drive junction.

Barkby Road/Pembroke Avenue

Junction 4: Barkby Road/ Pembroke Avenue

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
	2022					
Stream B-C	0.1	6.65	0.06	0.1	7.29	0.06
Stream B-A	0.2	10.13	0.17	0.4	11.96	0.31
Stream C-AB	0.2	6.36	0.13	0.2	5.65	0.10
	2027					
Stream B-C	0.1	6.73	0.07	0.1	7.42	0.06
Stream B-A	0.2	10.36	0.18	0.5	12.42	0.32
Stream C-AB	0.2	6.39	0.14	0.2	5.66	0.11
	2027 + Dev					
Stream B-C	0.1	7.07	0.07	**0.1**	**7.97**	**0.07**
Stream B-A	0.3	11.24	0.22	**0.6**	**14.23**	**0.40**
Stream C-AB	0.2	6.44	0.14	**0.2**	**5.57**	**0.11**

The LHA consider that based on the traffic flows currently adopted the results demonstrate the junction is operating well within practical capacity and will continue to operate satisfactorily, with the inclusion of the proposed development. However, the analysis is required to be revisited with traffic flows which are acceptable to the LHA.

Goodes Lane/Melton Road

Junction 5: Goodes Lane/ Melton Road

	AM			PM		
	Q (PCU)	Delay (s)	RFC	Q (PCU)	Delay (s)	RFC
	2022					
Stream B-C	1.8	19.78	0.64	0.4	9.93	0.29
Stream B-A	0.2	19.08	0.17	0.1	16.76	0.08
Stream C-AB	1.1	7.50	0.39	5.3	19.67	0.77
	2027					
Stream B-C	2.1	22.59	0.68	**0.4**	**10.33**	**0.31**
Stream B-A	0.3	21.92	0.20	**0.1**	**18.14**	**0.09**
Stream C-AB	1.3	7.79	0.42	**7.4**	**26.32**	**0.83**
	2027 + Development					
Stream B-C	2.8	27.59	0.74	0.5	10.88	0.34
Stream B-A	0.3	26.44	0.23	0.1	19.58	0.10
Stream C-AB	1.5	8.38	0.46	13.0	47.79	0.92

The LHA has reviewed the model and would advise that the main road carriageway width should be reduced so that it does not include the on-street parking bays. This will reduce the width of the main road to approximately. 5.8m. The modelling should be corrected and undertaken with traffic flow scenarios which are acceptable to the LHA.

Fosse Way/High Street

Junction 6: Fosse Way/ High Street

Arm	AM Peak		PM Peak	
	DoS (%)	Queue	DoS (%)	Queue
2021 Base				
Fosse Way North	62.1	10	37.6	7
High Street	69.7	13	76.6	17
Fosse Way South	69.5	15	75.8	16
2027				
Fosse Way North	66.8	11	48.3	9
High Street	70.7	14	80.0	18
Fosse Way South	71.6	16	80.5	18
2027 + Development				
Fosse Way North	76.6	12	41.9	8
High Street	75.6	15	84.0	19
Fosse Way South	77.1	18	83.9	20

The LHA are satisfied the table above demonstrates that the junction is operating within practical capacity in 2027 based on the traffic flows currently adopted, with the addition of development traffic resulting in an increase of a maximum of 2 PCU through the junction during the peak periods. However, the analysis is required to be revisited with traffic flows which are acceptable to the LHA.

Queniborough Road/ Barkby Road/ Rearsby Road/ Syston Road

The Applicant has stated that there are 10 two-way development trips forecasted to go through the junction in the peak periods. The LHA note that the base (2021) flows show a total of 847 vehicles going through the junction in the AM peak and 711 vehicles in the PM peak. The LHA have checked their own traffic count database and note that there is a count from 2007 which shows 869 vehicles (AM) and 809 vehicles (PM) which is higher than the 2021 flows. The LHA would ask the Applicant to investigate why there is a reduction in traffic when compared to the flows which are 15 years old.

Date Received	Case Officer	Reviewer	Date issued
20 July 2022	**Suraj Dave**	**AW**	**3 October 2022**