

Technical Note

Project:	7 Belton Road, Epworth, Doncaster	Project No:	11776
Subject:	PA/2020/1117 – Response to Highway Consultation Response		
Prepared by:	Carly Hoyle	Date:	28.01.2021
Checked by:	Karen Smith MIHE	Date:	28.01.2021

Following submission of planning application reference PA/2020/1117, for three dwellings on land to the rear of 7 Belton Road, Epworth, comments were received from the Highway Officer relating to the visibility splays at the site access.

Initial Highways comments dated 18th August 2020 state *“I would advise that the following conditions should be applied to any permission that you may be minded to grant: HC18”. HC18 being that “No dwelling on the site shall be occupied until the vehicular access to it and the vehicle parking and turning space serving it have been completed and, once provided, the vehicle parking and manoeuvring space shall be retained.”* This comment does not suggest any objection to the proposals.

On the 17th December 2020 further Highway comments were made stating *“A Highways Operative went to site this morning and concluded the 4.5m width of the existing highway (including the telegraph post). As it will be only 3 dwellings it will remain private, so it won’t be adoptable by highways.*

The hedge will need to be shortened in height, and is due for a cut by maintenance so I advised that it is trimmed down to 1m in height to allow better visibility.

Attached are pictures from google maps, and they are a resemblance of what is currently there on site, and match the photos provided by Cllr Mitchell.

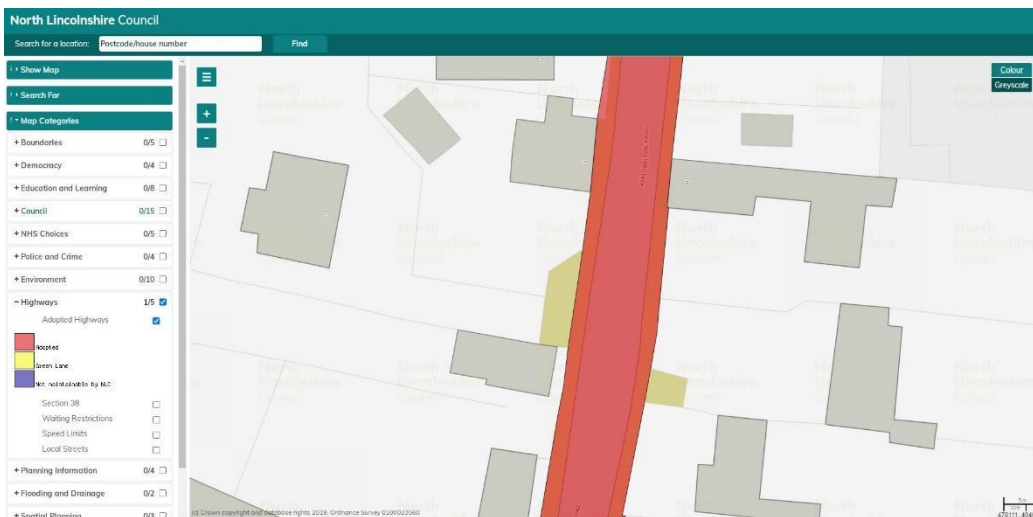
It is not an ideal situation, so we may now be minded to object to the application, unless the developer provides further detail and provides adequate measures to make this development safe on highway grounds”.

It should, however, be noted that the photographs referred to in the comments were not available to view, therefore, clarity was sought as to the nature of the Officer’s concerns. On the 7th January 2021 Louisa Simpson, Senior Transport Planner at North Lincolnshire Council, confirmed that clarification of the visibility splays at the site access was required.

In order to determine the required visibility splays, Sanderson Associates undertook a site visit on the 22nd January 2021 and carried out a radar speed survey. Vehicles travelling towards the site access were recorded at a distance of 43m, equivalent to the required stopping sight distance for the 30mph posted speed limit. 100 vehicles in free flow were recorded in each direction. The table overleaf shows the recorded 85th percentile speeds and the associated required visibility using Manual for Streets 2.

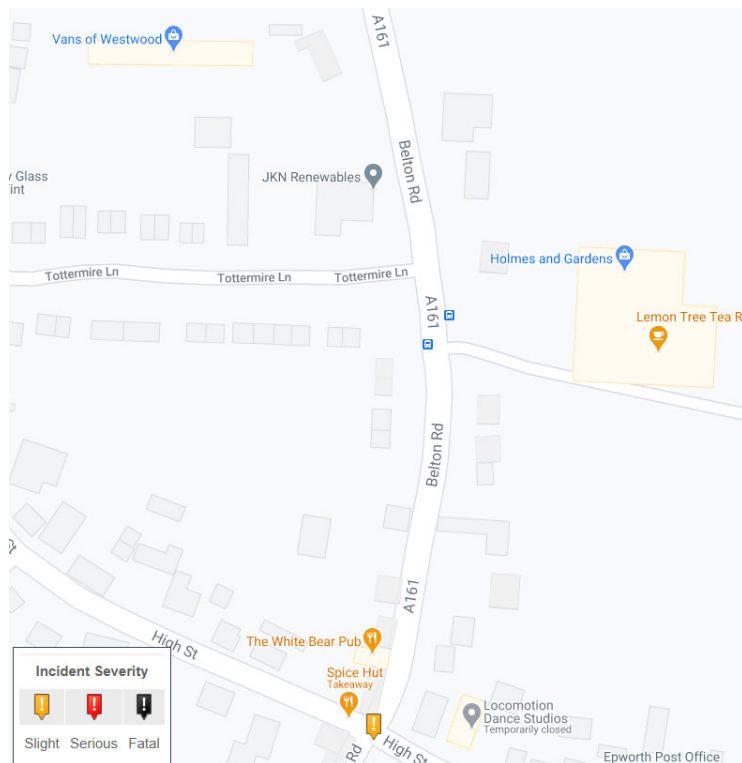
Direction of Travel	Direction of visibility	85th Percentile Speed (mph) adjusted for wet weather	Stopping Sight Distance (m)
Northbound	Right	20.3	25.3
Southbound	Left	26.3	35.7

During the site visit, measurements were also taken in order to ascertain the available visibility. This suggested that the required visibility is not achievable. However, it is important to note that visibility to the left is restricted by a hedge that is encroaching into the footway, as shown in the photograph and extract of North Lincolnshire Highway Adoption Map below. This narrowing of the available footway width also poses a risk to pedestrians travelling along Belton Road and should therefore be cut back and appropriately maintained in future.



With regards to traffic on Belton Road, it was noted that the presence of traffic signals approximately 50m to the south of the site access results in gaps in traffic that would provide suitable opportunities for vehicles emerging from the site to edge forward to improve the available visibility. The traffic signals also result in occasional queueing past the site access on the opposite side of the carriageway. It is considered that vehicles queueing are often inclined to aid emerging vehicles by allowing them to join the carriageway.

It is also the case that numerous dwellings in the immediate vicinity have similar access arrangements. Even so, as can be seen in the extract from Crashmap below, no incidents have been recorded on this stretch of Belton Road within the most recent five year period available (2015-2019) with just one 'slight' incident at the crossroads junction with High Street.



The addition of three dwellings is not considered to be a significant intensification of the use of what is an existing access. Nevertheless, the TRICS database has been interrogated in order to predict the vehicle trips that could be expected to be generated by the proposals. The following criteria were applied to reduce the available data to a sample that is representative of the site and its location. The TRICS output is included to the rear of this document.

Trip Rate Selection Criteria

- Land Use Category: 'Residential - Houses Privately Owned';
- Vehicular trip rate surveys;
- Number of units: 6-15 (6 minimum available);
- The regions of Greater London and Ireland were excluded;
- Saturday and Sunday surveys were excluded; and,
- Edge of Town and Suburban sites were included.

The vehicular trip rates, along with the peak hour generations that result when these are applied to the existing one dwelling and proposed total of four dwellings are shown below.

Time period	Trip rate per dwelling		Trip generations (1 dwelling)			Trip generations (4 dwellings)		
	Arr	Dep	Arr	Dep	2-way	Arr	Dep	2-way
AM Peak (8:00-9:00)	0.218	0.517	0	1	1	1	2	3
PM Peak (17:00-18:00)	0.368	0.207	1*	0	1	1	1	2

* Totals have been rounded to 1 for robustness

As can be seen, the three additional dwellings proposed could be expected to result in an additional two vehicle movements in the AM peak hour and one vehicle movement in the PM peak. The total of four dwellings, including the existing dwelling, could be expected to generate three vehicle movements in the AM peak hour and two vehicle movements in the PM peak hour. This equates to an average of one vehicle movement every 20 minutes in the AM peak and every 30 minutes in the PM peak. It is, therefore, considered that the proposals do not give rise to a significant increase in the use of the existing access.

It is, therefore, demonstrated that the proposals would not have an unacceptable impact on highway safety and the residual cumulative impact of the development is not severe in transport terms. Consequently it is concluded that the development proposals meet the criteria set out in the NPPF and as such objections to the planning application are not considered justifiable on transport grounds.

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

TOTAL VEHICLESSelected regions and areas:

04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	1 days
	SF SUFFOLK	1 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	1 days
	MS MERSEYSIDE	1 days
10	WALES	
	VG VALE OF GLAMORGAN	1 days
11	SCOTLAND	
	AG ANGUS	1 days

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

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
 Actual Range: 6 to 15 (units:)
 Range Selected by User: 5 to 15 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 22/09/17

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	4 days
Wednesday	2 days
Friday	2 days

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

Selected survey types:

Manual count	9 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	7
Edge of Town	2

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

Selected Location Sub Categories:

Residential Zone	9
------------------	---

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:Use Class:

C3 9 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	1 days
10,001 to 15,000	1 days
15,001 to 20,000	4 days
20,001 to 25,000	1 days
25,001 to 50,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

25,001 to 50,000	2 days
50,001 to 75,000	1 days
75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	3 days
250,001 to 500,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	5 days
1.1 to 1.5	4 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No 9 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present 9 days

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

LIST OF SITES relevant to selection parameters

1	AG-03-A-01	BUNGALOWS/DET.	ANGUS
	KEPTIE ROAD ARBROATH		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total No of Dwellings:	7	
	Survey date: TUESDAY	22/05/12	Survey Type: MANUAL
2	CA-03-A-04	DETACHED	CAMBRIDGESHIRE
	PETERBOROUGH THORPE PARK ROAD		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total No of Dwellings:	9	
	Survey date: TUESDAY	18/10/11	Survey Type: MANUAL
3	CH-03-A-08	DETACHED	CHESHIRE
	WHITCHURCH ROAD CHESTER		
	BOUGHTON HEATH		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total No of Dwellings:	11	
	Survey date: TUESDAY	22/05/12	Survey Type: MANUAL
4	MS-03-A-03	DETACHED	MERSEYSIDE
	BEMPTON ROAD LIVERPOOL		
	OTTERSPOOL		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total No of Dwellings:	15	
	Survey date: FRIDAY	21/06/13	Survey Type: MANUAL
5	NF-03-A-03	DETACHED HOUSES	NORFOLK
	HALING WAY THETFORD		
	Edge of Town Residential Zone		
	Total No of Dwellings:	10	
	Survey date: WEDNESDAY	16/09/15	Survey Type: MANUAL
6	NY-03-A-13	TERRACED HOUSES	NORTH YORKSHIRE
	CATTERICK ROAD CATTERICK GARRISON		
	OLD HOSPITAL COMPOUND		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total No of Dwellings:	10	
	Survey date: WEDNESDAY	10/05/17	Survey Type: MANUAL
7	SF-03-A-04	DETACHED & BUNGALOWS	SUFFOLK
	NORMANSTON DRIVE LOWESTOFT		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total No of Dwellings:	7	
	Survey date: TUESDAY	23/10/12	Survey Type: MANUAL
8	VG-03-A-01	SEMI-DETACHED & TERRACED	VALE OF GLAMORGAN
	ARTHUR STREET BARRY		
	Edge of Town Residential Zone		
	Total No of Dwellings:	12	
	Survey date: MONDAY	08/05/17	Survey Type: MANUAL
9	WK-03-A-01	TERRACED/SEMI/DET.	WARWICKSHIRE
	ARLINGTON AVENUE LEAMINGTON SPA		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total No of Dwellings:	6	
	Survey date: FRIDAY	21/10/11	Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

TOTAL VEHICLES**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	10	0.080	9	10	0.356	9	10	0.436
08:00 - 09:00	9	10	0.218	9	10	0.517	9	10	0.735
09:00 - 10:00	9	10	0.126	9	10	0.264	9	10	0.390
10:00 - 11:00	9	10	0.253	9	10	0.195	9	10	0.448
11:00 - 12:00	9	10	0.207	9	10	0.287	9	10	0.494
12:00 - 13:00	9	10	0.264	9	10	0.322	9	10	0.586
13:00 - 14:00	9	10	0.230	9	10	0.299	9	10	0.529
14:00 - 15:00	9	10	0.241	9	10	0.195	9	10	0.436
15:00 - 16:00	9	10	0.287	9	10	0.172	9	10	0.459
16:00 - 17:00	9	10	0.345	9	10	0.218	9	10	0.563
17:00 - 18:00	9	10	0.368	9	10	0.207	9	10	0.575
18:00 - 19:00	9	10	0.264	9	10	0.195	9	10	0.459
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.883			3.227			6.110

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

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

Parameter summary

Trip rate parameter range selected:	6 - 15 (units:)
Survey date range:	01/01/10 - 22/09/17
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.