

## Appendix 3: Transport CPRE Leicestershire (UR 20038675)

### High-level Highway Network Statistics from Leicestershire Pan-Regional Transport Model (PRTMv2) used for Charnwood District Local Plan

Network Statistics produced by a traffic model reveal the increase in vehicle distance and the increase in vehicle delay over time. This is partly due to new traffic and to additional miles as the model attempts to reroute vehicles to avoid junctions that are congested. The table below shows the change from a base year of 2014 to give a new baseline of 2037. This was used to test options for the Charnwood Local Plan, currently at the Examination Stage.

The network statistics were broken down to the District level, so there is data for Blaby as well as the whole county. It can be seen that vehicle delay in Blaby is forecast to increase by up to 70% over a 23-year period.

Traffic flows on individual links, as used for HNFRI analysis, may not provide a complete understanding of traffic growth or junction operation because the model will divert traffic as congestion increases. Models can also suppress some traffic completely from the modelled period.

		2014 Base	2037 Baseline	% change from 2014
<b>AM Peak</b>				
Blaby	Vehicle Distance (veh-km)	279,999	330,215	18%
	Vehicle Delay-Time (veh-hours)	1,908	2,850	<b>49%</b>
Leicestershire	Vehicle Distance (veh-km)	2,101,240	2,688,127	28%
	Vehicle Delay-Time (veh-hours)	11,627	17,974	55%

		2014 Base	2037 Baseline	% change from 2014
<b>Interpeak</b>				
Blaby	Vehicle Distance (veh-km)	188,566	260,111	38%
	Vehicle Delay-Time (veh-hours)	727	1,230	<b>69%</b>
Leicestershire	Vehicle Distance (veh-km)	1,472,108	2,039,459	39%
	Vehicle Delay-Time (veh-hours)	6,179	9,930	61%

		2014 Base	2037 Baseline	% change from 2014
<b>PM Peak</b>				
Blaby	Vehicle Distance (veh-km)	288,701	340,307	18%
	Vehicle Delay-Time (veh-hours)	1,636	2,773	<b>70%</b>
Leicestershire	Vehicle Distance (veh-km)	2,154,787	2,759,407	28%
	Vehicle Delay-Time (veh-hours)	11,485	18,236	59%

#### Source

Data taken from Tables 3.1, 3.2 and 3.3  
Interim Forecasting Report prepared for the Charnwood Local Plan November 2020



# PRTMv2

## Charnwood Local Plan: Interim Forecasting Report



**Table 3.1: Highway Network Statistics: AM Peak**

AM Peak		2014 Base	2037 Baseline	% change from 2014	2037 Local Plan Option 1	% change from Baseline	2037 Local Plan Option 2	% change from Baseline
Charnwood	Vehicle Distance (veh-km)	300,971	388,573	29%	402,075	3%	403,350	4%
	Vehicle Delay-Time (veh-hours)	1,657	2,707	63%	3,086	14%	3,108	15%
	Avg. Speed (kph)	48.2	44.8	-7%	43.3	-3%	43.2	-4%
Leicester City	Vehicle Distance (veh-km)	268,130	311,751	16%	313,778	1%	314,104	1%
	Vehicle Delay-Time (veh-hours)	4,444	6,515	47%	6,659	2%	6,705	3%
	Avg. Speed (kph)	25.7	22.8	-11%	22.7	-1%	22.6	-1%
Blaby	Vehicle Distance (veh-km)	279,999	330,215	18%	331,194	0%	331,239	0%
	Vehicle Delay-Time (veh-hours)	1,908	2,850	49%	2,888	1%	2,909	2%
	Avg. Speed (kph)	49.6	44.2	-11%	44.0	0%	43.9	-1%
Leicestershire	Vehicle Distance (veh-km)	2,101,240	2,688,127	28%	2,713,873	1%	2,716,265	1%
	Vehicle Delay-Time (veh-hours)	11,627	17,974	55%	18,631	4%	18,722	4%
	Avg. Speed (kph)	49.3	46.2	-6%	45.8	-1%	45.7	-1%

**Table 3.2: Highway Network Statistics: Interpeak**

Interpeak		2014 Base	2037 Baseline	% change from 2014	2037 Local Plan Option 1	% change from Baseline	2037 Local Plan Option 2	% change from Baseline
Charnwood	Vehicle Distance (veh-km)	192,894	273,506	42%	280,311	2%	281,201	3%
	Vehicle Delay-Time (veh-hours)	811	1,325	63%	1,386	5%	1,392	5%
	Avg. Speed (kph)	50.5	49.7	-2%	49.3	-1%	49.3	-1%
Leicester City	Vehicle Distance (veh-km)	202,581	247,863	22%	249,344	1%	249,631	1%
	Vehicle Delay-Time (veh-hours)	2,745	3,920	43%	3,968	1%	3,971	1%
	Avg. Speed (kph)	27.8	26.0	-6%	26.0	0%	26.0	0%
Blaby	Vehicle Distance (veh-km)	188,566	260,111	38%	260,905	0%	261,007	0%
	Vehicle Delay-Time (veh-hours)	727	1,230	69%	1,240	1%	1,241	1%
	Avg. Speed (kph)	58.3	55.7	-4%	55.6	0%	55.6	0%
Leicestershire	Vehicle Distance (veh-km)	1,472,108	2,039,459	39%	2,053,082	1%	2,054,883	1%
	Vehicle Delay-Time (veh-hours)	6,179	9,930	61%	10,070	1%	10,082	2%
	Avg. Speed (kph)	52.7	51.8	-2%	51.7	0%	51.7	0%

**Table 3.3: Highway Network Statistics: PM Peak**

PM Peak		2014 Base	2037 Baseline	% change from 2014	2037 Local Plan Option 1	% change from Baseline	2037 Local Plan Option 2	% change from Baseline
Charnwood	Vehicle Distance (veh-km)	306,742	397,204	29%	409,883	3%	411,118	4%
	Vehicle Delay-Time (veh-hours)	1,593	2,880	81%	3,272	14%	3,312	15%
	Avg. Speed (kph)	49.5	44.6	-10%	43.0	-4%	42.8	-4%
Leicester City	Vehicle Distance (veh-km)	266,222	306,610	15%	308,543	1%	308,957	1%
	Vehicle Delay-Time (veh-hours)	4,378	6,225	42%	6,323	2%	6,363	2%
	Avg. Speed (kph)	25.9	23.3	-10%	23.2	0%	23.1	-1%
Blaby	Vehicle Distance (veh-km)	288,701	340,307	18%	340,731	0%	342,521	1%
	Vehicle Delay-Time (veh-hours)	1,636	2,773	70%	2,825	2%	2,896	4%
	Avg. Speed (kph)	52.6	45.2	-14%	44.9	-1%	44.5	-2%
Leicestershire	Vehicle Distance (veh-km)	2,154,787	2,759,407	28%	2,784,608	1%	2,789,862	1%
	Vehicle Delay-Time (veh-hours)	11,485	18,236	59%	18,853	3%	19,023	4%
	Avg. Speed (kph)	50.1	46.5	-7%	46.1	-1%	46.0	-1%