



Title: Hawkwell Village, Bicester
Bicester Road Network Junction Impact Assessment
Technical Note 11 v3
Date: February 2023

1.0 Introduction

- 1.1.1 Jubb has been commissioned by Hallam Land Management Ltd (HLM) to provide highways and transportation advice in relation to a proposal for a residential-led mixed use development on land north-east of the railway line in North West Bicester - 'Hawkwell Village'.
- 1.1.2 A planning application (Ref: 21/04275/OUT) was submitted in December 2021 for a residential led mixed use development for up to 3,100 dwellings.
- 1.1.3 A previous application (14/01384/OUT), comprising of a residential led mixed use development of up to 2,600 dwellings, received the benefit of a resolution to grant planning permission; however, no section 106 was agreed.
- 1.1.4 The main thrust of the submitted Transport Assessment to support the new application is that whilst permission is being sought for 500 dwellings more than in 2014, total trip generation would be similar, due to a general lowering of trip generation per dwelling between 2014 and 2019, the effect of the Covid-19 pandemic on working practices, the internalisation of trips due to the provision of other land uses, the marketing of a robust Travel Plan and the provision of mobility hubs, a public transport contribution and off-site active travel route improvements.
- 1.1.5 Oxfordshire County Council (OCC) requested the use of the updated Bicester Transport Model (BTM), managed by Tetra Tech on behalf of OCC, to inform the traffic assessment of the Hawkwell Village (HV) development.
- 1.1.6 The recently adopted OCC Local Transport and Connectivity Plan (LTCP) recognises that road schemes often generate new demand and quickly reach capacity again and that therefore, increasing junction capacity is not a sustainable long-term solution for Oxfordshire's transport network. The focus for the future is to improve connections and movement by walking, cycling and public transport to encourage modal shift.
- 1.1.7 Policy 36 of the LTCP states:

We will:

a. Only consider road capacity schemes after all other options have been explored.

b. Where appropriate, adopt a decide and provide approach to manage and develop the county's road network.

c. Assess opportunities for traffic reduction as part of any junction or road route improvement schemes.

d. Require transport assessments accompanying planning applications for new development to follow the County Council's 'Implementing 'Decide & Provide': Requirements for Transport Assessments' document.

e. Promote the use of the 'decide and provide' approach in planning policy development to support site assessment.

1.1.8 The OCC 'Implementing Decide & Provide': Requirements for Transport Assessments states:

"As outlined in the LTCP, 'predict and provide' can be broadly described as an approach to transport planning that uses current or historical traffic patterns to determine the future need for infrastructure. However, this approach tends to simply maintain the status quo by perpetuating dependence on the private car through provision of additional highway capacity.

By contrast, the 'decide and provide' approach to transport planning decides on a preferred vision of the future and then provides the means to work towards that whilst also accommodating uncertainty about the future. This offers the opportunity for more positive transport planning and will help to implement the LTCP transport user hierarchy by considering walking, cycling and public transport upfront."

1.1.9 Hawkwell Village forms part of the North West Bicester allocation and is designed with active travel at the top of the hierarchy of travel options. It will provide walkable neighbourhoods to the proposed on-site services and facilities linked by new footways and cycleways which will extend beyond the development to form high-quality links with existing neighbourhoods, the town centre and railway stations. The development will provide a considerable contribution to enable a high frequency, high quality bus service to be delivered enabling convenient access to the town centre, railway stations and services and facilities available within Bicester. The development will deliver a main mobility hub supported by satellite mobility hubs to enable the new community to easily access the public transport provision and the cycle network through the provision of high-quality bus stops and e-bike/e-scooter hire facilities. The proposals will deliver a Decide and Provide vision, through the provision of on-site employment and everyday services and facilities which will enable residents to live, work and play in a community where internal journeys can be undertaken by sustainable modes of transport and where a mode choice is available for external journeys to be undertaken without reliance on the private car.

1.1.10 This Technical Note (TN) provides the turning movement outputs from the BTM and the assessment of the percentage impact at the junctions within the OCC network along with commentary as to the need to undertake individual junction capacity modelling.

1.1.11 It should be noted that this revised TN uses the revised turning movements provided by Tetra Tech (26th January 2023). It is understood that an issue was identified requiring the demand model to be altered which led to the 2026 and 2031 'with development' scenarios to be rerun.

2.0 Bicester Transport Model Turning Movement Data

2.1.1 The BTM model runs included the following scenarios:

- 2031 Base;
- 2031 Base + Committed;
- 2031 Base + Committed + Development 1a (BTM traffic generation); and
- 2031 Base + Committed + Development 1b (Agreed 'Decide & Provide' (D&P) trip generation).

2.1.2 **Figure 2.1** visually represents the junctions for which turning movements from the BTM were extracted.

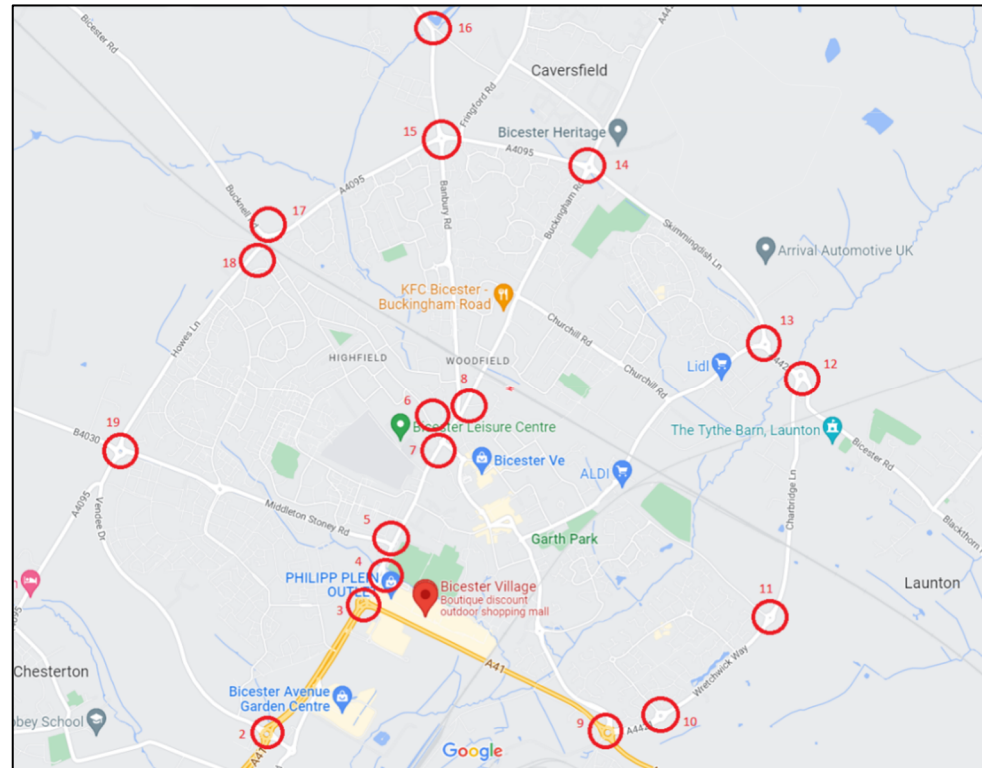


Figure 2.1 – Junction Locations and Reference Numbers

2.1.3 The extracted turning movements are attached at **Appendix A**.

3.0 Junction Percentage Impact Assessment

3.1.1 **Table 3.1** sets out the calculated percentage impact assessment of the Proposed Development on individual junctions and each arm of the junction along with commentary as to the need to undertake individual junction capacity testing. The assessment compares the percentage impact of Developments 1a and 1b against the Base + Committed scenario.

Ref	Junction	Arm	2031 + Dev 1a		Year 2031 + Dev 1b		Comments
			AM	PM	AM	PM	
2	A41 Oxford Road / Vendee Drive roundabout	A41 (N)	-2%	2%	-2%	1%	The percentage increases at this junction and on each of its arms are below the expected changes in daily traffic flows (10%) and the environmental impact with sensitive receptors assessment criteria (10%). Junction capacity assessment not required.
		Unlabelled Rd	4%	1%	3%	1%	
		A41 (S)	0%	-1%	0%	-1%	
		Park & Ride	0%	-1%	0%	-1%	
		Vendee Drive	4%	2%	3%	2%	
		Total	1%	1%	1%	0%	
3	A41 / B4030 Oxford Road signalised roundabout	Oxford Rd	0%	-1%	0%	-1%	Traffic movements through this junction and on each of its arms is reduced or remains at the same level with the exception of a 1% increase in traffic flows on the A41(E) arm in the AM peak hour. Junction capacity assessment not required.
		A41 (E)	0%	1%	0%	0%	
		A41 (S)	0%	0%	0%	0%	

Ref	Junction	Arm	2031 + Dev 1a		Year 2031 + Dev 1b		Comments
			AM	PM	AM	PM	
		Unlabelled Rd (W)	0%	0%	0%	0%	
		Total	0%	0%	0%	0%	
4	A41 Oxford Road / Pingle Drive signal junction	B4030 Oxford Road (N)	4%	3%	3%	3%	The percentage increases at this junction and on each of its arms are below the expected changes in daily traffic flows (10%) and the environmental impact with sensitive receptors assessment criteria (10%). Junction capacity assessment not required.
		Pingle Drive (E)	0%	0%	1%	0%	
		A41 Oxford Road (S)	1%	2%	0%	2%	
		Total	2%	2%	2%	2%	
5	Middleton Stoney Road / Kings End mini roundabout	Kings End (N)	3%	5%	4%	5%	The percentage increases at this junction and on each of its arms are below the expected changes in daily traffic flows (10%) and the environmental impact with sensitive receptors assessment criteria (10%). Junction capacity assessment not required.
		Oxford Road (S)	1%	2%	0%	2%	
		Middleton Stoney Road (W)	2%	0%	-1%	-1%	
		Total	2%	2%	1%	2%	
6	Field Street / Bucknell Road priority junction	Field Street (N)	-1%	-3%	-1%	-4%	The majority of traffic movements are reduced with minimal impact on the overall traffic flows through the junction. Where there are increases in traffic flow the percentage impact is below the expected changes in daily traffic flows (10%) and the environmental impact with sensitive receptors assessment criteria (10%). Junction capacity assessment not required.
		Field Street (S)	2%	5%	1%	4%	
		Bucknell Road (W)	-11%	8%	-4%	7%	

Ref	Junction	Arm	2031 + Dev 1a		Year 2031 + Dev 1b		Comments
			AM	PM	AM	PM	
		Total	-1%	1%	-1%	1%	
7	Queens Avenue / St John's Street mini roundabout	Field Street (N)	6%	2%	5%	1%	<p>The percentage increases at this junction and on the majority of its arms are below the expected changes in daily traffic flows (10%) and the environmental impact with sensitive receptors assessment criteria (10%).</p> <p>There is an impact of 17% (BTM) and 16% (D&P) on the St John's Street (E) arm in the PM peak hour. Therefore, this junction should be modelled to understand if the junction is/will operate within capacity. If there is an unacceptable impact due to the traffic associated with the Hawkwell Village development it is proposed that a proportionate contribution (based on the proportionate impact of all cumulative development) is provided to meet the town centre modifications that are discussed within the Oxfordshire Local Transport and Connectivity Plan (LTCP).</p>
		St John's Street (E)	3%	17%	1%	16%	
		Queens Avenue (S)	0%	0%	0%	0%	
		Total	3%	5%	2%	4%	
8	Banbury Road / Field Street mini roundabout	Buckingham Road (N)	2%	-11%	-1%	-5%	<p>The impact on the operation of this junction is mainly positive. There is an impact of 12% on the Banbury road (W) arm in the PM peak hour. Therefore, this junction should be modelled to understand if the junction is/will operating within capacity. If there is an unacceptable impact due to the traffic associated with the Hawkwell Village development it is proposed that a proportionate contribution (based on the proportionate impact of all cumulative development) is provided to meet the town centre modifications that are discussed within the Oxfordshire Local Transport and Connectivity Plan (LTCP).</p>
		Field Street (S)	-9%	-1%	1%	5%	
		Banbury Road (W)	6%	12%	0%	1%	
		Total	-3%	-3%	0%	1%	
9	A41 / A4421 / B4100 /	B4100 London Rd	-1%	0%	-1%	-1%	Traffic movements through this junction and on each of its arms is reduced or remains at the same level with the exception of a 1% (BTM)

Ref	Junction	Arm	2031 + Dev 1a		Year 2031 + Dev 1b		Comments
			AM	PM	AM	PM	
	Gravenhill Road roundabout	A4421	1%	1%	0%	0%	increase in traffic flows on the A4421 and A41(SE) arms in the AM peak hours. Junction capacity assessment not required. not required.
		A41 (SE)	1%	-1%	0%	-1%	
		Gravenhill Road	0%	1%	-1%	0%	
		A41 (NW)	0%	0%	0%	0%	
		Total	0%	0%	0%	0%	
10	A4421 / Peregrine Way roundabout	Peregrine Way (N)	0%	1%	0%	0%	The percentage increases at this junction and on each of its arms are below the expected changes in daily traffic flows (10%) and the environmental impact with sensitive receptors assessment criteria (10%). Junction capacity assessment not required.
		A4421 (E)	3%	3%	1%	1%	
		A4421 (W)	1%	0%	1%	0%	
		Total	1%	1%	0%	0%	
11	Wretchwick Way / Charbridge Lane / Gavray Drive roundabout	Charbridge Lane (N)	4%	2%	3%	1%	The impact on the operation of this junction and the majority of its arms are below the expected changes in daily traffic flows (10%) and the environmental impact with sensitive receptors assessment criteria (10%). There is an impact of 14% (BTM) and 13% (D&P) on the Gavray Drive (W) arm in the PM peak hour. This junction will form a strategic access to the Bicester 12 allocation where there will be significant employment opportunities. It is not considered that Hawkwell Village should be contributing to a mitigation scheme at this junction as it is the
		SE Bicester Access Road	-1%	4%	0%	3%	
		Wretchwick Way	1%	1%	0%	0%	
		Gavray Drive (W)	1%	14%	0%	13%	

Ref	Junction	Arm	2031 + Dev 1a		Year 2031 + Dev 1b		Comments
			AM	PM	AM	PM	
		Total	2%	3%	1%	2%	provision of the employment that attracts the traffic. Junction capacity assessment not required.
12	A4421 / Bicester Road roundabout	Bicester Road (E)	0%	2%	-1%	1%	The percentage increases at this junction and on each of its arms are below the expected changes in daily traffic flows (10%) and the environmental impact with sensitive receptors assessment criteria (10%). Junction capacity assessment not required.
		Charbridge Lane (S)	1%	4%	1%	3%	
		A4421 (W)	4%	2%	3%	0%	
		Total	2%	3%	1%	2%	
13	A4421 / Launton Road / Skimmingdish Lane roundabout	Skimmingdish Lane (N)	2%	6%	1%	3%	The percentage increases at this junction and on each of its arms are below the expected changes in daily traffic flows (10%) and the environmental impact with sensitive receptors assessment criteria (10%). Junction capacity assessment not required.
		Wyndham Hall (E)	0%	0%	0%	0%	
		A4421 (S)	0%	4%	0%	3%	
		Launton Road (W)	0%	-2%	-1%	-2%	
		Total	1%	3%	0%	1%	
14	A4421 / Skimmingdish Lane / Buckingham	A4421 (N)	0%	1%	0%	0%	The percentage increases at this junction and on each of its arms are below the expected changes in daily traffic flows (10%) and the environmental impact with sensitive receptors assessment criteria (10%). Junction capacity assessment not required.
		Skimmingdish Lane (E)	1%	4%	0%	3%	

Ref	Junction	Arm	2031 + Dev 1a		Year 2031 + Dev 1b		Comments
			AM	PM	AM	PM	
	Road / A4095 roundabout	Buckingham Road (S)	0%	1%	-1%	2%	
		A4095 (W)	7%	3%	4%	2%	
		Total	2%	3%	1%	2%	
15	B4100 Banbury Road / A4095 Lords Lane roundabout	B4100 (N)	-2%	11%	-1%	11%	The percentage increases at this junction and on each of its arms are below the expected changes in daily traffic flows (10%) and the environmental impact with sensitive receptors assessment criteria (10%). There are impacts above 10% on several arms in the AM and PM peaks. Planning permission has been granted (Ref: 21/02457/OCC) and works are expected to commence Summer 2023 for the signalisation of the junction to relieve congestion, accommodate the NW Bicester development and improve cycle and pedestrian links to and from the NW Bicester development and Bicester. Further junction capacity assessment not required.
		A4095 (E)	-2%	4%	-3%	4%	
		Banbury Road (S)	7%	29%	5%	21%	
		A4095 (W)	29%	-5%	16%	-10%	
		Total	4%	8%	2%	5%	
16	B4100 / Caversfield priority junction	B4100 (N)	3%	10%	2%	9%	The impact on the operation of the junction is below the expected changes in daily traffic flows (10%) and the environmental impact with sensitive receptors assessment criteria (10%). There is a significant percentage increase on the Aunt Ems Lane arm in the PM peak hour. However, the existing traffic flow is low (66 vehicles during the peak hour), and it is not considered that the increase in traffic flow will have a detrimental effect on the operation of the junction. OCC did not request an assessment of this junction by the Firethorn development and any junction improvements would increase its attractiveness. As was accepted within the 2014 application, it is proposed to provide traffic calming/contribution towards traffic calming
		Aunt Ems Lane (E)	7%	67%	3%	69%	
		B4100 (S)	13%	0%	8%	-1%	
		Total	6%	7%	4%	6%	

Ref	Junction	Arm	2031 + Dev 1a		Year 2031 + Dev 1b		Comments
			AM	PM	AM	PM	
							through the Caversfield village to deter traffic using this route. Further junction capacity assessment not required.
17	A4095 Lords Lane / Bucknell Road roundabout	Bucknell Road (N)	0%	1%	0%	1%	The impact on the operation of this junction and the majority of its arms are below the expected changes in daily traffic flows (10%) and the environmental impact with sensitive receptors assessment criteria (10%). There is an increase in vehicle movements on the A4095 (E) arm in the AM peak hour of 22% (BTM). A mitigation scheme (signalisation) set out in Jubb TN10 provides suitable mitigation for full build out of development. In addition the proposed improvements to the cycleway alongside the railway line will improve modal shift within Bicester with a positive impact at this junction.
		A4095 (E)	22%	0%	10%	-2%	
		Bucknell Road (S)	-1%	1%	-3%	0%	
		Total	0%	1%	0%	1%	
18	Howes Lane / Bucknell Road priority junction	Bucknell Road (N)	21%	0%	9%	-2%	A mitigation scheme (signalisation) set out in Jubb TN10 provides suitable mitigation for full build out of development. In addition the proposed improvements to the cycleway alongside the railway line will improve modal shift within Bicester with a positive impact at this junction.
		Bucknell Road (S)	3%	2%	-1%	0%	
		Howes Lane (W)	-9%	-3%	-8%	-1%	
		Total	21%	0%	9%	-2%	
19	Howes Lane / Middleton Stoney Road / Vendee Road roundabout	Howes Lane (N)	11%	9%	10%	5%	The impact on the operation of this junction and the majority of its arms is below the expected changes in daily traffic flows (10%) and the environmental impact with sensitive receptors (10%). There is an impact of 11% on the Howes Lane (N) arm in the AM peak hour.
		Middleton Stoney Road (E)	3%	5%	2%	4%	
		Vendee Drive (S)	0%	4%	-3%	3%	

Ref	Junction	Arm	2031 + Dev 1a		Year 2031 + Dev 1b		Comments
			AM	PM	AM	PM	
		B4030 (W)	0%	2%	-1%	1%	It is considered that the improvements to the cycleway alongside the railway line will improve modal shift within Bicester with a positive impact at this junction. Junction capacity assessment not required.
		Total	4%	5%	2%	3%	
21	Middleton Road / Bainton Road priority junction	Ardley Road (N)	5%	27%	0%	18%	Whilst the traffic associated with the development is expected to increase by 24% (BTM) in the PM peak the base traffic flows through this signalised junction are low (562 vehs) and the additional vehicles will not impact on the operation of the junction in terms of capacity. On the Bainton Road (E) arm where a 71% increase in traffic flows is predicted in the AM peak the base flow is only 82 vehicles. Appendix B of Jubb TN05 presented an indicative traffic calming scheme for Bucknell village and Bucknell Road which would discourage use of this route. Junction capacity assessment not required.
		Bainton Road (E)	71%	25%	33%	25%	
		Bicester Road (S)	-15%	30%	-6%	12%	
		Middleton Road (W)	7%	18%	0%	13%	
		Total	8%	24%	2%	15%	

Table 3.1: Percentage Impact of Traffic Generated by Hawkwell Village at Junctions on the Bicester Network

4.0 Summary

4.1.1 **Table 3.1** has summarised the data output from the BTM showing a percentage impact of both the BTM and the D&P vehicle flows through each junction as a whole and on individual arms. Commentary on the need to undertake individual junction capacity assessment is provided and OCC are invited to provide a response to the assessment, with consideration to the proposed off-site active travel improvements that the proposal will provide/contribute to and Policy 36 of the recently adopted LTCP,

North West Bicester – Hawkwell Village

20300

Appendix A BTM Output

PCU Summary

Ref	Junction	Arm	Year 2031 Base			Year 2031 Base + Committed			Year 2031 + Dev 1a			Year 2031 + Dev 1b			Year 2031 + Dev 1a % Change on Base + Committed		Year 2031 + Dev 1b % Change on Base + Committed	
			AM	Inter	PM	AM	Inter	PM	AM	Inter	PM	AM	Inter	PM	AM	PM	AM	PM
1	M40 Junction 9	M40 (N)	2037	1900	2361	2045	1902	2366	2049	1898	2370	2044	1898	2370	0%	0%	0%	0%
		A41	1435	1104	1305	1441	1124	1311	1443	1117	1291	1443	1117	1293	0%	-2%	0%	-1%
		M40 (S)	521	450	960	524	444	963	523	438	964	523	438	965	0%	0%	0%	0%
		A34	3789	3189	3676	3790	3195	3672	3789	3192	3659	3789	3192	3659	0%	0%	0%	0%
		Total	7783	6644	8302	7800	6644	8312	7804	6645	8284	7798	6645	8288	0%	0%	0%	0%
2	A41 Oxford Road / Vendee Drive roundabout	A41 (N)	1088	945	1407	1103	946	1422	1085	928	1444	1085	928	1431	-2%	2%	-2%	1%
		Unlabelled Rd	411	322	478	414	324	483	429	327	488	427	327	487	4%	1%	3%	1%
		A41 (S)	1353	1179	1358	1357	1179	1361	1355	1167	1353	1354	1167	1354	0%	-1%	0%	-1%
		Park & Ride	11	2	8	11	2	8	11	2	8	11	2	8	0%	-1%	0%	-1%
		Vendee Drive	960	466	863	966	469	873	1034	501	897	1028	501	895	4%	2%	3%	2%
Total	3823	2912	3914	3880	2939	3948	3913	2924	3961	3904	2924	3965	1%	1%	1%	0%		
3	A41 / B4030 Oxford Road signalised roundabout	Oxford Rd	1426	1036	1151	1443	1051	1528	1449	1047	1511	1439	1047	1509	0%	-1%	0%	-1%
		A41 (E)	1326	905	1108	1334	912	1283	1336	901	1291	1329	901	1285	0%	1%	0%	0%
		A41 (S)	1669	1300	1835	1669	1305	1916	1665	1298	1917	1666	1298	1915	0%	1%	0%	0%
		Unlabelled Rd (W)	110	108	48	110	108	89	110	108	89	110	108	89	0%	0%	0%	0%
		Total	4532	3349	4142	4556	3377	4816	4560	3354	4808	4544	3354	4798	0%	0%	0%	0%
4	A41 Oxford Road / Pingle Drive signal junction	B4030 Oxford Road (N)	1501	921	1173	1512	936	1188	1567	954	1227	1555	954	1224	4%	3%	3%	3%
		Pingle Drive (E)	145	413	498	148	417	501	148	417	502	150	417	501	0%	0%	1%	0%
		A41 Oxford Road (S)	1081	933	1505	1095	945	1531	1103	938	1561	1096	938	1556	1%	2%	0%	2%
		Total	2727	2268	3177	2755	2297	3220	2818	2310	3290	2801	2310	3281	2%	2%	2%	2%
		Kings End (N)	1179	872	1075	1142	881	1092	1181	899	1145	1185	899	1141	3%	5%	4%	5%
5	Middleton Stoney Road / Kings End mini roundabout	Oxford Road (S)	1013	901	1421	1032	913	1448	1041	913	1476	1035	913	1471	3%	0%	2%	2%
		Middleton Stoney Road (W)	935	607	725	1005	631	737	1025	624	736	999	624	729	2%	0%	-1%	-1%
		Total	3128	2379	3221	3179	2424	3247	3247	2436	3357	3220	2436	3341	2%	2%	1%	2%
		Field Street (N)	918	789	920	883	801	927	876	821	897	871	821	893	-1%	-3%	-1%	-4%
		Field Street (S)	778	755	1090	827	755	1099	840	778	1143	834	778	1143	2%	5%	1%	4%
6	Field Street / Bucknell Road priority junction	Bucknell Road (W)	135	87	90	143	89	90	127	89	97	137	89	96	-11%	8%	-4%	7%
		Total	1831	1630	2100	1853	1644	2116	1843	1687	2145	1842	1687	2133	-1%	1%	-1%	1%
		Field Street (N)	951	775	909	915	786	923	966	804	939	957	804	933	6%	2%	5%	1%
		St John's Street (E)	650	651	630	666	646	636	683	671	747	673	671	740	3%	17%	1%	16%
		Queens Avenue (S)	842	694	1032	880	708	1043	881	713	1046	883	713	1043	0%	0%	0%	0%
7	Queens Avenue / St John's Street mini roundabout	Total	2443	2120	2572	2461	2140	2602	2531	2188	2732	2513	2188	2716	3%	5%	2%	4%
		Buckingham Road (N)	509	536	696	504	540	699	515	422	623	498	538	664	2%	-11%	-1%	-5%
		Field Street (S)	747	660	1003	804	662	1008	728	618	998	811	687	1057	-9%	-1%	1%	5%
		Banbury Road (W)	411	256	230	382	264	234	404	279	263	384	287	235	6%	12%	0%	1%
		Total	1667	1452	1929	1690	1466	1941	1647	1319	1884	1693	1511	1957	-3%	-3%	0%	1%
8	Banbury Road / Field Street mini roundabout	B4100 London Rd	246	198	496	249	199	508	246	213	508	247	213	502	-1%	0%	-1%	-1%
		A4421	615	330	474	626	334	482	632	318	487	627	318	484	1%	1%	0%	0%
		A41 (SE)	783	565	940	782	568	945	786	560	937	780	560	937	1%	-1%	0%	-1%
		Gravenhill Road	322	209	259	333	212	260	334	212	262	331	212	260	0%	1%	-1%	0%
		A41 (NW)	1343	954	1369	1362	964	1373	1358	960	1370	1358	960	1368	0%	0%	0%	0%
9	A41 / A4421 / B4100 / Gravenhill Road roundabout	Total	3062	2057	3042	3104	2078	3060	3110	2050	3056	3095	2050	3049	0%	0%	0%	0%
		Peregrine Way (N)	494	155	230	503	157	232	503	157	234	501	157	232	0%	1%	0%	0%
		A4421 (E)	336	270	367	347	275	375	356	262	384	351	262	380	3%	3%	1%	1%
		A4421 (W)	446	461	824	473	468	830	479	474	833	476	474	830	1%	0%	1%	0%
		Total	1276	887	1421	1324	900	1437	1338	894	1451	1328	894	1443	1%	1%	0%	0%
10	A4421 / Peregrine Way roundabout	Charbridge Lane (N)	1076	608	1028	1103	626	1040	1148	644	1058	1136	644	1045	4%	2%	3%	1%
		SE Bicester Access Road	428	319	688	462	323	696	459	329	722	461	329	717	-1%	-2%	4%	3%
		Wretchwick Way	606	427	554	644	435	560	652	446	563	647	446	560	1%	1%	0%	0%
		Gavray Drive (W)	130	82	100	137	83	108	138	70	124	136	70	122	1%	14%	0%	13%
		Total	2241	1437	2378	2346	1467	2403	2397	1489	2468	2380	1489	2443	2%	3%	1%	2%
11	Wretchwick Way / Charbridge Lane / Gavray Drive roundabout	Bicester Road (E)	443	256	342	461	257	339	461	257	346	457	257	342	0%	0%	-1%	1%
		Charbridge Lane (S)	915	696	1209	987	709	1220	998	736	1270	995	736	1257	1%	4%	1%	3%
		A4421 (W)	1329	765	1279	1351	791	1292	1404	821	1313	1389	821	1295	4%	2%	3%	0%
		Total	2687	1717	2830	2799	1757	2850	2863	1815	2929	2841	1815	2894	2%	3%	1%	2%
		Skimmingdish Lane (N)	1383	631	1064	1390	664	1091	1419	728	1122	1408	728	1122	2%	6%	1%	3%
12	A4421 / Bicester Road roundabout	Wyndham Hall (E)	15	13	27	15	13	27	15	13	27	15	13	27	0%	0%	0%	0%
		A4421 (S)	1194	812	1403	1281	826	1409	1283	856	1467	1279	856	1450	0%	4%	0%	3%
		Launton Road (W)	693	636	1096	706	655	1101	708	676	1075	698	676	1081	0%	-2%	-1%	-2%
		Total	3285	2091	3589	3392	2157	3628	3425	2273	3721	3399	2273	3680	1%	3%	0%	1%
		A4421 (N)	1346	574	1031	1358	576	1040	1356	598	1050	1356	598	1040	0%	1%	0%	0%
13	A4421 / Skimmingdish Lane roundabout	Skimmingdish Lane (E)	782	626	1474	878	656	1499	890	713	1561	877	713	1545	1%	4%	0%	3%
		Buckingham Road (S)	451	285	375	455	281	373	453	275	377	451	275	381	0%	1%	-1%	2%
		A4095 (W)	1154	617	997	1164	661	1034	1241	736	1066	1215	736	1052	7%	3%	4%	2%
		Total	3734	2102	3878	3855	2174	3946	3940	2322	4053	3900	2322	4018	2%	3%	1%	2%
		B4100 (N)	1237	530	857	1239	618	924	1209	813	1026	1222	813	1026	-2%	-11%	-1%	11%
14	B4100 Banbury Road / A4095 Lords Lane roundabout	A4095 (E)	1121	688	1309	1246	715	1337	1221	793	1393	1215	793	1388	-2%	4%	-3%	4%
		Banbury Road (S)	311	238	399	425	254	423	457	314	547	445	314	511	7%	29%	5%	21%
		A4095 (W)	527	363	648	540	361	658	695	305	627	627	305	592	29%	-5%	16%	-10%
		Total	3196	1819	3213	3451	1947	3342	3382	2225	3593	3508	2225	3516	4%	8%	2%	5%
		B4100 (N)	1059	483	784	1164	512	826	1194	547	906	1188	547	897	3%	10%	2%	9%
15	B4100 / Caversfield priority junction	Aunt Elms Lane (E)	127	29	61	160	32	66	171	37	110	166	37	111	7%	67%	3%	69%
		B4100 (S)	629	388	878	641	443	931	727	477	935	690	477	918	13%	0%	8%	-1%