Technical Note: A41 Corridor LinSig Model

Bicester Office Park		
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## 1.0 Introduction

- 1.1 Motion prepared the Transport Assessment supporting development proposals known as Bicester Office Park, to the east of the A41 Oxford Road in Bicester, Planning Ref 17/02534/OUT
- 1.2 The submitted Transport Assessment includes assessment of the A41 Corridor, between the Pingle Drive and Saxon Way junctions using the industry standard package for assessing signal-controlled junctions, LinSig.
- 1.3 Following submission of the planning application in December 2017, Motion received comments from Oxfordshire County Council (OCC) in relation to the modelling of the A41 Corridor and amended junction modelling was submitted in a Technical Note dated 23 August 2018. Following that Technical Note, OCC have requested that scope of the LinSig model be extended to include an existing pedestrian crossing on Oxford Road, north of the Pingle Drive junction
- 1.4 This Note summarises the results of the updated LinSig modelling of the A41 Corridor including the pedestrian crossing north of the Pingle Drive junction in comparison with the assessment presented in the previous Technical Note dated 23 August 2018.

## 2.0 LinSig Assessment

2.1 Table 2.1 below summaries the results of the LinSig assessment of the A41 corridor, as presented within the Technical Note dated 23 August 2018. The LinSig assessment is for the 2026 'With Development' scenario and includes the proposed highway improvement works at the Oxford Road/ Lakeview Drive junction as shown at Drawing 170211-08A, attached.

	AM Peak		PM Peak	
	DoS	Queue	DoS	Queue
Pedestrian Crossing	-	-	-	-
Oxford Road/ Pingle Drive	51.8%	-	64.5%	-
Esso Roundabout	88.4%	-	90.6%	-
Oxford Road/ Pioneer Way	78.3%	-	89.5%	-
Oxford Road/ Lakeview Drive	86.5%	-	82.2%	-
Oxford Road n/b (Ahead)	30.9%	4	58.7%	8
Oxford Road n/b (Ahead)	37.3%	6	64.5%	7
Oxford Road n/b (Ahead)	52.6%	21	66.5%	14
Oxford Road n/b (Ahead/Right)	86.2%	18	58.2%	5
Oxford Road s/b (Left/ Ahead)	86.5%	10	76.6%	14
Oxford Road s/b (Ahead)	69.9%	11	78.7%	24
Oxford Road s/b (Ahead)	74.8%	26	80.9%	12
Lakeview Drive (Left)	22.5%	4	82.2%	21
Lakeview Drive (Right)	51.7%	3	61.1%	11
Lakeview Drive (Right)	59.2%	4	64.9%	12

Table 2.1: Oxford Road Corridor – 2026 ' With Development' Operation



2.2 Following comments received from Oxfordshire County Council (OCC), the LinSig model has been extended to include the existing pedestrian crossing on Oxford Road, north of Pingle Drive. Table 2.2 summaries the LinSig assessment is for the 2026 'With Development' scenario including the pedestrian crossing. The assessment includes the proposed highway improvement works at the Oxford Road/ Lakeview Drive junction as shown at Drawing 170211-08A, attached.

	AM Peak		PM F	Peak
	DoS	Queue	DoS	Queue
Pedestrian Crossing	89.5%	2	73.7%	4
Oxford Road/ Pingle Drive	51.1%	-	64.5%	-
Esso Roundabout	88.4%	-	90.5%	-
Oxford Road/ Pioneer Way	78.3%	-	89.7%	-
Oxford Road/ Lakeview Drive	86.5%	-	84.3%	-
Oxford Road n/b (Ahead)	29.9%	4	58.2%	8
Oxford Road n/b (Ahead)	36.0%	6	63.1%	7
Oxford Road n/b (Ahead)	54.9%	21	68.3%	16
Oxford Road n/b (Ahead/Right)	86.2%	20	58.2%	5
Oxford Road s/b (Left/ Ahead)	86.5%	22	84.3%	15
Oxford Road s/b (Ahead)	68.1%	14	69.2%	22
Oxford Road s/b (Ahead)	76.7%	25	83.4%	14
Lakeview Drive (Left)	22.3%	3	82.9%	21
Lakeview Drive (Right)	49.8%	3	60.8%	11
Lakeview Drive (Right)	61.1%	4	65.3%	12

Table 2.2: Oxford Road Corridor – 2026 ' With Development' Operation including Pedestrian Crossing

- 2.3 The results of the updated junction modelling show that the pedestrian crossing is expected to operate within capacity in both peak periods and the inclusion of the pedestrian crossing with the model has no material effect on the operation of the adjacent junctions within the network.
- 2.4 Furthermore the reported northbound queue at the pedestrian crossing would be stored in the space currently available between the pedestrian crossing and the Pingle Drive, such that the operation of the pedestrian crossing does not affect the adjacent junctions. The updated junction modelling shows some minor changes in degree of saturation and reported queues as a result of LinSig reassignment and re-optimisation of signal timings but this does not have a material effect on the results of the modelling.
- 2.5 The updated junction modelling demonstrates that the proposed development would not have a material effect on the highway network or operation of the pedestrian crossing, subject to the proposed highway improvement works shown at Drawing 170211-08A, attached.

