

NW BICESTER

TECHNICAL NOTE: JUNCTION ASSESSMENT REVIEW

CLIENT: FIRETHORN TRUST

DATE: FEBRUARY 2021

INTRODUCTION

1. Velocity Transport Planning (VTP) has been commissioned by Firethorn Trust to provide highways and transport advice in support of an Outline Planning Application for the development of up to 550 dwellings on a site located to the north of Bicester, which forms part of the North West Bicester Eco-Town.
2. This proposed development will form part of the wider NW Bicester Eco-Town Masterplan, which is a 'zero-carbon' sustainable development providing a new community of up to 6,000 homes as well a new employment opportunities and attractive amenities on 390 hectares of land.
3. The NW Bicester Masterplan is supported by a Supplementary Planning Document (SPD), which sets out the key principles of the Eco-Town scheme. These include the overall access strategy by all modes of transport and the land use distribution. The SPD provides a guide for all planning applications across the wider NW Bicester Masterplan site and sets out a framework against which planning applications will be considered by the local planning authority.

SCOPING

4. VTP has engaged with Oxfordshire County Council (OCC) to confirm the scope of the transport assessment required for the site. OCC responded to the Transport Assessment Scoping Note and initial pre-app discussions in the formal pre-app response dated the 08th of December 2020. This response confirmed that the appropriate trip rates and distribution profile to be considered for the proposed development should be consistent with those identified for the Home Farm application (Planning Ref 18/00484/OUT).
5. The OCC response also noted that the Bicester Transport Model (BTM) has been updated since the submission of the Home Farm application and therefore OCC would be able to provide flows and uncertainty logs from the update BTM for consideration as part of the proposed Transport Assessment (TA) of the Firethorn Trust application.
6. OCC also confirmed that the financial contributions to off-site highway improvements expected from the application site are likely to be calculated in a similar approach to the S106 contributions that would have been sought for the Home Farm application. The contributions towards the Strategic Highway Link (A4095) that were secured for the recently consented Himley Village scheme (Planning Ref 14/02121/OUT) would also be relevant to the application site.
7. The Strategic Highway Link has been referenced in a number of different assessments and planning applications and was the subject of a standalone application (Planning Ref 14/01968/F) that was consented on the 21st of August 2019. This Technical Note (TN) will refer to TAs that have been prepared by other developments, consented or not, which will be appropriately referenced where applicable.
8. As part of the scoping process, OCC has confirmed that the following six junctions, as presented on **Figure 1**, will need to be assessed:
 - Junction 1 - A43/B4100 Baynards Green roundabout



NW BICESTER

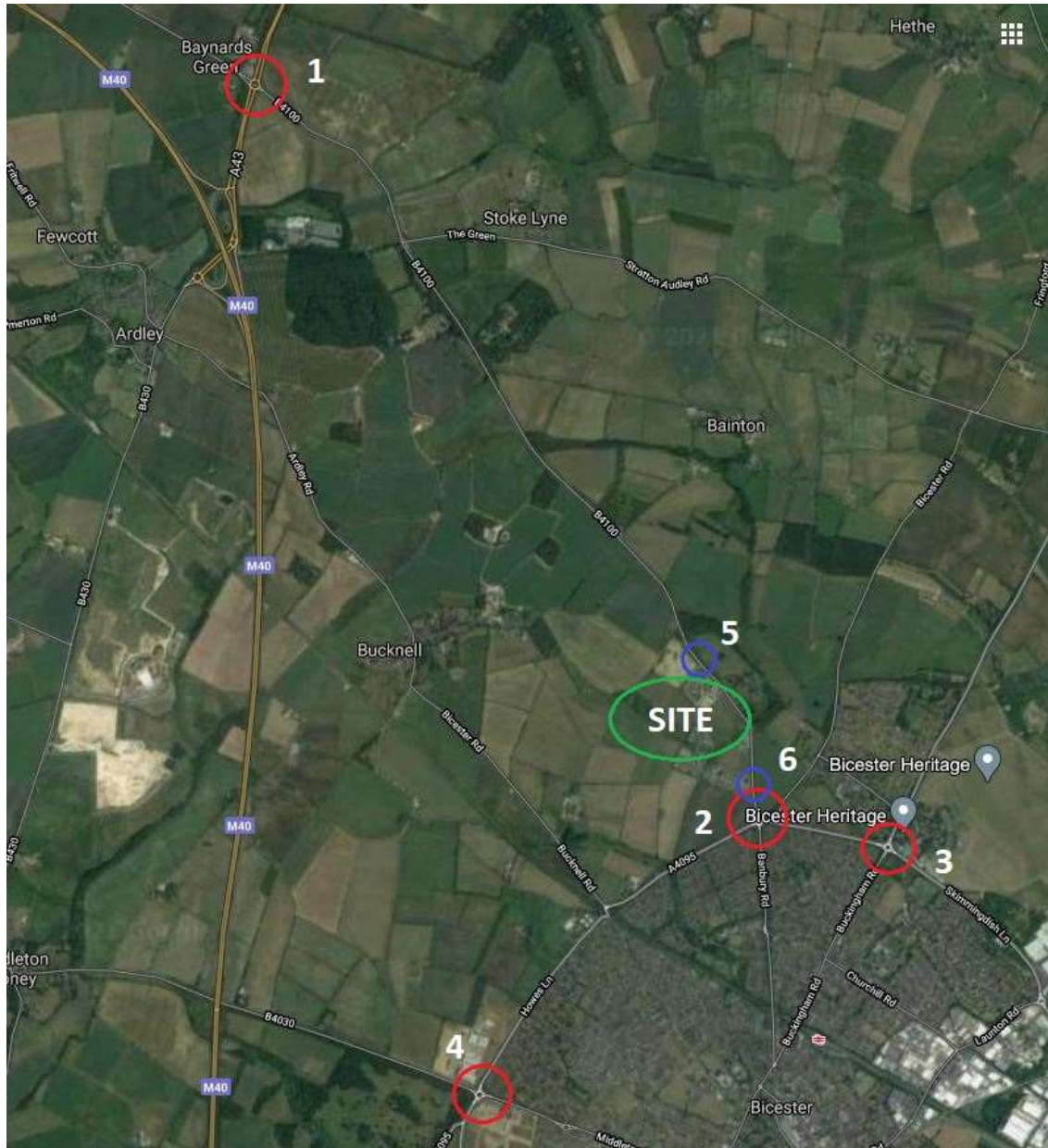
TECHNICAL NOTE: JUNCTION ASSESSMENT REVIEW

CLIENT: FIRETHORN TRUST

DATE: FEBRUARY 2021

- Junction 2 - B4100/A4095/Banbury Road roundabout
- Junction 3 - A4095/A4421/Skimmingdish Lane/Buckingham Road roundabout
- Junction 4 - A4095 Howes Lane/Vendee Drive/B4030/Middleton Stoney Road roundabout
- Junction 5 - B4100/Braeburn Avenue priority junction (Northern site access junction)
- Junction 6 - B4100/Charlotte Avenue priority junction (Southern site access junction)

Figure 1: Location of the Agreed Junctions to be Assessed



BICESTER TRANSPORT MODEL

9. Traffic data has been provided from the BTM for the agreed scenarios via Tetra Tech, who manage the BTM on behalf of OCC. These agreed scenarios were set out in correspondence between OCC, Tetra Tech and VTP in a series of emails. A copy of this correspondence is included at **Attachment 1** of this TN. In summary, the agreed scenarios that were obtained from the BTM are as follows:
 - 2016 Base
 - 2026 Kingsmere Reference Case
 - 2031 Do Minimum
10. The correspondence identifies that as the trip rates and distribution profile of the proposed development traffic associated with the application site have been agreed with OCC, in order to establish the likely impact of the proposed development, these development vehicle trips would simply be manually added to the scenarios obtained from the BTM as the brief to Tetra Tech was to exclude the 550 dwellings from the wider 6,000 units associated with the NW Bicester Masterplan. This is the same methodology that has been adopted for the numerous technical assessments that have been undertaken to date for permitted developments, including the Strategic Highway Link.
11. In order to present the traffic data associated with the proposed development and the BTM output scenarios, a series of traffic flow diagrams have been prepared for ease of reference. These traffic flows diagrams are included at **Attachment 2** and are summarised as follows:
 - **Diagram A** Proposed Development Distribution Profile
 - **Diagram B** Proposed Development Traffic Flows – AM Peak Hour
 - **Diagram C** Proposed Development Traffic Flows – PM Peak Hour
 - **Diagram D** 2016 Base Traffic Flows – AM Peak Hour
 - **Diagram E** 2016 Base Traffic Flows – PM Peak Hour
 - **Diagram F** 2026 Kingsmere Reference Case Traffic Flows – AM Peak Hour
 - **Diagram G** 2026 Kingsmere Reference Case Traffic Flows – PM Peak Hour
 - **Diagram H** 2031 Future Year Traffic Flows – AM Peak Hour
 - **Diagram I** 2031 Future Year Traffic Flows – PM Peak Hour
12. The BTM traffic data that we have recently obtained included the uncertainty logs, a summary of the inclusions in the Heyford Park Allocation (HPA) BTM scenarios, and an extract of the NW Bicester Zones with Dwellings in 2031 which are assumed to have been included within the 2031 Do Minimum scenario provided by Tetra Tech. This information is included at **Attachment 3** of this TN.

JUNCTION ASSESSMENT

13. Having obtained the traffic data from the BTM, which excludes any traffic flows associated with the proposed development of up to 550 dwellings, VTP have undertaken a review of the traffic data provided by Tetra Tech from the most recent version of the BTM. This traffic data has been compared with that which was included in the assessments of the identified junctions, particularly the assessments where mitigation for these junctions has already been agreed and the assessment of the full 6,000 dwellings associated with the NW Bicester Masterplan was included. It stands to reason that if the full 6,000 dwellings



were assessed as part of these previous applications, the traffic associated with the proposed application site would have been included as part of these previous assessments and within the agreed mitigation schemes as the application site forms part of the wider NW Bicester Masterplan.

Junction 1: A43/B4100 Baynards Green roundabout

14. This junction was most recently assessed as part of the Heyford Park application (Planning Ref 18/00825/HYBRID) for 1,600 dwellings and 1,500 jobs. The TA that supported this application was prepared by Peter Brett Associates (PBA) in April 2018 and whilst this application has a recommendation for approval, as referenced within the Report to Committee on the 05th November 2020, a planning permission has yet to be granted.
15. A review of the consultation responses to the application notes that both Highways England (HE) and OCC had concerns over the assessment of this junction, evidenced by the numerous consultation responses in relation to this aspect. These responses, particularly those from HE, requested that further technical assessments be undertaken at this junction in order to identify a satisfactory mitigation scheme that would address the impacts of not only the Heyford Park proposals, but those associated with the Committed Developments included within the traffic assessment. For info, the wider NW Bicester Masterplan was included within this assessment, and therefore so was the Firethorn Trust development of up to 550 dwellings.
16. Whilst the Cherwell District Council (CDC) planning portal does not include the further technical assessment and agreed mitigation for the Baynards Green roundabout, the Report to Committee notes that there were no objections to the application from either OCC or HE, subject to conditions and an agreed Section 106 Agreement. The Report to Committee notes at para 7.33 that on the 26th June 2020, HE replaced their objection by a recommendation for conditions and S106 contribution.
17. Subsequent correspondence with HE has established that the improvements to this junction include the signalisation of all arms and works to realign the roundabout arrangement. A copy of this agreed highway layout is included at **Attachment 4** of this TN.
18. As the A43 is part of the Strategic Road Network (SRN), but the B4100 is part of the local highway network, VTP are liaising separately with HE to agree how best to address the potential impacts of the proposed Firethorn Trust development. This TN has been prepared with a view to agreeing a similar methodology for establishing how best to address the potential impacts associated with the B4100.
19. It is expected that once the Heyford Park scheme does finalise the Section 106 Agreement and the level of contribution is identified that would be required to be made by the applicant of that scheme, a financial contribution could be agreed that would be based on the level of impact that the Firethorn Trust development would have at this junction (and on other parts of the SRN when it comes to agreeing the contributions with HE).
20. As a sensitivity test, **Table 1** sets out the level of traffic flows that were assessed at the Baynards Green roundabout that were set out within the PBA TA for the 2031 Test Case, which included the traffic



NW BICESTER

TECHNICAL NOTE: JUNCTION ASSESSMENT REVIEW

CLIENT: FIRETHORN TRUST

DATE: FEBRUARY 2021

associated with the wider NW Bicester Development. These future year flows have been compared with those that we have recently obtained from the BTM including the manually added flows associated with the 550 dwellings in accordance with the agreed trip rates and distribution profiles.

Table 1: Comparison of Flows at Junction 1

Baynards Green Roundabout	Traffic Flows		% Difference	
	AM	PM	AM	PM
PBA Traffic Flows – 2031	4,553	4,873		
BTM Traffic Flows – 2031	5,524	5,772	21.3%	18.4%
Prop Dev Traffic Flows	90	81		
BTM + Prop Dev – 2031	5,614	5,853	23.3%	20.1%

21. The above results identify that the traffic flows from the most recent BTM, including those associated with the proposed development, are in the order of 20% higher than those that were set out within the PBA TA. When considered in the context of the full NW Bicester development having been included within the assessment undertaken by PBA, a further assessment of this junction utilising the latest information, would undermine the agreed mitigation that has been identified.

Junction 2: B4100/A4095/Banbury Road roundabout

22. This junction has been assessed by a number of different applications and details of the existing operation of this junction as an unsignalised roundabout junction were set out within the Application 1 (Planning Ref 14/01384/OUT) TA prepared by Hyder in July 2014 and Application 2 (Planning Ref 14/01641/OUT) TA prepared by Hyder in September 2014.
23. The technical assessments set out within the Hyder TAs identified that in the future year of 2031 with the full NW Bicester development of 6,000 dwellings, which includes the Firethorn Trust development of up to 550 dwellings, the existing unsignalised roundabout junction of the B4100/A4095/Banbury Road will fail. As such, the Hyder TA identifies that the appropriate mitigation for this junction to accommodate the full NW Bicester development traffic flows in the future year of 2031 would be to signalise the roundabout. The results set out in Table 11-22 of the Hyder TAs identified that this mitigation would result in all of the approaches operating within capacity with the maximum degree of saturation (DoS) identified as being 88% on the A4095 (east) arm in the PM peak hour.
24. Whilst neither of the Hyder TAs included a layout plan of the proposed signalised junction improvement, the Application 2 Appendices do include the LinSig output files at Appendix 11.2. The CDC planning portal does not include all of the Appendices for the Application 1 TA, but as the results presented in the TAs that supported both the Application 1 and Application 2 submissions are identical, it must be assumed that the LinSig output files are also identical.
25. As a sensitivity test, **Table 2** sets out the level of traffic flows that were assessed at the B4100/A4095/Banbury Road roundabout that were set out within the Hyder TA that supported Application 1 for the 2031 Reference Case + Development, which included the traffic associated with the wider NW Bicester Development. It should be noted that as the flows were slightly lower in the Application 2



assessment, only those for Application 1 have been included, which is robust. This is considered appropriate as the 2,600 dwellings assessed in the Application 1 TA included the Firethorn Trust application site. The future year flows have been compared with those that we have recently obtained from the BTM including the manually added flows associated with the 550 dwellings in accordance with the agreed trip rates and distribution profiles.

Table 2: Comparison of Flows at Junction 2

Baynards Green Roundabout	Traffic Flows		% Difference	
	AM	PM	AM	PM
Hyder Application 1 Traffic Flows – 2031 Ref Case + Development	2,936	3,257		
BTM Traffic Flows – 2031	3,426	3,624	16.7%	11.3%
Prop Dev Traffic Flows	489	440		
BTM + Prop Dev – 2031	3,915	4,064	33.3%	24.8%

26. The above results identify that the traffic flows from the most recent BTM are in the order of 25% - 30% higher than those that were set out within the Hyder TA. When considered in the context of the full NW Bicester development having been included within the assessment undertaken by Hyder, a further assessment of this junction utilising the latest information, would undermine the agreed mitigation that has been identified.

Junction 3: A4095/A4421/Skimmingdish Lane/Buckingham Road roundabout

27. This junction has been assessed by a number of different applications and details of the existing operation of this junction as an unsignalised roundabout junction were set out within the Application TA prepared by Hyder in July 2014 and Application 2 TA prepared by Hyder in September 2014.
28. The technical assessments set out within the Hyder TAs identified that in the future year of 2031 with the full NW Bicester development of 6,000 dwellings, which includes the Firethorn Trust development of up to 550 dwellings, the existing unsignalised roundabout junction of the A4095/A4421/Skimmingdish Lane/Buckingham Road will fail. As such, the Hyder TA identifies that the appropriate mitigation for this junction to accommodate the full NW Bicester development traffic flows in the future year of 2031 would be to signalise the roundabout. The improved junction arrangement that was considered by Hyder also noted that in order to provide the appropriate mitigation for the signalised scheme, the diameter of the roundabout would have to be increased from 49m to 75m, which would require land outside of the highway boundary.
29. However, the Hyder TAs also noted that this junction forms part of the future eastern peripheral route being considered for improvement by OCC and that any improvements required for the future eastern periphery route would need to consider the wider NW Bicester Masterplan. It would be expected that all sites that are included within the NW Bicester Masterplan would have to contribute to this improvement scheme.



NW BICESTER

TECHNICAL NOTE: JUNCTION ASSESSMENT REVIEW

CLIENT: FIRETHORN TRUST

DATE: FEBRUARY 2021

30. As a sensitivity test, **Table 3** sets out the level of traffic flows that were assessed at the A4095/A4421/Skimmingdish Lane/Buckingham Road roundabout that were set out within the Hyder TA that supported Application 1 for the 2031 Reference Case + Development, which included the traffic associated with the wider NW Bicester Development. The future year flows have been compared with those that we have recently obtained from the BTM including the manually added flows associated with the 550 dwellings in accordance with the agreed trip rates and distribution profiles.

Table 3: Comparison of Flows at Junction 3

Baynards Green Roundabout	Traffic Flows		% Difference	
	AM	PM	AM	PM
Hyder Application 1 Traffic Flows – 2031 Ref Case + Development	3,716	3,902		
BTM Traffic Flows – 2031	3,806	4,095	2.4%	4.9%
Prop Dev Traffic Flows	103	93		
BTM + Prop Dev – 2031	3,909	4,188	5.2%	7.3%

31. The above results identify that the traffic flows from the most recent BTM are in the order of 5% higher than those that were set out within the Hyder TA. When considered in the context of the full NW Bicester development having been included within the assessment undertaken by Hyder, these flows could be considered to be within the normal level of daily fluctuation, generally accepted to be 10%. As such, the BTM data could be utilised to assess the operation of this junction. However, the details of the proposed mitigation that is to be considered by OCC as part of the eastern periphery route is not included within the Hyder TA.

Junction 4: A4095 Howes Lane/Vendee Drive/B4030/Middleton Stoney Road roundabout

32. This junction has been assessed by a number of the applications, but the most appropriate is considered to be the application for the Strategic Highway Link (Planning Ref 14/01968/F), which was granted planning permission on the 21st of August 2019. The TA that supported this application was prepared by Hyder in November 2014 and the Highway Layout Masterplan for the full extent of the A4095 NW Strategic Link Road is included at **Attachment 5**. For completeness, the Detailed General Arrangement of the southernmost junction, the A4095 Howes Lane/Vendee Drive/B4030/Middleton Stoney Road roundabout (Sheet 4 of 5) is also included at **Attachment 5**.
33. The Hyder TA confirms that the full 6,000 dwellings associated with NW Bicester have been included within the assessment of this Strategic Highway Link, which therefore implies that the Firethorn Trust development of up to 550 dwellings is also included within the assessment.
34. As a sensitivity test, **Table 4** sets out the level of traffic flows that were assessed at the southernmost junction of the A4095 Howes Lane/Vendee Drive/B4030/Middleton Stoney Road roundabout that were set out within the Hyder TA for the 2031 Do Something case, which included the traffic associated with the wider NW Bicester Development. These future year flows have been compared with those that we have recently obtained from the BTM including the manually added flows associated with the 550 dwellings in accordance with the agreed trip rates and distribution profiles.



Table 4: Comparison of Flows at Junction 4

A4095 Howes Lane/Vendee Drive/B4030/Middleton Stoney Road roundabout	Traffic Flows		% Difference	
	AM	PM	AM	PM
Hyder Traffic Flows – 2031	2,698	2,854		
BTM Traffic Flows – 2031	2,912	3,147	7.9%	10.3%
Prop Dev Traffic Flows	289	260		
BTM + Prop Dev – 2031	3,201	3,407	18.6%	19.4%

35. The above results identify that the traffic flows from the most recent BTM, including those associated with the proposed development, are in the order of 10%-20% higher than those that were set out within the Hyder TA. When considered in the context of the full NW Bicester development having been included within the assessment undertaken by Hyder for the now permitted and recently commenced Strategic Highway Link, a further assessment of this junction utilising the latest information, would undermine the agreed mitigation that has been identified.

Junction 5: B4100/Braeburn Avenue priority junction (Northern site access junction)

36. The most appropriate assessment of the northern site access junction was undertaken by Hyder in November 2010 in support of the Exemplar scheme (Planning Ref 10/01780/HYBRID). This scheme was consented on the 10th of July 2012 and it is accepted that the due to the fact that the technical work that was undertaken in 2010 is now dated, a more sensible approach to considering the compatibility of the BTM data to the assessment of this site access junction, should be considered by applying a first principles approach.
37. The traffic flow diagrams contained at **Attachment 2** of this TN include the proposed development flows based on agreed trip rates and distribution profile. Diagrams B and C present the turning movements for the AM and PM peak hours respectively for the Firethorn Trust development of up to 550 dwellings. Diagrams H and I present the turning movements for the AM and PM peak hours respectively that the BTM has considered for the permitted exemplar scheme. As there is no other development passing through this site access junction, the flows that have been provided can only be associated with the permitted development at the Exemplar scheme, identified as being 393 dwellings with other uses including a primary school, business centre, a public house, convenience store and some further A1 uses.
38. Due to the access arrangements for the Exemplar scheme, it is considered appropriate to compare the total traffic flows for both Junctions 5 and 6 together, which is set out in more detail below.

Junction 6: B4100/Charlotte Avenue priority junction (Southern site access junction)

39. As noted for Junction 5, the most appropriate assessment of the southern site access junction was undertaken by Hyder in November 2010 in support of the Exemplar scheme. Due to the configuration of the Exemplar scheme and the fact that Junctions 5 and 6 are the only means of access to both the Exemplar scheme and the proposed Firethorn Trust development, it is sensible to consider the traffic flows associated with both the site access junctions together.



NW BICESTER

TECHNICAL NOTE: JUNCTION ASSESSMENT REVIEW

CLIENT: FIRETHORN TRUST

DATE: FEBRUARY 2021

40. **Table 5** presents the 2031 traffic flows from the BTM Model that were recently provided by Tetra Tech for Junctions 5 and 6. These traffic flows should only include the full development of the Exemplar scheme as the brief to Tetra Tech was to exclude the proposed Firethorn Trust development of up to 550 dwellings.

Table 5: Exemplar Scheme Traffic Flows from the 2031 BTM Model

2031 BTM Data	AM			PM		
	Arr	Dep	Total	Arr	Dep	Total
Braeburn Ave Access	104	69	173	76	123	199
Charlotte Ave Access	365	159	524	179	160	339
Combined (Total Exemplar)	469	228	697	255	283	538

41. A review of the Hyder TA that supported the consented development at the Exemplar scheme set out the total traffic flows expected to be generated by the Exemplar scheme at Table 8.8 of the November 2010 TA. This included the arrival and departure trips for all of the land uses assessed and identified the total permitted traffic flows in the AM peak hour as being 269 two-way movements (the BTM data shows an increase of 428 two-way movements, which equates to approximately 159%) and the total permitted traffic flows in the PM peak hour as being 215 two-way movements (the BTM data shows an increase of 323 two-way movements, which equates to approximately 150.2%). Clearly the BTM traffic flows associated with the permitted development at the Exemplar scheme are excessively high and therefore not considered to be representative.
42. It is also worth noting that the BTM traffic flows present a distribution profile associated with the consented Exemplar scheme that is not consistent with that which OCC have agreed is to be used for the assessment of the Firethorn Development of up to 550 dwellings. This is evident by the fact that the predominant flow of traffic associated with the Exemplar scheme, as presented in the BTM data, is arriving at the site in the AM peak hour (469 total arrivals vs 228 total departures) and departing the site in the PM peak hour (255 total arrivals vs 283 total departures), when the predominant flows would be expected to be in the opposite directions for a primarily residential development.
43. As noted within this TN, when it comes to the assessment of the Firethorn Trust development of up to 550 dwellings, it is considered appropriate to undertake the assessment of the site access junctions at Braeburn Avenue and Charlotte Avenue on a first principles basis using the agreed trip rates and distribution for not only the proposed development, but the permitted development as well.

FURTHER CONSIDERATION OF THE BTM DATA

44. Whilst it is acknowledged that there are concerns with the data that has most recently been provided from the BTM, further consideration has been given to the uncertainty logs that were provided by Tetra Tech.
45. It is not considered appropriate to go through each item that is included within the uncertainty logs, but there are a few noticeable omissions that it is considered should be revisited. With regards the Residential Developments that have been included within the traffic data that we have been provided, it would appear that the NWB Eco-town Exemplar (ID Ref RES109) accounted for 303 dwellings in 2031. This should have included 393 dwellings, which would reflect the level of development that has been permitted. In addition,



the NWB Phase 2 (ID Ref RES110) accounted for 2,605 dwellings in 2031. This should have reflected a much higher level of development as the total NW Bicester Masterplan should have accounted for up to 6,000 dwellings less that which we are proposing to apply for. The combined NW Bicester developments appear to have only accounted for approximately 3,000 dwellings when 6,000 have been allocated. This is a substantial shortfall, which in turn would result in considerably higher traffic demand if the full level of development were to have been included within the BTM.

IDENTIFIED CONTRIBUTIONS TO OFF-SITE JUNCTION IMPROVEMENTS

46. In order to establish what level of contribution might be expected for each of the identified off-site highway junction improvements, a review of the agreed S106 contributions associated with permitted developments has been considered. Based on each of the junctions and associated permitted development, each of the junctions are considered separately.

Junction 1: A43/B4100 Baynards Green roundabout

47. The appropriate mitigation for Junction 1 has been agreed with HE as part of the Heyford Park application. However, whilst this development has a recommendation for approval, as set out in the Report to Committee dated the 05th November 2020, a planning consent has yet to be granted for this development.
48. Paragraph 9.73 of the Report to Committee notes that the agreed scheme will be subject to a financial contribution being agreed and set out within the S106. This S106 has not yet been published, nor has an indication of what this contribution might be, been provided to date.
49. VTP have engaged with HE and further details of what might be expected from the Firethorn Trust development been requested from HE both in terms of the financial contribution and the trigger that might be identified.

Junction 2: B4100/A4095/Banbury Road roundabout

50. The permitted development at Himley Village includes a signed Section 106 Agreement dated the 30th of January 2020 that identifies a total contribution of £356,591 (index linked) towards capacity improvements at the junction of the A4095 and the B4100. This is set out within Schedule 17 of the S106.
51. As the permitted development at Himley Village is for 1,700 dwellings, the level of agreed contribution associated with Junction 2 would equate to approximately £210 per dwelling.
52. When considered in the context of up to 550 dwellings, the potential contribution to Junction 2 that could be associated with the Firethorn Trust development could equate to approximately £115,500.

Junction 3: A4095/A4421/Skimmingdish Lane/Buckingham Road roundabout

53. It is noted that whilst a signalised improvement scheme was considered for Junction 3 as part of the TA that supported the Application 1 scheme, it was acknowledged that this junction forms part of the OCC scheme for the eastern periphery road, the details of which do not currently appear to be available. As



NW BICESTER

TECHNICAL NOTE: JUNCTION ASSESSMENT REVIEW

CLIENT: FIRETHORN TRUST

DATE: FEBRUARY 2021

such, further details of the proposed highway improvement scheme and the associated level of contribution are yet to be agreed with OCC.

Junction 4: A4095 Howes Lane/Vendee Drive/B4030/Middleton Stoney Road roundabout

54. The works to Junction 4 form part of the wider Strategic Highway Link and therefore should be considered in the context of the overall works for this new strategic link to the west of Bicester and not just in the context of the roundabout junction.
55. The permitted development at Himley Village includes details of the agreed contribution towards the Strategic Infrastructure, as set out in Schedule 20. The Major Infrastructure Contribution is identified as being paid in 4 instalments as follows:
 - 30% First Instalment
 - 40% First Instalment
 - 15% First Instalment
 - 15% First Instalment
56. Clause 3.1 of Schedule 20 notes that the First Instalment is to be paid on or before the occupation of any development at the site in the order of £3,000,000. As the First Instalment is 30% of the total Estimate of the contribution, this would equate to £10,000,000 towards the Strategic Infrastructure.
57. As the permitted development at Himley Village is for 1,700 dwellings and the level of agreed contribution associated with the Strategic Infrastructure is identified as being in the order of £10,000,000, this would equate to approximately £5,882.35 per dwelling. It should be noted that this contribution to the Strategic Infrastructure appears to include any contributions to Network Rail.
58. When considered in the context of up to 550 dwellings, the potential contribution to the Strategic Infrastructure (which includes Junction 4) that could be associated with the Firethorn Trust development could equate to approximately £3,235,295.

TRIGGERS IDENTIFIED IN THE BTM DATA

59. The uncertainty logs identify when agreed infrastructure schemes have been included within the BTM. There are 4 off-site junctions that OCC have requested are to be assessed and these are summarised as follows in **Table 6**.

Table 6: Exemplar Scheme Traffic Flows from the 2031 BTM Model

	2021	2026	2031
Junction 1	N/A	N/A	N/A
Junction 2 (ID Inf110)	Excluded	Included	Included
Junction 3	N/A	N/A	N/A
Junction 4 (ID Inf 109)	Included	Included	Included

60. The above shows that the proposed improvements to Junctions 2 (B4100/A4095/Banbury Road roundabout) and Junction 4 (A4095 Howes Lane/Vendee Drive/B4030/Middleton Stoney Road



NW BICESTER

TECHNICAL NOTE: JUNCTION ASSESSMENT REVIEW

CLIENT: FIRETHORN TRUST

DATE: FEBRUARY 2021

roundabout) have been included in the BTM model. However, Junction 1 (A43/B4100 Baynards Green roundabout) and Junction 3 (A4095/A4421/Skimmingdish Lane/Buckingham Road roundabout) have not been included within the BTM.

61. Further consideration will have to be given to the triggers associated with the off-site highway improvements.

SUMMARY

62. The information contained within this Technical Note identifies that the traffic data contained within the 2016 Base, 2026 Kingsmere Reference Case, and the 2031 Do Minimum scenarios that have been obtained from the latest revision of the Bicester Transport Model, is not considered to be appropriate to assess the potential impacts of the proposed Firethorn Trust development of up to 550 dwellings.
63. VTP request that OCC consider the use of historically accepted assessments of the identified off-site junctions that have been undertaken by accepted Transport Assessments utilising traffic data from previous versions of the BTM that included the full level of development associated with NW Bicester Masterplan of up to 6,000 dwellings, which includes the 550 dwellings associated with the application site.
64. This historical data is available for not only the identified junctions that are to be assessed, but also for the appropriate link roads that need to be considered as part of the Environmental Impact Assessment that will be set out within the Environmental Statement that will support the planning application for the Firethorn Trust development proposals of up to 550 dwellings.



Attachment 1:

Correspondence with Tetra Tech re the BTM

Mark Kirby

From: Pearson, Sacha <Sacha.Pearson@tetratech.com>
Sent: 15 February 2021 16:20
To: Cecilia Thordardottir; Mark Kirby
Cc: Matt Penn; Davis, Gabriel
Subject: RE: NW Bicester - BTM Data
Attachments: UncertaintyLog_Bicester 18update_FinalVersion4 Clean.pdf; Summary of Inclusions in HPA BTM (11-02-2021).pdf; NW Bicester - Zones with development in 2031.pdf

[EXTERNAL] This message was sent from outside your organization

Hi Cecilia

I've provided comments below in red and also attached a couple of documents setting out infrastructure and development inclusions in the scenarios.

The one thing I haven't detailed below is the question of whether or not the development you are working on is in the model or not. The attached uncertainty log details that 2605 dwellings have been included in the NWB Phase 2 development (Ref: Res110) in 2031, this being of the total 6000 homes that the local plan details could be provided on Bicester 1 (Local Plan reference). This represents the number of dwellings that Cherwell anticipated would be built by 2031 when the modelling was undertaken. So in theory if your development will be built by 2031 then it is in the model. However the 2605 is based simply on the anticipated build out trajectory and is not sub-development specific, so in terms of the model those dwellings were assigned to zones such that there was an even spread of traffic throughout the Bicester 1 area (the first plan on the attached plan). Looking specifically at the area where your development is (second plan on the attached), the area east of Charlotte Avenue has no dwellings while the area west of Charlotte Avenue has 180 dwellings, so in theory your site is partially in there.

Hope that makes sense? If you want to discuss at all just give me a call.

Kind regards

Sacha Pearson

Principal Transport Modeller

Tetra Tech

Executive Park, Avalon Way, Anstey, Leicester, Leicestershire, LE7 7GR

Tel: +44 116 234 8206

Mob: +44 781 175 7371

tetratecheurope.com

Tetra Tech Limited. Registered in England number: 1959704
Registered Office: 3 Sovereign Square, Sovereign Street, Leeds LS1 4ER VAT No: 431-0326-08.



Following Government guidance aimed at preventing the spread of COVID-19 the majority of our office based teams are working from home. We are fully enabled to work remotely so this will not impact on our service to our clients or our colleagues. However, we do require that all communications are sent to us electronically by email so that we will be in a position to receive and respond. Thank you for your co-operation.

This message contains confidential information and is intended only for the recipient. If you are not the recipient you should not disseminate, distribute or copy this e-mail. Please notify the sender immediately by e-mail if you have received this e-mail by mistake and delete this e-mail from your system. E-mail transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. The sender therefore does not accept liability for any errors or omissions in the contents of this message, which arise as a result of e-mail transmission. If verification is required please request a hard-copy version.

From: Cecilia Thordardottir <Cecilia@velocity-tp.com>

Sent: 09 February 2021 16:09

To: Pearson, Sacha <Sacha.Pearson@tetrattech.com>; Mark Kirby <mkirby@velocity-tp.com>

Cc: Matt Penn <mpenn@velocity-tp.com>; Davis, Gabriel <Gabriel.Davis@tetrattech.com>

Subject: RE: NW Bicester - BTM Data

Hi Sacha

Thank you for issuing the turning movement data from the traffic model. Having gone through it I have a few questions about the data.

1. Can you confirm the times used for the AM, Inter and PM Peak hours? We have assumed 07:30-08:30, 11:00-15:00 (average hour) and 17:00-18:00 as per the Future Year Forecasting Report (issued April 2017) is this correct? **Yes that is correct.**
2. For the 2026 Kingsmere Reference Case and the 2031 Do Minimum Case can you confirm the following:
 - a. What if any infrastructure improvements are included in each scenario.
 - b. The list of developments and quantum included in each scenario (allocated sites, windfall sites and any other permitted development). – We have been asked to provide a list of the committed development included in the assessment.
 - c. That our proposed development is excluded in both scenarios.
 - d. Any other relevant assumptions.

I have attached the modelling Uncertainty Log which sets out what infrastructure and development sites have been included in the reference case models. The data in the 2026 columns will give you what is included in the 2026 Kingsmere Reference Case. The 2031 column details what is included in the 2031 Reference Case, however the 2031 Do Minimum then added in the Heyford Park Allocation (HPA) development and associated mitigation works. I've therefore also attached an Inclusions Summary Table that sets out what HPA information has been included in the 2031 Do Minimum scenario.

3. I have noted that although all junctions show increase in traffic between 2016 and 2026 and from 2026 to 2031 there is some change in traffic movements on some of the approaches is this pattern due to redistribution of traffic following infrastructure improvements or links being congested? Sample from AM Peak observations include:
 - a. J1 - Reduction in turning movements to and from B4100 (W) from 2026 to 2031.
 - b. J2/J3 - Reduction in northbound traffic along B4100 from 2026 to 2031.
 - c. J4 - Reduction in A4095 (E) to A4095 (W) and Banbury Road from 2016 to 2031.
 - d. J5 - Reduction in traffic between Buckingham Road and A4095.
 - e. J6 - Reduction in at A4095 Howes Lane to Vendee Drive from 2016 to 2026 and 2031, Middleton Stoney road to B4040 reduction from 2026 to 2031, Vendee Drive to A4095 Howes Lane reduction from 2016 to 2026.

The changes in flows will be a combination of both changes in the road infrastructure and additional development traffic on the network causing increased congestion / reduced capacity. Without looking at each individual item (which unfortunately isn't necessarily a quick thing to do in SATURN) we can't provide specific details for individual junction arms.

Happy to talk through the above queries over the phone.

Kind Regards,

Cecilia Thordardottir

Senior Transport Planner

Tel: 07385 382705

VELOCITY
Transport Planning



From: Pearson, Sacha <Sacha.Pearson@tetrattech.com>
Sent: 08 February 2021 11:39
To: Mark Kirby <mkirby@velocity-tp.com>
Cc: Matt Penn <mpenn@velocity-tp.com>; Cecilia Thordardottir <Cecilia@velocity-tp.com>; Davis, Gabriel <Gabriel.Davis@tetrattech.com>
Subject: RE: NW Bicester - BTM Data

[EXTERNAL] This message was sent from outside your organization

Hi Mark

Please find attached three turning movement spreadsheets. As per the emails below, these provide data from the following scenarios and at the following junctions:

Modelling scenarios:

- 2016 Base scenario
- 2026 Kingsmere Reference Case scenario
- 2031 Do Minimum scenario

Junctions:

- B4100 / A43 Baynards Green roundabout
- B4100 / Braeburn Avenue priority junction
- B4100 / Charlotte Avenue priority junction
- B4100 / A4095 / Banbury Road / A4095 roundabout
- A4095 / Buckingham Road / Skimmingdish Lane / A4421 roundabout
- A4095 / Middleton Stoney Road / Vendee Road / B4030 roundabout

One thing to note is that the B4100 / Braeburn Avenue priority junction has not been included in the 2016 Base Scenario model, so that spreadsheet just gives the flows on the B4100 at the point where the junction would be.

Hope that is all as required, but if you have any questions at all just let me know.

Kind regards

Sacha Pearson
Principal Transport Modeller

Tetra Tech
Executive Park, Avalon Way, Anstey, Leicester, Leicestershire, LE7 7GR

Tel: +44 116 234 8206
Mob: +44 781 175 7371
tetrattechurope.com

Tetra Tech Limited. Registered in England number: 1959704
Registered Office: 3 Sovereign Square, Sovereign Street, Leeds LS1 4ER VAT No: 431-0326-08.

Following Government guidance aimed at preventing the spread of COVID-19 the majority of our office based teams are working from home. We are fully enabled to work remotely so this will not impact on our service to our clients or our colleagues. However, we do require that all communications are sent to us electronically by email so that we will be in a position to receive and respond. Thank you for your co-operation.

This message contains confidential information and is intended only for the recipient. If you are not the recipient you should not disseminate, distribute or copy this e-mail. Please notify the sender immediately by e-mail if you have received this e-mail by mistake and delete this e-mail from your system. E-mail transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. The sender therefore does not accept liability for any errors or omissions in the contents of this message, which arise as a result of e-mail transmission. If verification is required please request a hard-copy version.

From: Mark Kirby <mkirby@velocity-tp.com>
Sent: 26 January 2021 14:33
To: Pearson, Sacha <Sacha.Pearson@tetrattech.com>
Cc: Matt Penn <mpenn@velocity-tp.com>; Cecilia Thordardottir <Cecilia@velocity-tp.com>; Davis, Gabriel <Gabriel.Davis@tetrattech.com>
Subject: RE: NW Bicester - BTM Data

Many thanks Sacha

Kind regards,

Mark Kirby

Associate Director, Velocity Transport Planning
Mob: 07385 382 701

From: Pearson, Sacha <Sacha.Pearson@tetrattech.com>
Sent: 26 January 2021 14:16
To: Mark Kirby <mkirby@velocity-tp.com>
Cc: Matt Penn <mpenn@velocity-tp.com>; Cecilia Thordardottir <Cecilia@velocity-tp.com>; Davis, Gabriel <Gabriel.Davis@tetrattech.com>
Subject: RE: NW Bicester - BTM Data

[EXTERNAL] This message was sent from outside your organization

Hi Mark

Thanks for that, that's all we need from you in order to progress with the work.

In terms of timescales, two weeks from today takes us to Tuesday 9th February, so the data will therefore be with you by close of play on that date (if any of it is available before then I'll make sure its emailed to you straight away).

Kind regards

Sacha Pearson

Principal Transport Modeller

Tetra Tech

Executive Park, Avalon Way, Anstey, Leicester, Leicestershire, LE7 7GR

Tel: +44 116 234 8206

Mob: +44 781 175 7371

tetrattech.com



Following Government guidance aimed at preventing the spread of COVID-19 the majority of our office based teams are working from home. We are fully enabled to work remotely so this will not impact on our service to our clients or our colleagues. However, we do require that all communications are sent to us electronically by email so that we will be in a position to receive and respond. Thank you for your co-operation.

This message contains confidential information and is intended only for the recipient. If you are not the recipient you should not disseminate, distribute or copy this e-mail. Please notify the sender immediately by e-mail if you have received this e-mail by mistake and delete this e-mail from your system. E-mail transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. The sender therefore does not accept liability for any errors or omissions in the contents of this message, which arise as a result of e-mail transmission. If verification is required please request a hard-copy version.

From: Mark Kirby <mkirby@velocity-tp.com>
Sent: 26 January 2021 14:05
To: Pearson, Sacha <Sacha.Pearson@tetrattech.com>
Cc: Matt Penn <mpenn@velocity-tp.com>; Cecilia Thordardottir <Cecilia@velocity-tp.com>
Subject: RE: NW Bicester - BTM Data

Sascha,

I have reviewed the TT Terms and Conditions and your proposal, as set out below.

I am pleased to instruct this work and look forward to receiving the data and an invoice for this work in the order of £1,750 + VAT in due course.

Could you quote Purchase Order No 4745 on the Invoice please?

Should you require anything further from me in order to progress this work, please feel free to let me know.

Kind regards,

Mark Kirby

Associate Director, Velocity Transport Planning
Mob: 07385 382 701

From: Pearson, Sacha <Sacha.Pearson@tetrattech.com>
Sent: 26 January 2021 09:57
To: Mark Kirby <mkirby@velocity-tp.com>
Cc: White, Joy - Communities <Joy.White@Oxfordshire.gov.uk>; Davis, Gabriel <Gabriel.Davis@tetrattech.com>;
Matt Penn <mpenn@velocity-tp.com>; Cecilia Thordardottir <Cecilia@velocity-tp.com>
Subject: RE: NW Bicester - BTM Data

[EXTERNAL] This message was sent from outside your organization

Morning Mark

Further to the emails below, I'm pleased to provide you with the following fee proposal for extracting the data from the existing model scenarios:

Scope of Work

Extract turning movement data from the following existing Heyford Park Bicester Transport Model scenarios:

- 2016 Base scenario
- 2026 Kingsmere Reference Case scenario
- 2031 Do Minimum scenario

Turning movement data to be provided in a spreadsheet format for the following junctions:

- B4100 / A43 Baynards Green roundabout
- B4100 / Braeburn Avenue priority junction
- B4100 / Charlotte Avenue priority junction
- B4100 / A4095 / Banbury Road / A4095 roundabout
- A4095 / Buckingham Road / Skimmingdish Lane / A4421 roundabout
- A4095 / Middleton Stoney Road / Vendee Road / B4030 roundabout

The spreadsheets will provide the following breakdown of vehicle data for each turning movement:

- Cars
- LGV's
- HGV's (PCU's)
- HGV's (Vehicles)
- Buses (Vehicles)
- Total (Vehicles)
- Total (PCU's)

Fees and timescales

Our fee for undertaking this work is **£1,750 exc. VAT**, and this will be subject to our standard terms and conditions which are attached.

The timescale for completing the work would be two weeks after appointment.

Kind regards

Sacha Pearson

Principal Transport Modeller

Tetra Tech

Executive Park, Avalon Way, Anstey, Leicester, Leicestershire, LE7 7GR

Tel: +44 116 234 8206

Mob: +44 781 175 7371

tetratecheurope.com

Tetra Tech Limited. Registered in England number: 1959704
Registered Office: 3 Sovereign Square, Sovereign Street, Leeds LS1 4ER VAT No: 431-0326-08.



Following Government guidance aimed at preventing the spread of COVID-19 the majority of our office based teams are working from home. We are fully enabled to work remotely so this will not impact on our service to our clients or

our colleagues. However, we do require that all communications are sent to us electronically by email so that we will be in a position to receive and respond. Thank you for your co-operation.

This message contains confidential information and is intended only for the recipient. If you are not the recipient you should not disseminate, distribute or copy this e-mail. Please notify the sender immediately by e-mail if you have received this e-mail by mistake and delete this e-mail from your system. E-mail transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. The sender therefore does not accept liability for any errors or omissions in the contents of this message, which arise as a result of e-mail transmission. If verification is required please request a hard-copy version.

From: Mark Kirby <mkirby@velocity-tp.com>

Sent: 22 January 2021 12:29

To: Pearson, Sacha <Sacha.Pearson@tetrattech.com>

Cc: White, Joy - Communities <Joy.White@Oxfordshire.gov.uk>; Davis, Gabriel <Gabriel.Davis@tetrattech.com>;
Matt Penn <mpenn@velocity-tp.com>; Cecilia Thordardottir <Cecilia@velocity-tp.com>

Subject: NW Bicester - BTM Data

Afternoon Sacha,

Further to Joy's recent confirmation that we can use the traffic data from the BTM scenarios as set out within her email below, are you in a position to provide us with an indication of how much this information might cost so that I can get the ball rolling, and how long it might take for WYG to extract the data and send it across in the format that we discussed when we recently caught up on MS Teams?

I'm keen to get this element of assessment lined up and an idea of timescales would be useful.

Many thanks and I look forward to catching up again soon.

Kind regards,

Mark Kirby

Associate Director, Velocity Transport Planning

Mob: 07385 382 701

From: White, Joy - Communities <Joy.White@Oxfordshire.gov.uk>

Sent: 20 January 2021 09:50

To: Pearson, Sacha <Sacha.Pearson@tetrattech.com>

Cc: Cox, Jacqui - Communities <Jacqui.Cox@Oxfordshire.gov.uk>; Lee, John - Communities <John.Lee@Oxfordshire.gov.uk>; Mark Kirby <mkirby@velocity-tp.com>; Davis, Gabriel <Gabriel.Davis@tetrattech.com>

Subject: RE: Preapp advice - NW Bicester

[EXTERNAL] This message was sent from outside your organization

Hi Sacha,

I've discussed this with Jacqui. We are happy for you to use the 2026 Kingsmere reference case for item B and the 2031 DM scenario for item D, as suggested.

Kind regards

Joy

Joy White

Principal Transport Planner

Transport Development Control: Cherwell, West Oxfordshire and Oxford City

Communities
Oxfordshire County Council
Mobile 07554103522
Email: joy.white@oxfordshire.gov.uk

From: Pearson, Sacha <Sacha.Pearson@tetrattech.com>
Sent: 14 January 2021 16:39
To: White, Joy - Communities <Joy.White@Oxfordshire.gov.uk>
Cc: Cox, Jacqui - Communities <Jacqui.Cox@Oxfordshire.gov.uk>; Lee, John - Communities <John.Lee@Oxfordshire.gov.uk>; mkirby@velocity-tp.com; Davis, Gabriel <Gabriel.Davis@tetrattech.com>
Subject: RE: Preapp advice - NW Bicester

Hi Joy

Further to the emails below I had a good discussion yesterday with Mark Kirby at Velocity Transport Planning regarding his requirements and what we could potentially provide in the way of data from the various BTM scenarios that have been modelled.

As per Mark's email below, the key scenarios that Velocity are looking to consider are as follows:

- A. 2016 Base Year (Note: The BTM base year is 2016 rather than 2018 as per Mark's email);
- B. 2026 Do Nothing (consented developments + planned infrastructure);
- C. 2026 Do Something (2026 Do Nothing + Proposed Development);
- D. 2031 Do Nothing (consented developments + planned infrastructure); and
- E. 2031 Do Something (2031 Do Nothing + Proposed Development)

I'm assuming that the preference would be to use the version of the BTM that was extended to include the Heyford Park Allocation (HPA) development, and to this end I've attached a table that shows all the modelling scenarios that have been created for this version of the BTM. I've then provided some comments below with regard to each of the above items.

Item A: We can use the 2016 Base Year scenario to provide the required data.

Item B: The attached shows that there are currently two 2026 scenarios, both reference cases. The most up to date of these is the 2026 Reference Case Kingsmere Update, and would seem to be the obvious one of the two to utilise.

Item C: There are currently no scenarios that could provide this data, however I understand from Mark that the principals of traffic generation and distribution for the proposed development have been agreed with OCC and Mark indicated that he therefore envisaged manually adding traffic to the Item B data that we provide.

Item D: As with Item B there are two reference case models that could be utilised, however neither of these have HPA traffic in them. We are currently undertaking data extraction work for another development proposal in Bicester and in agreement with Jacqui we have utilised the 2031 Do Minimum scenario for that. As I understand it, HPA has now received planning permission but the bus-gate mitigation will not be provided, and the 2031 DM scenario most accurately models that situation. I'm not sure whether the same reasoning would apply here?

Item E: As with Item C there are currently no scenarios that could provide this data. Again, as per Item C, I believe that Mark is envisaging manually adding the development traffic.

Hopefully that makes sense, although I do appreciate there's a lot there and especially on the attached table, so if you want to talk anything through please don't hesitate to call me. Alternatively, if it would help to organise a telecon / teams meeting to discuss then I'm more than happy to do that.

Kind regards

Sacha Pearson
Principal Transport Modeller

Tetra Tech

Executive Park, Avalon Way, Anstey, Leicester, Leicestershire, LE7 7GR

Tel: +44 116 234 8206

Mob: +44 781 175 7371

tetratecheurope.com

Tetra Tech Limited. Registered in England number: 1959704
Registered Office: 3 Sovereign Square, Sovereign Street, Leeds LS1 4ER VAT No: 431-0326-08.



Following Government guidance aimed at preventing the spread of COVID-19 the majority of our office based teams are working from home. We are fully enabled to work remotely so this will not impact on our service to our clients or our colleagues. However, we do require that all communications are sent to us electronically by email so that we will be in a position to receive and respond. Thank you for your co-operation.

This message contains confidential information and is intended only for the recipient. If you are not the recipient you should not disseminate, distribute or copy this e-mail. Please notify the sender immediately by e-mail if you have received this e-mail by mistake and delete this e-mail from your system. E-mail transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. The sender therefore does not accept liability for any errors or omissions in the contents of this message, which arise as a result of e-mail transmission. If verification is required please request a hard-copy version.

From: Mark Kirby <mkirby@velocity-tp.com>

Sent: 11 January 2021 10:54

To: Pearson, Sacha <Sacha.Pearson@tetratech.com>

Cc: Cox, Jacqui - Communities <Jacqui.Cox@Oxfordshire.gov.uk>; Lee, John - Communities <John.Lee@Oxfordshire.gov.uk>; White, Joy - Communities <Joy.White@Oxfordshire.gov.uk>; Matt Penn <mpenn@velocity-tp.com>; Cecilia Thordardottir <Cecilia@velocity-tp.com>

Subject: RE: Preapp advice - NW Bicester

Good morning Sacha,

Further to Joy White's email of Friday afternoon, could we arrange a telephone or MS Teams call to chat through my request for data from the BTM for the scenarios set out in my email below please?

We are proposing to make a planning submission for further residential development within the NW Bicester area within the next couple of months and I am keen to agree the necessary traffic data that we will require to progress the technical work for this application.

I look forward to hearing from you at your earliest convenience.

Kind regards,

Mark Kirby

Associate Director, Velocity Transport Planning

Mob: 07385 382 701

From: White, Joy - Communities <Joy.White@Oxfordshire.gov.uk>

Sent: 08 January 2021 15:35

To: Pearson, Sacha <Sacha.Pearson@tetratech.com>

Cc: Mark Kirby <mkirby@velocity-tp.com>; Cox, Jacqui - Communities <Jacqui.Cox@Oxfordshire.gov.uk>; Lee, John - Communities <John.Lee@Oxfordshire.gov.uk>

Subject: Preapp advice - NW Bicester

Hi Sacha

Happy new year! I hope you had a good break over Christmas, although that seems a while ago now!

We are dealing with a preapp enquiry for a proposed development at NW Bicester, which forms part of the Bicester 1 Policy allocation and is adjacent to the exemplar site, currently being built out. The applicant's transport consultant, Mark Kirby from Velocity, has requested data from the Bicester model. I copy his email, detailing his request, below.

I have suggested that he should contact you directly to request this data and make arrangements for payment directly with you. I trust this is acceptable but please let me know if we should be liaising with a different contact. Please could you keep me copied in on any correspondence.

Kind regards

Joy

Joy White
Principal Transport Planner
Transport Development Control: Cherwell, West Oxfordshire and Oxford City
Communities
Oxfordshire County Council
Mobile 07554103522
Email: joy.white@oxfordshire.gov.uk

From: Mark Kirby
Sent: 06 January 2021 15:49
To: White, Joy - Communities <Joy.White@Oxfordshire.gov.uk>
Cc: Cox, Jacqui - Communities <Jacqui.Cox@Oxfordshire.gov.uk>
Subject: RE: NW Bicester - Highways Scoping Note

Afternoon Joy,

Thanks for speaking with Jacqui in this regard and confirming that there is further work to be undertaken on the Bicester Transport Model (BTM), but that this is unlikely to be in this financial year. As such, I appreciate that we will need to agree how best to utilise the information that is currently available to ensure that the assessment(s) that we undertake are considered acceptable by OCC as part of this planning application.

Please accept my apologies if you have sent me the latest LMVR, but I don't appear to have this on our system and as such, would be grateful if you could send it to me again.

In addition, I note from the Transport Assessment that supported the recent Home Farm application (18/00484/OUT) that it was agreed with OCC to assess a future year of 2026 only. However, your recent pre-app response identified that we should also assess a future year of 2031 (end of the Local Plan period) and we would be happy to do so. Your pre-app response confirmed that the BTM has flows and turning counts for both of these future years and I would be grateful if we can agree the cost of obtaining these from you for the following scenarios:

- 2018 Base Year – assumed to be the latest information (which we can agree to growth to 2021 by adding in any recently permitted development traffic flows that might not be included or by applying TEMPRO);
- 2026 Do Nothing (consented developments + planned infrastructure);

- 2026 Do Something (2026 Do Nothing + Proposed Development);
- 2031 Do Nothing (consented developments + planned infrastructure); and
- 2031 Do Something (2031 Do Nothing + Proposed Development)

As per our scoping discussions, we would request turning counts (AM & PM) for the following junctions:

- B4100 / A43 Baynards Green Roundabout Junction;
- B4100 / Braeburn Avenue Priority Junction;
- B4100 / Charlotte Avenue Priority Junction;
- B4100 / A4095 / Banbury Road / A4095 Roundabout Junction;
- A4095 / Buckingham Road / Skimmingdish Lane / A4421 Roundabout Junction; and
- A4095 / Middleton Stoney Road / Vendee Road / B4030

Ideally we would also like any link flow information for the approaches to these junctions, or within an appropriate catchment area, but if necessary, we can derive these link flows from the turning counts. However, I am hoping that there is AADT data available from the BTM, but if not, I will establish a suitable methodology for agreement with OCC that we can adopt to convert the peak hour data from the BTM to AADT flows. I appreciate that we have already identified a means of converting peak hour residential flows to AADT flows, but this won't account for converting background traffic data to AADT flows. The EIA will need to consider AADT flows.

Section 6 of the TA that supported the Home Farm application states at paragraph 6.1.4 that *“the traffic flows associated with this [2026] forecast year are set out within the ‘Bicester Transport Model – Future Year Forecasting Report (Issue 2, April 2017 – prepared by White Young Green on behalf of Oxfordshire County Council). The flows take into account:*

- *Future year background traffic growth; and*
- *Future planned residential, employment and school development proposal and planned infrastructure proposal as expected to be delivered at a 2026 future year (as detailed at Appendix A of the BTM – Future Year Forecasting Report).”*

With regards the above, I expect the 2031 data from the BTM will also include the future year background growth and associated development, infrastructure, etc. I assume that you will be able to send me the ‘Bicester Transport Model – Future Year Forecasting Report (Issue 2, April 2017 – prepared by WYG)’ as again, I don't have a copy of this and it was not included with the TA that supported the Home Farm application. A copy doesn't appear to be available on the internet.

Assuming that the 2026 data is consistent with that which was provided to PBA for assessment of the Home Farm scheme, I would hope that this is readily available, but there might be a need for some further work to obtain the 2031 data. As such, I would be grateful if you could also provide me with an indication of how long it might take to obtain these traffic flows from the BTM when you are in a position to identify the cost of obtaining this information.

In the meantime, if there is anything that I can provide you with that helps move this along, please feel free to touch base and I look forward to hearing back from you in due course.

Kind regards,

Mark Kirby

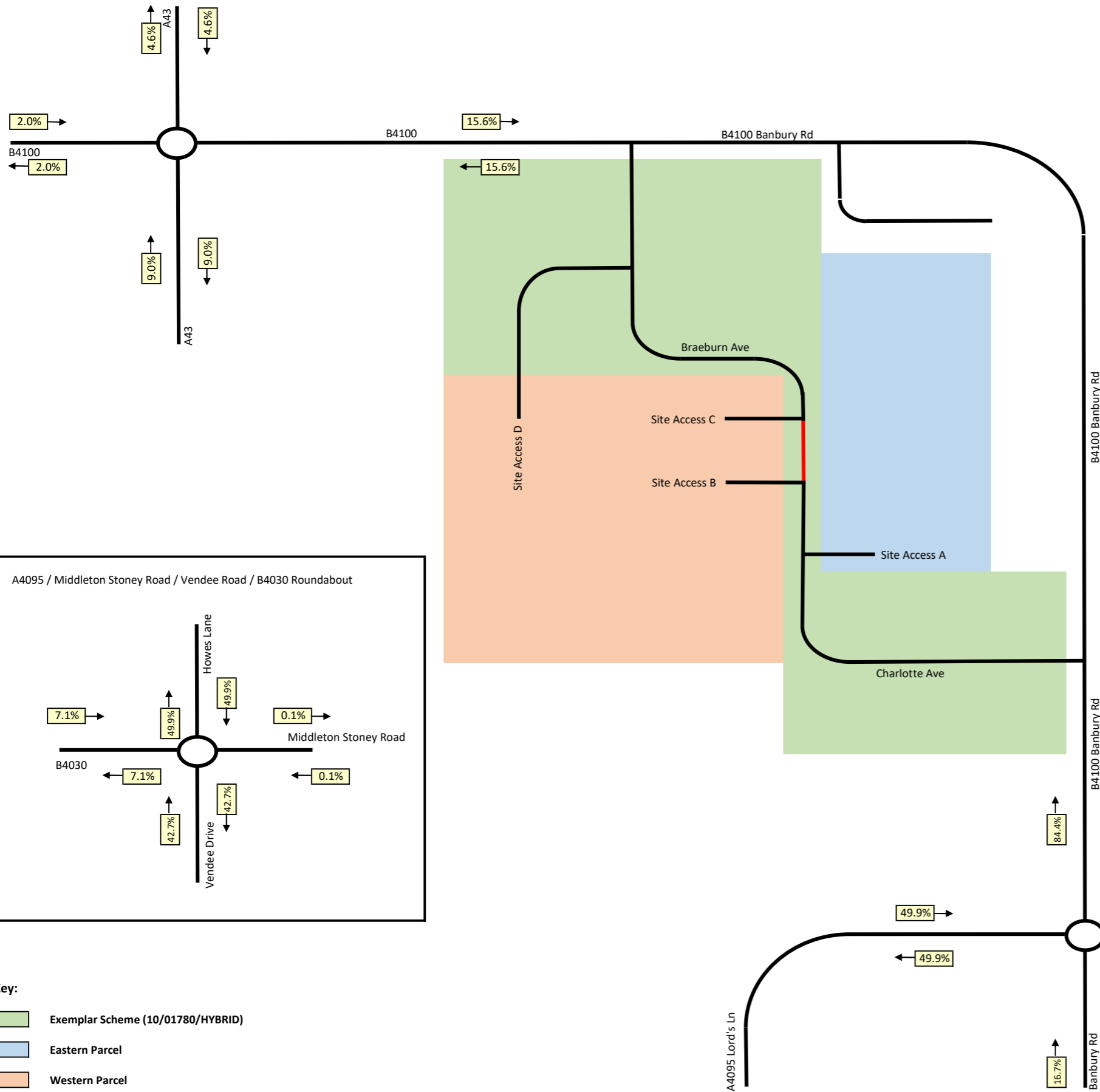
Associate Director, Velocity Transport Planning
Mob: 07385 382 701

see our [Privacy Notice](#).

This email, including attachments, may contain confidential information. If you have received it in error, please notify the sender by reply and delete it immediately. Views expressed by the sender may not be those of Oxfordshire County Council. Council emails are subject to the Freedom of Information Act 2000. [email disclaimer](#). For information about how Oxfordshire County Council manages your personal information please see our [Privacy Notice](#).

Attachment 2:

Traffic Flow Diagrams



Proposed Development Traffic Flows

15.6%	North
17.8%	East
16.7%	South
49.9%	West

Northern Distribution

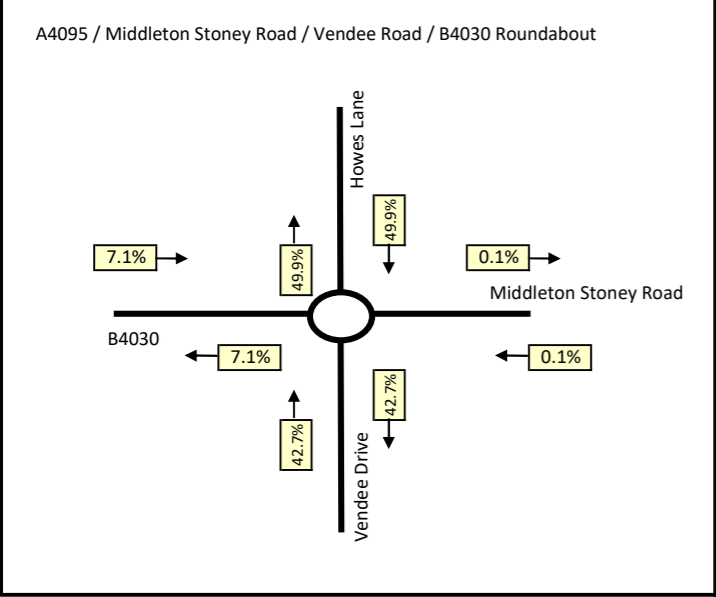
0.0%	Bainton Road
9.0%	A43 (south towards M40)
2.0%	B4100 (north towards Soldern)
4.6%	A43 (north towards Brackley)
15.6%	Total

Eastern Distribution

5.0%	A4421 (towards Buckingham)
12.8%	Skimmingdish Lane
17.8%	Total

Western Distribution

0.1%	Middleton Stoney Road (towards Aylesbury)
42.7%	Vendeer Drive (Towards A41, M40 and A34)
7.1%	B4030
49.9%	Total



- Key:**
- Exemplar Scheme (10/01780/HYBRID)
 - Eastern Parcel
 - Western Parcel

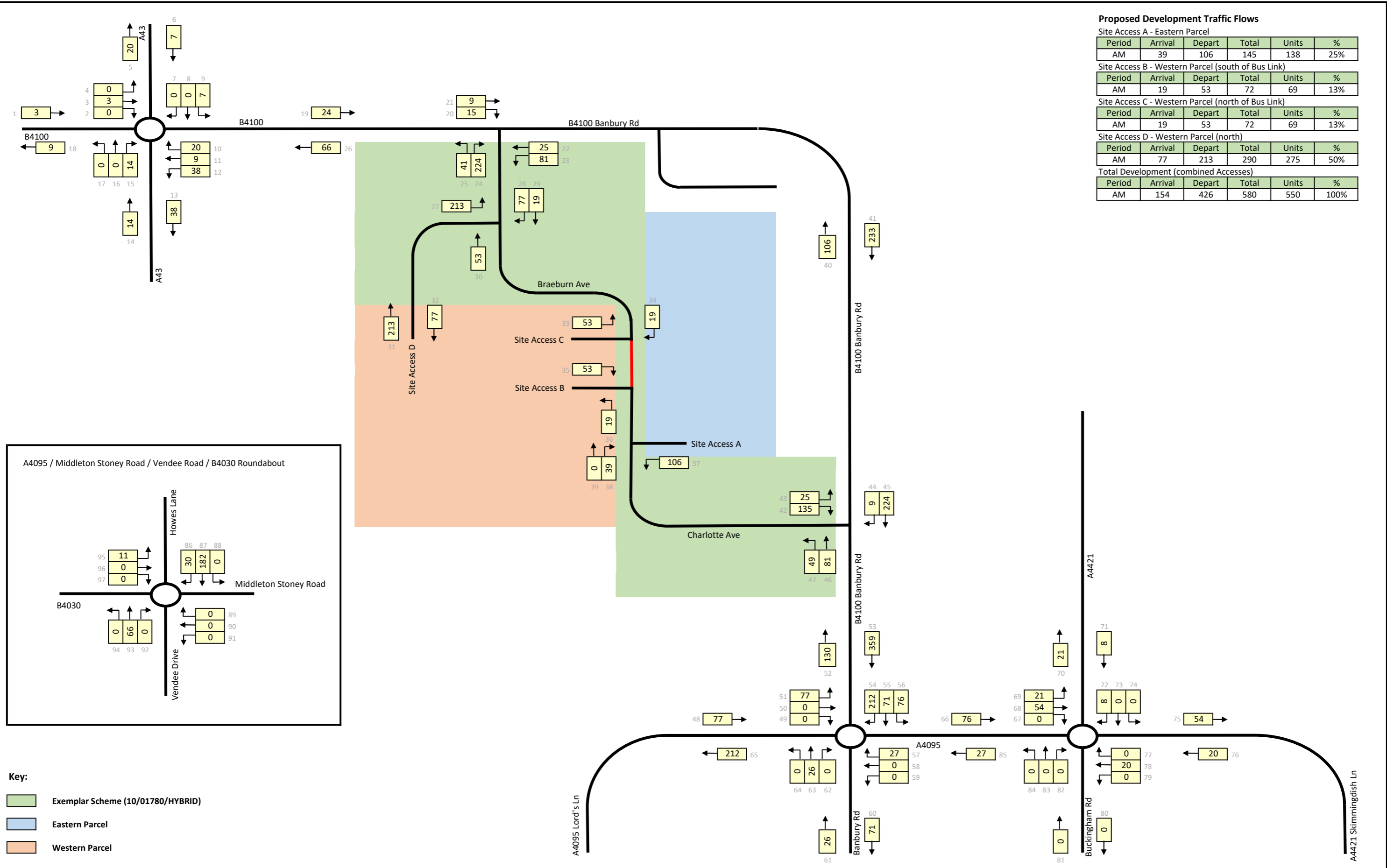
Project: NW Bicester

Client: **Firethorn**TRUST

Title: Proposed Development
Distribution Profile

Date: 18/02/2021
Diagram: Diagram A

VELOCITY
Transport Planning
www.velocity-tp.com



Proposed Development Traffic Flows

Site Access A - Eastern Parcel

Period	Arrival	Depart	Total	Units	%
AM	39	106	145	138	25%

Site Access B - Western Parcel (south of Bus Link)

Period	Arrival	Depart	Total	Units	%
AM	19	53	72	69	13%

Site Access C - Western Parcel (north of Bus Link)

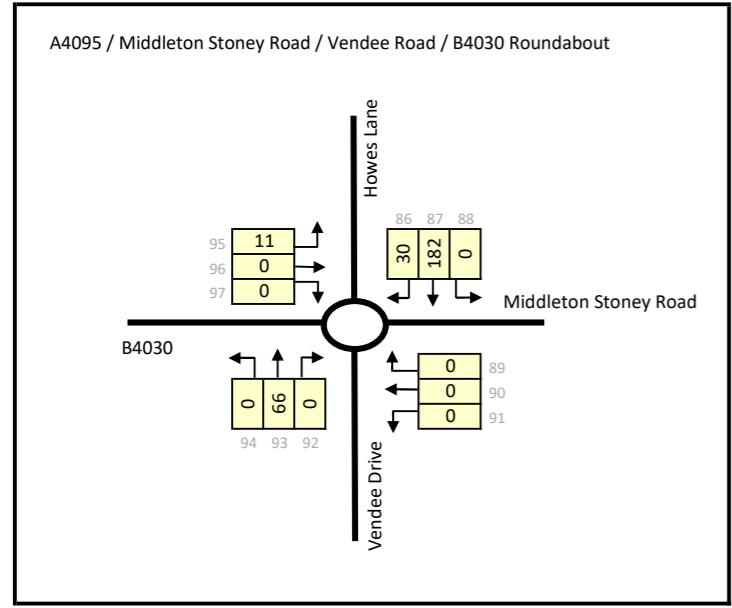
Period	Arrival	Depart	Total	Units	%
AM	19	53	72	69	13%

Site Access D - Western Parcel (north)

Period	Arrival	Depart	Total	Units	%
AM	77	213	290	275	50%

Total Development (combined Accesses)

Period	Arrival	Depart	Total	Units	%
AM	154	426	580	550	100%

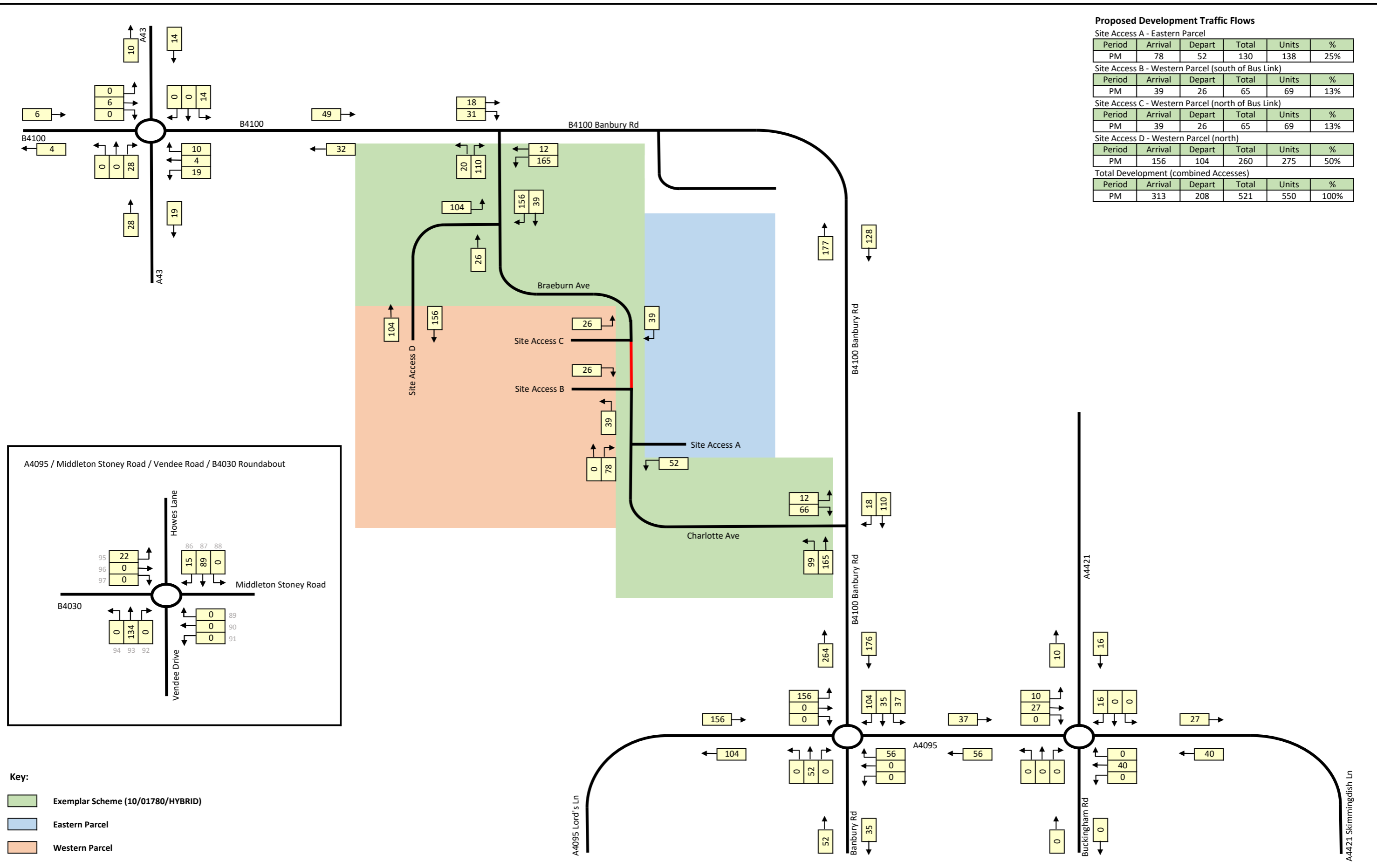


Key:

- Exemplar Scheme (10/01780/HYBRID)
- Eastern Parcel
- Western Parcel

Proposed Development Traffic Flows

Site Access A - Eastern Parcel					
Period	Arrival	Depart	Total	Units	%
PM	78	52	130	138	25%
Site Access B - Western Parcel (south of Bus Link)					
Period	Arrival	Depart	Total	Units	%
PM	39	26	65	69	13%
Site Access C - Western Parcel (north of Bus Link)					
Period	Arrival	Depart	Total	Units	%
PM	39	26	65	69	13%
Site Access D - Western Parcel (north)					
Period	Arrival	Depart	Total	Units	%
PM	156	104	260	275	50%
Total Development (combined Accesses)					
Period	Arrival	Depart	Total	Units	%
PM	313	208	521	550	100%



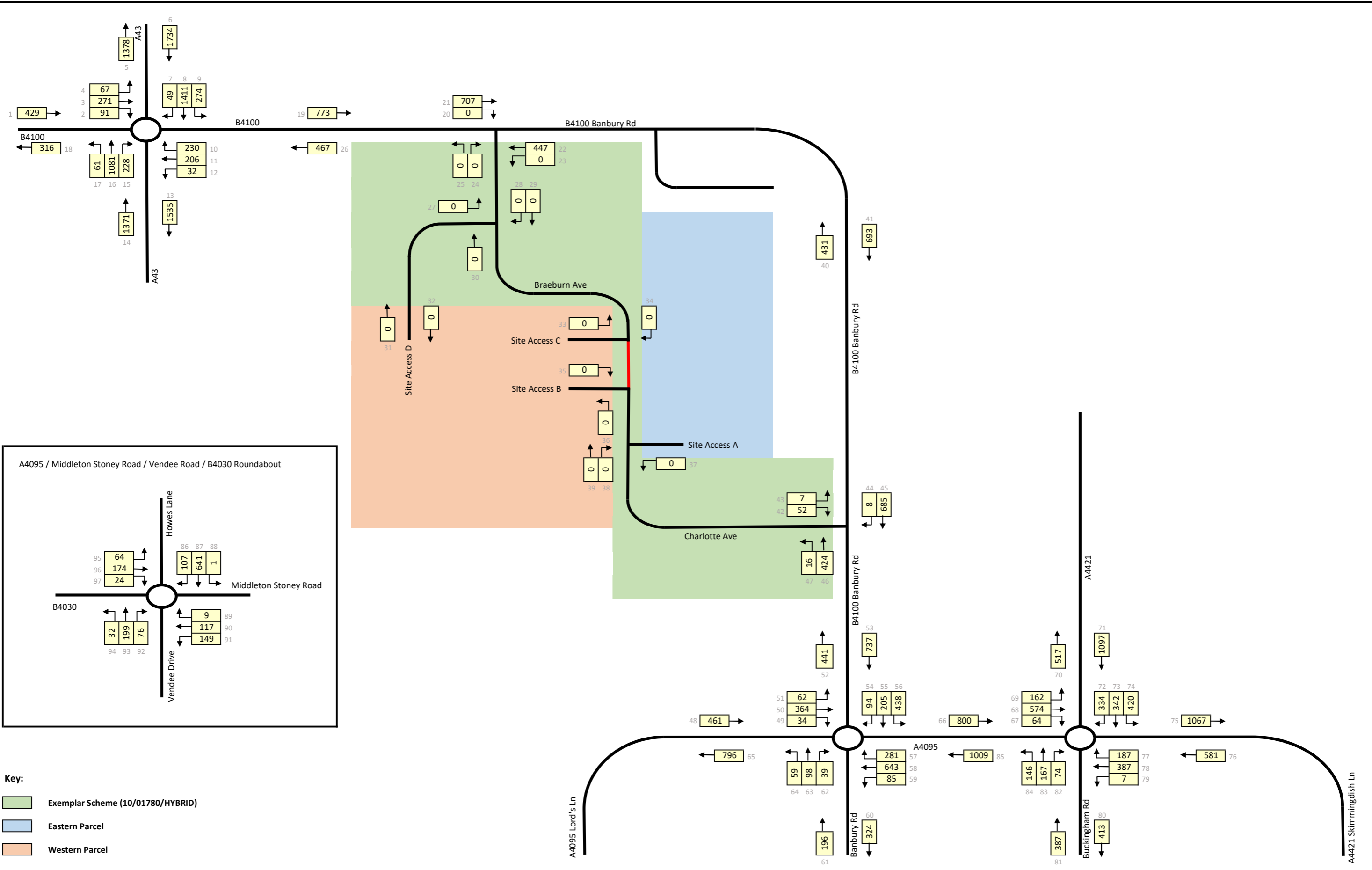
Project: NW Bicester



Title: Proposed Development Traffic Flows (Total Vehicles)
PM Peak Hour

Date: 18/02/2021
Diagram: Diagram C





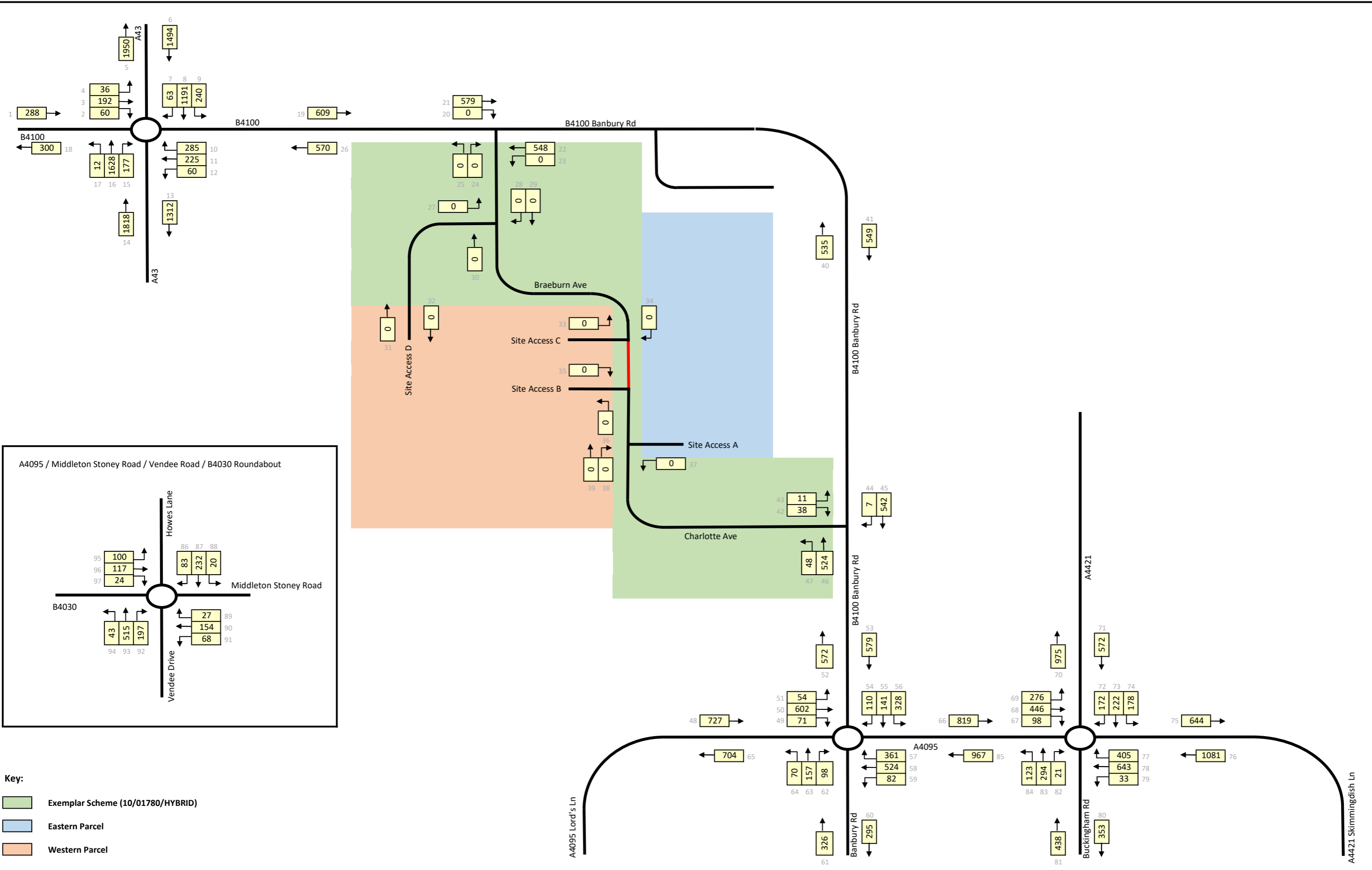
Project: NW Bicester

Client: Firethorn TRUST

Title: 2016 Base Traffic Flows (Total Vehicles)
AM Peak Hour

Date: 18/02/2021
Diagram: Diagram D

VELOCITY
Transport Planning
www.velocity-tp.com



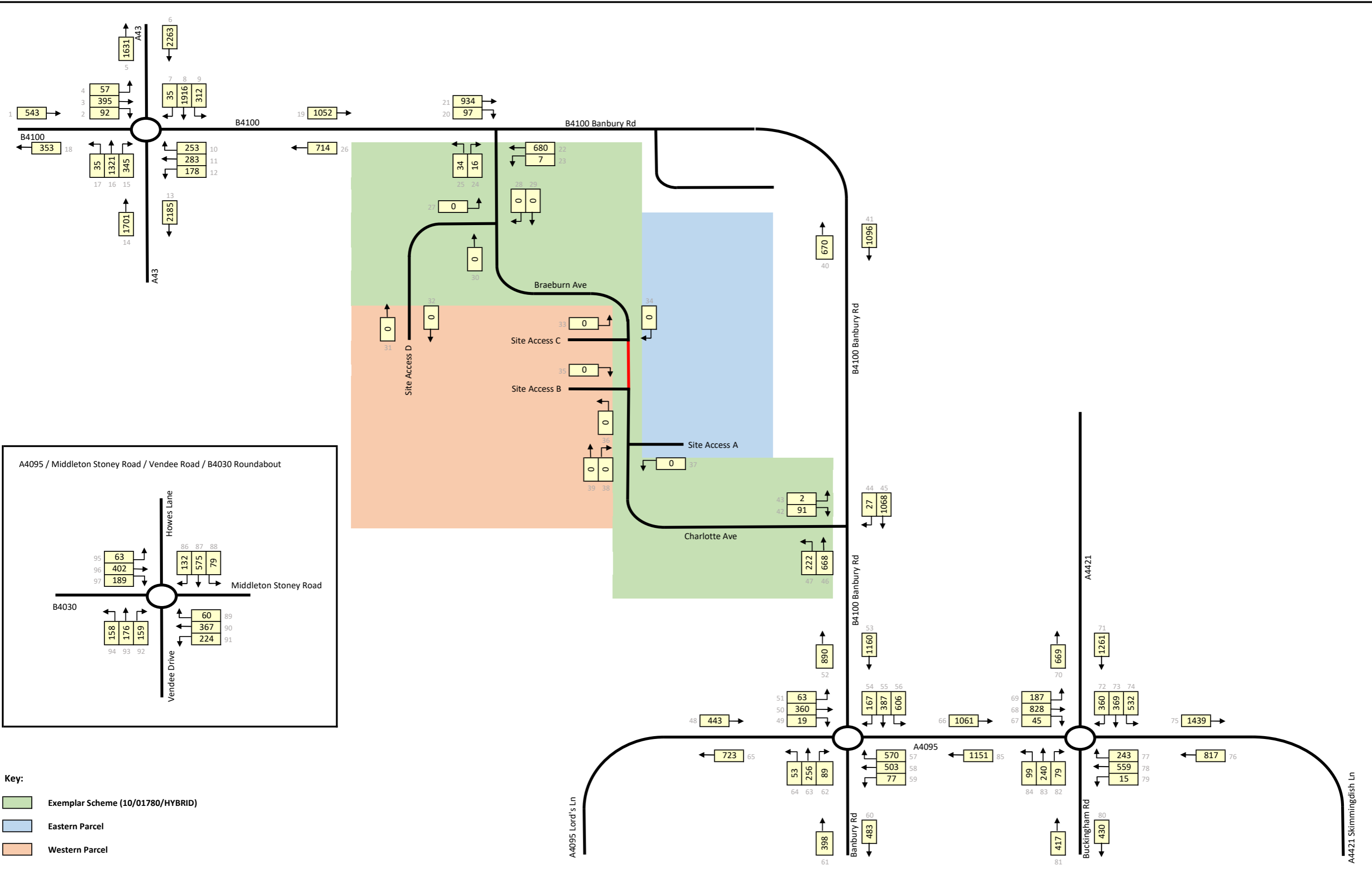
Project:
NW Bicester

Client:
Firethorn TRUST

Title:
2016 Base Traffic Flows (Total Vehicles)
PM Peak Hour

Date:
18/02/2021
Diagram:
Diagram E

VELOCITY
Transport Planning
www.velocity-tp.com



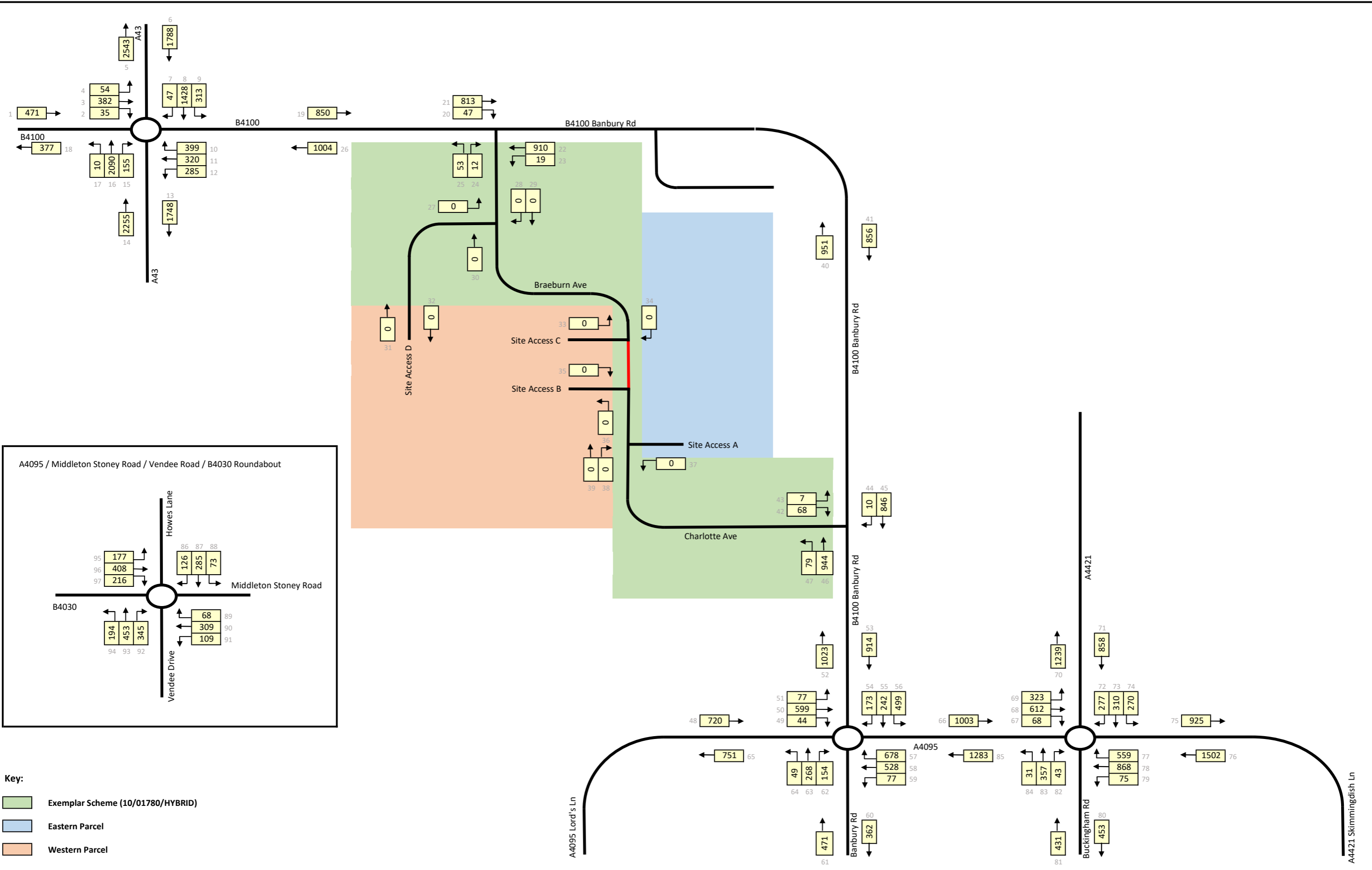
Project:
NW Bicester

Client:
Firethorn TRUST

Title:
2026 Kingsmere Reference Case Traffic Flows (Total Vehicles)
AM Peak Hour

Date:
18/02/2021
Diagram:
Diagram F

VELOCITY
Transport Planning
www.velocity-tp.com



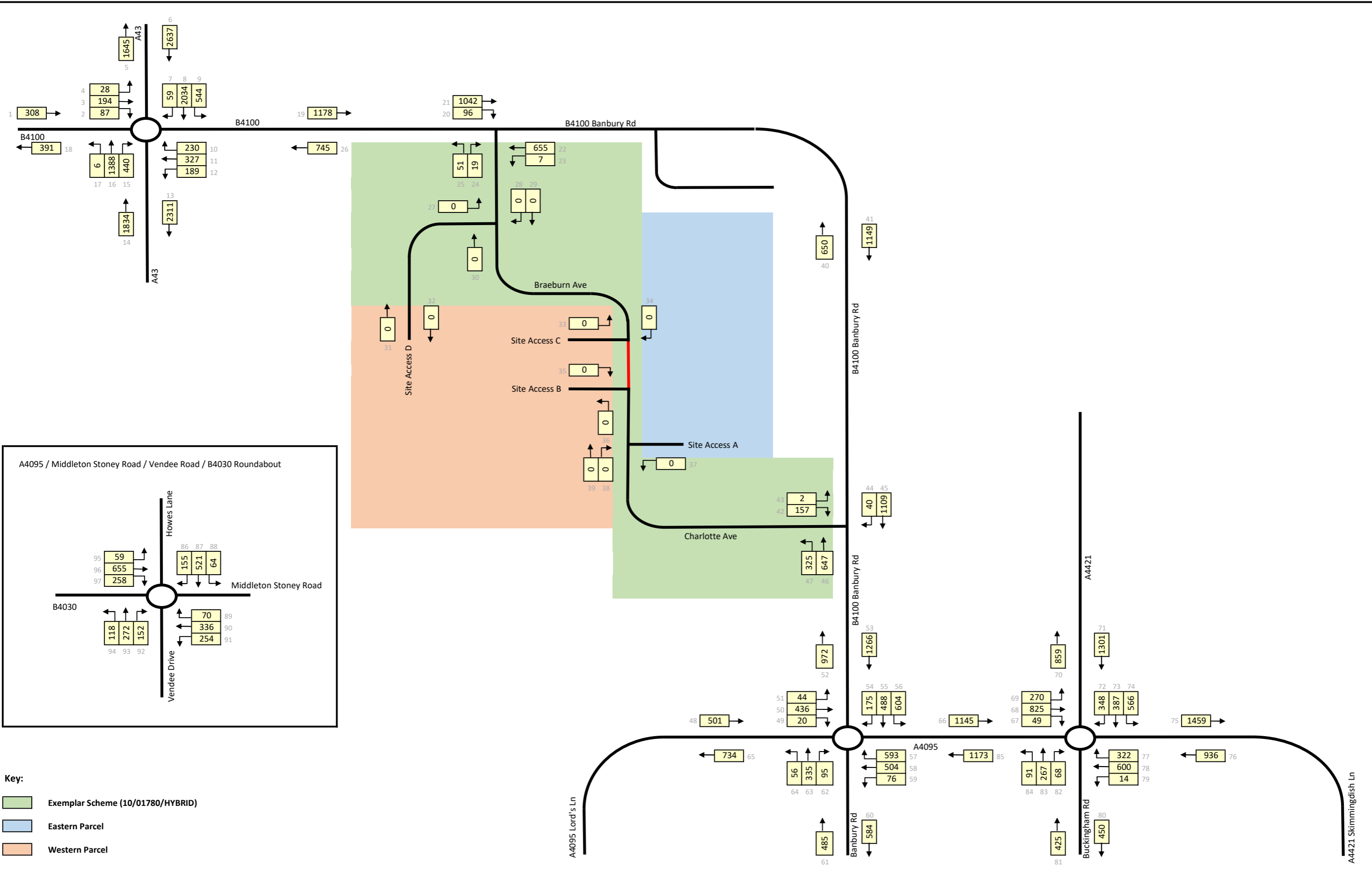
Project:
NW Bicester

Client:
FirethornTRUST

Title:
2026 Kingsmere Reference Case Traffic Flows (Total Vehicles)
PM Peak Hour

Date:
18/02/2021
Diagram:
Diagram G

VELOCITY
Transport Planning
www.velocity-tp.com



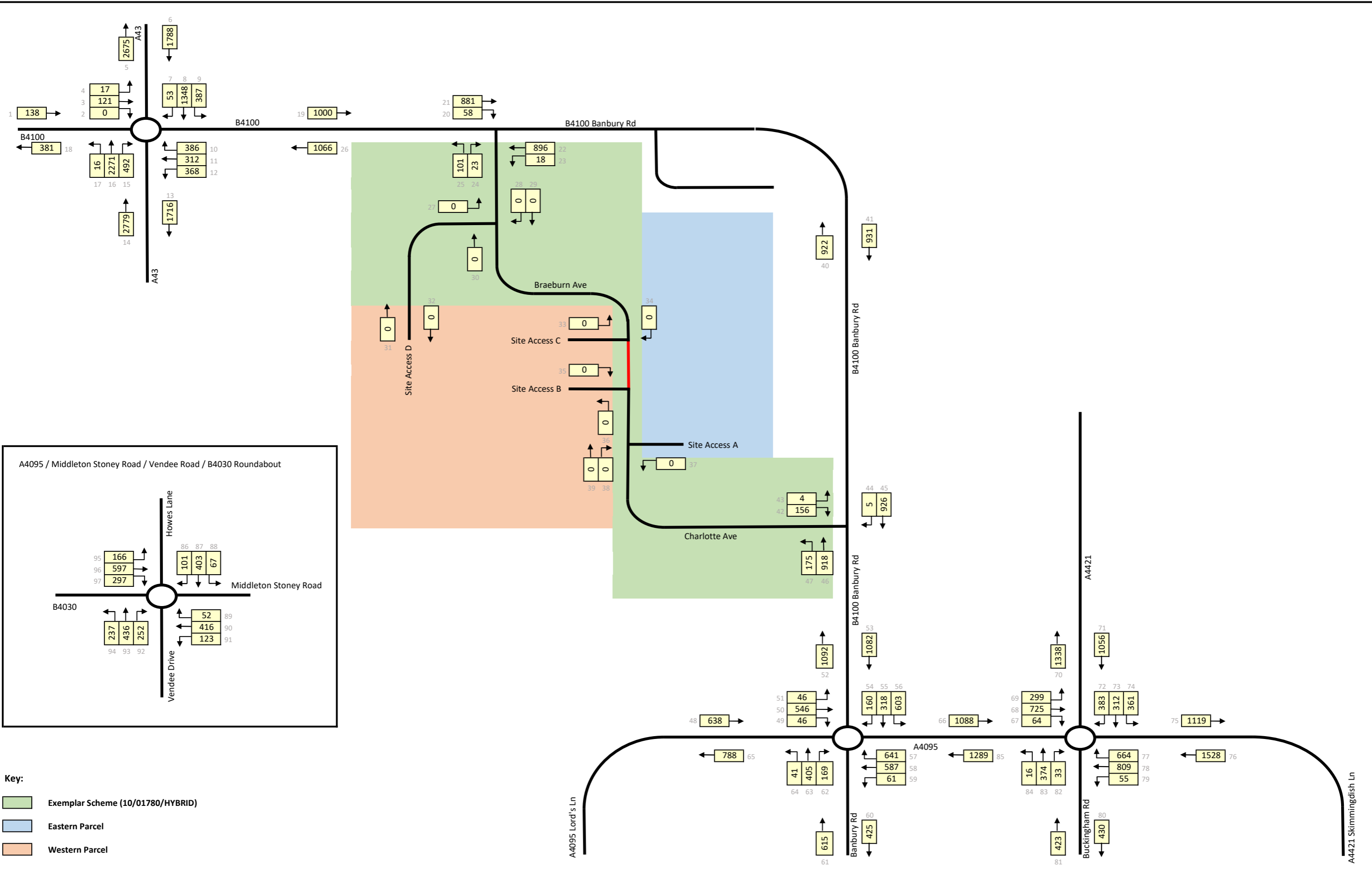
Project: NW Bicester

Client: Firethorn TRUST

Title: 2031 Future Year Traffic Flows (Total Vehicles)
AM Peak Hour

Date: 18/02/2021
Diagram: Diagram H

VELOCITY
Transport Planning
www.velocity-tp.com



Project: NW Bicester

Client: Firethorn TRUST

Title: 2031 Future Year Traffic Flows (Total Vehicles)
PM Peak Hour

Date: 18/02/2021
Diagram: Diagram I

VELOCITY
Transport Planning
www.velocity-tp.com

Attachment 3:

Uncertainty Logs

Summary of Inclusions in the Heyford Park Assessment

NW Bicester Zones

ID	Name	Description	Dev Type	Complete by Year (Units,			Certainty
				2021	2026	2031	
Inf101	London Road level crossing	Closure time was a total of 16 minutes during the 2016 base surveys. Do Minimum to assume total closure every hour for 31 minutes from 2026.	Infrastructure	No	Yes	Yes	Near Certain
Inf102	NW Bicester Interim Scheme	Need to confirm this with OCC	Infrastructure	No	N/A	N/A	Hypothetical
Inf103	NW Bicester Infrastructure	See MasterPlan	Infrastructure	Partial	Partial	Yes	More Than Likely
Inf104	SE Bic Wretchwick Green	Associated Infrastructure	Infrastructure	Partial	Partial	Partial	More Than Likely
Inf105	SE Bic Additional Area	Access Arrangements	Infrastructure	Yes	Yes	Yes	More Than Likely
Inf106	Proposed new Garden Town motorway junction	(location to be determined)	Infrastructure	No	No	No	Hypothetical
Inf107	A41 infrastructure improvements and bus priority	Potential bus priority improvements on A41 from Jn 9 to Boundary Way.	Infrastructure	No	No	No	Hypothetical
Inf108	Vendee Drive improvements	To be determined	Infrastructure	No	No	No	Hypothetical
Inf109	Western peripheral corridor:	realigning the A4095 Howes Lane, including a new tunnel under the railway	Infrastructure	Yes	Yes	Yes	Near Certain
Inf110	Western peripheral corridor:	improvements to Lord's Lane / B4100 roundabout	Infrastructure	No	Yes	Yes	More Than Likely
Inf111	Eastern peripheral corridor:	replace level crossing with road bridge as part of EWR Phase 2 (Charbridge Lane)	Infrastructure	No	Yes	Yes	Near Certain
Inf112	Eastern peripheral corridor:	upgrade the A4421 Charbridge Lane to dual facility plus junction improvements - to Charbridge Lane/ Bicester Rd roundabout	Infrastructure	No	No	No	Hypothetical
Inf113	Eastern peripheral corridor:	upgrade the A4421 Skimmingdish Lane to dual facility plus junction improvements (to A4421/Bicester Rd roundabout)	Infrastructure	No	No	No	Hypothetical
Inf114	Eastern peripheral corridor:	a link through the SE development site to aid connectivity and provide capacity	Infrastructure	No	Yes	Yes	More Than Likely
Inf115	Pioneer Road roundabout improvements		Infrastructure	No	Yes	Yes	More Than Likely
Inf116	Southern peripheral corridor:	a new south east link road - route options	Infrastructure	No	No	No	Hypothetical
Inf117	London Road level crossing solution		Infrastructure	No	No	No	Hypothetical
Inf118	Oxford Rd/ Pingle Drive - upgraded signalised access	Bicester Village?	Infrastructure	Yes	Yes	Yes	Completed
Inf119	A41/ Neunkirchen Way Roundabout (Rodney House)		Infrastructure	Yes	Yes	Yes	Near Certain
Inf120	A41 Oxford Rd/ Boundary Way roundabout improvement scheme	Bicester Village?	Infrastructure	Yes	Yes	Yes	Completed
Inf121	Upper Heyford improvements. Split into more detail below		Infrastructure				
Inf122	Bus Route S5/X5	Inter Urban 8ph (2 pk via Kingsmere) need to change IP	Infrastructure	Yes	Yes	Yes	Near Certain
Inf123	Bus Route 25A (Now renamed 250)	THIS IS AS PER 2016	Infrastructure	1ph	1ph	1ph	
Inf124	Bus Route E1	NW Bicester NE	Infrastructure	2ph	No	No	More Than Likely
Inf125	Bus Route E2	NW Bicester SE	Infrastructure	2ph	2ph	6ph	More Than Likely
Inf126	Bus Route E3	NW Bicester NE	Infrastructure	No	4ph	6ph	More Than Likely
Inf127	Bus Route 21	Highfield 2ph	Infrastructure	Yes	Yes	Yes	Near Certain
Inf128	Bus Route SEB	SE Bicester 2ph	Infrastructure	Yes	Yes	Yes	More Than Likely
Inf129	Bus Route GH	Graven Hill 2ph	Infrastructure	Yes	Yes	Yes	More Than Likely
Inf130	Bus Route 26	Kingsmere 2ph	Infrastructure	Yes	Yes	Yes	More Than Likely
Inf131	Reading – Bedford with a headway of 60 minutes all day;	East West Rail comprises four new services:	Infrastructure	Yes	Yes	Yes	More Than Likely
Inf132	Reading – Milton Keynes with a headway of 60 minutes all day;	East West Rail comprises four new services:	Infrastructure	Yes	Yes	Yes	More Than Likely
Inf133	Bletchley – Milton Keynes with a headway of 60 minutes all day;	East West Rail comprises four new services:	Infrastructure	Yes	Yes	Yes	More Than Likely
Inf134	Milton Keynes – Marylebone with a headway of 60 minutes all day.	East West Rail comprises four new services:	Infrastructure	Yes	Yes	Yes	More Than Likely
Inf135	Evergreen3 from Chiltern Railway	consists in the creation of a new service between Oxford and London Marylebone, with a headway of 30 minutes all day.	Infrastructure	N/A	N/A	N/A	Completed
Inf136	Kingsmere Retail Mitigation Scheme	16/02505/OUT	Infrastructure	Yes	Yes	Yes	Near Certain
Inf137	Bicester 10 transport mitigation	16/02586/OUT	Infrastructure	Yes	Yes	Yes	Near Certain
Inf138	Bicester 11 Transport Mitigation	15/01012/OUT	Infrastructure	Yes	Yes	Yes	Near Certain
Inf139	Skimmingdish Lane housing site mitigation	14/00697/F	Infrastructure	Yes	Yes	Yes	Near Certain
Inf140	Shipton Junction A4095/A4260	Quarry site access requirements	Infrastructure	No	No	Yes	Near Certain
Inf141	Heyford Park 2016 Infrastructure	This is what is on the ground at 2016	Infrastructure				
Inf142	Heyford Park Existing Permission Infrastructure	This is the access roads required to allow connection to the highway network only e.g. access junctions on Camp Road.	Infrastructure	Yes	Yes	Yes	Near Certain
Inf143	Heyford Park Existing Permission Mitigation	Includes S278 mitigation schemes that are not access (i.e. narrowing on Camp Road) and consented scheme at Middleton Stoney and Camp Road/Chilgrove Drive	Infrastructure	Yes	Yes	Yes	Near Certain
Inf144	Bicester 4	Improvements at A41 / Lakeview Drive signal junction	Infrastructure	Yes	Yes	Yes	Near Certain

INFRASTRUCTURE SCHEMES

ID	Development Name	Description	Note	Dev Type	Total Dev Units/ Area	Complete by Year (Units,			Certainty
						2021	2026	2031	
Res101	Bicester Community Hospital	Application (12/00809/F) for demolition of existing community hospital and redevelopment of site to provide a new community hospital and 14 residential units was approved on 27 September 2012.	OX26 6DU	C3Dwellings		14	14	14	Near Certain
Res102	Highways Depot	Completed prior to June 2016		C3Dwellings		0	0	0	Completed
Res103	Bicester 13 (Gavray Drive)	A strategic allocation in the adopted Local Plan 2011-2031 for 300 dwellings (Bicester 13). HELAA273. Application (15/00837/OUT) for 180 dwellings was received on 11/5/2015 and is at appeal.	300 dwellings should be applied in a 2031 high growth scenario	C3Dwellings		180	180	180	More Than Likely
Res104	Bicester 2 (Graven Hill)	See 2017 AMR for planning information	2100 in 2031 high growth scenario	C3Dwellings		571	1571	1900	More Than Likely
Res105	Kingsmere	See 2017 AMR for planning information	950 taken from 2016 AMR	C3Dwellings		950	950	950	Near Certain
Res106	Land at Skimmingdish Lane	Application (14/00697/F) for 46 dwellings was approved on 9 December 2015.		C3Dwellings		46	46	46	Near Certain
Res107	Land south of Church Lane (Old Place Yard and St Edburgs)	Non-Statutory allocation for 15 dwellings. Development principles approved in June 2007. Permission for 11 units (16/00043/F) on either side of the former Bicester Library and is currently under construction. The former Library site is site HELAA080. Total units expected on site is 16.	OX26 6AU. 16 should be applied to 2031 high growth scenario.	C3Dwellings		11	11	11	Near Certain
Res108	Land south of Talisman Road	Outline application 09/01592/OUT for 140 dwellings granted on appeal (APP/C3105/A/11/2147212) on 18 August 2011. Reserved Matters application for 125 dwellings (13/01226/REM) was approved on 13 February 2014.	The site was completed in March 2018	C3Dwellings		125	125	125	Near Certain
Res109	NWB Eco-town Exemplar	See 2017 AMR for planning information		C3Dwellings		213	303	303	Near Certain
Res110	NWB Phase 2	See 2017 AMR for planning information		C3Dwellings		405	1505	2605	More Than Likely
Res111	SE Bicester (12) (Wretchwick Green)	A strategic allocation in the adopted Local Plan 2011-2031 for 1500 dwellings (Bicester 12). HELAA261. Please see 2017 AMR for planning information. A revised outline planning application is expected soon.	Could be seen as a high growth scenario as no houses have permission.	C3Dwellings		175	1175	1500	More Than Likely
Res112	South West Bicester Phase 2 (Bicester 3)	A strategic allocation in the adopted Local Plan 2011-2031 for 726 dwellings (Bicester 3). Resolution (7 August 2014) to approve 709 homes (13/00847/OUT) subject to legal agreement.		C3Dwellings		190	709	709	Near Certain
Res113	St Edburg's School, Cemetery Road	Development principles approved in October 2008. A planning application for residential development was submitted in 2009 (09/00082/OUT) but withdrawn to enable land ownership issues to be resolved. HELAA262.	OX26 6BB	C3Dwellings		10	10	10	More Than Likely
Res114	Winners Bargain Centres, Victoria Road	Application (15/00412/F) for redevelopment to form 42 sheltered apartments for the elderly, communal facilities, access, carparking and landscaping was approved on 15 June 2015.	OX26 6QD. Completed in September 2016	C3Dwellings		42	42	42	More Than Likely
Res115	Windfall allowance	Windfall allowance at Bicester is 10 units for the start of the trajectory and then reduced to 5 towards the end Please note this allowance cannot be included in the model due to lack of location details.		C3Dwellings		134	174	199	
Res116	Bessemere Close/Launton Rd	Non-statutory allocation for 70 dwellings. See 2017 AMR for details		C3Dwellings		70	70	70	More Than Likely
Res117	Cattlemarket	Non-statutory allocation for 40 dwellings. HELAA264. See 2017 AMR for details		C3Dwellings		0	40	40	More Than Likely
Res118	Upper Heyford Consented	574 dwellings by 2016. Additional 665 by 2031 (1239 total) Based on PBA drawings See Figures 1 and 2	Permitted development	C3Dwellings		665	665	665	Near Certain

RESIDENTIAL DEVELOPMENTS

ID	Development Name	Description	Location	Dev Type	Complete by Year (Units, sqm,			Certainty
					2021	2026	2031	
Emp101	NW Bicester	17/01090/OUT - Development of B1 B2 and B8 (Use Classes) employment buildings including landscaping; parking and service areas; balancing ponds and swales; and associated utilities and infrastructure. Construction of a new access off Middleton Stoney Road (B4030); 53,000 sq metres of flexible employment provision covering an area of 9.45ha. Part superseded by 17/01090/OUT (eastern part).	Bic 1 - OS Parcel 4200 Adjoining And North East Of A4095 And Adjoining And South West Of Howes Lane Bicester	B8/B1/B2	26,500	53,000	53,000	Near Certain
Emp102	Graven Hill	11/01494/OUT - facilities to include A1 A2 A3 A5 and D1 uses totalling up to 1358sqm up to 1000sqm gross A1 uses a pub/restaurant/hotel (class A4/A3/C1) up to 1000sqm. employment floorspace comprising up to B1(a) 2160sqm B1(b) 2400sqm B1(c) and B2 20520sqm and B8 uses up to 66960sqm. Erection of a 70400sqm fulfilment centre on 'C' s.	Bic 2 - Site C Ploughley Road	A1/A2/A3/A4/A5/D1/C1/B1a/B1b/B1c/B2/B8		46,619	93,238	Near Certain
Emp103	Bicester Business Park	17/02534/OUT (Not determined) - The construction of a business park of up to 60,000 sq.m (GEA) of flexible Class B1(a) office / Class B1(b) research & development floorspace. High Growth scenario could be 103,250 in 2031 in line with the local plan employment trajectory.	Bic 4	B1	30,000	60,000	60,000	More Than Likely
Emp104	Bicester Gateway	16/02586/OUT - 14 972 sq m (Gross External Area) of B1 employment based buildings plus a hotel (up to 149 bedrooms). 63,000 would be a high growth scenario from 2026	Bic 10	B1 and hotel	14,972	14,972	14,972	Near Certain
Emp105	NE Bicester Business Park	15/01012/OUT - OUTLINE - Development of up to 48,308sqm of employment floorspace (Class B1c B2 B8 and ancillary B1a uses.	Bic 11	B1ac/B2/B8	48,308	48,308	48,308	Under Construction
Emp106	Wretchwick Green	16/01268/OUT - up to 18ha of employment land for B1 and/ or B8 uses, a local centre with retail and community use to include A1 and/ or A2 and/ or A3 and/ or A4 and/ or A5 and/ or D1 and/ or D2 and/ or B1 and/ or uses considered as sui generis. This could be viewed as a high growth scenario as is currently being adapted, but it is likely that something will come forward and so Local Plan employment trajectories have been used, less symmetry park.	Bic 12	B1(c)/B8	-	38,646	77,292	More Than Likely
Emp107	SE Bicester	16/00861/HYBRID (not determined) -Full planning permission for 18,394 SQM (198,000 SQ FT) of logistics floor space within class B8 with ancillary class B1 (A) offices. Outline planning permission for up to 44,314 SQM (477,000 SQ FT) of logistics floor space within class B8 with ancillary class B1 (A) offices.	Bic 12: Symetry Park	B8 plus ancillary B1a	62,708	62,708	62,708	Near Certain
Emp108	Canalside		Ban 1	Town centre/commercial uses (not including B use classes)	-	-	-	Reasonably Foreseeable
Emp109	Land West of M40	10/01816/HYBRID - 24,005sq meters B2 (Industrial) and/or B8 (warehouse/distribution) uses. Could assume a high growth scenario of 122500 in 2031 in line with Local Plan trajectory. 24k sqm completed prior to June 2016 65k LP allocation	Ban 6	B1/B2/B8		32,736	65,472	Reasonably Foreseeable
Emp110	Land East of M40		Ban 15	B1/B2/B8	22750	45500	45500	Reasonably Foreseeable
Emp111	Former SAPA Site	Completed pre June 2016		B1, B2 and B8	0	0	0	Reasonably Foreseeable
Emp113	Kingsmere	Superseded by Kingsmere retail	Bic 3	B1				Near Certain
Emp114	Bicester Village Phase 4	15/00082/F - 5,181 sqm (GIA) retail floorspace and 118sqm ancillary toilet floorspace	Bicester Village	A1	5181	5181	5181	Near Certain
Emp115	Bicester Gateway (Kingsmere Retail)	16/02505/OUT A1 - 7832sqm, A3 - 443sqm, D2 - 967sqm			9242	9242	9242	Near Certain
Emp116	McDonalds Drive-thru	17/00889/F Two storey drive-thru restaurant (class A3/A5) - 548sqm		A1/A5	548	548	548	Near Certain
Emp117	Heyford Park Consented	2016 = 1,509 2021 onwards = 1,700			191	191	191	Near Certain

EMPLOYMENT DEVELOPMENTS

This tab is for shopping trips. Jobs are covered under employment

ID	Development Name	Description	Location	Dev Type	Complete by Year (Units, sqm) Cummulative			Certainty
					2021	2026	2031	
Ret1	Bicester Village Phase 4	15/00082/F - 5,181 sqm (GIA) retail floorspace and 118sqm ancillary toilet floorspace		A1	5181	5181	5181	Near Certain
Ret2	Bicester Gateway (Kingsmere Retail)	16/02505/OUT A1 - 7832sqm, A3 - 443sqm, D2 - 967sqm	Bic 3		9242	9242	9242	Near Certain
Ret3	McDonalds Drive-thru	17/00889/F Two storey drive-thru restaurant (class A3/A5) - 548sqm		A1/A5	548	548	548	Near Certain

RETAIL DEVELOPMENT

ID	Development Name	Notes	Dev Type	Complete by Year (Units,			Certainty
				2021	2026	2031	
Sch101	Bicester – SW (Kingsmere)	Due to open 2019	600-place secondary	600	600	600	Near Certain
Sch102	Bicester – SW (Kingsmere)	Possibly +420 places, most likely after 2021 but by 2026	Primary – prob 2fe	0	420	420	More Than Likely
Sch103	Bicester – S (Graven Hill)	Possibly +210 places by 2021 and another +420 places by 2026	Primary – 2-3fe	210	630	630	Near Certain
Sch104	Bicester – NW (Ecotown)	+210 places in 2017; probably another +210 places by 2021; by 2026 say another +420 places; another +420 places possible by 2031 or might be later.	3-4 primaries	420	840	1260	More Than Likely
Sch105	Bicester – NW (Ecotown)	Assume +600 by 2026; possibly another +600 by 2031	Secondary – size tbc	0	600	1200	More Than Likely
Sch106	Bicester – SE	Possibly +420 places, most likely after 2021 but by 2026	Primary – 2fe?	0	420	420	More Than Likely
Sch107	Longfield	Longfield increase this year from 1.5fe to 2fe	Primary	58	79	101	Completed
Sch108	Launton	Launton is looking at going up from 175 to 210 places from 2017, subject to consultation	Primary	35	35	35	Hypothetical
Sch109	St Edburgs	St Edburg's is now 2fe in its new location, with actual pupil numbers still to rise.	Primary	169	348	528	Completed
Sch110	Upper Heyford committed	These are additional places as part of the existing permission	Primary			280	Near Certain
Sch111	Upper Heyford committed	These are additional places as part of the existing permission	Secondary – size tbc			180	Near Certain

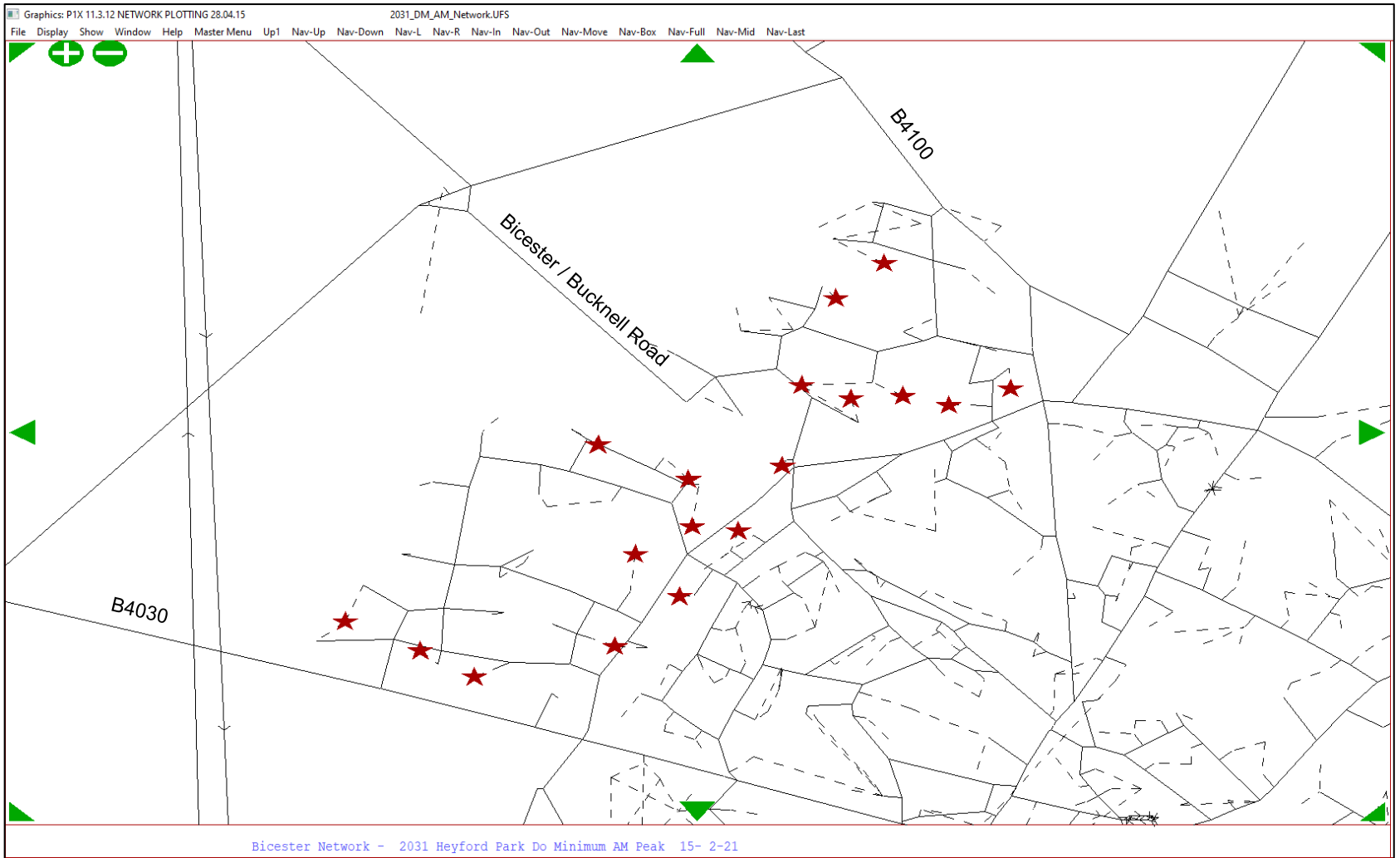
EDUCATION

Originator	Reason for Modelling	Model Name	HPA Traffic Included	Heyford Park Allocation Mitigation											Comments		
				Public Transport Improvements (1)	HPA M40 J10 Improvements (2)	B430 / Unamed Road Junction (3)	Hopcrofts Holt Junction (4)	B4027 / A4260 Junction (5)	Middleton Stoney Bus Gate (6)	Middleton Stoney Junction (7)	Middleton Stoney Bypass	HGV Weight Restriction on B4030 (8)	HGV Weight Restriction on B4030 (9)	Ardley Village B430 Signalisation (10)		Chilgrove Drive / Camp Road Junction Upgrade (11)	
Oxfordshire County Council	Testing Impact and Mitigation of Heyford Park Allocation (HPA)	2016 Base Year	No	No	No	No	No	No	No	No	No	No	No	No	No		
		2026 Reference Case	No	No	No	No	No	No	No	No	No	No	No	No	No	No	
		2031 Reference Case	No	No	No	No	No	No	No	No	No	No	No	No	No	No	
		2031 Do Nothing	Yes	No	No	No	No	No	No	No	No	No	No	No	No	Yes	
		2031 Do Minimum	Yes	Yes	Yes	Yes (see comments)	Yes	Yes	No	No	No	No	No	No	No	Yes	B430 / Unnamed junction improvements are the basic signalisation of the existing priority junction.
		2031 Do Something 1	Yes	Yes	Yes	Yes (see comments)	Yes	Yes	Yes	Yes	No	No	No	No	No	Yes	B430 / Unnamed junction improvements are the signalisation of the junction with increased capacity from the Do Minimum scenario.
		2031 Do Something 1a	Yes	Yes	Yes	Yes (as DS1)	Yes	Yes	Yes (see comments)	No	No	No	No	No	No	Yes	Bus gate in alternative location, on Camp Road.
		2031 Do Something 1b	Yes	Yes	Yes	Yes (as DS1)	Yes	Yes	Yes	Yes	No	No	No	No	No	Yes	
		2031 Do Something 2	Yes	Yes	Yes	Yes (as DS1)	Yes	Yes	Yes	Yes	Yes (see comments)	No	No	No	No	Yes	Eastern section of bypass only.
		2031 Do Something 3	Yes	Yes	Yes	Yes (as DS1)	Yes	Yes	Yes	Yes	Yes (see comments)	No	No	No	No	Yes	Full bypass scheme included.
Kingsmere	Kingsmere Update	2026 Reference Case Kingsmere Update	No	No	No	No	No	No	No	No	No	No	No	No	No	Amendment of the 2026 Reference Case to limit access to Kingsmere development from the Pioneer Way junction	
		2031 Reference Case Kingsmere Update	No	No	No	No	No	No	No	No	No	No	No	No	No		

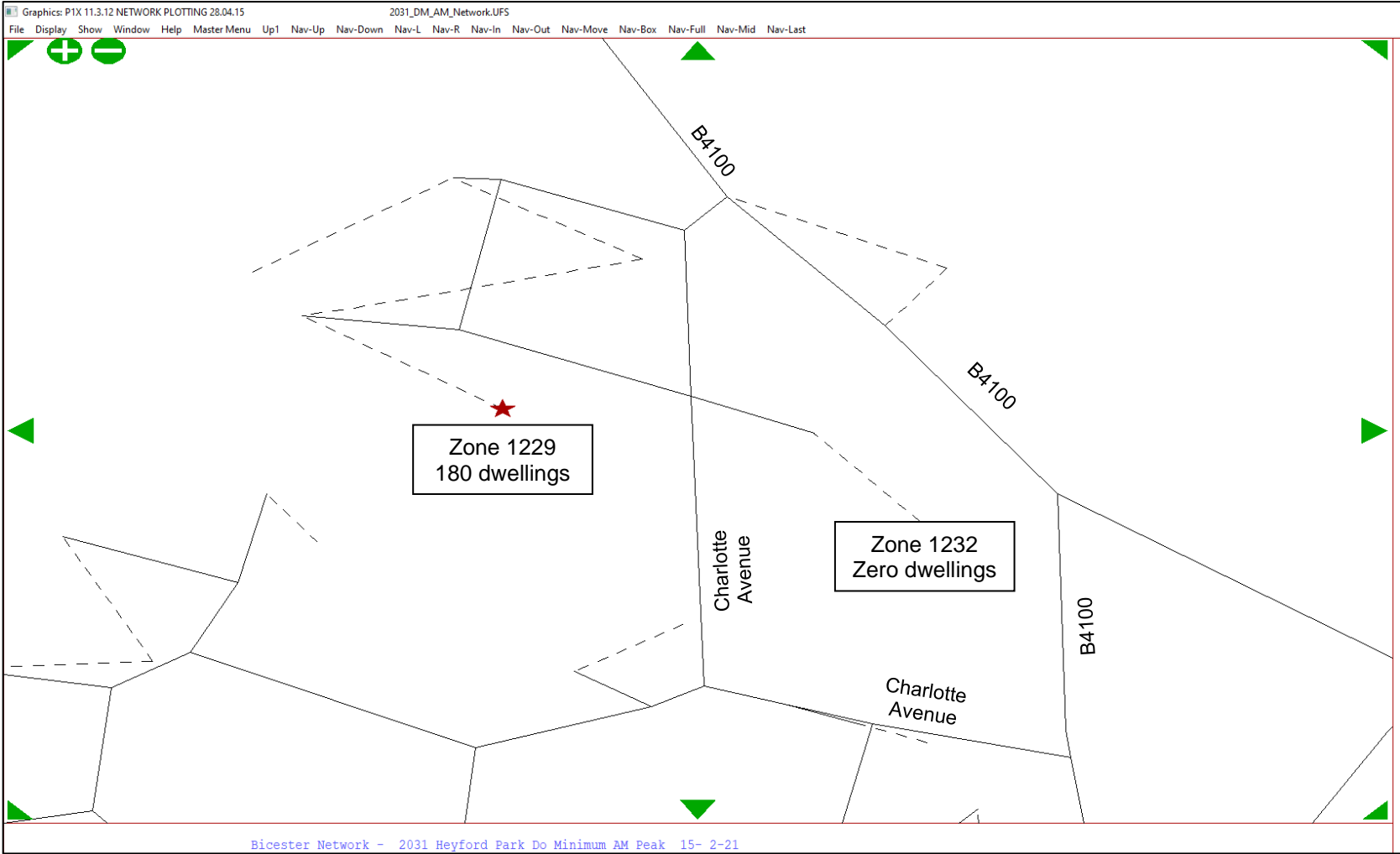
NOTES:

1. Increased bus services to to HPA site.
2. Signals on Baynards Green roundabout. Signals on Padbury roundabout. Additional southbound lane on Cherwell signal junction. Signals on Ardley road roundabout.
3. Existing three arm priority junction changed to signal controlled junction. (Node 40995)
4. Increased capacity at existing signal controlled junction. (Node 90880)
5. Existing staggered priority crossroads changed to a four arm roundabout. (Nodes 42058 and 40392)
6. Bus gate on B4030 to the north-west of Middleton Stoney. (Between nodes 40235 and 90298 or for DS1a only between nodes 4235 and 40990)
7. Improvements to existing four arm signal controlled junction in the centre of Middleton Stoney. (Nodes 40230 and 41480)
8. HGV weight restriction is on the B4030 directly to the east of Middleton Stoney. (Between nodes 41480 and 96030)
9. HGV weight restriction is on the B4030 directly to the west of Lower Heyford. (Between nodes 40245 and 40387)
10. Existing staggered priority crossroads changed to a signal junction. (Nodes 901880 and 410220)
11. Existing staggered priority crossroads changed to a signal junction. (Nodes 40990 and 96550)

Summary of inclusions in the Heyford Park Allocation (HPA) Bicester Transport Model scenarios (Simplified Table)

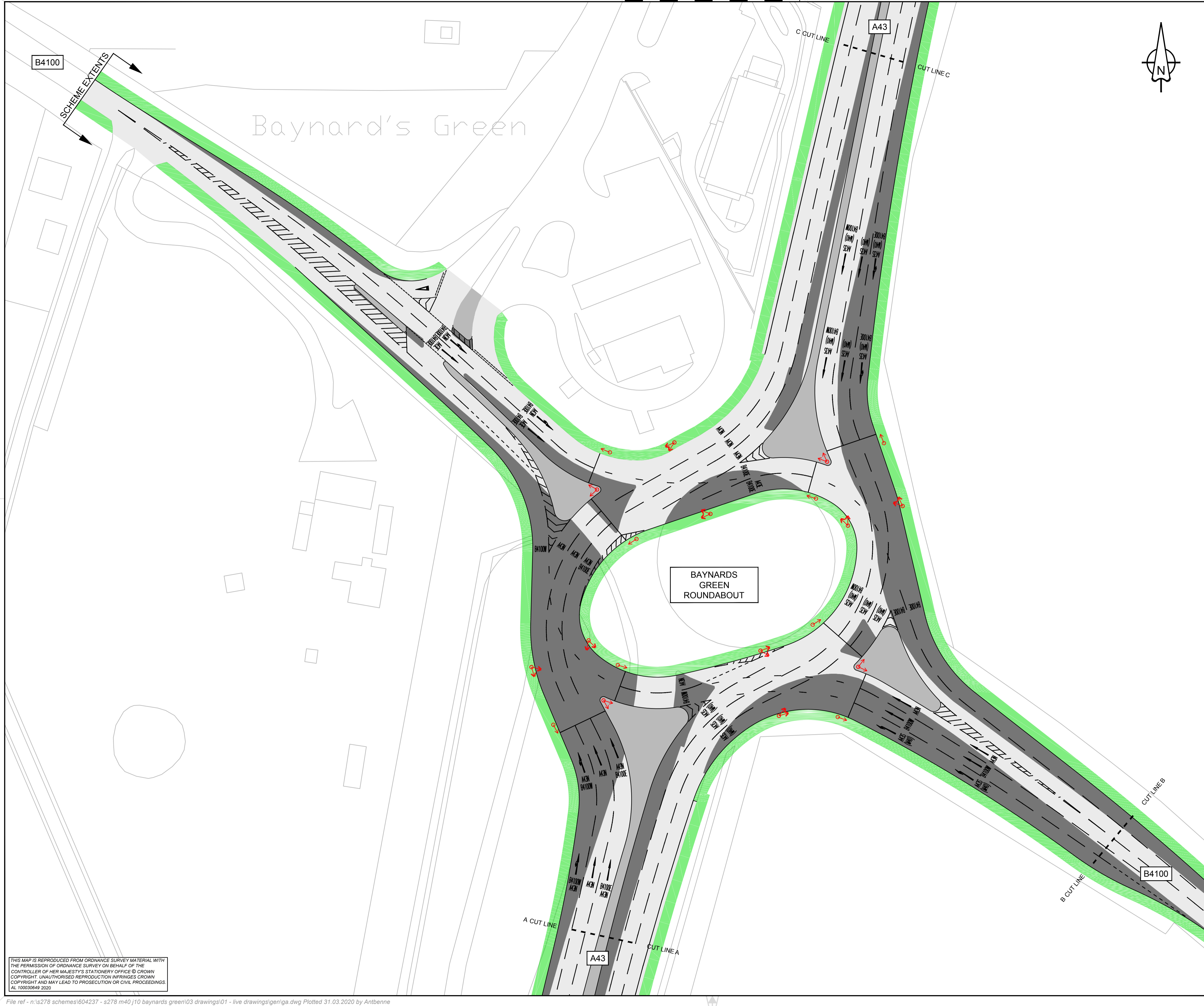


North West Bicester (Bicester 1) Zones with Dwellings in 2031



Attachment 4:

A43/B4100 Baynards Green Junction Improvements



- NOTES:**
- ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.
- KEY:**
- PROPOSED CARRIAGEWAY WIDENING WORKS.
 - PROPOSED SPLITTER ISLANDS AND HARDSTANDING AREAS.
 - VERGE.
 - EXISTING CARRIAGEWAY, AREA TO REMAIN WITHIN EXTENTS OF WIDENING WORKS.
 - PROPOSED TRAFFIC SIGNALS

REV	DETAILS	CHKD	APPD	DATE

DRAWN : ADB	DRAWING STATUS
DESIGN : ADB	WORK IN PROGRESS ✓
CHKD :	PRELIMINARY DRAWING
APPD :	EXTERNAL ISSUE
DATE :	AS BUILT
SUITABILITY :	NOT FOR ISSUE

CLIENT

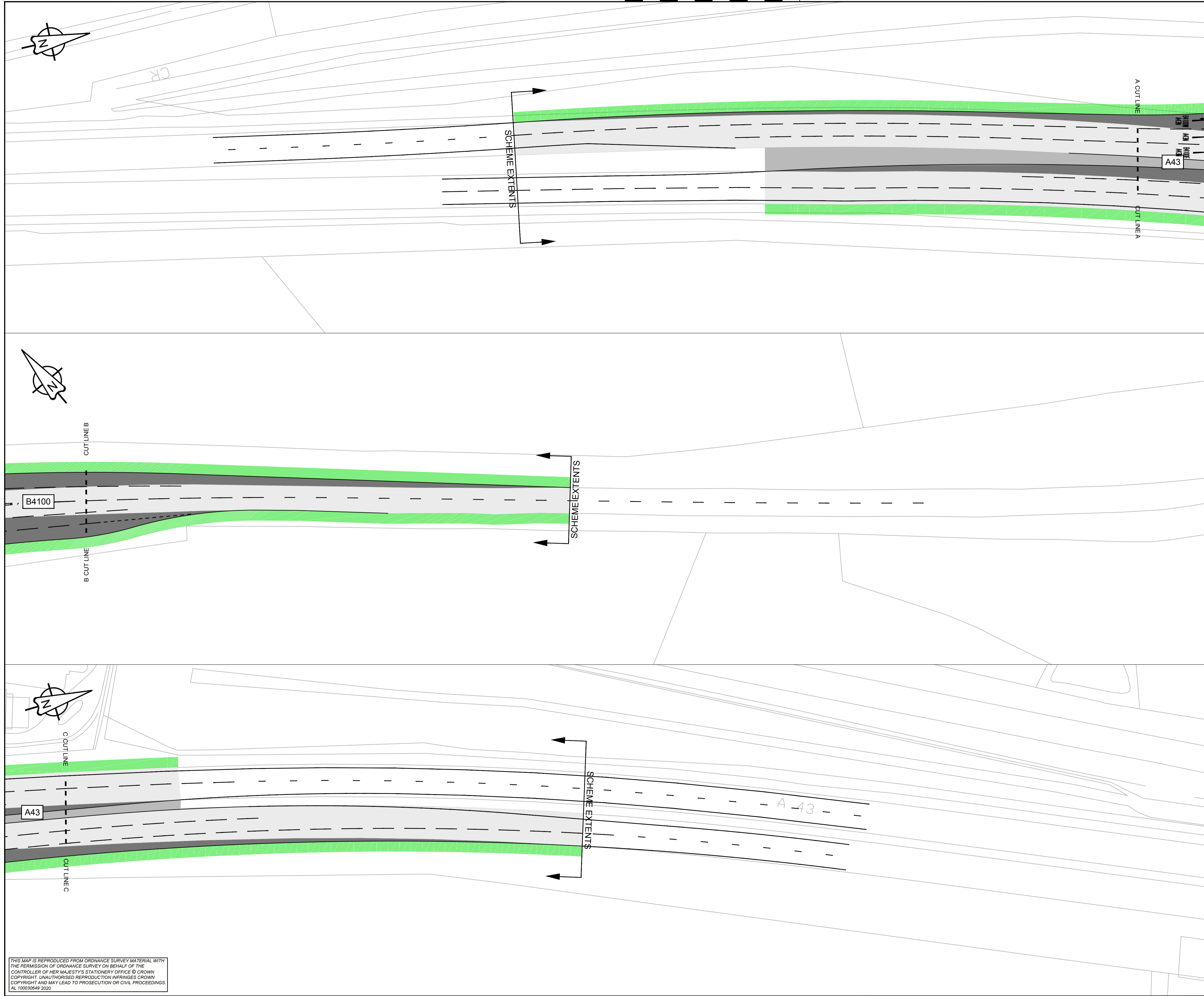
AGENT

SCHEME NAME
M40 J10 IMPROVEMENT SCHEME

DRAWING TITLE
**BAYNARDS GREEN ROUNDABOUT
 GENERAL ARRANGEMENT
 SHEET 1 OF 2**

ORIG DRAWING SIZE : A1	DIMENSIONS : m
COPYRIGHT © KIER	SCALE : 1:500
DRAWING NUMBER	SCHEME REFERENCE No.
PROJECT ORIGINATOR VOLUME	2170038
HE604237 - KIER - GEN	REVISION
M40_JN10_Z - DR - CH - 0100_02	-
LOCATION TYPE ROLE NUMBER	

THIS MAP IS REPRODUCED FROM ORDNANCE SURVEY MATERIAL WITH THE PERMISSION OF ORDNANCE SURVEY ON BEHALF OF THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE © CROWN COPYRIGHT. UNAUTHORISED REPRODUCTION INFRINGES CROWN COPYRIGHT AND MAY LEAD TO PROSECUTION OR CIVIL PROCEEDINGS. AL 100030649 2020



- NOTES:**
1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.
- KEY:**
- PROPOSED CARRIAGEWAY WIDENING WORKS.
 - PROPOSED SPLITTER ISLANDS AND HARDSTANDING AREAS.
 - VERGE.
 - EXISTING CARRIAGEWAY, AREA TO REMAIN WITHIN EXTENTS OF WIDENING WORKS.
 - PROPOSED TRAFFIC SIGNALS

REV	DETAILS	CHKD	APPD	DATE

DRAWN : ADB	DRAWING STATUS
DESIGN : ADB	WORK IN PROGRESS ✓
CHKD :	PRELIMINARY DRAWING
APPD :	EXTERNAL ISSUE
DATE :	AS BUILT
SUITABILITY :	NOT FOR ISSUE



SCHEME NAME
M40 J10 IMPROVEMENT SCHEME

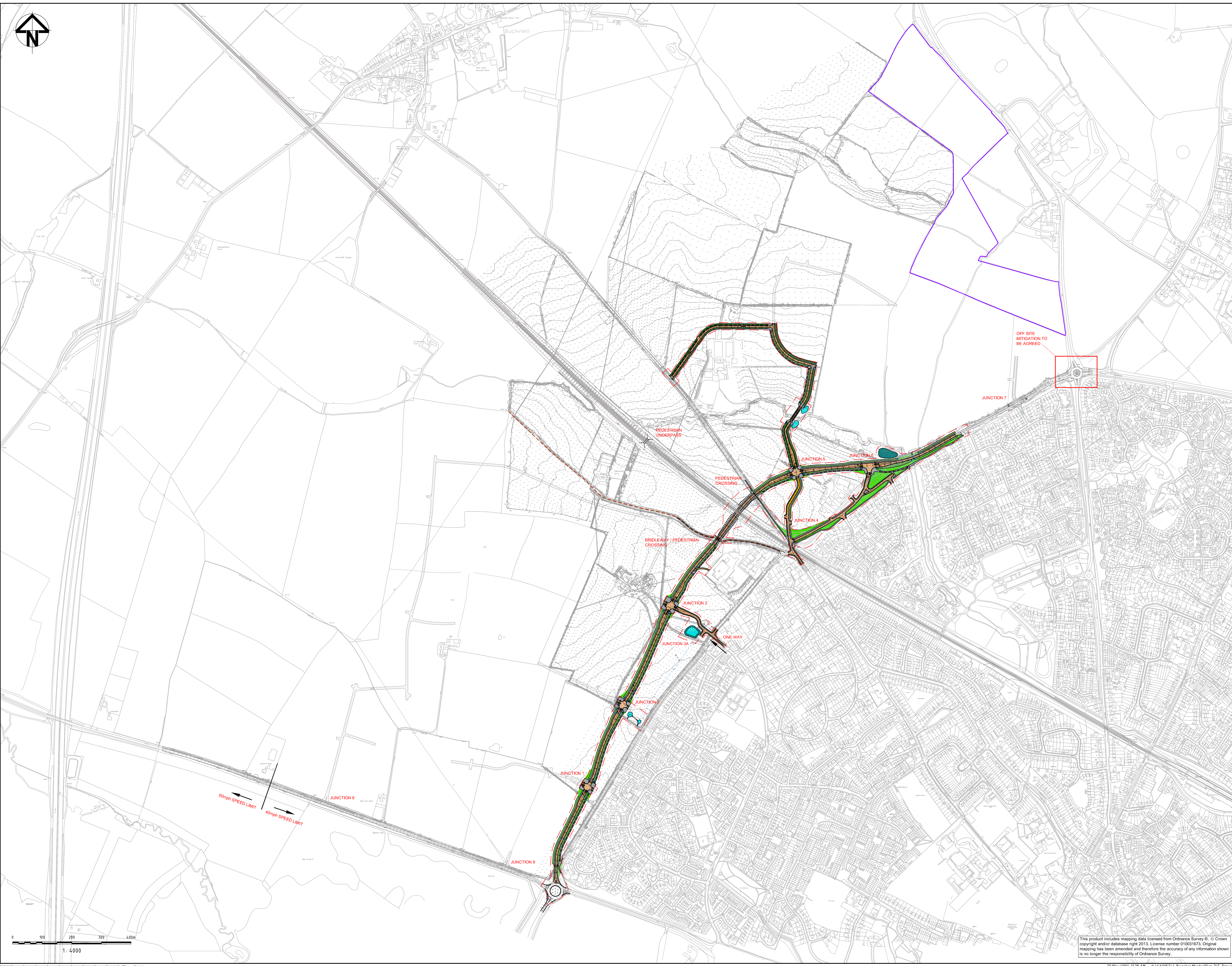
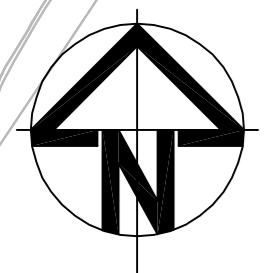
DRAWING TITLE
BAYNARDS GREEN ROUNDABOUT
GENERAL ARRANGEMENT
SHEET 2 OF 2

ORIG DRAWING SIZE : A1	DIMENSIONS : m
COPYRIGHT © KIER	SCALE : 1:500
DRAWING NUMBER	SCHEME REFERENCE No.
PROJECT ORIGINATOR VOLUME	2170038
HE604237 - KIER - GEN	
M40_JN10_Z - DR - CH - 0100_03	REVISION
LOCATION TYPE ROLE NUMBER	-

THIS MAP IS REPRODUCED FROM ORDNANCE SURVEY MATERIAL WITH THE PERMISSION OF ORDNANCE SURVEY ON BEHALF OF THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE © CROWN COPYRIGHT. UNAUTHORISED REPRODUCTION INFRINGES CROWN COPYRIGHT AND MAY LEAD TO PROSECUTION OR CIVIL PROCEEDINGS. AL 100030649 2020

Attachment 5:

Strategic Highway Link Plans



KEY

- EXEMPLAR SITE BOUNDARY
- PLANNING APPLICATION 3 BOUNDARY
- CARRIAGEWAY
- BUS ONLY LINK
- - - BRIDLE WAY
- - - SWALE
- VERGE/LANDSCAPE
- FOOTWAY / CYCLEWAY (FOOTWAY 2.5m / 3.0m WIDE) (CYCLEWAY 2.5m WIDE)
- - - PIPED DRAINAGE
- DRAINAGE POND

OFF SITE MITIGATION TO BE AGREED

JUNCTION 7

PEDESTRIAN UNDERPASS

PEDESTRIAN CROSSING

BRIDLEWAY / PEDESTRIAN CROSSING

JUNCTION 3

JUNCTION 3A

ONE WAY

JUNCTION 2

JUNCTION 1

JUNCTION 9

JUNCTION 8

60mph SPEED LIMIT

40mph SPEED LIMIT

Issue	Description	Date
03	FOR PLANNING	20-11-14
02	JUNCTION LAYOUTS REVISED	09-07-14
01	DRAFT ISSUE FOR DISCUSSION	JUL 14

Status: **FOR PLANNING**

Scales	1:4000	Current Issue Signatures
Original Size	A0	Author: P. WILLIAMS
Height	NEWLYN	Checker: SA. DAVIES
Grid	O.S.	Approver: SA. DAVIES
© Copyright reserved		

Filename: 125-UA005241-UP33-03- HIGHWAY LAYOUT.DWG



Hyder Consulting (UK) Limited
 29, Bressenden Place
 London SW1E 5DZ
 Tel: +44 (0)870 000 3006
 Fax: +44 (0)870 000 3008

Project: **A4095 NW STRATEGIC LINK ROAD BICESTER**

Title: **HIGHWAY LAYOUT MASTERPLAN**

Drawing No	Project No	Issue
125	UA005241	03

This product includes mapping data licensed from Ordnance Survey ©. Crown copyright and/or database right 2013. License number 010031673. Original mapping has been amended and therefore the accuracy of any information shown is no longer the responsibility of Ordnance Survey.

CAD FILE: K:\UA005241-Bicester MasterPlan 2VE-Drawings\Current Drgs\204-UA005241-UP33-04 - Detailed General Arrangement Plan Sheet 4 of 5.dwg
 PRINTED BY: PWS6036 - JANUARY 17/2016 - 3:03PM



KEY



- CARRIAGEWAY
- FOOTWAY / CYCLEWAY
- VERGE
- SUDS FEATURE
- BUS ONLY LANES
- BRIDLEWAY/FOOTPATH/CYCLEWAY
- VISIBILITY SPLAY
- PLANNING APPLICATION BOUNDARY 3
- 2M BUFFER ZONE
- CONTROLLED COMBINED CROSSING TACTILE PAVING
- FOOTWAY - CORDUROY TACTILE PAVING
CYCLEWAY - CORDUROY TACTILE PAVING
- UNCONTROLLED CROSSING TACTILE PAVING
- TRAFFIC LIGHT
- LIGHTING COLUMN
- MANHOLE
- SWALE OUTLET CHAMBER
- CULVERT WITH HEADWALL
- PIPED DRAINAGE
- TREE
- ROAD MARKINGS

Issue	Description	Date
04	A4095 ADDENDUM ISSUE	JAN 16
03	LAYOUT UPDATED	16-10-15
02	VISION SPLAYS ADDED AND ROAD MARKINGS ENHANCED	31-07-15
01	FIRST ISSUE	19-11-14

FOR PLANNING			
Scale	1:1000	Current Issue Signatures	
Original Size	A1	Author	PS
Height Datum	O.S.	Checker	PW
Grid	O.S.	Approver	SAD
Copyright reserved			

Filename: 204-UA005241-UP33-04- DETAILED GENERAL ARRANGEMENT PLAN SHEET 4 OF 5.DWG

Client

Design & Consultancy for natural and built assets

Manning House
22, Carisle Place,
London
SW1P 1JA
Tel: 44 (0)20 3014 9000
Fax: 44 (0)20 7628 9428
www.arcadis.com

Project

A4095 NW STRATEGIC LINK ROAD BICESTER

Title

DETAILED GENERAL ARRANGEMENT PLAN (SHEET 4 OF 5)

Drawing No: 204 — Project No: UA005241 — Issue: 04

ARCADIS CONSULTING (UK) LIMITED
 FORMERLY TRADING AS HYDER CONSULTING (UK) LIMITED

This product includes mapping data licensed from Ordnance Survey ©. © Crown copyright and/or database right 2013. License number 010031673. Original mapping has been amended and therefore the accuracy of any information shown is no longer the responsibility of Ordnance Survey.