Land South of Sapcote Road, Burbage

784-B064979

Technical Note – Review of Planning Conditions 29, 30, 31 and 32

Jelson

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1.0 INTRODUCTION

1.1 BACKGROUND

1.1.1 This Technical Note (TN) has been prepared in relation to planning conditions associated with the approved residential development on land to the south of Sapcote Road, Burbage, Leicestershire (planning application 23/00673/OUT).

1.1.2 Conditions 29, 30, 31 and 32 of the Decision Notice indicate a requirement for four off-site highway mitigation schemes to be delivered prior to first occupation.

1.1.3 The Conditions set out in the Decision Notice (provided in **Appendix A** for reference) are set out below:

Condition 29

No development shall commence until a scheme of highway improvements for the junction of Burbage Road/Hinckley Road/ Sapcote Road have been submitted to and approved in writing by the Local Planning Authority. The scheme shall be designed in broad accordance with the details shown on (Drawing No. A109159-TTE-XX-XX-DR-H-014-P01). **No dwellings shall be occupied until improvements have been made to the Burbage Road/ Sapcote Road/ Hinckley Road Junction** in accordance with the approved details, unless by the time at which a scheme is to be submitted for approval or is due to be delivered, a scheme to improve the Burbage Road/ Sapcote Road/ Hinckley Road junction has already been constructed, or is being constructed by another party.

Reason: To mitigate the impact of the development, in the general interests of highway safety and in accordance with the National Planning Policy Framework (2023).

Condition 30

No development shall commence until a scheme of highway improvements for the junction of Brookside/ Elm Tree Road / Burbage Road have been submitted to and approved in writing by the Local Planning Authority. The improvements shall be designed in broad accordance with the details shown on (Drawing No. A109159-TTE-00-ZZ-DR-H-0033-P01). **No dwellings shall be occupied until improvements have been made to the Brookside/ Elm Tree Road / Burbage Road Junction** in accordance with the approved details.

Reason: To mitigate the impact of the development, in the general interests of highway safety and in accordance with the National Planning Policy Framework (2023).

Condition 31

No development shall commence until a scheme of highway improvements at the Park Road/ London Road junction has been submitted and approved in writing by the Local Planning Authority. The improvements shall be designed in general accordance with the details shown on (Drawing No. A109159-TTE-00-ZZ-DR-H-0034-P01). **No dwellings shall be occupied until the approved scheme has been implemented** in accordance with the approved details.

Reason: To mitigate the impact of the development, in the general interests of highway safety and in accordance with the National Planning Policy Framework (2023).

Condition 32

No development shall commence until a scheme of footway widening on the western side of Burbage Road between Hinckley Road and Brookside has been submitted to and approved in writing by the Local Planning Authority. The proposed improvements shall be designed in broad accordance with the details shown on (Drawing No. A109159-TTE-00-ZZ-DR-H-0031-P01). **No dwellings shall be occupied until the scheme has been provided** in accordance with the approved details.

Reason: To mitigate the impact of the development, in the general interests of highway safety and in accordance with the National Planning Policy Framework (2023).

1.1.4 This TN provides evidence to amend the requirement for highway improvement schemes to be delivered prior to the first occupation of the development as set out in Conditions 29 – 32. This will enable occupation of the development up to a predetermined number of dwellings before the requirement for the delivery of the mitigation schemes is triggered.

1.1.5 This TN therefore seeks to identify a suitable development occupational threshold which will trigger the delivery requirement for the off-site highway mitigation works identified.

1.2 MITIGATION SCHEMES

1.2.1 The above conditions refer to the following schemes:

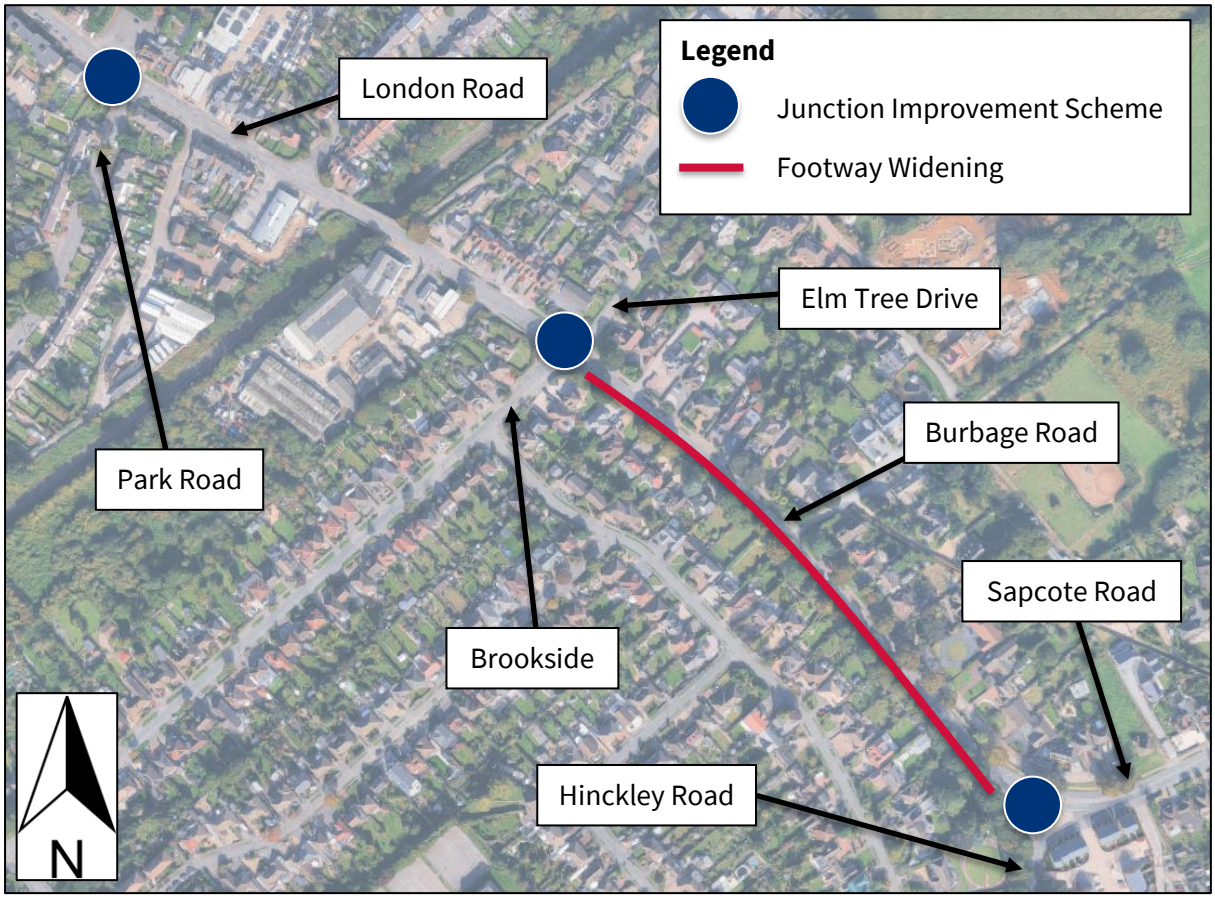
- Signalisation of the existing Sapcote Road / Hickley Road ghost-island-right-turn junction (Condition 29).
- Circa 15m left lane flare extension along the Brookside approach to the Burbage Road / Elm Tree Drive signal junction (Condition 30).
- Formal pedestrian crossing provision, with the inclusion of a central refuge island, over the minor arm of the London Road / Park Road signal junction (Condition 31).
- Footway widening along the southwestern edge of Burbage Road between its junctions with Brookside and Hinckley Road (Condition 32).

1.2.2 The mitigation scheme drawings referred to in the planning conditions can be found in **Appendix B**.

1.3 LOCATIONAL CONTEXT

1.3.1 The locations of the three junctions subject to mitigation schemes referred to in Conditions 29 to 31 is shown in **Figure 1**. The proposed footway widening along Burbage Road referred to in Condition 32 is also shown.

Figure 1 – Study Area



*Source: Google Maps

1.4 PLANNING BACKGROUND

1.4.1 Off-site mitigation requirements were agreed with LCC prior to determination of the planning application. They focus on the B4669 corridor between the site and Hinckley town centre.

1.4.2 The Sapcote Road / Hinckley Road junction is located in the southeast corner of the study area as shown in **Figure 1**. Work undertaken as part of the Transport Assessment demonstrated that the junction currently operates over-capacity and its operation will worsen in the future as a result of background traffic growth and the introduction of development traffic. The mitigation scheme has been designed to improve highway capacity at the junction.

1.4.3 The remaining schemes, herein referred to as the B4669 corridor improvements, were designed to mitigate the impact of the development along the B4669 corridor as a whole and encourage active travel. The schemes include improvements to pedestrian infrastructure and highway capacity.

1.5 METHODOLOGY

1.5.1 The methodology to identify a suitable development occupational threshold which will trigger the delivery requirement for the off-site highway mitigation works is set out below. Whilst the methodology is based on highway capacity, the need to obtain road space booking and the practicality of delivering the works should be acknowledged. In this regard, it is understood that LCC has indicated that the works associated with the four schemes cannot all take place at the same time.

1.5.2 Given that the Sapcote Road / Hinckley Road junction is currently over-capacity and the B4669 corridor as a whole also experiences existing capacity issues, it is not possible to identify a trigger based on the point at which junction capacity is exceeded (as it is already exceeded). Therefore, consideration has been given to identify the number of dwellings in which the resultant trip generation would cause a severe impact at the locations where mitigation schemes are identified.

1.5.3 LCC has previously advised that an increase of than 30 two-way Passenger Car Unit (PCU) trips in a single peak hour is an appropriate threshold for determining when a junction capacity assessment is required. Therefore, an increase of less than 30 two-way trips is generally not considered severe in NPPF terms. It is therefore proposed that the point at which the occupied number of dwellings results in an increase of 30 PCUs at the location in question is used to determine the trigger point for introduction of a mitigation scheme.

1.5.4 The trigger point at the Sapcote Road / Hinckley Road junction is based on the number of trips through the junction. The trigger point for the B4669 corridor improvements is based on the number of trips on the B4669 immediately north of the Sapcote Road / Hinckley Road junction.

1.5.5 The traffic flows agreed as part of the TA work have been used in the calculations. The following approach has been taken:

- Surveyed traffic flows for the three junctions referred to in Conditions 29 – 31 (shown in **Figure 1)** have been obtained (2022 surveyed traffic flows).
- The 2022 observed traffic flows have been uplifted using LCC approved COVID-19 growth factors to elevate traffic volumes to “normal” levels.
- Development trip rates have been obtained from the TA submitted with the approved planning application.
- Development trip generation has been calculated at 25 dwelling increments up to 150 dwellings using TA agreed trip rates, by which point the development will be almost half built out.

- Determination of the critical trigger point at which the occupied number of dwellings results in an increase of 30 Passenger Car Unit (PCU) trips through the Sapcote Road / Hinckley Road junction in a single peak hour.
- Determination of the critical trigger point at which the occupied number of dwellings results in an increase of 30 Passenger Car Unit (PCU) trips along the B4669 corridor in a single peak hour.
- For completeness, calculation of the percentage traffic impact at the Sapcote Road / Hinckley Road junction and along the B4669 corridor for differing numbers of dwellings (calculated against the 2022 surveyed traffic flows).

2.0 MITIGATION TRIGGER POINT TESTING

2.1 BASELINE TRAFFIC FLOWS

2.1.1 Peak hour Covid adjusted surveyed traffic flows for the Sapcote Road / Hinckley Road junction have been obtained from the TA submitted with the approved planning application. The surveys were undertaken in 2022.

2.1.2 Peak hour Covid adjusted surveyed traffic flows along the B4669 corridor (observed in 2022) have been obtained from the TA submitted with the approved planning application. These flows have been derived by averaging the total vehicle movements along the B4669 Burbage Road western arm of the Sapcote Road / Hinckley Road junction and the total vehicle movements along the B4669 Burbage Road eastern arm of the Brookside / Elm Tree Drive junction before uplifting the observed flows by a COVID growth factor.

2.1.3 The AM and PM peak hour Covid adjusted traffic flows for both the Sapcote Road / Hinckley Road junction and the B4669 corridor along Burbage Road are presented in **Table 1.**

Table 1 – 2022 Covid Adjusted Surveyed Traffic Flows

Junction / Arm / Corridor	AM Peak	PM Peak
Sapcote Road / Hickley Road Junction	**2,050**	**1,815**
Burbage Road (W) (Entering Junction)	922	813
Burbage Road (W) (Exiting Junction)	741	634
Burbage Road (W) (Two-Way)	1,663	1,447
Burbage Road (E) (Entering Junction)	644	591
Burbage Road (E) (Exiting Junction)	941	627
Burbage Road (E) (Two-Way)	1,585	1,218
B4669 Corridor (Two-Way)	**1,624**	**1,333**

2.2 DEVELOPMENT TRIP GENERATION

2.2.1 Development vehicular trip rates have been obtained from the agreed TA submitted with the approved planning application. The vehicular trip rates are set out in **Table 2** for reference.

Table 2 – Approved Development Vehicular Trip Rates

AM Peak			PM Peak		
Arrivals	Departures	Two-Way	Arrivals	Departures	Two-Way
0.123	0.387	0.510	0.371	0.171	0.542

2.3 DEVELOPMENT TRIP DISTRIBUTION

2.3.1 Development trips have been distributed using Leicestershire's Pan-Regional Transport Model (PRTM) which was the agreed approach as part of the transport planning work submitted with the outline planning application.

2.4 DEVELOPMENT TRIP ASSIGNMENT

2.4.1 As set out in **Section 1.5**, a trigger point of 30 PCU trips generated by the development in a single peak hour has been adopted as the critical threshold for the delivery of off-site mitigation.

2.4.2 Development trips assigned through the Sapcote Road / Hinckley Road junction and along the B4669 corridor in question have therefore been calculated incrementally at 25 dwelling intervals. This has been used to determine the number of dwellings that can be delivered before the development generates 30 PCU trips through each location.

2.4.3 **Table 3** shows the total number of AM and PM peak development trips that pass through the Sapcote Road / Hinckley Road junction for incremental increases to the number of dwellings.

Table 3 – Development Trip Generation through the Sapcote Road / Hinckley Road Junction

Number of Dwellings	AM Peak	PM Peak
25	9	10
50	19	20
75	**28**	**29**
100	37	39
125	46	49
150	56	59

2.4.4 **Table 3** shows that when 75 dwellings are occupied at the site, the expected increase in traffic flows through the junction will be 28 PCU in the AM peak and 29 PCU in the PM peak. The number of trips through the junction is expected to increase to 37 and 39 PCU during AM and PM peak hours respectively once the 100th dwelling becomes occupied, which takes the traffic generation beyond the trigger point of 30 PCU.

2.4.5 A critical trigger point of 75 dwellings can therefore be established for the delivery of the highway improvement scheme at the Sapcote Road / Hinckley Road junction. It follows that an alteration to Condition 29 is proposed that changes the requirement for delivery of the identified mitigation scheme from "No dwellings shall be occupied" to "Prior to occupation of the 75th dwelling".

2.4.6 **Table 4** shows the total number of two-way AM and PM peak development trips that travel along the B4669 corridor for incremental increases to the number of dwellings.

Table 4 – Two-Way Development Trip Generation along the B4669 Burbage Road Corridor

Number of Dwellings	AM Peak	PM Peak
25	5	5
50	10	11
75	15	16
100	20	21
125	**25**	**27**
150	30	32

2.4.7 **Table 4** shows that when 125 dwellings are occupied at the site, the expected increase in traffic flows along the corridor will be 25 PCU in the AM peak and 27 PCU in the PM peak. The number of trips through the junction is expected to increase to 30 and 32 PCU during AM and PM peak hours respectively once the 150th dwelling becomes occupied, which takes the traffic generation beyond the trigger point of 30 PCU.

2.4.8 In terms of highway capacity, a critical trigger point of 125 dwellings can therefore be established for the delivery of the highway improvement schemes along the B4669 corridor. Noting that LCC has indicated that the works associated with the four schemes cannot all take place at the same time, it is proposed that footway widening on the southwestern edge of Burbage Road (Condition 32) has a later trigger point. This is considered reasonable as pedestrian demand along this corridor from the development will remain low during initial build-out. It follows that an alteration to Conditions 30 and 31 is proposed that changes the requirement for delivery of the identified mitigation

schemes from “No dwellings shall be occupied” to “Prior to occupation of the 125th dwelling”. An alteration to Condition 32 is proposed that changes the requirement for delivery of the identified mitigation schemes from “No dwellings shall be occupied” to “Prior to occupation of the 150th dwelling”.

2.5 DEVELOPMENT TRAFFIC IMPACT

2.5.1 As a review of the appropriateness of the proposed thresholds, development traffic impact has been calculated by determining the proportion of development traffic as a percentage of the total flow at both the Sapcote Road / Hinckley Road junction and along the B4669 corridor.

2.5.2 **Table 5** and **Table 6** show the AM and PM peak development traffic impact at the Sapcote Road / Hickley Road junction and along the B4669 corridor respectively. Full traffic calculations are presented in **Appendix C**.

Table 5 – Development Traffic Impact at the Sapcote Road / Hinckley Road Junction

Number of Dwellings	AM Peak	PM Peak
25	0.4%	0.6%
50	0.9%	1.1%
75	**1.4%**	**1.6%**
100	1.8%	2.1%
125	2.2%	2.7%
150	2.7%	3.3%

Table 6 – Development Traffic Impact along the B4669 Corridor

Number of Dwellings	AM Peak	PM Peak
25	0.3%	0.4%
50	0.6%	0.8%
75	0.9%	1.2%
100	1.2%	1.6%
125	**1.5%**	**2.0%**
150	**1.8%**	**2.4%**

2.5.3 As demonstrated in **Table 5** and **Table 6**, the percentage traffic impact at the proposed trigger points does not exceed 1.6% in either peak at the Sapcote Road / Hinckley Road junction, and does not exceed 2.4% in either peak along the B4669 corridor. The largest impacts are expected in the PM peak period, where traffic levels are forecast to increase by 1.6% and 2.4% at the Sapcote Road / Hinckley Road junction and along the B4669 corridor respectively.

2.5.4 The forecast traffic impacts at the proposed trigger points at both locations are not considered to be severe in NPPF terms.

3.0 SUMMARY AND CONCLUSION

3.1 SUMMARY

3.1.1 This Technical Note (TN) has been prepared in relation to planning conditions associated with the approved residential development on land to the south of Sapcote Road, Burbage, Leicestershire (planning application 23/00673/OUT).

3.1.2 Conditions 29, 30, 31 and 32 of the Decision Notice indicate a requirement for four off-site highway mitigation schemes to be delivered prior to first occupation.

3.1.3 A critical threshold of 30 PCU development trips during peak hours has been identified as an appropriate trigger point for the delivery of off-site mitigation highway schemes at the Sapcote Road / Hinckley Road junction and along the B4669 corridor.

3.1.4 A development trip generation and distribution exercise has been undertaken that demonstrates that the critical threshold of 30 PCU trips is reached during peak hours at 75 and 125 dwellings at the Sapcote Road / Hinckley Road junction and along the B4669 corridor respectively. Noting that LCC has indicated that the works associated with the four schemes cannot all take place at the same time, it is proposed that footway widening on the southwestern edge of Burbage Road (Condition 32) has a later trigger point.

3.1.5 The trigger point for off-site highway mitigation has therefore been identified as the occupation of the 75th dwelling for the Sapcote Road / Hinckley Road junction. Trigger points of the 125th and 150th dwelling have been identified for the B4669 corridor improvement schemes.

3.1.6 These trigger points are deemed appropriate given the low level of traffic impact that the development will have during peak times on the network at these thresholds.

3.2 CONCLUSION

3.2.1 A critical trigger point of 75 dwellings can therefore be established for the delivery of the highway improvement scheme at the Sapcote Road / Hinckley Road junction. It follows that an alteration to Condition 29 is proposed that changes the requirement for delivery of the identified mitigation scheme from “No dwellings shall be occupied” to “Prior to occupation of the 75th dwelling”.

3.2.2 Critical trigger points of 125 and 150 dwellings can therefore be established for the delivery of the highway improvement schemes along the B4669 corridor. It follows that an alteration to Conditions 30 and 31 is proposed that changes the requirement for delivery of the identified mitigation schemes from “No dwellings shall be occupied” to “Prior to occupation of the 125th dwelling”. An alteration to Condition 32 is proposed that changes the requirement for delivery of the identified mitigation schemes from “No dwellings shall be occupied” to “Prior to occupation of the 150th dwelling”.

APPENDIX A: DECISION NOTICE

Hinckley & Bosworth Borough Council

Town and Country Planning Act 1990

Planning Permission

Name and Address of Applicant
Bethany Jelson Homes
Jelson Homes
C/o Agent

Name and Address of Agent (if any)
Mrs Bethany Carr
Avison Young
3 Brindleyplace
Birmingham
B1 2JB

Part I - Particulars of Application

Date of Application	**Application No.**
7 July 2023	23/00673/OUT

Particulars and location of development:

Residential development of up to 343 dwellings (Class C3), including provision of public open space, associated infrastructure and all matters (access only) (re-submission of 22/01037/OUT)
reserved except access.

Land Opposite And South Of Pumping Station Aston Flamville Road Burbage Leicestershire

Part II - Particulars of decision:

In dealing with the application, through ongoing negotiation the local planning authority have worked with the applicant in a positive and proactive manner by offering a pre-application advice service and by seeking solutions to problems arising in relation to dealing with the planning application and this has resulted in the approval of the application. The Local Planning Authority has therefore acted pro-actively to secure a sustainable form of development in line with the requirements of the National Planning Policy Framework (paragraph 38) and in accordance with the Town and Country Planning (Development Management Procedure) (England) Order 2015 (as amended).

In pursuance of its powers under the Town and Country Planning Act 1990, the Hinckley and Bosworth Borough Council grants outline planning permission for the carrying out of the development referred to in Part I hereof, in accordance with the application and plans submitted, subject to the following condition(s) :-

1. Application for the approval of reserved matters shall be made within two years from the date of this permission and the development shall be begun not later than two years from the date of approval of the last of the reserved matters to be approved.

   Reason: To comply with the requirements of Section 92 of the Town and Country Planning Act

2. No development shall be commenced until plans and particulars of "the reserved matters" referred to in the above conditions relating to the: appearance; landscaping; layout; and scale shall be submitted to and approved, in writing, by the local planning authority. The development shall be carried out in accordance with the approved detailed.

   Reason: To ensure a satisfactory form of development in accordance with Policies DM1 and DM10 of the adopted Site Allocations and Development Management Policies Development Plan Document (2016).

IMPORTANT – PLEASE REFER TO THE NOTES AT THE END OF THIS DOCUMENT

3. No development shall take place until a phasing plan has been submitted to and approved in writing by the Local Planning Authority. The development shall be implemented in accordance with the approved phasing plan, unless otherwise agreed in writing with the Local Planning Authority.

   Reason: To ensure the satisfactory phasing of the development and to ensure that utility infrastructure is delivered in a coordinated and planned way in accordance with Policy DM3 of adopted Site Allocations and Development Management Policies Development Plan Document (2016).

4. Any reserved matters application shall be accompanied by a scheme which details the proposed housing mix for the relevant phase of the development which should be in accordance with the Council's adopted Development Plan and the housing needs of the area. The development shall then be completed in accordance with the approved details.

   Reason: To ensure an appropriate housing mix to meet the housing needs of the locality is provided in accordance with Policy 16 of the Core Strategy 2009.

5. The development hereby permitted shall not be carried out otherwise than in complete accordance with the submitted application details, as follows:

   - Site Location Plan - (7162-L-01 Rev A) received 03/11/22
   - Proposed Access Strategy (Tetra Tech A109159-TTE-00-ZZ-DR-H 0004-P07).

   Reason: To ensure a satisfactory form of development in accordance with Policies DM1 and DM10 of the adopted Site Allocations and Development Management Policies Development Plan Document (2016).

6. No development in each phase shall commence on site until such time as the existing and proposed ground levels of the site and proposed finished floor levels in the relevant phase have been submitted to and approved in writing by the local planning authority. The development shall then be implemented in accordance with the approved details.

   Reason: To ensure that the development has a satisfactory appearance and in the interests of visual amenity in accordance with Policy DM10 of the adopted Site Allocations and Development Management Policies Development Plan Document (2016).

7. No development shall commence in any phase until a scheme that makes provision for waste and recycling storage and collection within that phase has been submitted in writing to and approved in writing by the Local Planning Authority. The details should address accessibility to storage facilities and adequate collection point space at the adopted highway boundary. The approved scheme shall be implemented in accordance with the agreed details.

   Reason: To ensure the bin storage on site is not detrimental to the street scene and overall design of the scheme in accordance with Policy DM10 of the adopted Site Allocations and Development Management Policies Development Plan Document (2016).

8. A `Building for a Healthy Life` assessment shall be submitted as part of the reserved matters submission details for this development. The details of the development shall incorporate the 12 considerations set out within the `Building for a Healthy Life` document (Homes England) and parameters shall be agreed with the local planning authority and implemented on site in accordance with the approved details and retained thereafter.

   Reason: To ensure the development is appropriate to the local area and meets amenity standards in accordance with policy DM10 of the Site Allocations and Development Management Policies DPD, Policy 16 of the Core Strategy, and the Good Design Guide SPD.

9. No development approved by this permission shall be commenced in each phase until a scheme for the investigation of any potential land contamination within the relevant phase has been submitted in writing to and agreed in writing by the Local Planning Authority which shall include details of how any contamination shall be dealt with. The approved scheme shall be implemented in accordance with the agreed details and any remediation works so approved shall be carried out prior to the site first being occupied.

   Reason: To ensure that risks from land contamination to the future users of the land and neighbouring

land are minimised in accordance with Policy DM7 of the adopted Site Allocations and Development Management Policies Development Plan Document (2016).

10. If during development, contamination not previously identified is found to be present at the site, no further development shall take place in the relevant phase until an addendum to the scheme for the investigation of all potential land contamination is submitted in writing to and approved in writing by the Local Planning Authority which shall include details of how the unsuspected contamination shall be dealt with. Any remediation works so approved shall be carried out prior to the first dwelling being occupied in the relevant phase.

    Reason: To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised in accordance with Policy DM7 of the adopted Site Allocations and Development Management Policies Development Plan Document (2016).

11. Upon completion of the remediation works a verification report shall be submitted to and approved by the Local Planning Authority. The verification report shall include details of the proposed remediation works and quality assurance certificates to show that the works have been carried out in full in accordance with the approved methodology. Details of any post-remedial sampling and analysis to show the site has reached the required clean-up criteria shall be included in the verification report together with the necessary documentation detailing what waste materials have been removed from the site.

    Reason: To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised in accordance with Policy DM7 of the adopted Site Allocations and Development Management Policies Development Plan Document (2016).

12. Prior to commencement of development a Construction Environmental Management Plan shall be submitted to and agreed in writing by the LPA. The plan shall detail how, during the site preparation and construction phase of the development, the impact on existing and proposed residential premises and the environment shall be prevented or mitigated from dust, odour, noise, smoke, light and land contamination. The plan shall detail how such controls will be monitored. The plan will provide a procedure for the investigation of complaints. The agreed details shall be implemented throughout the course of the development.

    Site preparation and construction shall be limited to the following hours;
    Monday - Friday 07:30 - 18:00
    Saturday 08:00 - 13:00
    No working on Sundays and Bank Holidays

    Reason: To minimise disruption to the neighbouring residents in accordance with Policy DM7 and DM10 of the adopted Site Allocations and Development Management Policies Development Plan Document (2016).

13. No development shall commence on the site until such time as a construction traffic management plan, including as a minimum details of the routing of construction traffic, wheel cleansing facilities, vehicle parking facilities, and a timetable for their provision, has been submitted to and approved in writing by the Local Planning Authority. The construction of the development shall thereafter be carried out in accordance with the approved details and timetable.

    Reason: To reduce the possibility of deleterious material (mud, stones etc.) being deposited in the highway and becoming a hazard for road users, to ensure that construction traffic does not use unsatisfactory roads and lead to on-street parking problems in the area to accord with policy DM17 of the adopted Site Allocations and Development Management Policies DPD 2016.

14. No part of the development hereby permitted shall be occupied until such time as the access arrangements and proposed footway improvements shown on Drawing A109159-TTE-00-ZZ-DR-H-0004-P07 have been delivered in full.

    Reason: To ensure that vehicles entering and leaving the site may pass each other clear of the highway, in a slow and controlled manner, in the interests of general highway safety and in accordance with policy DM17 of the adopted Site Allocations and Development Management Policies DPD 2016 and the National Planning Policy Framework (2023).

15. Prior to the commencement of each phase of development, a Biodiversity Net Gain Strategy (BNGS) and a Project Implementation Plan (PIP) for that phase shall be submitted to and approved in writing

by the local planning authority, unless a BNGS and PIP have previously been submitted to and approved in writing by the local planning authority for the whole site. The BNGS shall detail proposals to redress loss of biodiversity and the mitigation strategy proposed shall include all on and off-site habitats required to deliver a net gain. The BNGS shall use the Biodiversity Metric 4.0 Calculation Tool unless an amended statutory Biodiversity Metric Calculator associated with the Environment Act 2021 becomes mandatory.

The PIP shall detail the delivery of ecological BNG mitigation and compensation, in accordance with the approved BNG strategy. The PIP shall include timescales for implementation, and an ongoing management and maintenance plan. The BNGS and PIP shall be implemented, managed and maintained in accordance with the approved details.

On completion of each phase, an update of the BNG Strategy shall be submitted to the local planning authority to demonstrate how a BNG has been delivered for that phase.

Reason: To ensure that the development does not cause harm to any protected species or their habitats in accordance with Policy DM6 of the Site Allocations and Development Management Policies DPD 2016, and to ensure that the development achieves Biodiversity Net Gain in accordance with paragraph 180 of the NPPF (2023).

16. No development or site clearance shall take place until an ecological mitigation and enhancement strategy has been submitted to and approved in writing by the LPA. All works are to proceed strictly in accordance with the approved scheme.

Reason: To ensure that the development does not cause harm to any protected species or their habitats in accordance with Policy DM6 of the Site Allocations and Development Management Policies DPD 2016 and Government guidance contained within the National Planning Policy Framework (2023).

17. No development shall take place/commence until the necessary programme of archaeological work has been completed. The programme will commence with an initial phase of trial trenching to inform a final archaeological mitigation scheme. Each stage will be completed in accordance with a written scheme of investigation (WSI), which has been submitted to and approved by the local planning authority in writing. For land that is included within the WSI, no demolition/development shall take place other than in accordance with the agreed mitigation WSI, which shall include the statement of significance and research objectives, and

- The programme and methodology of site investigation and recording and the nomination of a competent person(s) or organisation to undertake the agreed works

- The programme for post-investigation assessment and subsequent analysis, publication & dissemination and deposition of resulting material. This part of the condition shall not be discharged until these elements have been fulfilled in accordance with the programme set out in the WSI.

Reason: To ensure satisfactory archaeological investigation, recording, dissemination and archiving in accordance with Policy DM12 and DM13 of the Site Allocations and Development Management Policies DPD 2016.

18. Prior to the commencement of development, a noise assessment to determine which, if any, residential properties are affected by noise from Woodside garage, Burbage dance studio and the road network shall be submitted to and approved, in writing, by the Local Planning Authority. The assessment shall have been undertaken by a competent person, shall include periods for daytime as 0700-2300 hours and night-time as 2300-0700 hours, and identify appropriate noise mitigation measures. All residential units shall thereafter be designed so as not to exceed the noise level criteria as referenced in BS8233:2014 Guidance on sound insulation and noise reduction for buildings.

Reason: To ensure that the development hereby permitted is not detrimental to the amenity of the future residents by reason of undue external noise where there is insufficient information within the submitted application, in accordance with Policy DM10 of the SADMP.

19. No approval of reserved matters shall take place until such time as the following details have been submitted to, and approved in writing by the Local Planning Authority. Any subsequent design must be carried out in accordance with these approved details.

a. Modelling updated to the reflect upper end climate change allowance for both

the proposed and existing scenarios.

b. Full details of flood compensations areas supported by revised modelling, unless modelling/layout demonstrates that compensation is not required.

c. Details demonstrating finished floor levels are set at least 300mm above the modelled 1 in 100 year plus upper end climate change allowance.

d. Full consideration of source control SuDS.

Reason: To prevent flooding by ensuring the satisfactory placement and level of development relative to the existing watercourses and to minimise off-site surface water pollution risk in accordance with Policy DM7 of the adopted Site Allocations and Development Management Policies Development Plan Document (2016).

20. No development approved by this planning permission shall take place until such time as a surface water drainage scheme has been submitted to, and approved in writing by the Local Planning Authority.

Reason: To prevent flooding by ensuring the satisfactory storage and disposal of surface water from the site in accordance with Policy DM7 of the adopted Site Allocations and Development Management Policies Development Plan Document (2016).

21. No development approved by this planning permission shall take place until such time as details in relation to the management of surface water on site during construction of the development has been submitted to, and approved in writing by the Local Planning Authority.

Reason: To prevent an increase in flood risk, maintain the existing surface water runoff quality, and to prevent damage to the final surface water management systems though the entire development construction phase in accordance with Policy DM7 of the adopted Site Allocations and Development Management Policies Development Plan Document (2016).

22. No occupation of the development approved by this planning permission shall take place until such time as details in relation to the long-term maintenance of the surface water drainage system within the development have been submitted to and approved in writing by the Local Planning Authority.

Reason: To establish a suitable maintenance regime that may be monitored over time; that will ensure the long-term performance, both in terms of flood risk and water quality, of the surface water drainage system (including sustainable drainage systems) within the proposed development in accordance with Policy DM7 of the adopted Site Allocations and Development Management Policies Development Plan Document (2016).

23. No development approved by this planning permission shall take place until such time as infiltration testing has been carried out (or suitable evidence to preclude testing) to confirm or otherwise, the suitability of the site for the use of infiltration as a drainage element, has been submitted to and approved in writing by the Local Planning Authority.

Reason: To demonstrate that the site is suitable (or otherwise) for the use of infiltration techniques as part of the drainage strategy in accordance with Policy DM7 of the adopted Site Allocations and Development Management Policies Development Plan Document (2016)

24. No development shall take place in any phase until an Arboricultural Method Statement for the relevant phase, including details of the position, species, size and condition of each existing tree and hedgerow on and adjacent to the phase, and identifying those trees and hedgerows to be retained, has first been submitted to and approved in writing by the local planning authority. This shall include full details of measures for the protection of trees and hedgerows to be retained during the course of development. Thereafter, the development shall be carried out in accordance with the approved Arboricultural Method Statement.

Reason: To ensure that trees and hedgerows are retained and adequately protected during and after construction in the interests of visual amenity and biodiversity, in accordance with Policy DM6 of the adopted Site Allocations and Development Management Policies Development Plan Document (2016).

25. No part of the development hereby permitted shall be first occupied until an amended full Travel Plan

which sets out actions and measures with quantifiable outputs and outcome targets has been submitted to and agreed in writing by the Local Planning Authority. Thereafter the agreed Travel Plan shall be implemented in accordance with the approved details.

Reason: To reduce the need to travel by single occupancy vehicle and to promote the use of sustainable modes of transport in accordance with the National Planning Policy Framework (2023).

26. No dwelling hereby approved shall be occupied unless and until a Public Transport Strategy has been submitted to and agreed in writing by the Local Planning Authority. The Public Transport Strategy shall include details of a bus service that shall: (i) be provided by the developer; (ii) run, as a minimum, between the site (or a location no more than 400m from one of the site's boundaries), Hinckley Railway Station and Hinckley Town Centre; (iii) shall operate either on a demand responsive basis or to a specified timetable; and (iv) shall operate Mondays to Fridays between 0700 hours and 0930 hours, and 1600 hours and 1830 hours. The Public Transport Strategy shall also include details of any bus stop infrastructure that is proposed to be delivered in connection with the proposed service and shall describe when the bus service will be introduced and for how many years it will operate. The Strategy shall be implemented as approved unless, by the time at which it is due to be delivered, an alternative service has already been provided by either the Local Highway Authority or a different developer, and the Local Planning Authority is satisfied that the alternative service will provide appropriate public transport links between the site, Hinckley Railway Station and Hinckley Town Centre.

Reason: To reduce the need to travel by single occupancy vehicle and to promote the use of sustainable modes of transport in accordance with the National Planning Policy Framework (2023).

27. No development shall commence until details of the proposed pedestrian link to Dorchester Road have been submitted to and approved in writing by the Local Planning Authority. The proposed pedestrian link shall be provided in accordance with the approved details.

Reason: To reduce the need to travel by single occupancy vehicle and to promote the use of sustainable modes of transport in accordance with the National Planning Policy Framework (2023).

28. No development shall commence until details of the proposed pedestrian link from the site to PRoW U56 have been submitted to and approved in writing by the local planning authority. The proposed pedestrian link shall be provided in accordance with the approved details.

Reason: To reduce the need to travel by single occupancy vehicle and to promote the use of sustainable modes of transport in accordance with the National Planning Policy Framework (2023).

29. No development shall commence until a scheme of highway improvements for the junction of Burbage Road/Hinckley Road/ Sapcote Road have been submitted to and approved in writing by the Local Planning Authority. The scheme shall be designed in broad accordance with the details shown on (Drawing No. A109159-TTE-XX-XX-DR-H-014-P01). No dwellings shall be occupied until improvements have been made to the Burbage Road/ Sapcote Road/ Hinckley Road Junction in accordance with the approved details, unless by the time at which a scheme is to be submitted for approval or is due to be delivered, a scheme to improve the Burbage Road/ Sapcote Road/ Hinckley Road junction has already been constructed, or is being constructed by another party.

Reason: To mitigate the impact of the development, in the general interests of highway safety and in accordance with the National Planning Policy Framework (2023).

30. No development shall commence until a scheme of highway improvements for the junction of Brookside/ Elm Tree Road / Burbage Road have been submitted to and approved in writing by the Local Planning Authority. The improvements shall be designed in broad accordance with the details shown on (Drawing No. A109159-TTE-00-ZZ-DR-H-0033-P01). No dwellings shall be occupied until improvements have been made to the Brookside/ Elm Tree Road / Burbage Road Junction in accordance with the approved details.

Reason: To mitigate the impact of the development, in the general interests of highway safety and in accordance with the National Planning Policy Framework (2023).

31. No development shall commence until a scheme of highway improvements at the Park Road/ London Road junction has been submitted and approved in writing by the Local Planning Authority. The improvements shall be designed in general accordance with the details shown on (Drawing No. A109159-TTE-00-ZZ-DR-H-0034-P01). No dwellings shall be occupied until the approved scheme has

been implemented in accordance with the approved details.

Reason: To mitigate the impact of the development, in the general interests of highway safety and in accordance with the National Planning Policy Framework (2023).

32. No development shall commence until a scheme of footway widening on the western side of Burbage Road between Hinckley Road and Brookside has been submitted to and approved in writing by the Local Planning Authority. The proposed improvements shall be designed in broad accordance with the details shown on (Drawing No. A109159-TTE-00-ZZ-DR-H-0031-P01). No dwellings shall be occupied until the scheme has been provided in accordance with the approved details.

Reason: To mitigate the impact of the development, in the general interests of highway safety and in accordance with the National Planning Policy Framework (2023).

C. Brown.

Christopher Brown MRTPI
Head of Planning

Date:- 8 April 2024

NOTES

1. It will be most helpful if the application number shown overleaf is quoted in all correspondence.

2. If you consider that this decision has been made invalidly through the Council failing to follow a procedure correctly, not having the legal power to make the decision in the way it did or through its decision being so unreasonable as no reasonable local authority would make the same decision based on the same facts, then you may enter a claim for judicial review to quash the decision. In order to proceed with a claim for judicial review an initial application for permission will need to be made to the Administrative Court, this application is required to be made "promptly and in any event within three months of the decision". The initial permission application will decide if you have an arguable case, whether you are sufficiently materially affected by the decision to bring the claim. If you are granted permission to bring the claim it will proceed to a full hearing at the Administrative Court. Although there is no requirement for you to do so it is highly recommended that you seek independent legal advice before bringing forward a claim for Judicial Review.

3. If you are aggrieved by the decision of the Local Planning Authority to grant permission subject to conditions, you may appeal to the Secretary of State for the Environment in accordance with Section 78 of the Town and Country Planning Act 1990 within **six months (see para 2a below)** of the date of this notice. (Appeals must be made on a form which is obtainable from the Planning Inspectorate, Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6PN, tel. 0303 444 5000 or online at https://www.gov.uk/appeal-planning-decision). The Secretary of State has power to allow a longer period for the giving of a notice of appeal but he will not normally be prepared to exercise this power unless there are special circumstances which excuse the delay in giving notice of appeal. The Secretary of State is not required to entertain an appeal if it appears to him that the permission for the proposed development could not have been granted by the Local Planning Authority, or could not have been so granted otherwise than subject to the conditions imposed by them, having regard to the statutory requirements as set out in Section 78 of the Town and Country Planning Act 1990, to the provisions of the development order, and to directions given under the order. He does not in practice refuse to entertain appeals solely because the decision by the Local Planning Authority was based on a direction given by him. Appeals- new time rules. Appeals relating to applications made to the Local Planning Authority on, or after, 5th September 2003 must be made within **six months** of the date of this notice.

4. If permission to develop land is granted permission subject to conditions, whether by the Local Planning Authority or by the Secretary of State for the Environment, and the owner claims that the land has become incapable of reasonably beneficial use in its existing state and cannot be rendered capable of reasonably beneficial use by the carrying out of any development which has been or would be permitted, he may serve on the Council a purchase notice requiring that Council to purchase his interest in the land in accordance with the provisions of Part VI of the Town and Country Planning Act 1990.

5. In certain circumstances, a claim may be made against the Local Planning Authority for compensation, where planning permission is refused or granted subject to conditions by the Secretary of State on appeal or on a reference of the application to him. The circumstances in which such compensation is payable are set out in Section 114 of the Town and Country Planning Act 1990.

6. This permission covers only consent under the Town and Country Planning Acts and does not give permission to demolish a Listed Building, for which separate consent is required. Amongst other things the consent of the Council may be required under the Building Regulations and if the proposals affect land within the limits of the highway (that is between the highway fences or hedges) the separate consent of the Highway Authority may also be required. Steps to obtain the necessary further consents should be taken before proceeding with the development.

SHOPS, OFFICES, FACTORIES, EDUCATIONAL BUILDINGS & BUILDINGS TO WHICH THE PUBLIC ARE TO BE ADMITTED : ACCESS AND PROVISION FOR THE DISABLED PERSONS

1 The Local Planning Authority is required to bring to your attention the requirements of the Disabled Persons 1981, Building Regulations 1991 "Access and facilities for Disabled People" document M and the Chronically Sick & Disabled Act 1970 (as amended 1976) (Sections 4.7.8 and 8A) requiring the provision of access facilities, car parking and toilets for the disabled and the provision of signing indicating what provision has been made for disabled persons within the building. Your attention is also drawn to the Code of Practice BS 5619 "Design of Housing for the convenience of Disabled People", 1978 and Code of Practice, BS 5810 : 1979, "Access for the Disabled to buildings" available from the British Standards Institution, 2 Park Street, London W1A 2BS. (Tel 071-629-9000) and (in so far as educational buildings are concerned), to Design Note 18 "Access for the Physically Disabled to Educational Buildings."

2 The buildings to which these requirements apply are :-

a) Buildings to which the public are to be admitted to which Section 4 of the Chronically Sick & Disabled Act 1970 (as amended 1976) applies.
b) Offices, Shops & Railway Premises as defined in the Offices, Shops & Railway Premises Act 1963 or premises deemed to fall within the Act.
c) Factories as defined by Section 175 of the Factories Act 1961.

OPNOTES (02/07/2014)

Hinckley & Bosworth
Borough Council

Start Notice

Important Information – Please keep this with your decision notice

Please read the above decision notice carefully and ensure that you understand and comply with the requirements of any planning conditions imposed.

If you require any further information about why a particular planning condition has been imposed or in respect of what information is needed to discharge your condition please contact the case officer who will be happy to advise of the requirements and information required.

We carry out a programme of site monitoring to check compliance with conditions in order to proactively manage the development and to ensure development is carried out in accordance with the planning permission granted.

Please ensure that any application for the discharge of pre-commencement conditions are carried out in a timely manner as this may take up to 8 weeks depending on the requirements of the condition. Please also be aware there is a charge to discharge conditions per request which means you can discharge conditions individually or group details together as a single request to discharge multiple planning conditions. The fee for discharging these pre-commence conditions, can be found on the planning portal.

We would be grateful if you could email the development address and application reference number with your contact details and the intended start date by email to planning@hinckley-bosworth.gov.uk or complete the form on the reverse.

Hinckley & Bosworth Borough Council
Hinckley Hub, Rugby Road, Hinckley, Leicestershire, LE10 0FR
TEL: 01455 238141 EMAIL: planning@hinckley-bosworth.gov.uk

Hinckley & Bosworth Borough Council

Development Details

Planning application ref:	23/00673/OUT
Proposal:	Residential development of up to 343 dwellings (Class C3), including provision of public open space, associated infrastructure and all matters (access only) (re-submission of 22/01037/OUT) reserved except access.
Site Location:	Land Opposite And South Of Pumping Station Aston Flamville Road Burbage Leicestershire

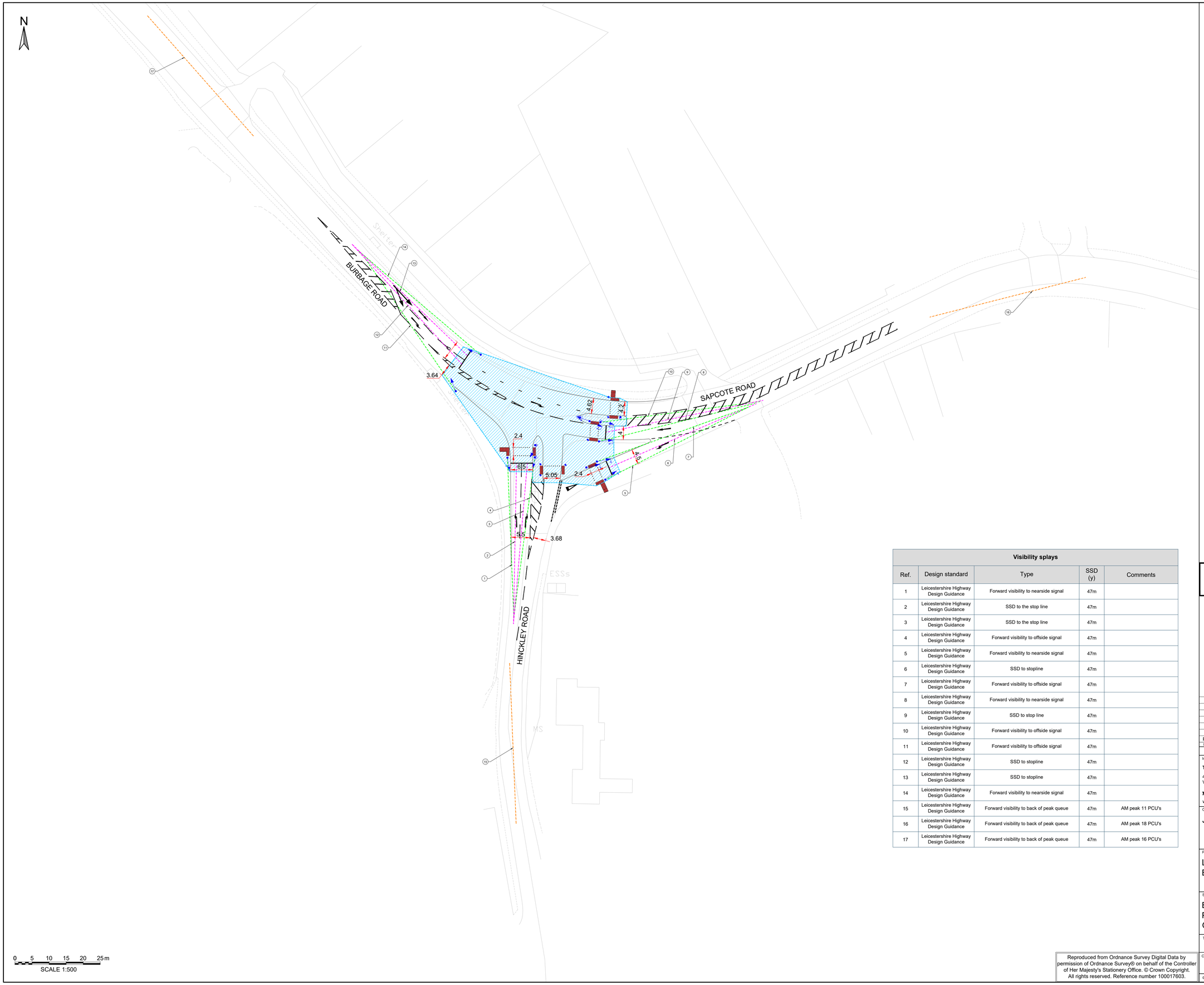
Date when work is intended to start:	
Have all pre-commencement conditions been discharged?	
Signed:	**Print Name:**

Your contact details (or attach letterhead/business card):

Name:	
Address:	
Telephone:	
Mobile:	
Email:	

Hinckley & Bosworth Borough Council
Hinckley Hub, Rugby Road, Hinckley, Leicestershire, LE10 0FR
TEL: 01455 238141 EMAIL: planning@hinckley-bosworth.gov.uk

APPENDIX B: MITIGATION SCHEME DRAWINGS



Notes

1. Visibility splays shown are based on assumed 85th percentile vehicle speeds of 26 to 30mph.
2. Designs are based on Leicestershire Design guide and Manual for Streets (MfS).
3. The layout drawn is based on available OS mapping and is subject to detailed design using an extended topographical survey.

Key

- Stopping sight distance (SSD) to signals
- SSD to stop line
- SSD to the back peak queue
- Junction intervisibility
- (#) Refer to visibility table
- Tactile paving - controlled crossing

Visibility splays

Ref.	Design standard	Type	SSD (y)	Comments
1	Leicestershire Highway Design Guidance	Forward visibility to nearside signal	47m	
2	Leicestershire Highway Design Guidance	SSD to the stop line	47m	
3	Leicestershire Highway Design Guidance	SSD to the stop line	47m	
4	Leicestershire Highway Design Guidance	Forward visibility to offside signal	47m	
5	Leicestershire Highway Design Guidance	Forward visibility to nearside signal	47m	
6	Leicestershire Highway Design Guidance	SSD to stopline	47m	
7	Leicestershire Highway Design Guidance	Forward visibility to offside signal	47m	
8	Leicestershire Highway Design Guidance	Forward visibility to nearside signal	47m	
9	Leicestershire Highway Design Guidance	SSD to stop line	47m	
10	Leicestershire Highway Design Guidance	Forward visibility to offside signal	47m	
11	Leicestershire Highway Design Guidance	Forward visibility to offside signal	47m	
12	Leicestershire Highway Design Guidance	SSD to stopline	47m	
13	Leicestershire Highway Design Guidance	SSD to stopline	47m	
14	Leicestershire Highway Design Guidance	Forward visibility to nearside signal	47m	
15	Leicestershire Highway Design Guidance	Forward visibility to back of peak queue	47m	AM peak 11 PCU's
16	Leicestershire Highway Design Guidance	Forward visibility to back of peak queue	47m	AM peak 18 PCU's
17	Leicestershire Highway Design Guidance	Forward visibility to back of peak queue	47m	AM peak 16 PCU's

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PRELIMINARY ISSUE

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P01	PRELIMINARY FIRST ISSUE	17.11.2023	NM / SM / IF

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Client
JELSON LTD

Project Name
LAND SOUTH OF SAPCOTE ROAD, BURBAGE

Sheet Title
BURBAGE RD / SAPCOTE RD / HINCKLEY RD PROPOSED SIGNALISED JUNCTION GEOMETRY AND VISIBILITY

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A1	Suitability
784-A109159	NM	Nov '23	SM	Nov '23	IF	Nov '23	1:500	S3

Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision
A109159	TTE	XX	XX	DR	H	014	P01

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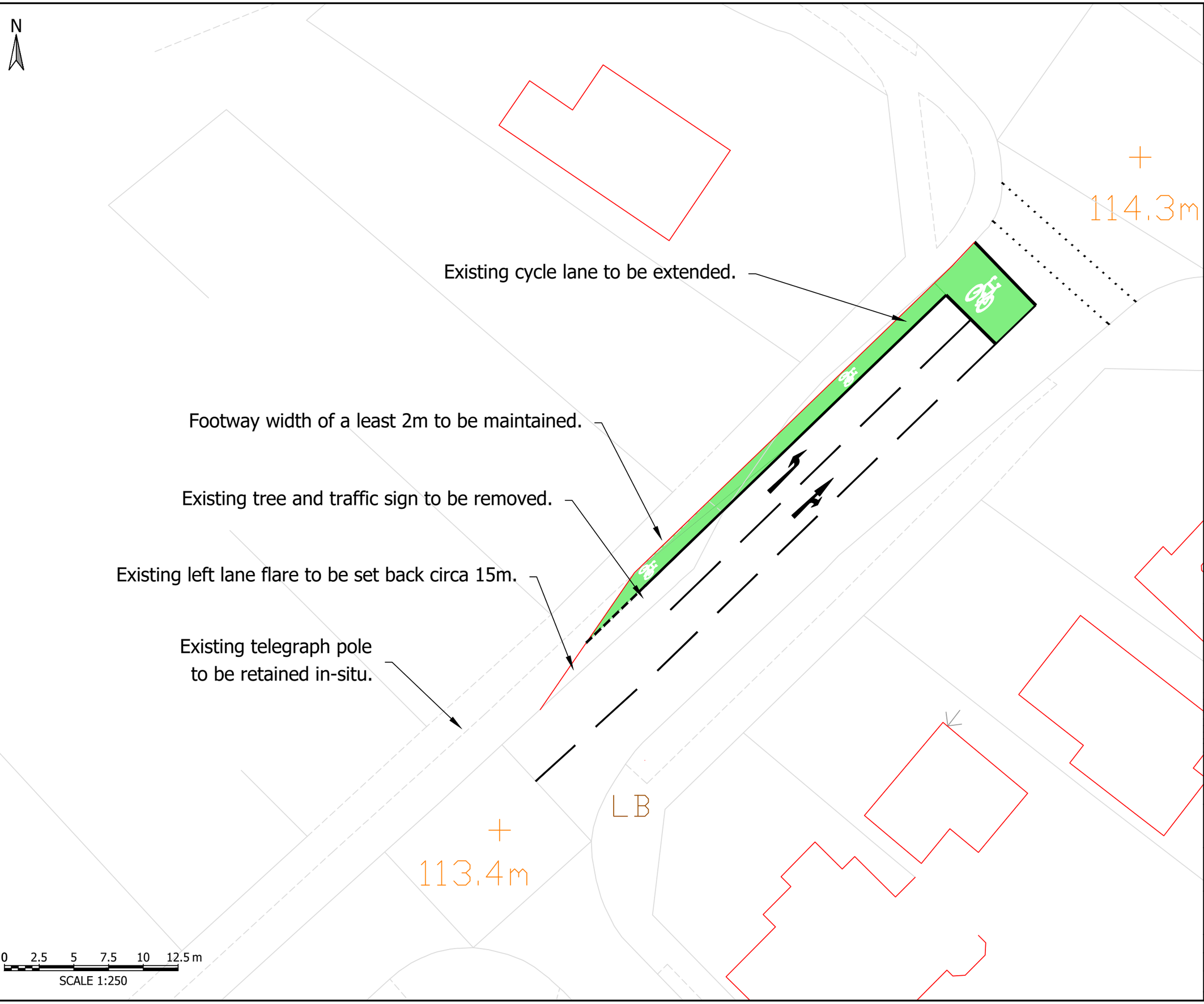

PRELIMINARY ISSUE

Rev	Description	Date	Drn	Chk	App
P01	PRELIMINARY FIRST ISSUE	13.12.2023	BG	RH	RH

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Client

Jelson Homes

Project Name

Land South of Sapcote Road, Burbage

Sheet Title

Proposed Burbage Road / Brookside Junction Improvement

Model Reference

N/A

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A3	Status
A109159	BG	Dec '23	RH	Dec '23	RH	Dec '23	As Shown	S0

Client Project Number	Originator	Function	Spatial	Form	Role	Number	Revision
A109159	TTE	00	ZZ	DR	H	0033	P01

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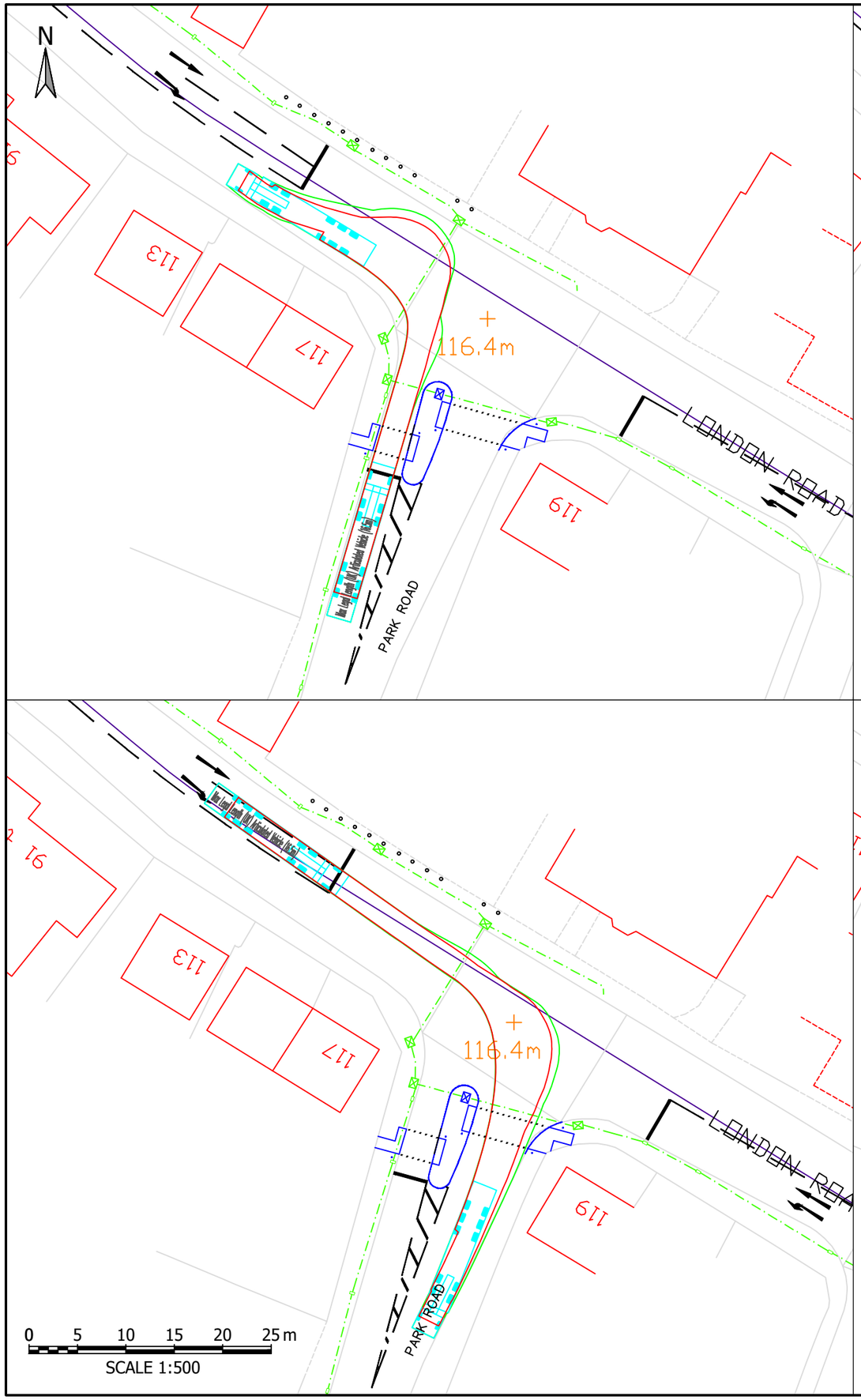



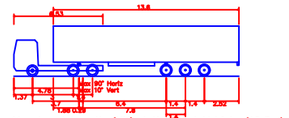

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Client
Jelson Homes

Project Name
Land South of Sapcote Road, Burbage

Sheet Title
Proposed London Road / Park Road Junction Improvements with Swept Path Analysis

Model Reference
N/A

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A3	Status
A109159	BG	Dec '23	RH	Dec '23	RH	Dec '23	As Shown	S0

Client Project Number	Originator	Function	Spatial	Form	Role	Number	Revision
A109159	- TTE -	00	- ZZ	- DR	- H	- 0034	P01

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N

ELM TREE DRIVE

BURBAGE ROAD

Existing Footway Widened to 2m

Top View Port

Bottom View Port

Top View Port

Bottom View Port

Existing Footway Widened to 2m

Shelter

BURBAGE ROAD

0 5 10 15 20 25 m

SCALE 1:500

KEY

Proposed Widening to achieve 2m wide Footway

Existing Footway

Remaining Verge

PRELIMINARY ISSUE

Rev	Description	Date	Drn	Chk	App
P01	PRELIMINARY FIRST ISSUE	14.12.2023	NJ	RJH	RJH

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Client

Jelson Homes

Project Name

Land South of Sapcote Road, Burbage

Sheet Title

Proposed Footway Improvement

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A2	Suitability
A109159	NJ	Dec '23	RJH	Dec '23	RJH	Dec '23	1:500	S0

Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision
A109159	TTE	00	ZZ	DR	H	0031	P01

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APPENDIX C: TRAFFIC CALCULATIONS

Trip Generation 784-B064979 (25 Dwellings)

Houses Privately Owned Trip Rates

Mode	AM (08:00-09:00)			PM (17:00-18:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Vehicles	0.123	0.387	0.510	0.371	0.171	0.542
Taxis	0.004	0.003	0.007	0.003	0.002	0.005
OGVs	0.003	0.002	0.005	0.001	0.001	0.002
PSVs	0.002	0.002	0.004	0.001	0.001	0.002
Cyclists	0.006	0.014	0.020	0.010	0.005	0.015
Vehicle Occupants	0.156	0.657	0.813	0.581	0.253	0.834
Pedestrians	0.033	0.079	0.112	0.048	0.024	0.072
Public Transport Users	0.001	0.034	0.035	0.017	0.003	0.020
Total People	0.195	0.784	0.979	0.655	0.286	0.941
Cars	0.084	0.296	0.380	0.270	0.116	0.286
LGVs	0.016	0.021	0.037	0.029	0.016	0.045

Number of dwellings **25**

Residential Trip Generation

Mode	AM (08:00-09:00)			PM (17:00-18:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Vehicles	3	10	13	9	4	14
Taxis	0	0	0	0	0	0
OGVs	0	0	0	0	0	0
PSVs	0	0	0	0	0	0
Cyclists	0	0	1	0	0	0
Vehicle Occupants	4	16	20	15	6	21
Pedestrians	1	2	3	1	1	2
Public Transport Users	0	1	1	0	0	1
Total People	5	20	24	16	7	24
Cars	2	7	10	7	3	7
LGVs	0	1	1	1	0	1

Trip Generation 784-B064979 (50 Dwellings)

Houses Privately Owned Trip Rates

Mode	AM (08:00-09:00)			PM (17:00-18:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Vehicles	0.123	0.387	0.510	0.371	0.171	0.542
Taxis	0.004	0.003	0.007	0.003	0.002	0.005
OGVs	0.003	0.002	0.005	0.001	0.001	0.002
PSVs	0.002	0.002	0.004	0.001	0.001	0.002
Cyclists	0.006	0.014	0.020	0.010	0.005	0.015
Vehicle Occupants	0.156	0.657	0.813	0.581	0.253	0.834
Pedestrians	0.033	0.079	0.112	0.048	0.024	0.072
Public Transport Users	0.001	0.034	0.035	0.017	0.003	0.020
Total People	0.195	0.784	0.979	0.655	0.286	0.941
Cars	0.084	0.296	0.380	0.270	0.116	0.286
LGVs	0.016	0.021	0.037	0.029	0.016	0.045

Number of dwellings **50**

Residential Trip Generation

Mode	AM (08:00-09:00)			PM (17:00-18:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Vehicles	6	19	26	19	9	27
Taxis	0	0	0	0	0	0
OGVs	0	0	0	0	0	0
PSVs	0	0	0	0	0	0
Cyclists	0	1	1	1	0	1
Vehicle Occupants	8	33	41	29	13	42
Pedestrians	2	4	6	2	1	4
Public Transport Users	0	2	2	1	0	1
Total People	10	39	49	33	14	47
Cars	4	15	19	14	6	14
LGVs	1	1	2	1	1	2

Trip Generation 784-B064979 (75 Dwellings)

Houses Privately Owned Trip Rates

Mode	AM (08:00-09:00)			PM (17:00-18:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Vehicles	0.123	0.387	0.510	0.371	0.171	0.542
Taxis	0.004	0.003	0.007	0.003	0.002	0.005
OGVs	0.003	0.002	0.005	0.001	0.001	0.002
PSVs	0.002	0.002	0.004	0.001	0.001	0.002
Cyclists	0.006	0.014	0.020	0.010	0.005	0.015
Vehicle Occupants	0.156	0.657	0.813	0.581	0.253	0.834
Pedestrians	0.033	0.079	0.112	0.048	0.024	0.072
Public Transport Users	0.001	0.034	0.035	0.017	0.003	0.020
Total People	0.195	0.784	0.979	0.655	0.286	0.941
Cars	0.084	0.296	0.380	0.270	0.116	0.286
LGVs	0.016	0.021	0.037	0.029	0.016	0.045

Number of dwellings **75**

Residential Trip Generation

Mode	AM (08:00-09:00)			PM (17:00-18:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Vehicles	9	29	38	28	13	41
Taxis	0	0	1	0	0	0
OGVs	0	0	0	0	0	0
PSVs	0	0	0	0	0	0
Cyclists	0	1	2	1	0	1
Vehicle Occupants	12	49	61	44	19	63
Pedestrians	2	6	8	4	2	5
Public Transport Users	0	3	3	1	0	2
Total People	15	59	73	49	21	71
Cars	6	22	29	20	9	21
LGVs	1	2	3	2	1	3

Trip Generation 784-B064979 (100 Dwellings)

Houses Privately Owned Trip Rates

Mode	AM (08:00-09:00)			PM (17:00-18:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Vehicles	0.123	0.387	0.510	0.371	0.171	0.542
Taxis	0.004	0.003	0.007	0.003	0.002	0.005
OGVs	0.003	0.002	0.005	0.001	0.001	0.002
PSVs	0.002	0.002	0.004	0.001	0.001	0.002
Cyclists	0.006	0.014	0.020	0.010	0.005	0.015
Vehicle Occupants	0.156	0.657	0.813	0.581	0.253	0.834
Pedestrians	0.033	0.079	0.112	0.048	0.024	0.072
Public Transport Users	0.001	0.034	0.035	0.017	0.003	0.020
Total People	0.195	0.784	0.979	0.655	0.286	0.941
Cars	0.084	0.296	0.380	0.270	0.116	0.286
LGVs	0.016	0.021	0.037	0.029	0.016	0.045

Number of dwellings **100**

Residential Trip Generation

Mode	AM (08:00-09:00)			PM (17:00-18:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Vehicles	12	39	51	37	17	54
Taxis	0	0	1	0	0	1
OGVs	0	0	1	0	0	0
PSVs	0	0	0	0	0	0
Cyclists	1	1	2	1	1	2
Vehicle Occupants	16	66	81	58	25	83
Pedestrians	3	8	11	5	2	7
Public Transport Users	0	3	4	2	0	2
Total People	20	78	98	66	29	94
Cars	8	30	38	27	12	29
LGVs	2	2	4	3	2	5

Trip Generation 784-B064979 (125 Dwellings)

Houses Privately Owned Trip Rates

Mode	AM (08:00-09:00)			PM (17:00-18:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Vehicles	0.123	0.387	0.510	0.371	0.171	0.542
Taxis	0.004	0.003	0.007	0.003	0.002	0.005
OGVs	0.003	0.002	0.005	0.001	0.001	0.002
PSVs	0.002	0.002	0.004	0.001	0.001	0.002
Cyclists	0.006	0.014	0.020	0.010	0.005	0.015
Vehicle Occupants	0.156	0.657	0.813	0.581	0.253	0.834
Pedestrians	0.033	0.079	0.112	0.048	0.024	0.072
Public Transport Users	0.001	0.034	0.035	0.017	0.003	0.020
Total People	0.195	0.784	0.979	0.655	0.286	0.941
Cars	0.084	0.296	0.380	0.270	0.116	0.286
LGVs	0.016	0.021	0.037	0.029	0.016	0.045

Number of dwellings **125**

Residential Trip Generation

Mode	AM (08:00-09:00)			PM (17:00-18:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Vehicles	15	48	64	46	21	68
Taxis	1	0	1	0	0	1
OGVs	0	0	1	0	0	0
PSVs	0	0	1	0	0	0
Cyclists	1	2	3	1	1	2
Vehicle Occupants	20	82	102	73	32	104
Pedestrians	4	10	14	6	3	9
Public Transport Users	0	4	4	2	0	3
Total People	24	98	122	82	36	118
Cars	11	37	48	34	15	36
LGVs	2	3	5	4	2	6

Trip Generation 784-B064979 (150 Dwellings)

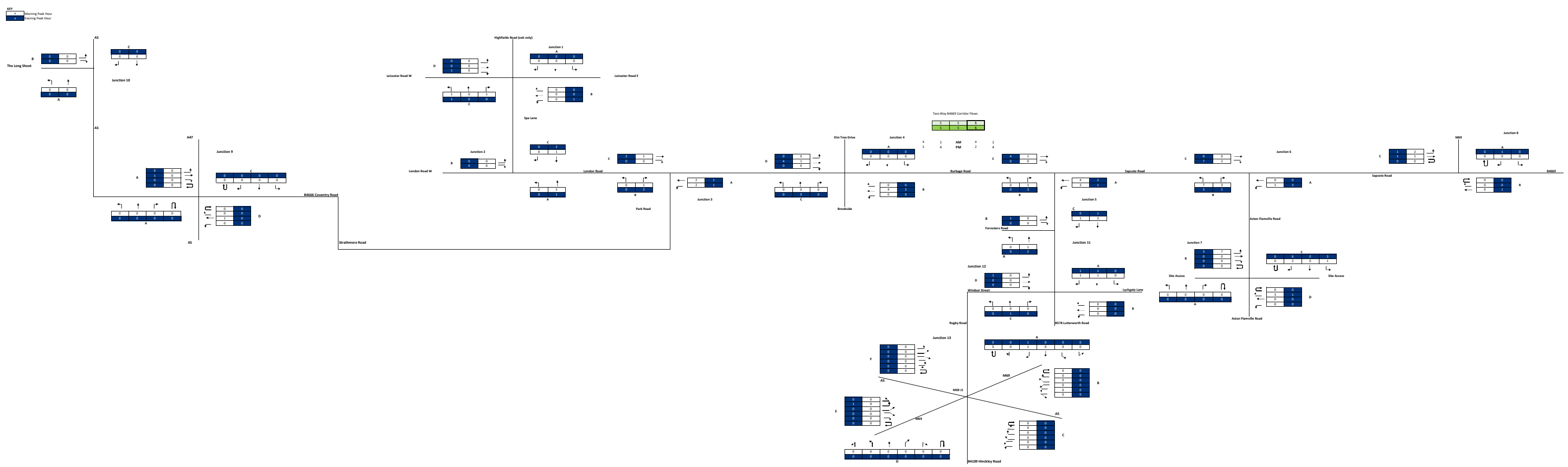
Houses Privately Owned Trip Rates

Mode	AM (08:00-09:00)			PM (17:00-18:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Vehicles	0.123	0.387	0.510	0.371	0.171	0.542
Taxis	0.004	0.003	0.007	0.003	0.002	0.005
OGVs	0.003	0.002	0.005	0.001	0.001	0.002
PSVs	0.002	0.002	0.004	0.001	0.001	0.002
Cyclists	0.006	0.014	0.020	0.010	0.005	0.015
Vehicle Occupants	0.156	0.657	0.813	0.581	0.253	0.834
Pedestrians	0.033	0.079	0.112	0.048	0.024	0.072
Public Transport Users	0.001	0.034	0.035	0.017	0.003	0.020
Total People	0.195	0.784	0.979	0.655	0.286	0.941
Cars	0.084	0.296	0.380	0.270	0.116	0.286
LGVs	0.016	0.021	0.037	0.029	0.016	0.045

Number of dwellings **150**

Residential Trip Generation

Mode	AM (08:00-09:00)			PM (17:00-18:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Vehicles	18	58	77	56	26	81
Taxis	1	0	1	0	0	1
OGVs	0	0	1	0	0	0
PSVs	0	0	1	0	0	0
Cyclists	1	2	3	2	1	2
Vehicle Occupants	23	99	122	87	38	125
Pedestrians	5	12	17	7	4	11
Public Transport Users	0	5	5	3	0	3
Total People	29	118	147	98	43	141
Cars	13	44	57	41	17	43
LGVs	2	3	6	4	2	7



Junction 1 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	1	0	1
D	0	0	0	0

Junction 1 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	1	0
C	0	0	0	1
D	0	0	1	0

Junction 2 - AM

	A	B	C
A	0	0	2
B	0	0	0
C	1	0	0

Junction 2 - PM

	A	B	C
A	0	0	1
B	0	0	0
C	2	0	0

Junction 3 - AM

	A	B	C
A	0	2	2
B	1	0	0
C	1	0	0

Junction 3 - PM

	A	B	C
A	0	1	1
B	2	0	0
C	2	0	0

Junction 4 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	0	4
C	0	0	0	0
D	0	1	0	0

Junction 4 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	0	2
C	0	0	0	0
D	0	4	0	0

Junction 5 - AM

	A	B	C
A	0	3	4
B	1	0	0
C	1	0	0

Junction 5 - PM

	A	B	C
A	0	1	2
B	3	0	0
C	4	0	0

Junction 6 - AM

	A	B	C
A	0	1	0
B	3	0	7
C	0	2	0

Junction 6 - PM

	A	B	C
A	0	3	0
B	1	0	3
C	0	7	0

Junction 7 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	7	0
C	0	2	0	1
D	0	0	3	0

Junction 7 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	3	0
C	0	6	0	3
D	0	0	1	0

Junction 8 - AM

	A	B	C
A	0	0	0
B	0	0	0
C	2	1	0

Circulatory Flow
1

Junction 8 - PM

	A	B	C
A	0	0	1
B	0	0	1
C	1	1	0

Circulatory Flow
1

Junction 9 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
D	0	1	0	0

Junction 9 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	0	1
C	0	0	0	0
D	0	0	0	0

Junction 10 - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 10 - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 11 - AM

	A	B	C
A	0	0	1
B	0	0	0
C	2	1	0

Junction 11 - PM

	A	B	C
A	0	0	2
B	0	0	1
C	1	0	0

Junction 12 - AM

	A	B	C	D
A	0	0	1	1
B	0	0	0	0
C	0	0	0	0
D	0	0	0	0

Junction 12 - PM

	A	B	C	D
A	0	0	1	1
B	0	0	0	0
C	1	0	0	0
D	1	0	0	0

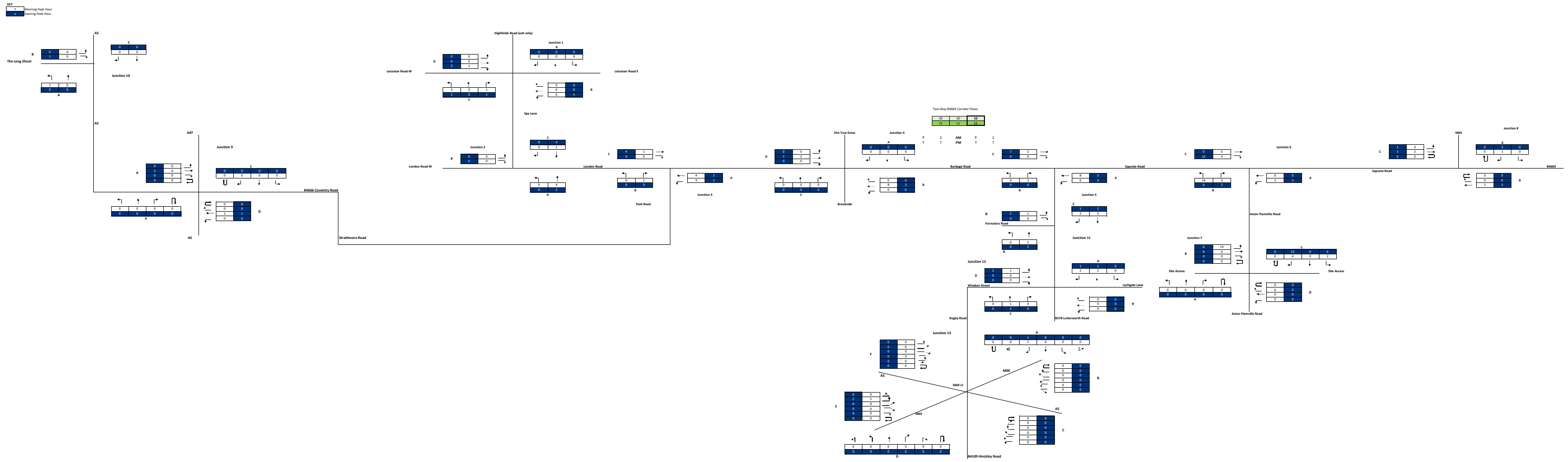
Junction 13 - AM

	A	B	C	D	E	F
A	0	0	0	0	1	0
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	1	0	0	0	0	0
F	0	0	0	0	0	0

Junction 13 - PM

	A	B	C	D	E	F
A	0	0	0	0	1	0
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	1	0	0	0	0	0
F	0	0	0	0	0	0

Trip Assignment - 25 Dwellings
AM and PM Peak Hours



Junction 1 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	1	0	3
D	0	0	1	0

Junction 1 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	1	0
C	0	1	0	1
D	0	0	3	0

Junction 2 - AM

	A	B	C
A	0	0	4
B	0	0	0
C	1	0	0

Junction 2 - PM

	A	B	C
A	0	0	2
B	0	0	0
C	4	0	0

Junction 3 - AM

	A	B	C
A	0	4	4
B	1	0	0
C	1	0	0

Junction 3 - PM

	A	B	C
A	0	2	2
B	3	0	0
C	4	0	0

Junction 4 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	0	8
C	0	0	0	0
D	0	2	0	0

Junction 4 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	0	3
C	0	0	0	0
D	0	7	0	0

Junction 5 - AM

	A	B	C
A	0	6	8
B	2	0	0
C	2	0	0

Junction 5 - PM

	A	B	C
A	0	3	3
B	6	0	0
C	7	0	0

Junction 6 - AM

	A	B	C
A	0	2	0
B	5	0	14
C	0	4	0

Junction 6 - PM

	A	B	C
A	0	5	0
B	2	0	6
C	0	13	0

Junction 7 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	14	0
C	0	4	0	2
D	0	0	6	0

Junction 7 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	6	0
C	0	13	0	6
D	0	0	3	0

Junction 8 - AM

	A	B	C
A	0	0	1
B	0	0	1
C	3	2	0

Circulatory Flow
2

Junction 8 - PM

	A	B	C
A	0	0	3
B	0	0	2
C	1	1	0

Circulatory Flow
1

Junction 9 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
D	0	1	0	0

Junction 9 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	0	1
C	0	0	0	0
D	0	1	0	0

Junction 10 - AM

	A	B	C
A	0	1	0
B	0	0	0
C	0	0	0

Junction 10 - PM

	A	B	C
A	0	0	0
B	1	0	0
C	0	0	0

Junction 11 - AM

	A	B	C
A	0	0	2
B	0	0	1
C	5	2	0

Junction 11 - PM

	A	B	C
A	0	0	5
B	0	0	2
C	2	1	0

Junction 12 - AM

	A	B	C	D
A	0	0	2	2
B	0	0	0	0
C	1	0	0	0
D	1	0	0	0

Junction 12 - PM

	A	B	C	D
A	0	0	1	1
B	0	0	0	0
C	2	0	0	0
D	2	0	0	0

Junction 13 - AM

	A	B	C	D	E	F
A	0	0	0	0	2	0
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	1	0	0	0	0	0
F	0	0	0	0	0	0

Junction 13 - PM

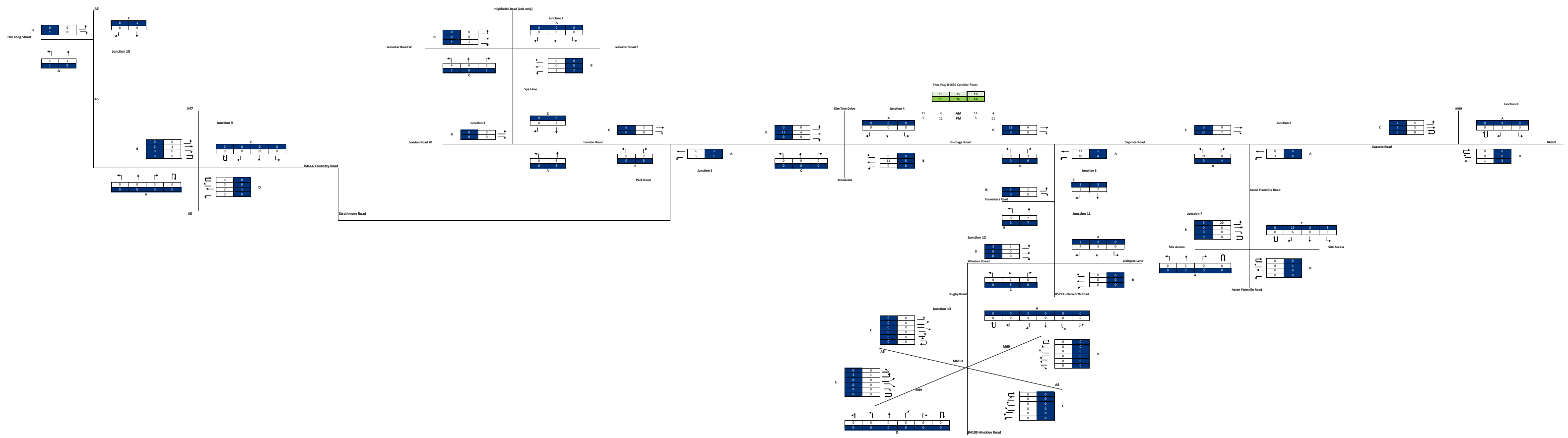
	A	B	C	D	E	F
A	0	0	0	0	1	0
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	2	0	0	0	0	0
F	0	0	0	0	0	0

Trip Assignment - 50 Dwellings
AM and PM Peak Hours

KEY

x Morning Peak Hour

x Evening Peak Hour



Junction 1 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	1	0
C	0	2	0	4
D	0	0	1	0

Junction 1 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	2	0
C	0	1	0	2
D	0	0	4	0

Junction 2 - AM

	A	B	C
A	0	0	6
B	0	0	0
C	2	0	0

Junction 2 - PM

	A	B	C
A	0	0	3
B	0	0	0
C	6	0	0

Junction 3 - AM

	A	B	C
A	0	5	6
B	2	0	0
C	2	0	0

Junction 3 - PM

	A	B	C
A	0	2	3
B	5	0	0
C	6	0	0

Junction 4 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	0	11
C	0	0	0	0
D	0	4	0	0

Junction 4 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	0	5
C	0	0	0	0
D	0	11	0	0

Junction 5 - AM

	A	B	C
A	0	10	11
B	3	0	0
C	4	0	0

Junction 5 - PM

	A	B	C
A	0	4	5
B	9	0	0
C	11	0	0

Junction 6 - AM

	A	B	C
A	0	3	0
B	8	0	21
C	0	7	0

Junction 6 - PM

	A	B	C
A	0	8	0
B	4	0	9
C	0	20	0

Junction 7 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	20	0
C	0	6	0	3
D	0	0	9	0

Junction 7 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	9	0
C	0	19	0	8
D	0	0	4	0

Junction 8 - AM

	A	B	C
A	0	0	1
B	0	0	1
C	5	3	0

Circulatory Flow
3

Junction 8 - PM

	A	B	C
A	0	0	4
B	0	0	3
C	2	2	0

Circulatory Flow
2

Junction 9 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	0	1
C	0	0	0	0
D	0	2	0	0

Junction 9 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	0	2
C	0	0	0	0
D	0	1	0	0

Junction 10 - AM

	A	B	C
A	0	1	1
B	0	0	0
C	0	0	0

Junction 10 - PM

	A	B	C
A	0	1	0
B	1	0	0
C	1	0	0

Junction 11 - AM

	A	B	C
A	0	0	2
B	0	0	1
C	7	2	0

Junction 11 - PM

	A	B	C
A	0	0	7
B	0	0	2
C	3	1	0

Junction 12 - AM

	A	B	C	D
A	0	0	3	4
B	0	0	0	0
C	1	0	0	0
D	1	0	0	0

Junction 12 - PM

	A	B	C	D
A	0	0	2	2
B	0	0	0	0
C	3	0	0	0
D	3	0	0	0

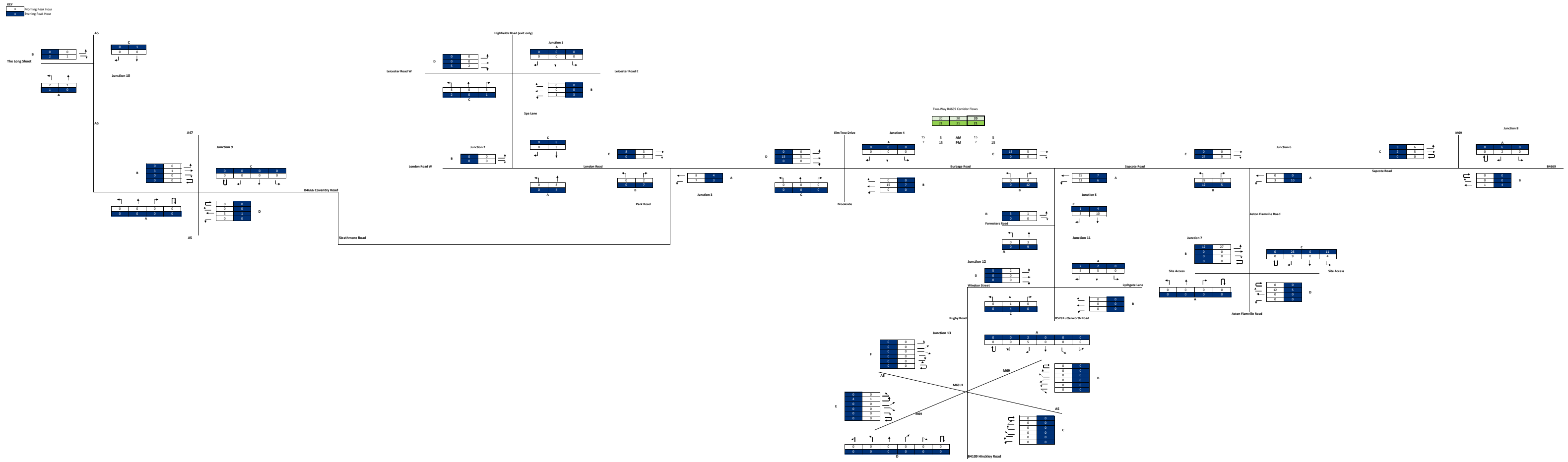
Junction 13 - AM

	A	B	C	D	E	F
A	0	0	0	0	3	0
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	1	0	0	0	0	0
F	0	0	0	0	0	0

Junction 13 - PM

	A	B	C	D	E	F
A	0	0	0	0	2	0
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	3	0	0	0	0	0
F	0	0	0	0	0	0

Trip Assignment - 75 Dwellings
AM and PM Peak Hours



Junction 1 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	1	0
C	0	3	0	5
D	0	0	2	0

Junction 1 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	3	0
C	0	1	0	2
D	0	0	5	0

Junction 2 - AM

	A	B	C
A	0	0	8
B	0	0	0
C	3	0	0

Junction 2 - PM

	A	B	C
A	0	0	4
B	0	0	0
C	8	0	0

Junction 3 - AM

	A	B	C
A	0	7	8
B	2	0	0
C	3	0	0

Junction 3 - PM

	A	B	C
A	0	3	4
B	7	0	0
C	8	0	0

Junction 4 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	0	15
C	0	0	0	0
D	0	5	0	0

Junction 4 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	0	7
C	0	0	0	0
D	0	15	0	0

Junction 5 - AM

	A	B	C
A	0	13	15
B	4	0	0
C	5	0	0

Junction 5 - PM

	A	B	C
A	0	6	7
B	12	0	0
C	15	0	0

Junction 6 - AM

	A	B	C
A	0	3	0
B	11	0	28
C	0	9	0

Junction 6 - PM

	A	B	C
A	0	10	0
B	5	0	12
C	0	27	0

Junction 7 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	27	0
C	0	9	0	4
D	0	0	12	0

Junction 7 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	12	0
C	0	26	0	11
D	0	0	5	0

Junction 8 - AM

	A	B	C
A	0	0	2
B	0	0	1
C	6	5	0

Circulatory Flow
5

Junction 8 - PM

	A	B	C
A	0	0	6
B	0	0	4
C	3	2	0

Circulatory Flow
2

Junction 9 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	0	1
C	0	0	0	0
D	0	3	0	0

Junction 9 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	0	3
C	0	0	0	0
D	0	1	0	0

Junction 10 - AM

	A	B	C
A	0	2	1
B	1	0	0
C	0	0	0

Junction 10 - PM

	A	B	C
A	0	1	0
B	2	0	0
C	1	0	0

Junction 11 - AM

	A	B	C
A	0	0	3
B	0	0	1
C	10	3	0

Junction 11 - PM

	A	B	C
A	0	0	9
B	0	0	3
C	4	1	0

Junction 12 - AM

	A	B	C	D
A	0	0	5	5
B	0	0	0	0
C	1	0	0	0
D	2	0	0	0

Junction 12 - PM

	A	B	C	D
A	0	0	2	2
B	0	0	0	0
C	4	0	0	0
D	5	0	0	0

Junction 13 - AM

	A	B	C	D	E	F
A	0	0	0	0	5	0
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	1	0	0	0	0	0
F	0	0	0	0	0	0

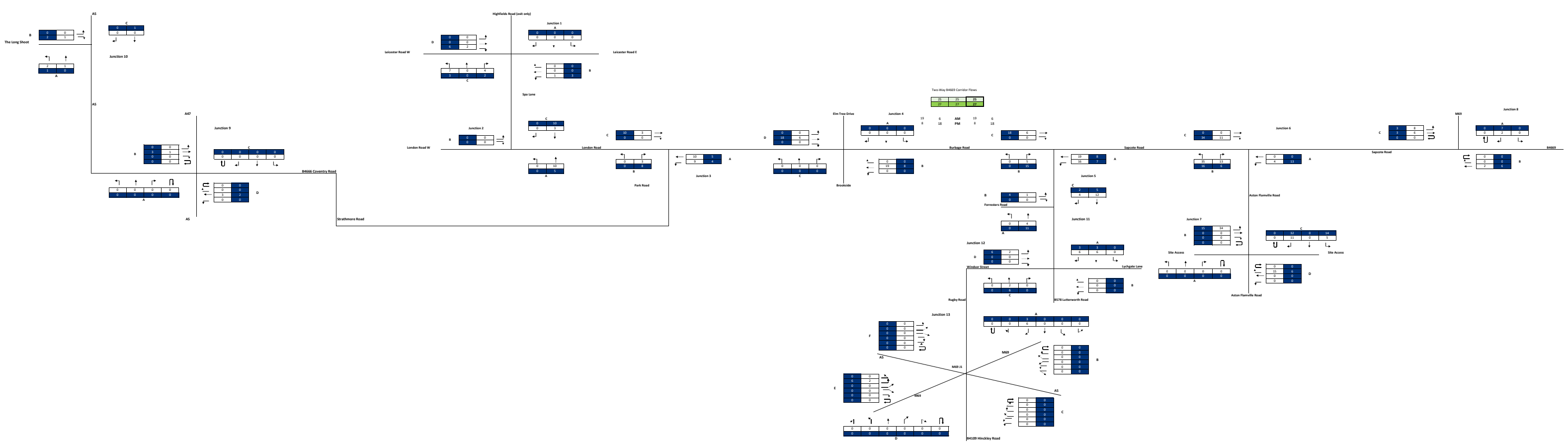
Junction 13 - PM

	A	B	C	D	E	F
A	0	0	0	0	2	0
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	4	0	0	0	0	0
F	0	0	0	0	0	0

Trip Assignment - 100 Dwellings
AM and PM Peak Hours

KEY

x	Morning Peak Hour
x	Evening Peak Hour



Junction 1 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	1	0
C	0	4	0	7
D	0	0	2	0

Junction 1 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	3	0
C	0	2	0	3
D	0	0	6	0

Junction 2 - AM

	A	B	C
A	0	0	10
B	0	0	0
C	3	0	0

Junction 2 - PM

	A	B	C
A	0	0	5
B	0	0	0
C	10	0	0

Junction 3 - AM

	A	B	C
A	0	9	10
B	3	0	0
C	3	0	0

Junction 3 - PM

	A	B	C
A	0	4	5
B	8	0	0
C	10	0	0

Junction 4 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	0	19
C	0	0	0	0
D	0	6	0	0

Junction 4 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	0	8
C	0	0	0	0
D	0	18	0	0

Junction 5 - AM

	A	B	C
A	0	16	19
B	5	0	0
C	6	0	0

Junction 5 - PM

	A	B	C
A	0	7	8
B	15	0	0
C	18	0	0

Junction 6 - AM

	A	B	C
A	0	4	0
B	13	0	35
C	0	11	0

Junction 6 - PM

	A	B	C
A	0	13	0
B	6	0	16
C	0	34	0

Junction 7 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	34	0
C	0	11	0	5
D	0	0	15	0

Junction 7 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	15	0
C	0	32	0	14
D	0	0	6	0

Junction 8 - AM

	A	B	C
A	0	0	2
B	0	0	2
C	8	6	0

Circulatory Flow
6

Junction 8 - PM

	A	B	C
A	0	0	7
B	0	0	6
C	3	3	0

Circulatory Flow
3

Junction 9 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	0	1
C	0	0	0	0
D	0	3	0	0

Junction 9 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	0	3
C	0	0	0	0
D	0	2	0	0

Junction 10 - AM

	A	B	C
A	0	2	1
B	1	0	0
C	0	0	0

Junction 10 - PM

	A	B	C
A	0	1	0
B	2	0	0
C	1	0	0

Junction 11 - AM

	A	B	C
A	0	0	4
B	0	0	1
C	12	4	0

Junction 11 - PM

	A	B	C
A	0	0	11
B	0	0	4
C	5	2	0

Junction 12 - AM

	A	B	C	D
A	0	0	6	6
B	0	0	0	0
C	2	0	0	0
D	2	0	0	0

Junction 12 - PM

	A	B	C	D
A	0	0	3	3
B	0	0	0	0
C	6	0	0	0
D	6	0	0	0

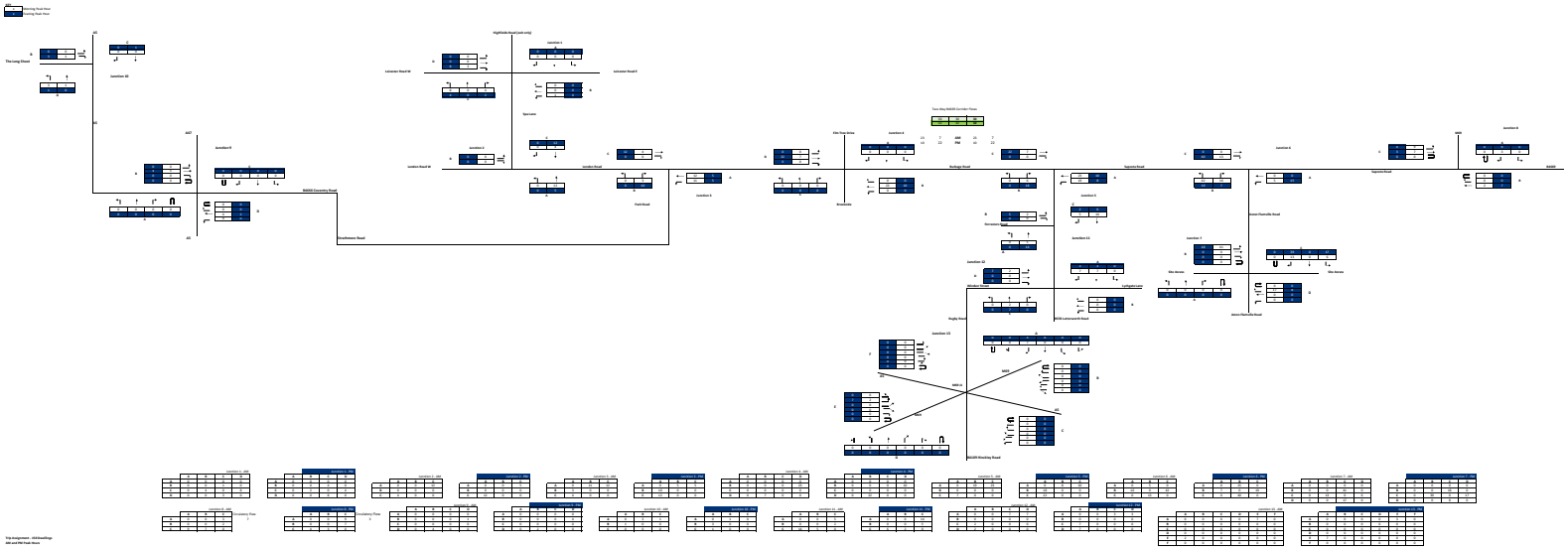
Junction 13 - AM

	A	B	C	D	E	F
A	0	0	0	0	6	0
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	2	0	0	0	0	0
F	0	0	0	0	0	0

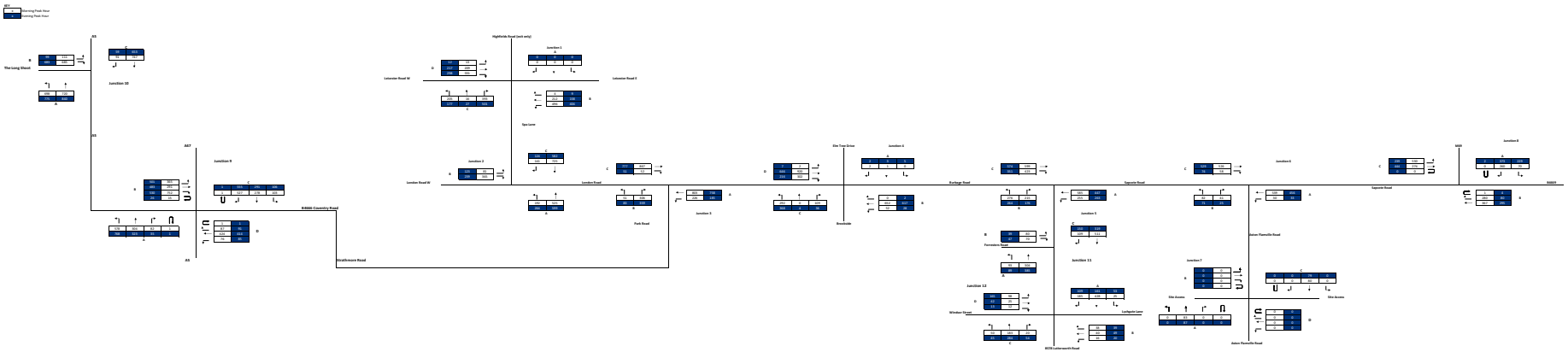
Junction 13 - PM

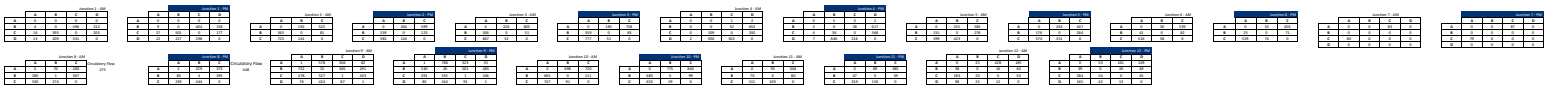
	A	B	C	D	E	F
A	0	0	0	0	3	0
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	6	0	0	0	0	0
F	0	0	0	0	0	0

Trip Assignment - 125 Dwellings
AM and PM Peak Hours

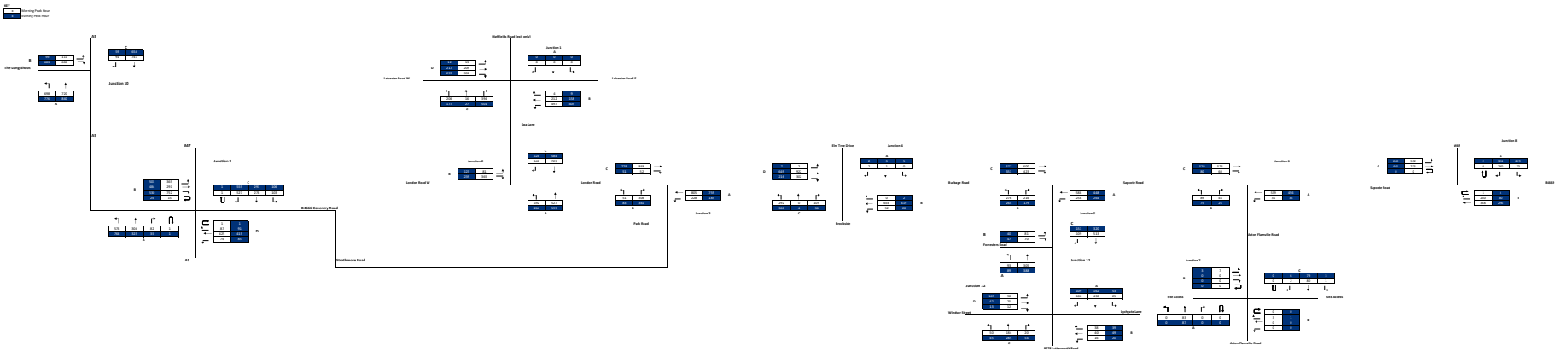


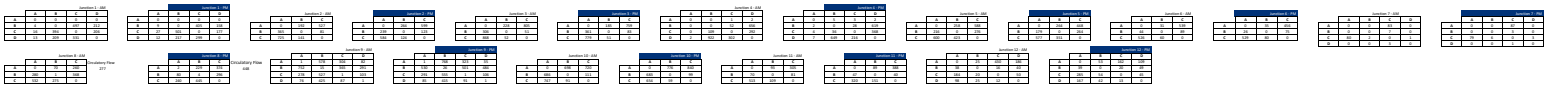
Trip Assignment – 2018 Baseline
AM and PM Peak Hours



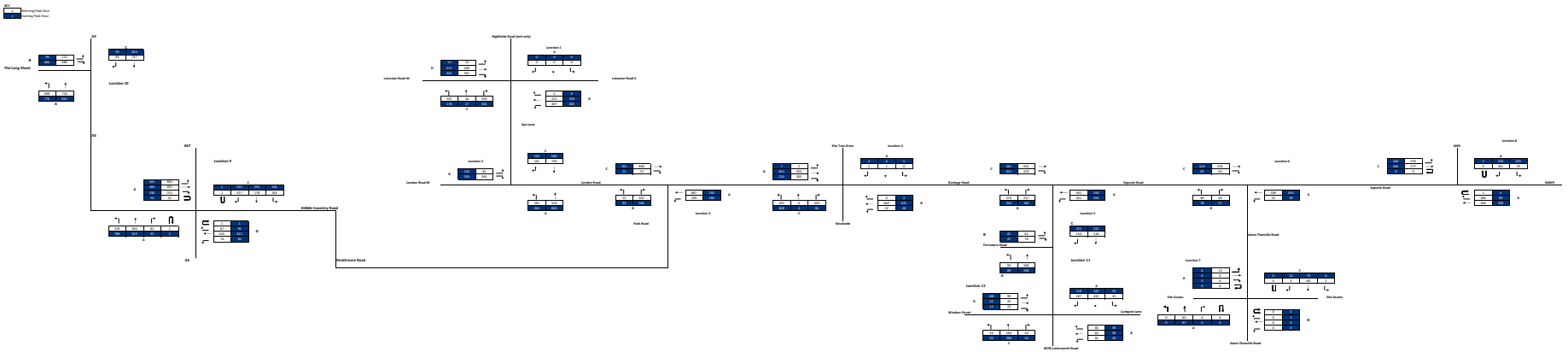


2031 Base + Committed Development Flows
AM and PM Peak Hours





2031 Base + Committed + Development Flows (25 dwellings)
AM and PM Peak Hours



Junction 1 - AM			
	A	B	C
A	0	0	0
B	0	0	420
C	53	994	0

Junction 1 - PM			
	A	B	C
A	0	0	0
B	0	0	1013
C	53	1007	0

Junction 2 - AM			
	A	B	C
A	0	0	0
B	925	0	91
C	726	124	0

Junction 2 - PM			
	A	B	C
A	0	0	0
B	1029	0	91
C	726	124	0

Junction 3 - AM			
	A	B	C
A	0	1049	0
B	1156	0	530
C	1026	524	0

Junction 3 - PM			
	A	B	C
A	0	1049	0
B	1156	0	530
C	1026	524	0

Junction 4 - AM			
	A	B	C
A	0	1478	0
B	1112	0	91
C	1026	52	0

Junction 4 - PM			
	A	B	C
A	0	1478	0
B	1112	0	91
C	1026	52	0

Junction 5 - PM			
	A	B	C
A	0	1026	0
B	1023	0	93
C	1781	111	0

Junction 6 - AM			
	A	B	C
A	0	0	0
B	1112	0	1026
C	1026	52	0

Junction 6 - PM			
	A	B	C
A	0	0	0
B	1112	0	1026
C	1026	52	0

Junction 7 - AM			
	A	B	C
A	0	1026	0
B	1112	0	1026
C	1026	52	0

Junction 7 - PM			
	A	B	C
A	0	1026	0
B	1112	0	1026
C	1026	52	0

Junction 8 - AM			
	A	B	C
A	0	0	520
B	0	0	96
C	1781	111	0

Junction 8 - PM			
	A	B	C
A	0	96	1026
B	127	0	93
C	1026	52	0

Junction 9 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 9 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 10 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 10 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 11 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 11 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 12 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 12 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 13 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 13 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 14 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 14 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 15 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 15 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 16 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 16 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 17 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 17 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 18 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 18 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 19 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 19 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 20 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 20 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 21 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 21 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 22 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 22 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 23 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 23 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 24 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 24 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 25 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 25 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 26 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 26 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 27 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 27 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 28 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 28 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 29 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 29 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 30 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 30 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 31 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 31 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 32 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 32 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 33 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 33 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 34 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 34 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 35 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 35 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 36 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 36 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 37 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 37 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 38 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 38 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 39 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 39 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 40 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 40 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 41 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 41 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 42 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 42 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 43 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 43 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 44 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 44 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 45 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 45 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 46 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 46 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 47 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 47 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 48 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 48 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 49 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 49 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 50 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 50 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 51 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 51 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 52 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 52 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 53 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 53 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 54 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 54 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 55 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 55 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 56 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 56 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 57 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 57 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 58 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 58 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 59 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 59 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 60 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 60 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 61 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 61 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 62 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 62 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 63 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 63 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 64 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 64 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 65 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 65 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 66 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 66 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 67 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 67 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 68 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 68 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 69 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 69 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 70 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 70 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 71 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 71 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 72 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 72 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 73 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 73 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 74 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 74 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 75 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 75 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 76 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 76 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 77 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 77 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 78 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 78 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 79 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 79 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 80 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 80 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 81 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 81 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 82 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 82 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 83 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 83 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 84 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 84 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 85 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 85 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 86 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 86 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 87 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 87 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 88 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 88 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 89 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 89 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 90 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 90 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 91 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 91 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 92 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 92 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 93 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 93 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 94 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

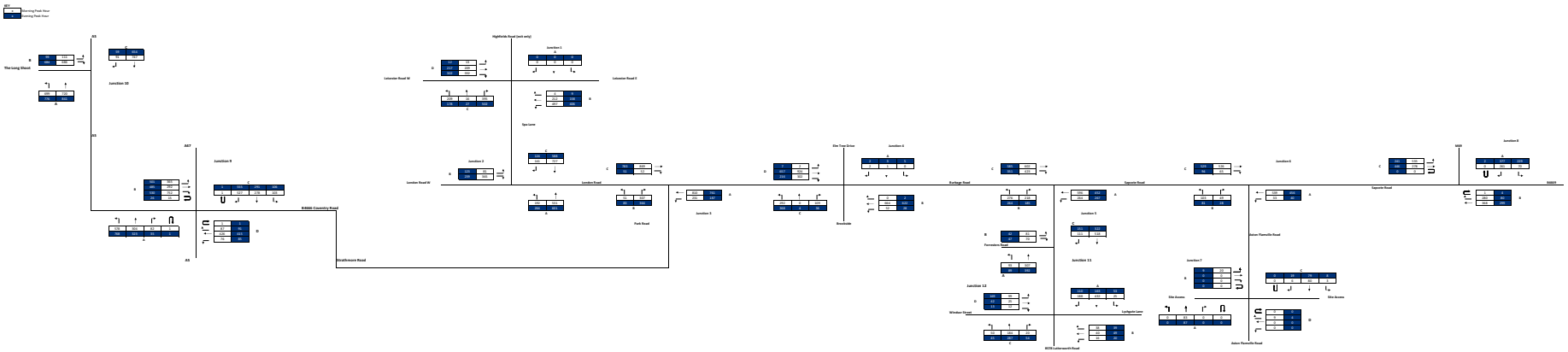
Junction 94 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 95 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 95 - PM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 96 - AM			
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 96 - PM			
	A	B	C
A



Junction 1 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	20	1213
C	53	355	0	1009
D	53	1009	1214	0

Junction 1 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	1456	1166
C	0	1122	0	1178
D	0	1178	1162	0

Junction 2 - AM

	A	B	C
A	0	1122	0
B	1025	0	96
C	1217	124	0

Junction 3 - AM

	A	B	C
A	0	1025	1025
B	1025	0	1025
C	1208	1208	0

Junction 3 - PM

	A	B	C
A	0	1456	1456
B	1208	0	1208
C	1208	1208	0

Junction 4 - AM

	A	B	C
A	0	1711	1711
B	1622	0	1622
C	1622	52	0

Junction 4 - PM

	A	B	C
A	0	1711	1711
B	1622	0	1622
C	1622	52	0

Junction 5 - AM

	A	B	C
A	0	1622	1622
B	1622	0	1622
C	1622	52	0

Junction 5 - PM

	A	B	C
A	0	1622	1622
B	1622	0	1622
C	1622	52	0

Junction 6 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	52	1622
C	0	1622	0	1622
D	0	1622	1622	0

Junction 6 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	52	1622
C	0	1622	0	1622
D	0	1622	1622	0

Junction 7 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	1622	1622
C	0	1622	0	1622
D	0	1622	1622	0

Junction 7 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	1622	1622
C	0	1622	0	1622
D	0	1622	1622	0

Junction 8 - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 8 - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 9 - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 9 - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 10 - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 10 - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 11 - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 11 - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 12 - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 12 - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction A - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction A - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction B - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction B - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction C - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction C - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction D - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction D - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction E - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction E - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction F - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction F - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction G - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction G - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction H - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction H - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction I - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction I - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction J - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction J - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction K - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction K - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction L - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction L - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction M - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction M - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction N - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction N - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction O - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction O - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction P - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction P - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction Q - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction Q - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction R - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction R - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction S - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction S - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction T - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction T - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction U - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction U - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction V - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction V - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction W - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction W - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction X - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction X - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction Y - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction Y - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction Z - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction Z - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AA - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AA - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AB - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AB - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AC - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AC - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AD - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AD - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AE - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AE - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AF - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AF - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AG - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AG - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AH - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AH - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AI - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AI - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AJ - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AJ - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AK - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AK - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AL - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AL - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AM - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AM - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AN - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AN - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AO - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AO - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AP - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AP - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AQ - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AQ - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AR - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AR - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AS - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AS - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AT - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AT - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AU - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AU - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AV - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AV - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AW - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AW - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AX - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AX - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AY - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AY - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AZ - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction AZ - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BA - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BA - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BB - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BB - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BC - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BC - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BD - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BD - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BE - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BE - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BF - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BF - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BG - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BG - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BH - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BH - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BI - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BI - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BJ - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BJ - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BK - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BK - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BL - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BL - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BM - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BM - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BN - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BN - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BO - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BO - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BP - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BP - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BQ - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BQ - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BR - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BR - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BS - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BS - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BT - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BT - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BU - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BU - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BV - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BV - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BW - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BW - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BX - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BX - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BY - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BY - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BZ - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction BZ - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CA - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CA - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CB - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CB - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CC - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CC - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CD - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CD - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CE - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CE - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CF - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CF - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CG - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CG - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CH - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CH - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CI - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CI - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CJ - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CJ - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CK - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction CK - PM

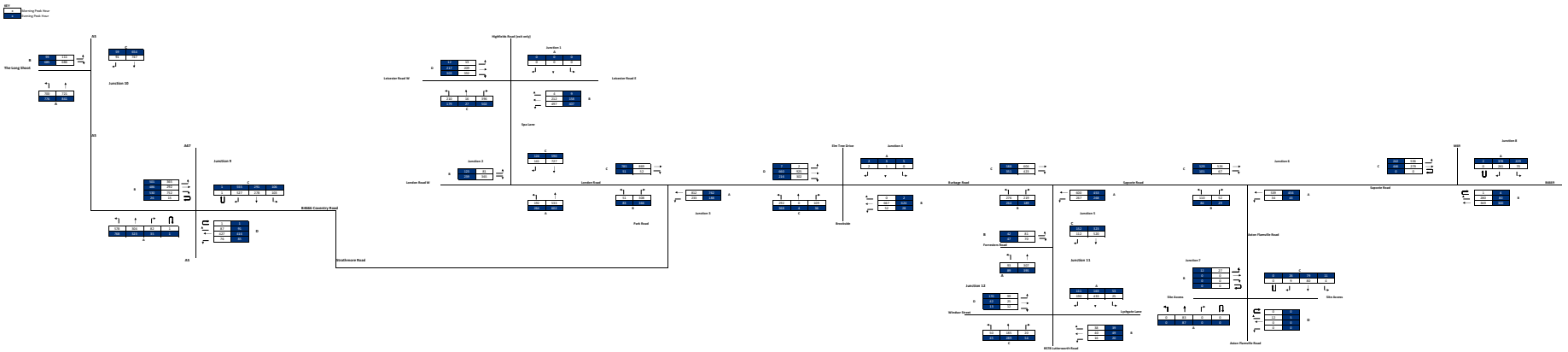
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

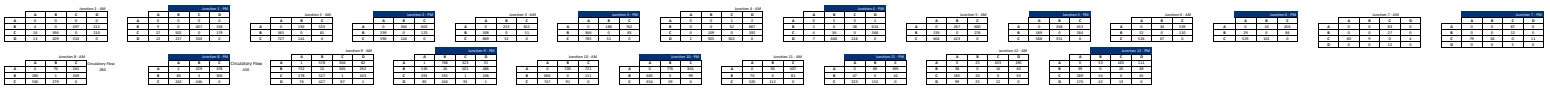
Junction CL - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

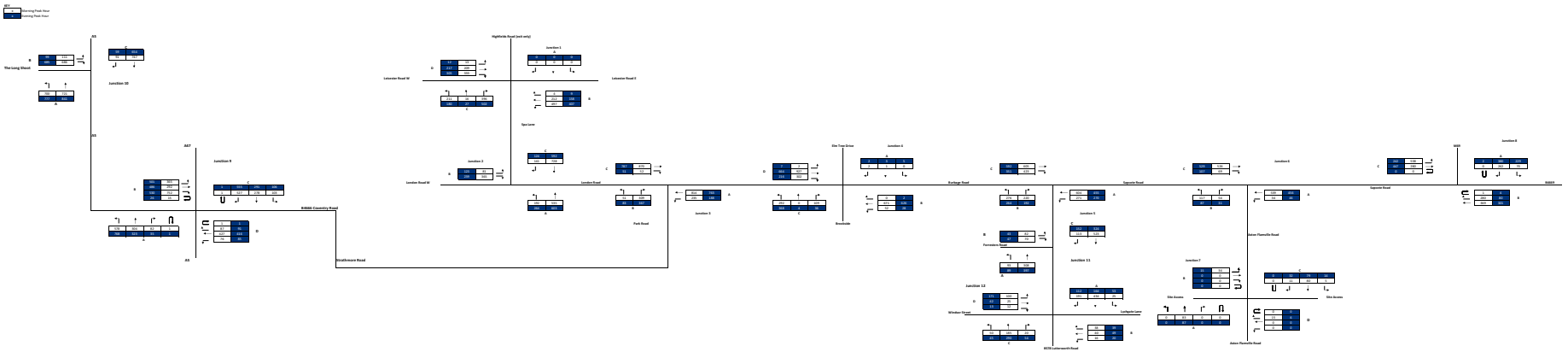
Junction CL - PM

	A	B	C
A	0	0	0





2031 Base + Committed + Development Flows (320 dwellings)
AM and PM Peak Hours



Junction 1 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	20	1313
C	53	1009	0	0
D	53	1009	0	0

Junction 1 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	1453	1560
C	0	0	0	0
D	0	0	0	0

Junction 2 - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 2 - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 3 - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 3 - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 4 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
D	0	0	0	0

Junction 4 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
D	0	0	0	0

Junction 5 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
D	0	0	0	0

Junction 5 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
D	0	0	0	0

Junction 6 - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 6 - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 7 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
D	0	0	0	0

Junction 7 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
D	0	0	0	0

Junction 8 - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 8 - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 9 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
D	0	0	0	0

Junction 9 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
D	0	0	0	0

Junction 10 - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 10 - PM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Junction 11 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
D	0	0	0	0

Junction 11 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
D	0	0	0	0

Junction 12 - AM

	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
D	0	0	0	0

Junction 12 - PM

	A	B	C	D
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
D	0	0	0	0

Junction B - AM

	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

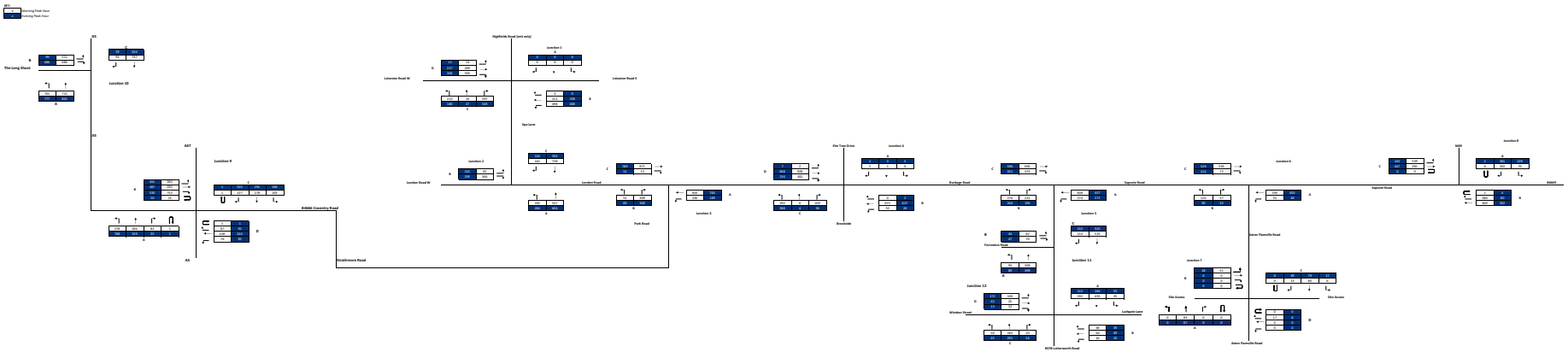
Junction B - PM

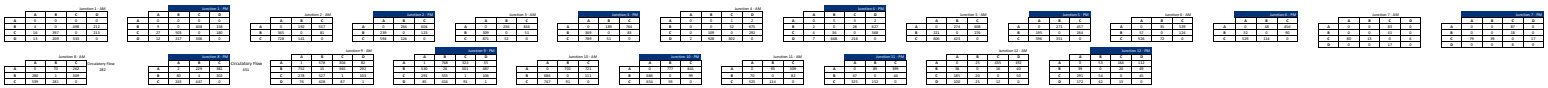
	A	B	C
A	0	0	0
B	0	0	0
C	0	0	0

Roundabout Flow 261

Roundabout Flow 456

2031 Base + Committed + Development Flows (125 dwellings)
AM and PM Peak Hours





2021 Base + Committed + Development Flows (2018 dwellings)
AM and PM Peak Hours