Addendum
Transport Assessment

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1.0 Introduction

1.1 This Addendum Transport Statement (TS) has been prepared on behalf of The United Kingdom Atomic Energy Authority (UKAEA), in response to consultation comments on the recent planning application for a proposed Research and Development Building at Culham Science Centre (CSC) (App Ref: P21/S1257/FUL) and additional work agreed with the Local Highway Authority, Oxfordshire County Council.

1.2 Further to the Transport Statement provided to accompany the planning application, capacity assessment work has been requested in order to quantify the impact of the proposed development on the surrounding highway network.

1.3 This additional work has been completed in the context of the OCC paper on "Releasing Development Strategy in Didcot and surrounding villages in the vicinity of HIF1 Schemes".

> *Prior to Didcot Garden Town Centre Housing Infrastructure funding (HIF1) being secured… it was established that the local and strategic highway network that serves Didcot and the surrounding area has severe congestion and capacity issues during the morning and evening commuter periods. The areas of concern most affected have been identified as the river crossing between Sutton Courtney and Culham, Clifton Hampden village signal junction, and the A4130 as the main route between Didcot and Milton Interchange (A34).*

1.4 This led to an OCC strategy in 2017 that heavily controlled development and resulted in highways objections to development that would generate any new vehicular trips in the morning and evening commuter peak times.

1.5 Securing HIF1 funding in June 2019 and the adoption of Local Plans for Vale of White Horse (VoWH) and South Oxfordshire (SO) and has provided more confidence in the delivery of HIF1.

> *Although it continues to be recognised by OCC that in the absence of the HIF1 infrastructure, much of the highway network is at design capacity during the morning and evening commute times. It remains the fact that all applications are assessed on their merits and TDC officers are mindful that there is an overall national planning gain in delivering houses and economic growth in Oxfordshire and should not be seen to be obstructing this, whilst also maintaining a working highway network.*

1.6 In June 2021, Oxfordshire County Council's Cabinet adopted a strategy to assist with the delivery of some new development in the VoWH and SO districts prior to HIF1 funded infrastructure being open for public use, based upon the following requirements:

- Development site housing build programmes / trajectories / occupations being aligned with (or after) the delivery of HIF 1 which will require occupation thresholds / controls on development sites.
- Development sites to provide agreed sustainable / active travel infrastructure at the beginning (early occupations) of development sites to reduce traffic impact on the highway network prior to HIF 1 delivery.
- New services or enhancements to existing bus service arrangements being implemented at the beginning (early occupations) of development sites.
- Local off-site and on-site highway works to be delivered at the early stages of development to lessen the direct impact of a development site on the highway network.
- Travel Plans prepared and approved by the council's Travel Plan team with deliverable and monitored targets.
- Strategic transport / highway contributions will be sought in accordance with Regulation 122 and the three Section 106 tests.

1.7 A four-tiered approach is to be used when considering development that is promoted in the Vale of White Horse (VoWH) and South Oxfordshire (SO) districts, to enable some development to come forward prior to the delivery of HIF1. Tier 1-3 relate to increasing scales of housing development. Tier 4 relates to commercial developments and states the following:

> *Tier 4: Commercial developments. It is recognised by OCC that there are significant existing and proposed commercial sites in the area that help support the local and national economy such as Culham Science Centre, Milton Park, Harwell Campus (and others). While these sites are not directly linked to releasing housing via the delivery of HIF1 they are to play an essential role in its delivery, such as providing land or delivering some elements of the highway works. While HIF1 funding has been secured and OCC is confident is delivering HIF1, Tier 4 development proposals will be assessed on their merits but will be expected to mitigate their own impact through local and site wide measures which may include providing excellent pedestrian, and/or cyclist provisions and enhanced frequent public transport service provisions to help reduce their impact in the local area before HIF1 is delivered and in the long term. Restrictions on gross floor area usage or occupation thresholds may be applied to development sites to lessen the cumulative impact on the highway network.*

1.8 The content of this report is summarised as follows:

- Section 2.0 sets out the study area and base traffic flow information;

- Section 3.0 establishes the growth factors and committed developments applicable for each of the assessment years;
- Section 4.0 outlines the development proposals, including the site access arrangements;
- Section 5.0 quantifies the amount of traffic likely to be generated by the development proposals;
- Section 6.0 establishes the potential impact of traffic associated with proposed development in terms of additional vehicular trips on the highway network within the study area;
- Section 7.0 demonstrates the impact of the development traffic on operational capacity at the study area junctions for each of the assessment years; and
- Section 8.0 summarises the key findings of the report, highlighting the transport implications of the proposals, and summaries any mitigation measures if considered necessary.

2.0 Study Area Base Information

2.1 The confirmed study area is as follows:

- Site Access
- Clifton Hampden signals (A415 / Oxford Road / High Street / Watery Lane)
- Clifton Hampden Bridge signals
- Berinsfield roundabout (A4074 / A415 / Wimblestraw Rd)
- Golden Balls roundabout (A4074 / B4015 / Oxford Rd)
- Waggon Horse signal junction (A415 / Tollgate Road)
- Culham river crossing signals (Tollgate Road / Abingdon Road)
- Appleford Road (B4016) / Abingdon Road
- A415 / High Street / Stert Street
- Ock Street / Stratton Way
- Ock Street / Marcham Road / B4017 / Spring Road
- Marcham Road / Colwell Drive
- Marcham Road / Nuffield Way

2.2 Peak hour turning movement data was obtained for 2018 from a count at the CSC site access. (The latter 2019 survey was affected by an off-site incident in the PM peak hour so has not been used).

2.3 Peak hour turning movement data has been obtained for the following junctions for 2020 from OCC's Didcot Garden Town Housing Infrastructure Fund HIF1 planning application (Application Ref R3.0138/21):

- Clifton Hampden signal junction (A415 / Oxford Road / High Street / Watery Lane)
- Waggon Horse signal junction (A415 / Tollgate Road)
- Culham river crossing signals (Tollgate Road / Abingdon Road)
- Appleford Road (B4016) / Abingdon Road

2.4 Peak hour turning movement data has been purchased for the following junctions from OCC for 2017:

- Clifton Hampden Bridge signals
- Berinsfield roundabout (A4074 / A415 / Wimblestraw Rd)
- Golden Balls roundabout (A4074 / B4015 / Oxford Rd)

2.5 Peak hour turning movement data for 2017 was obtained for the following junction from the Transport Planning Associates TA for the Project Swift farm park and activity centre development, as there were temporary traffic signals in place on Abingdon bridge that may affect the operation of the junction:

- A415 / High Street / Stert Street

2.6 Surveys were completed at the following junctions on Wednesday 13th October 2021, after the October half term:

- Ock Street / Stratton Way
- Ock Street / Marcham Road / B4017 / Spring Road
- Marcham Road / Colwell Drive
- Marcham Road / Nuffield Way

2.7 A copy of the survey data is provided in Appendix A.

2.8 The survey data for the full study area is shown on Flow Diagram 1 in Appendix B.

3.0 Assessment Years, Traffic Growth and Committed Developments

3.1 The assessment years suggested by OCC are as follows:

- Baseline / existing conditions (2021)
- Pre-HIF delivery (which is programmed for end of 2024) and estimated occupation of the proposed development (2023/24).
- After HIF is open for public use (2024 "with HIF")
- End of Local Plan period (2035, or 2034 allowing for all planned development)

3.2 The adopted Vale of White Horse District Council (VoWHDC) Local Plan Part 1 and 2 period ends in 2034. The adopted South Oxfordshire District Council (SODC) Local Plan period ends in 2035, although little growth is expected between 2034 and 2035. Therefore, as agreed with the highway authority for the Didcot Garden Town Housing Infrastructure Fund (HIF1) assessment work, 2034 flows have been used for the future year assessment, which include all the Local Plan allocated development sites and committed infrastructure included in the Didcot Paramics microsimulation model.

2021

3.3 Local NTM TEMPro growth factors have been obtained and applied to all the base traffic flows that are pre-2021 to provide a 2021 baseline scenario. This is shown on Flow Diagram 2 in Appendix B (see Appendix B for all Flow Diagrams).

Table 3.1: TEMPro Growth Factors

Super Output Area (Mid-Layer)	Base Year	Assessment Year	AM	PM
SO 006	2017	2021	1.0591	1.0580
SO 006	2018	2021	1.0442	1.0435
SO 006	2020	2021	1.0157	1.0155
Super Output Area (Mid-Layer)	Base Year	Assessment Year	AM	PM
VoWH 006	2017	2021	1.0720145	1.0695905
Super Output Area (Mid-Layer)	Base Year	Assessment Year	AM	PM
VoWH 010	2020	2021	1.0164062	1.0163058

3.4 Traffic associated with the following committed developments have also been added to the junctions where surveys were completed prior to 2021.

Amey site / Land South of Appleby Road, Sutton Courtney (P10/V1907/O & P14/V2061/RM)

3.5 The Didcot Garden Town Housing Infrastructure Fund (HIF1) TA assumed 85 dwellings constructed and occupied by 2020 and added associated traffic movements to the base flows for the 2020 scenario.

3.6 The trip rates have been taken from the Lawrence Walker TA for the outline application to calculate the number of trips anticipated, and this is presented in Table 3.2 below.

Table 3.2: Vehicular Trip Rates and Trip Generation Summary – Land South of Appleford Road

Amey Site / Land South of Appleford Road	AM Peak Hour 0800-0900			PM Peak Hour 1700-1800		
	In	Out	Total	In	Out	Total
Trip Rate (per dwelling)	0.125	0.375	0.500	0.375	0.125	0.500
Trip Generation (85 dwellings)	14	41	55	41	14	55

3.7 There were varying trip distributions presented in the original TA and in subsequent TAs which included this site as a committed development, and none extended across the whole study area used in this assessment. Therefore a Census based distribution model was completed using the usual place of work accessed by car from residences in the mid layer super output area E02005987 : Vale of White Horse 010, where the housing site is located.

3.8 The distribution data is provided in Appendix C with a summary provided on Flow Diagram 3.

3.9 The resulting committed development traffic flows (to apply to junctions where base surveys were completed prior to 2020/21) are shown on Flow Diagram 4.

Culham Science Centre OAS2

3.10 A new building for the Oxford Advanced Skills (OAS) training facility, known as OAS2, was provided on campus and occupied in September 2019. Therefore, this would not have been included in traffic surveys completed prior to this date.

3.11 The Transport Statement for OAS3, set out trip rates and apprentice numbers for both OAS2 and OAS3. This estimates up to 96 full time and 116 block release apprentices on site on any given day in 2021/22 increasing to 168 block release apprentices in 2022/23. The block release timetable is split into groups of 10-12 apprentices. In 2020/21, 90 apprentices saw just one to two groups of around 10 on site on any one day. Although this is expected to increase to up to three groups of 12 on site per day. Therefore, a total of 96 full time and 36 block release students have been allowed for in the 2021 scenario. The number of staff is expected to increase from 20 in 2020/21 to 25 in 2022/23, and therefore all 25 have been allowed for.

3.12 Table 3.3 shows the trip rate and trip generation.

Table 3.3: Vehicular Trip Rates and Trip Generation Summary – OAS2

OAS2	AM Peak Hour 0800-0900			PM Peak Hour 1700-1800		
	In	Out	Total	In	Out	Total
Trip Rate (per apprentice)	0.563	0.000	0.563	0.000	0.000	0.000
Trip Generation (132 apprentices)	74	0	59	0	0	0
Trip Rate (per staff)	0.178	0.000	0.178	0.000	0.142	0.142
Trip Generation (25 staff)	4	0	4	0	4	4
Total Trip Generation	79	0	79	0	4	4

3.13 Postcode data from existing users of the OAS2 facility were used to establish a distribution model for these trips. The distribution data is provided in Appendix D with a summary provided on Flow Diagram 5.

3.14 The resulting committed development traffic flows (to apply to junctions where base surveys were completed prior to 2021) are shown on Flow Diagram 6.

Culham Science Centre RACE Extension

3.15 An extension to the RACE building was occupied in March 2021 so after most of the traffic survey data was obtained.

3.16 The Transport Statement which accompanied the planning application set out the expected trip generation for the building. This is summarised in Table 3.4 below for the expected level of occupation by 2021 and 2023 onwards. This excluded 18 staff that were relocating from within campus.

Table 3.4: Trip Generation Summary – RACE Extension

RACE Extension	AM Peak Hour 0800-0900			PM Peak Hour 1700-1800		
	In	Out	Total	In	Out	Total
Trip Generation (2021 – 30 staff)	9	0	9	0	5	55
Trip Generation (2023 – 72 staff)	22	0	22	0	12	12

3.17 Postcode data from existing employees at CSC have been used to establish a distribution model (further details are included in section 5.0). This is shown on Flow Diagram 7.

3.18 The resulting committed development traffic flows for the initial occupancy of the building, to apply to junctions where base surveys were completed prior to 2021, are shown on Flow Diagram 8. The remaining trips for up to full occupation will be added to the 2024 scenario.

3.19 The 2021 existing scenario is shown on Flow Diagram 9 and where applicable includes for committed traffic growth since traffic surveys were completed.

2024 Pre-HIF

3.20 Local NTM TEMPro growth factors have been applied to the 2021 flows to provide 2024 base flows. The base flows for 2024 are shown on Flow Diagram 10.

Table 3.5: TEMPro Growth Factors

Super Output Area (Mid-Layer)	Base Year	Assessment Year	AM	PM
SO 006	2021	2024	1.044204	1.045073
VoWH 006	2021	2024	1.058873	1.059896
VoWH 010	2021	2024	1.055142	1.057135

3.21 Traffic associated with the following committed developments have also been added.

Amey site / Land South of Appleby Road, Sutton Courtney (P10/V1907/O & P14/V2061/RM)

3.22 The outline application was for a total of 171 dwellings, increased to 195 dwellings at reserved matters stage. Didcot Garden Town Housing Infrastructure Fund (HIF1) TA assumed 85 dwellings constructed and occupied by 2020 and 192 dwellings constructed and occupied by 2024. To allow for the full 195 dwellings with planning permission, the increase in dwellings between 2020 and 2024 is 110 dwellings.

3.23 The trip rates have been taken from the Lawrence Walker TA for the outline application to calculate the number of trips anticipated, and this is presented in Table 3.6 below.

Table 3.6: Vehicular Trip Rates and Trip Generation Summary – Land South of Appleford Road

Amey Site / Land South of Appleford Road	AM Peak Hour 0800-0900			PM Peak Hour 1700-1800		
	In	Out	Total	In	Out	Total
Trip Rate (per dwelling)	0.125	0.375	0.500	0.375	0.125	0.500
Trip Generation (110 dwellings)	14	41	55	41	14	55

3.24 The same distribution model as used above for the initial 85 dwellings has been applied (see Flow Diagram 3).

3.25 The resulting committed development traffic flows have been combined with those for the other committed housing development at Appleby Road which is detailed below.

Land north of Appleby Road, Sutton Courtney P15/V2933/O – 43 dwellings (of 93)

3.26 The Didcot Garden Town Housing Infrastructure Fund (HIF) TA assumed 0 dwellings constructed by 2020, 43 dwellings constructed and occupied by 2024, with all 93 constructed and occupied by 2034. The trip rates from the Transport Assessment for the outline application for the development of Land north

of Appleby Road, Sutton Courtney P15/V2933/O has been used to confirm the trips associated with the 43 dwellings expected to be completed by 2024. (The total of 93 dwellings that have permission are included in full in the 2034 scenario).

Table 3.7: Vehicular Trip Rates and Trip Generation Summary – Land North of Appleford Road

Land North of Appleford Road	AM Peak Hour 0800-0900			PM Peak Hour 1700-1800		
	In	Out	Total	In	Out	Total
Trip Rate (per dwelling)	0.111	0.500	0.611	0.354	0.207	0.561
Trip Generation (43 dwellings)	5	22	26	15	9	24

3.27 The same distribution model as used above for the land south of Appleby Road has been applied (see Flow Diagram 3).

3.28 The resulting committed development traffic flows for both committed housing development sites on Appleby Road for the 2024 scenario are shown on Flow Diagram 11.

Culham Science Centre OAS3

3.29 The TS for OAS3 set out the forecasts for delivering training programs the academic year of 2024/25 and confirmed that they would result in the following maximum number apprentices and staff on any given day.

Table 3.8: Total Apprentice Numbers 2024/2025

	Full Time	Block Release	Staff	Total
OAS2	96	36	25	157
OAS3	0	72	11	83
Total	96	108	36	240

3.30 The OAS2 trips have been included where appropriate in the 2021 scenarios. Therefore, the additional OAS3 trips are now added, for the additional up to 72 apprentices a day and 11 additional staff. Table 3.9 shows the trip rate and trip generation.

Table 3.9: Vehicular Trip Rates and Trip Generation Summary – OAS3

OAS3	AM Peak Hour 0800-0900			PM Peak Hour 1700-1800		
	In	Out	Total	In	Out	Total
Trip Rate (per apprentice)	0.563	0.000	0.563	0.000	0.000	0.000
Trip Generation (72 apprentices)	41	0	41	0	0	0
Trip Rate (per staff)	0.178	0.000	0.178	0.000	0.142	0.142

Trip Generation (11 staff)	2	0	2	0	2	2
Total Trip Generation	43	0	43	0	2	2

3.31 Postcode data from existing users of the OAS2 facility were used to establish a distribution model for these trips (see Flow Diagram 5).

3.32 The resulting committed development traffic flows for OAS3 are shown on Flow Diagram 12.

Culham Science Centre RACE Extension

3.33 The Transport Statement which accompanied the planning application for an extension to the RACE building set out the expected trip generation for the building. This is summarised in Table 3.10 below for the expected level of occupation by 2021 and 2023 onwards, once fully occupied, as well as the increase from the allowance in the 2021 flows.

Table 3.10: Trip Generation Summary – RACE Extension

RACE Extension	AM Peak Hour 0800-0900			PM Peak Hour 1700-1800		
	In	Out	Total	In	Out	Total
Trip Generation (2021 – 30 staff)	9	0	9	0	5	5
Trip Generation (2023 – 72 staff)	22	0	22	0	12	12
Increase between 2021 and 2024	13	0	13	0	7	7

Culham Science Centre NFTP and STEP/UKAEA Offices

3.34 The above proposed buildings have planning consent and are due to be occupied in 2022 and 2023 respectively. The Transport Statements which accompanied the planning applications set out the expected trip generation for the buildings.

3.35 The trip generation for NFTP is summarised in Table 3.11 below for the expected level of occupation by 2024 and 2025 onwards, once fully occupied.

Table 3.11: Trip Generation Summary - NFTP

NFTP	AM Peak Hour 0800-0900			PM Peak Hour 1700-1800		
	In	Out	Total	In	Out	Total
Trip Generation (2024 – 225 staff)	68	0	68	0	38	38
Trip Generation (2025 – 300 staff)	90	0	90	0	51	51

3.36 The trip generation for the STEP / UKAEA office is summarised in Table 3.12 below for the expected level of occupation, once fully occupied. This does not include 300 staff that are relocating from within the campus.

Table 3.12: Trip Generation Summary – STEP/UKAEA

STEP / UKAEA	AM Peak Hour 0800-0900			PM Peak Hour 1700-1800		
	In	Out	Total	In	Out	Total
Trip Generation (300 employees)	90	0	90	0	51	51

Culham Science Centre – Total Committed Developments 2022-2024

3.37 There are additional proposals for a new entrance and main gate building for CSC, to tie in with the proposed HIF infrastructure, and a new nursery to replace the existing. These schemes are expected to be completed by 2024 but will not generate additional peak hour trips as they are all replacing existing facilities.

3.38 The total trip generation associated with committed development at CSC between 2022 and 2024 is summarised below.

Table 3.13: Trip Generation Summary – CSC 2022-2024

	AM Peak Hour 0800-0900			PM Peak Hour 1700-1800		
	In	Out	Total	In	Out	Total
RACE Extension	13	0	13	0	7	7
NFTP	90	0	90	0	51	51
STEP / UKAEA	90	0	90	0	51	51
Total	193	0	193	0	109	109

3.39 The increase in trips has been distributed using the model based on postcode data from existing employees at CSC, as shown on Flow Diagram 7. The resulting committed development traffic flows to add to the 2024 scenario, are shown on Flow Diagram 13.

3.40 The 2024 + committed pre-HIF scenario is shown on Flow Diagram 14, and includes background growth from 2021 and specific committed development traffic as set out above.

2024 Post-HIF

3.41 Initially the "2024 With HIF" data from the TA submitted for the Didcot Garden Town Housing Infrastructure Fund (HIF1) application, has been used to determine flows on the study area network included in that assessment. This included the signals at A415 / Tollgate Road, the Culham River crossing and the Appleford Road junction, and also the Clifton Hampden signalised junction. The data was also obtained for the CSC site access which is to be upgraded to a roundabout as part of the Clifton Hampden bypass works and realigned A415. The data is shown on Flow Diagram 15.

3.42 It should be noted that the HIF1 assessment scenarios included additional SO and VoWH Local Plan allocated sites and infrastructure, that are not yet approved or "committed".

3.43 It was identified that the traffic flows in the OD tables used in the capacity assessment at the new roundabout forming the new access to Culham Science Centre in the TA submitted for the Didcot Garden Town Housing Infrastructure Fund (HIF1) application are lower than the flows developed by adding committed development traffic to the 2018 survey data and 2021 and 2024 base traffic flows for the 2024 pre-HIF scenario.

3.44 The assumptions in the HIF1 TA did allow for some movements out of a new secondary CSC access formed onto the Clifton Hampden Bypass. (There is potential for this to increase from the initial HIF1 assumptions and to include some arrivals depending on how the access is secured and managed by CSC.) The flows are set out below along with the difference in total trips allowed for in our 2024 scenario prior to HIF, without the development traffic.

Table 3.14: Trip Generation Summary – CSC 2024

	AM Peak Hour 0800-0900			PM Peak Hour 1700-1800		
	In	Out	Total	In	Out	Total
CSC Main Access	557	61	618	57	395	452
CSC Secondary Access	0	25	25	0	83	83
HIF1 TA Total	557	86	643	57	478	535
BSP Total (2024 + Com)	887	185	1072	64	503	567
Difference	330	99	429	7	25	32

3.45 The additional traffic has been assigned to the main CSC access and distributed across the HIF1 study area network, using the distribution model based on CSC employee postcodes, adjusted to reflect the revised road network (see Flow Diagram 16). The resulting extra flows are shown on Flow Diagram 17. Note that the BSP pre-HIF 2024 scenario, set out above, already includes this level of CSC traffic in full.

3.46 The difference in trips on the network when comparing the 2024 with and without HIF scenarios at the HIF1 study area junctions have been used to factor the flows in our 2024 pre-HIF scenario to a 2024 post-HIF scenario.

3.47 The difference in flows have been distributed based on the turning movements to and from the appropriate arm at the Golden Balls roundabout and Berinsfield roundabout and the difference in flows has been applied to the Clifton Hampden Bridge. The first junction sees an increase in flows as it provides access to and from the new Clifton Hampden bypass. To the south and east of the Clifton Hampden signals flows were shown to have reduced, as traffic uses either the new Thames river crossing and/or the Clifton Hampden bypass, once the HIF infrastructure is open to traffic. There is limited impact to and from Abingdon, as expected, with a small increase in the AM peak hour and decrease in the PM peak hour. The impact has been assigned based on the development trip distribution assuming mainly through traffic is affected. The resulting adjustments are shown on Flow Diagram 18.

3.48 The results of adding the extra committed traffic associated with CSC to the 2024 post-HIF HIF1 study area junctions and making the adjustments associated with the opening the proposed HIF infrastructure on the study area junctions not included in the HIF1 assessment work, are shown on Flow Diagram 19.

2034

3.49 As a sensitivity test a 2034 post-HIF scenario has been completed. This again uses data from the TA submitted for the Didcot Garden Town Housing Infrastructure Fund (HIF1) application, for the study area network included in that assessment. The data is shown on Flow Diagram 20.

3.50 It was again identified that the OD tables used in the capacity assessment at the new roundabout forming the new access to Culham Science Centre did not allow for sufficient movements, in comparison to the flows developed by adding committed development traffic to the 2018 survey data and 2021 and 2024 base traffic flows and allowing for development between 2024 and 2034. The flows are set out below along with the difference in total trips allowed for in our 2024 scenario prior to HIF, without the development traffic, again taking into account the movements out of a new secondary CSC access as assumed in the HIF1 TA.

3.51 The BSP figures allow for up to 500 additional employees in the period 2025-2034, using the same trip rate as used for the currently proposed development, as set out in Section 5.0 below.

Table 3.15: Trip Generation Summary – CSC 2034

	AM Peak Hour 0800-0900			PM Peak Hour 1700-1800		
	In	Out	Total	In	Out	Total
CSC Main Access	737	119	856	102	459	561
CSC Secondary Access	0	36	36	0	200	200
HIF1 TA Total 2034	737	155	892	102	659	761
BSP 2024 + Com	887	185	1072	64	503	567
BSP 2025 - 2034 (Estimate)	149	8	157	4	84	88
BSP Total 2034	1036	193	1229	68	587	655
Difference	299	38	337	-34	-73	-107

3.52 The difference in traffic has been assigned to the main CSC access and distributed across the HIF1 study area network, using the distribution model based on CSC employee postcodes, adjusted to reflect the revised road network (see Flow Diagram 16).

3.53 Just the estimated traffic between 2025-2034, associated with up to 500 employees, has been distributed through the Abingdon junctions, which are outside of the HIF1 study area, to add to the 2024 Post-HIF scenario which already includes for up to 2024.

3.54 The resulting extra flows are shown on Flow Diagram 21.

3.55 The adjusted 2034 flows on the arm between the HIF1 study area and the adjacent junctions, namely Golden Balls, Berinsfield roundabout, Clifton Hampden bridge and Bridge Street / High Street / Stert Street has been used as the total flow expected on these arms. Where necessary the two-way flow has been distributed at the junction based on existing turning movements. The data is shown on Flow Diagram 22.

3.56 Local NTM TEMPro growth factors for 2024-2034 have been applied where the flows are not otherwise affected by the above adjustments.

Table 3.16: TEMPro Growth Factors

Super Output Area (Mid-Layer)	Base Year	Assessment Year	AM	PM
SO 006	2024	2034	1.087494	1.090837
VoWH 006	2024	2034	1.121735	1.124217

3.57 The results of making the adjustments associated with expected growth between 2024 and 2034, are shown on Flow Diagram 23, to provide the 2034 post-HIF scenario.

4.0 Development Proposals

4.1 The proposed Research and Development Building is to be located on the 'western flank' of the CSC campus. The proposed Research and Development Building has an overall GIA of 9,870sqm and comprises office space (6,428sqm NIA) and a large rig hall. Car parking for staff using the Research and Development Building is to be provided in an adjacent multi-storey car park. A service yard is also provided for access to the rig hall. The proposed site layout is provided in Appendix E.

4.2 Access to the site is provided from the internal road network within the CSC campus. Access to the CSC is via a ghost island right turn lane junction on the A415. The junction includes two exit lanes on the minor (site access) arm to facilitate flows from the site during the evening peak period.

4.3 The main highway and transport considerations, which have influenced the proposed design, are:

- provision of high-quality access and on-site facilities to support the use of sustainable modes of travel and BREEAM accreditation
- provision of suitable operational access/delivery/servicing arrangements, including adequate turning areas
- provision of parking for cycles and cars including disabled badge holders, EV charging, and car sharers

4.4 The main pedestrian entrance to the building is via a proposed public plaza located between the Research and Development Building and the STEP / UKAEA offices which are proposed immediately to the north (subject to a separate reserved matter planning application) on the western side of Main Avenue.

4.5 Vehicular access to the multi-storey car park and to the service yard for the rig hall will be off Main Avenue. There also will be parking for disabled badge holders and cyclists on Main Avenue adjacent to the building. Footpaths and footways provide connections between the parking facilities and the building and tie into the existing pedestrian network on the campus. The existing footways through the CSC campus will provide a pedestrian connection between the proposed facility and other buildings on campus.

4.6 The currently anticipated timescales for first occupation of the Research and Development Building is from Jan 2024.

4.7 Car parking for staff using the Research and Development Building is to be provided in an adjacent multi-storey car park. There are a total of 292 parking spaces proposed. The OCC/SODC parking standards for offices are 1 space per 30sqm. Based on the floor area of the office space within the building (6,428sqm NIA) and the total building GIA (9,870sqm), between 214 and 329 car parking spaces should be provided for the development. The main source of occupancy will be the offices, and the rig hall and

ancillary space should not generate additional people, nonetheless it is considered reasonable for the level of parking provision to be within the range calculated above, which should also allow spaces for visitors.

4.8 There are a total of 292 parking spaces proposed. The total number of parking spaces are to include 15 (5%) spaces for disabled badge holders, 15 (5%) for car sharers and 29 (10%) have electric charging points (min 3kW) to achieve BREEAM credits.

4.9 Covered 'Sheffield' type cycle stands to accommodate 70 cycles will be provided on Main Avenue adjacent to the building, which meets minimum BREEAM standards of 1 space for every 10 staff, for the 600-700 staff. Changing facilities, with lockers and showers, and a drying room will be provided within the proposed building to further encourage active modes of sustainable travel (these are shown on the ground floor plan provided in Appendix E). Six showers are provided within the building, including 2 accessible showers for those with disabilities. The changing facilities and drying room are to be BREEAM compliant.

5.0 Trip Generation and Distribution

5.1 The Research and Development Building is proposed to be 9,870sqm including a large rig hall. The office element of the building has a NIA of 6,428sqm. The original TS utilised the residual trips remaining from the Phase 1 planning permission, to offset some of the trips associated with the proposed building, however these residual trips have now been allocated to another development proposed on campus, and therefore the full number of proposed trips are calculated below and are used in the capacity assessment work.

5.2 In order to calculate the number of trips expected to be generated by the proposed Research and Development Building, following the previously agreed method based on existing employee trips to and from Culham Science Centre, we have calculated the expected number of new staff pro-rata based on the net increase in office floor area. There is capacity for 600-700 employees within the whole building (to be based in the office element).

5.3 The trip rates are based on occupancy levels, the percentage of car drivers (71.2%) and peak spreading from recent surveys, to establish trips during the network peak hours (AM peak hour = 41.8% and PM peak hour = 23.4%). The trip rates and trip generation are set out in Table 6.1, with the full calculations provided in Appendix F.

Table 6.1: Vehicular Trip Rates and Trip Generation Summary

R&B Building Employee Trips	AM Peak Hour 0800-0900			PM Peak Hour 1700-1800		
	In	Out	Total	In	Out	Total
Trip Rate (per Employee)	0.298	0.015	0.313	0.008	0.167	0.175
Trip Generation (700 staff)	209	11	219	6	117	123

5.4 Postcode data from existing employees at CSC have been used to establish a distribution model, to distribute the proposed development trips onto the local highway network.

5.5 The initial results demonstrated a 40/60 split at the CSC site access which is known to consistently be closer to 50/50 based on annual traffic surveys. It was noted that journeys to/from the A34 to travel north beyond Oxford, and even westbound along the A40 were consistently being routed via Golden Balls and the A4074. However, an alternative and commonly used route is via the next junction on the A34-Oxford Road-Vinyard Road. A few of the destinations allocated to the Golden Balls route, had a very similar length alternative journey via Wooton Road and B4017, which would also leave the study area network off Stratton Way. Therefore, the home postcode locations within Oxford and to the west of Oxford (OX1, OX3 and OX4) were fixed as using the Golden Balls route and the remaining destination were split 50/50

over the two alternative routes, Golden Balls and Stratton Way. This resulted in a more even distribution at the site access, in line with previous data.

5.6 The distribution model data is provided in Appendix G and shown on Flow Diagram 7. The distribution model has been applied to the proposed development trips, and the resulting flows are shown on Flow Diagram 24.

5.7 For the post-HIF scenarios, the distribution model was adjusted to reflect the new HIF infrastructure. This is provided on Flow Diagram 16. The post-HIF development traffic flows are shown on the revised highway network on Flow Diagram 25. For robustness, all development traffic is still routed over the existing river crossings.

6.0 Junction Capacity and Impact Assessment

6.1 Junction capacity assessments have been completed to determine the existing capacity on the local highway network during the application year (2021) and assess the highway impacts of the development proposals in the anticipated opening year (2024), both pre and post HIF, and the plus 10-year horizon year (2034).

6.2 The 2021 "existing scenario" flows are shown on Flow Diagram 9 and where applicable includes for committed traffic growth since traffic surveys were completed.

6.3 The 2024 + committed pre-HIF traffic flows are shown on Flow Diagram 14.

6.4 The development traffic shown on Flow Diagram 24, using the existing highway network, has been added to the 2024 pre-HIF traffic flows shown on Flow Diagram 14, to provide a provide a "2024 pre-HIF with development" scenario which is shown on Flow Diagram 26.

6.5 The 2024 + committed post-HIF traffic flows are shown on Flow Diagram 19.

6.6 The development traffic shown on Flow Diagram 26, using the proposed HIF1 highway network, has been added to the 2024 post -HIF traffic flows shown on Flow Diagram 19, to provide a provide a "2024 post-HIF with development" scenario which is shown on Flow Diagram 27.

6.7 The 2034 + committed post-HIF traffic flows are shown on Flow Diagram 23.

6.8 The development traffic shown on Flow Diagram 26, using the proposed HIF1 highway network, has also been added to the 2034 post -HIF traffic flows shown on Flow Diagram 23, to provide a provide a "2034 with development" scenario which is shown on Flow Diagram 28.

6.9 JUNCTIONS has been used to assess the priority-controlled junctions and mini-roundabouts. The program provides output in the form of Ratio of Flow to Capacity (RFC). An RFC below 0.85 indicates that a priority-controlled junction operates comfortably within capacity. An RFC value between 0.85 and 1.00 indicates that there may be occasions during the period modelled when queues will develop, and delays may begin to occur. An RFC value greater than 1.00 indicates that a junction operates over its full theoretical capacity.

6.10 LinSig has been used to assess the signal-controlled junctions, and some small networks of junctions, within the study area. The program provides output in the form of Practical Reserve Capacity (PRC). Ideally the PRC values should be greater than zero, although the theoretical capacity is at -10%. The PRC is calculated from the maximum degree of saturation on a signal-controlled link and is a measure of how much additional traffic could pass through a signal-controlled junction whilst maintaining a maximum degree of saturation of 90% on all links

Site Access / A415 (Existing Priority Junction)

6.11 The results of the capacity assessments at the existing site access in 2021 and 2024 pre-HIF are summarised in Table 7.1 whilst the full output report is included within Appendix H.

Table 7.1: Site Access / A415 (Existing Priority Junction) - Capacity Assessment Results

AM Peak Hour	Pre-HIF					
	2021		2024 + Com		2024 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q
Site Access – A415 (E)	0.14	0.2	0.22	0.3	0.26	0.3
Site Access – A415 (W)	0.29	0.4	0.74	2.2	-	58.5
A415 (E)	0.64	1.7	1.00	17.2	1.33	147.3

PM Peak Hour	Pre-HIF					
	2021		2024 + Com		2024 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q
Site Access – A415 (E)	0.29	0.4	0.43	0.7	0.56	1.3
Site Access – A415 (W)	0.46	0.9	0.62	1.6	0.75	2.8
A415 (E)	0.03	0.0	0.03	0.0	0.04	0.0

6.12 In 2024 the existing junction is over capacity in the AM peak hour. The results suggest that in 2024 a queue of 17.2 PCUs forms on the eastern approach of the A415 as the right turn lane becomes too short to accommodate the volume of traffic turning into the site. In the "with development" scenario, this worsens exponentially as the RFC is already at 1.00 (or 100% capacity).

6.13 The situation worsens as the development traffic is added. The RFC on the site access arm for traffic turning out of the site in the AM peak hour, cannot be calculated as the main road flows and right turns into the site are very high.

6.14 The secondary access to CSC is currently modelled to just be used by small numbers of vehicles exiting the site. Future proposals may see the secondary access upgraded from the proposed HIF layout (left in, left out only) to allow right turns into the site, which would alleviate pressure at the main site access junction.

6.15 Although the Research and Development Building is expected to be first occupied in 2024 it is unlikely to be fully occupied straight the way, and this could reasonably take a least a year. As shown below, the proposed HIF1 roundabout that will form the new main site access to CSC resolves the capacity issue in

2024. Although expected to open for traffic by the end of 2024, if the HIF1 infrastructure scheme is significantly delayed, then a capacity improvement scheme at the existing site access junction to address this issue could be implemented. This could involve an upgrade to either signalisation or a roundabout.

Site Access / Clifton Hampden Bypass (Proposed Roundabout)

6.16 The results of the capacity assessments at the proposed site access, via the proposed roundabout on the proposed Clifton Hampden Bypass, in 2024 post-HIF and 2034 are summarised in Table 7.2 whilst the full output report is included within Appendix H.

Table 7.2: Site Access / Clifton Hampden Bypass (Proposed Roundabout) - Capacity Assessment Results

AM Peak Hour	Post HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
CSC Access	0.12	0.1	0.13	0.2	0.14	0.2	0.15	0.2
Clifton Hampden Bypass (E)	0.34	0.5	0.41	0.7	0.45	0.8	0.53	1.1
Clifton Hampden Bypass (W)	0.80	3.9	0.88	6.8	1.06	77.5	1.16	162.2
CSV Access	0.05	0.1	0.06	0.1	0.58	1.4	0.62	1.6

PM Peak Hour	Post HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
CSC Access	0.29	0.4	0.37	0.6	0.35	0.5	0.41	0.7
Clifton Hampden Bypass (E)	0.13	0.1	0.13	0.2	0.24	0.3	0.24	0.3
Clifton Hampden Bypass (W)	0.35	0.5	0.35	0.6	0.56	1.3	0.57	1.3
CSV Access	0.07	0.1	0.07	0.1	0.15	0.2	0.15	0.2

6.17 In 2024, there is very limited impact on the base scenario, although the RFC does increase from 0.80 to 0.88 on the Clifton Hampden Bypass (west) arm in the AM peak hour. Nonetheless, the mean max queue only increases by 3 PCUs to a total of 7 PCUs. All other arms see no material impact.

6.18 In 2034, the PM peak hour is still shown to operate with spare capacity. In the AM peak hour however, the base scenario already has an RFC of over 1 on the Clifton Hampden Bypass (west) arm. Once an RFC exceeds 1 (100%) then the calculated queue can be unrealistically high. Adding the development

traffic increases the RFC on this arm by just 0.10, but the calculated mean max queue result increases exponentially.

6.19 The flows used in the 2034 scenario are expected to be very robust. They include for all Local Plan allocations, and there is potential for double counting through the combination of using data from a Paramics model plus traffic surveys and the addition of committed development traffic manually. They do not account for any changes in modal split and more flexible working practices (such as increased working from home, increased peak spreading, more flexible working hours) that are anticipated to occur over the next 13 years, both at CSC and in general across the UK highway network. The extent of the effect of these positive changes on peak hour traffic flows is difficult to predict.

6.20 A summary of the AM peak hour results of a sensitivity test with a 15% reduction on all 2034 flows is shown below, in Table 7.3, with the full output report is included within Appendix H.

Table 7.3: Site Access / Clifton Hampden Bypass (Proposed Roundabout) - Capacity Assessment Results – Sensitivity Test 15% Reduction

AM Peak Hour	Post HIF			
	2034 + Com		2034 + Com + Development	
	RFC	Q	RFC	Q
CSC Access	0.12	0.1	0.12	0.1
Clifton Hampden Bypass (E)	0.38	0.6	0.45	0.8
Clifton Hampden Bypass (W)	0.89	7.4	0.96	16.5
CSV Access	0.41	0.7	0.47	0.9

6.21 These results still suggest that the Clifton Hampden Bypass (west) approach to the junction will see some queueing in the AM peak hour in 2034 with the development traffic added. However, the results for each 15min period show that the RFC on the critical arm is only over 0.762 with a queue of over 3.4 PCUs, for two of the 15min periods during the 90 minutes. The arrival profile may be much flatter than the standard profile assumed by ARCADY within the JUNCTIONS software, which would spread out the effect on capacity and associated queue length.

6.22 A summary of the AM peak hour results of a sensitivity test with a 15% reduction on all 2034 flows and a flat arrival profile is shown below, in Table 7.4, with the full output report is included within Appendix H.

Table 7.4: Site Access / Clifton Hampden Bypass (Proposed Roundabout) - Capacity Assessment Results – Sensitivity Test Sensitivity Test 15% Reduction Flat Profile

AM Peak Hour	Post HIF			
	2034 + Com		2034 + Com + Development	
	RFC	Q	RFC	Q
CSC Access	0.10	0.1	0.11	0.1
Clifton Hampden Bypass (E)	0.34	0.5	0.41	0.7
Clifton Hampden Bypass (W)	0.80	3.9	0.86	6.1
CSV Access	0.33	0.5	0.37	0.6

6.23 This run maintains an RFC value of below 0.90. Whilst the profile is not expected to be complete flat for the whole period on all movements, the results are considered likely to be somewhere between the this and the standard arrival profile. The impact of the development traffic in these tests is estimated at between 2.2 and 9.1 PCUs on the most critical arm, with all other arms remaining well within capacity with no perceivable impact. The above results still potentially allow for some double counting, due to the combination of using flow data from a Paramics model and manually adding on committed development traffic and reflect robust assumptions to model flows 13 years into the future.

6.24 It should be noted that the effect of the proposed HIF1 bypass and river crossing infrastructure on traffic flows across the network is hypothetical at this stage, particularly in 2034. There are other unknowns and changes that may occur over the next 13 years, including the level of use of the secondary access to CSC. This is currently modelled to just be used by small numbers of vehicles exiting the site. Future proposals may see the secondary access upgraded from the proposed HIF layout (left in, left out only) to allow right turns into the site, which would alleviate pressure at the main site access junction. A reduction in the right turning traffic from Clifton Hampden Bypass (west) into CSC, would allow more gaps for traffic approaching the junction from the Clifton Hampden Bypass (west) arm which otherwise has potential to reach or exceed capacity in the base scenario in 2034.

Clifton Hampden Signals

6.25 The results of the capacity assessments at the Clifton Hampden Signals are summarised in Table 7.5 whilst the full output report is included within Appendix H.

Table 7.5: Clifton Hampden Signals - Capacity Assessment Results

AM Peak Hour	Pre-HIF					
	2021		2024 + Com		2024 + Com + Development	
Arm & Lane	DOS	MMQ	DOS	MMQ	DOS	MMQ
Abingdon Road (west) Ahead Right Left	67.3 : 67.3%	14.9	70.2 : 70.2%	16.3	71.0 : 71.0%	16.5
Abingdon Road (internal eastbound) Ahead Left	68.6%	18.7	70.4%	19.7	70.8%	19.7
Abingdon Road (east) Ahead Right	218.4%	148.3	257.1%	180.8	266.5%	191.6
Abingdon Road (internal westbound) Ahead L R	47.6%	13.1	45.0%	12.8	44.9%	12.8
High Street Right Left Ahead	234.3%	182.1	263.5%	204.6	263.5%	204.6
Watery Lane Left Right Ahead	0.0%	0.0	0.0%	0.0	0.0%	0.0
Oxford Road Left Right	108.3%	23.6	139.9%	65.5	162.2%	96.7
PRC	-160.4		-192.7		-196.1	
Total Delay (pcuHr)	351.78		447.18		448.30	
Cycle Time (s)	120		120		120	

AM Peak Hour	Post-HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
Arm & Lane	DOS	MMQ	DOS	MMQ	DOS	MMQ	DOS	MMQ
Abingdon Road (west) Ahead Right Left	32.4 : 32.4%	2.6	31.0 : 31.0%	2.5	30.0 : 30.0%	1.8	28.3 : 28.3%	1.8
Abingdon Road (internal eastbound) Ahead Left	28.9%	0.9	29.0%	0.9	27.0%	0.9	27.1%	0.9
Abingdon Road (east) Ahead Right	41.2%	4.8	41.8%	5.2	40.4%	3.2	42.0%	3.7
Abingdon Road (internal westbound) Ahead L R	34.1%	2.4	35.1%	2.4	32.5%	3.5	34.2%	3.4
High Street Right Left Ahead	40.2%	6.6	42.4%	6.9	40.3%	7.6	42.0%	7.8
Watery Lane Left Right Ahead	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Oxford Road Left Right	27.1%	2.0	27.1%	2.0	27.5%	2.1	27.5%	2.1
PRC	118.6		112.0		122.7		114.1	
Total Delay (pcuHr)	8.55		8.76		8.41		8.66	
Cycle Time (s)	120		120		120		120	

PM Peak Hour	Pre-HIF					
	2021		2024 + Com		2024 + Com + Development	
Arm & Lane	DOS	MMQ	DOS	MMQ	DOS	MMQ
Abingdon Road (west) Ahead Right Left	110.7 : 113.5%	68.9	114.0 : 114.0%	85.9	122.3 : 122.3%	119.4
Abingdon Road (internal eastbound) Ahead Left	74.8%	8.1	75.6%	10.6	75.3%	10.6
Abingdon Road (east) Ahead Right	128.3%	75.7	133.9%	87.9	129.3%	81.1
Abingdon Road (internal westbound) Ahead L R	80.0%	16.5	75.3%	16.8	76.9%	17.2
High Street Right Left Ahead	90.6%	12.8	129.3%	46.6	129.3%	46.6
Watery Lane Left Right Ahead	0.0%	0.0	0.0%	0.0	0.0%	0.0
Oxford Road Left Right	126.4%	55.8	127.4%	60.6	128.0%	61.7
PRC	-42.5		-48.7		-43.7	
Total Delay (pcuHr)	190.03		255.75		283.66	
Cycle Time (s)	120		120		120	

PM Peak Hour	Post-HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
Arm & Lane	DOS	MMQ	DOS	MMQ	DOS	MMQ	DOS	MMQ
Abingdon Road (west) Ahead Right Left	34.2 : 34.2%	3.7	40.3 : 40.3%	4.5	20.4 : 20.4%	1.4	27.6 : 27.6%	2.0
Abingdon Road (internal eastbound) Ahead Left	25.3%	1.2	26.0%	0.9	18.4%	1.3	19.8%	1.3
Abingdon Road (east) Ahead Right	41.8%	5.4	42.6%	5.3	48.2%	5.6	49.4%	5.7
Abingdon Road (internal westbound) Ahead L R	39.4%	6.4	40.8%	6.5	54.1%	11.0	54.3%	11.2
High Street Right Left Ahead	42.4%	3.5	37.4%	3.4	54.1%	4.5	54.1%	4.5
Watery Lane Left Right Ahead	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0
Oxford Road Left Right	41.6%	5.8	43.0%	5.9	54.1%	9.4	54.1%	9.4
PRC	112.5		109.3		66.2		65.9	
Total Delay (pcuHr)	9.85		10.05		11.90		12.39	
Cycle Time (s)	120		120		120		120	

6.26 The Clifton Hampden signals are over capacity in the 2021 and 2024 pre-HIF scenarios prior to the addition of development traffic.

6.27 In the AM peak hour, there is an increased queue on the Abingdon Road (west) approach and Oxford Road with the addition of development traffic. On all other arms there is no change in queue length.

6.28 In the PM peak hour, the changes in flows resulting from the development traffic have some positive impact on the balancing of flows approaching the signals and have a positive affect on the overall practical reserve capacity (PRC). There is an increased queue on the Abingdon Road (west) approach with the addition of development traffic. On all other arms there is minimal or no change in queue length and a slight reduction on the other Abingdon Road approach (from the east).

6.29 On balance the impact in 2024 post-HIF is not considered to be severe and would be a very short-term scenario.

6.30 In the post-HIF scenarios, the signals operate well within operational capacity in both the AM and PM peak hours, with high levels of practical reserve capacity. There is no significant impact from the development traffic with very little change to the degrees of saturation on the lane approaches and no increase in the mean max queue above 0.6 PCUs which would be unperceivable.

Clifton Hampden Bridge Signals

6.31 The results of the capacity assessments at the Clifton Hampden Bridge traffic signals are summarised in Table 7.6 whilst the full output report is included within Appendix H.

Table 7.6: Clifton Hampden Bridge Signals - Capacity Assessment Results

AM Peak Hour	Pre-HIF					
	2021		2024 + Com		2024 + Com + Development	
Arm & Lane	DOS	MMQ	DOS	MMQ	DOS	MMQ
High Street (N)	69.8%	7.3	73.0%	7.9	78.1%	8.4
High Street (S)	70.2%	17.5	77.2%	20.6	79.9%	22.1
PRC	28.2		16.6		12.7	
Total Delay (pcuHr)	9.32		10.82		11.82	
Cycle Time (s)	120		120		120	

AM Peak Hour	Post-HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
Arm & Lane	DOS	MMQ	DOS	MMQ	DOS	MMQ	DOS	MMQ
High Street (N)	33.5%	4.5	37.6%	4.7	38.1%	4.3	40.4	4.4
High Street (S)	34.4%	6.1	37.2%	6.9	38.1%	7.3	41.9	8.3
PRC	161.4		139.3		136.2		114.9	
Total Delay (pcuHr)	3.93		4.29		4.25		4.62	
Cycle Time (s)	120		120		120		120	

PM Peak Hour	Pre-HIF					
	2021		2024 + Com		2024 + Com + Development	
Arm & Lane	DOS	MMQ	DOS	MMQ	DOS	MMQ
High Street (N)	62.9%	13.8	68.2%	15.5	69.3%	16.1
High Street (S)	64.0%	8.3	66.9%	8.7	70.1%	9.1
PRC	40.6		32.0		28.4	
Total Delay (pcuHr)	8.48		9.43		9.82	
Cycle Time (s)	120		120		120	

PM Peak Hour	Post-HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
Arm & Lane	DOS	MMQ	DOS	MMQ	DOS	MMQ	DOS	MMQ
High Street (N)	37.6%	7.4	40.0%	8.0	50.%	10.8	52.3%	11.4
High Street (S)	38.1%	3.4	38.5%	3.4	50.%	4.4	50.4%	4.4
PRC	136.2		125.1		79.9		72.0	
Total Delay (pcuHr)	3.82		4.02		5.37		5.60	
Cycle Time (s)	120		120		120		120	

6.32 In all scenarios, the signals are shown to operate well within operational capacity in both the AM and PM peak hours. There is extremely limited impact on the base scenarios, with an increased mean max queue of just 0 PCUs - 1.5 PCUs.

Berinsfield Roundabout

6.33 The results of the capacity assessments at the Berinsfield roundabout are summarised in Table 7.7 whilst the full output report is included within Appendix H.

Table 7.7: Berinsfield Roundabout - Capacity Assessment Results

AM Peak Hour	Pre HIF					
	2021		2024 + Com		2024 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q
A4074 (N)	0.41	0.8	0.44	0.8	0.44	0.8
Wimblestraw Road	0.38	0.7	0.41	0.8	0.41	0.8
A4074 (S)	0.58	1.5	0.62	1.8	0.64	1.9
A415	0.46	0.9	0.50	1.1	0.50	1.1

AM Peak Hour	Post HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A4074 (N)	0.34	0.6	0.34	0.6	0.40	0.7	0.40	0.7
Wimblestraw Road	0.23	0.3	0.23	0.3	0.27	0.4	0.27	0.4
A4074 (S)	0.50	1.1	0.51	1.1	0.56	1.4	0.57	1.4
A415	0.12	0.1	0.12	0.1	0.31	0.5	0.31	0.5

PM Peak Hour	Pre HIF					
	2021		2024 + Com		2024 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q
A4074 (N)	0.61	1.7	0.65	2.0	0.65	2.0
Wimblestraw Road	0.43	0.8	0.46	0.9	0.47	1.0
A4074 (S)	0.49	1.1	0.52	1.2	0.52	1.2
A415	0.40	0.7	0.44	0.8	0.45	0.9

PM Peak Hour	Post HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A4074 (N)	0.52	1.2	0.52	1.2	0.61	1.7	0.61	1.7
Wimblestraw Road	0.25	0.4	0.25	0.4	0.34	0.6	0.34	0.6
A4074 (S)	0.40	0.7	0.40	0.7	0.47	1.0	0.47	1.0
A415	0.05	0.1	0.06	0.1	0.12	0.2	0.13	0.2

6.34 In all scenarios, the roundabout is shown to operate well within operational capacity in both the AM and PM peak hours. There is extremely limited impact on the base scenarios. The RFC increases by a maximum of 0.01 when the development traffic is added, with no effect on most arms, and an increased mean max queue of just 0.1 PCUs on one or two arms in the 2024 pre-HIF scenarios.

Golden Balls Roundabout

6.35 The results of the capacity assessments at the Golden Balls roundabout are summarised in Table 7.8 whilst the full output report is included within Appendix H.

Table 7.8: Golden Balls Roundabout - Capacity Assessment Results

AM Peak Hour	Pre HIF					
	2021		2024 + Com		2024 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q
A4074 (N)	0.33	0.5	0.37	0.6	0.39	0.7
B4015	0.47	1.0	0.55	1.3	0.58	1.5
A4074 (N)	0.40	0.7	0.43	0.8	0.44	0.9
Oxford Road	0.65	2.0	0.71	2.6	0.71	2.7

AM Peak Hour	Post HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A4074 (N)	0.47	0.8	0.44	0.9	0.58	1.5	0.60	1.7
B4015	0.70	2.5	0.75	3.1	1.56	175	1.66	206.4
A4074 (N)	0.46	0.9	0.47	1.0	0.60	1.7	0.61	1.7
Oxford Road	1.02	28.4	1.02	29.1	1.63	445.6	1.63	446.5

PM Peak Hour	Pre HIF					
	2021		2024 + Com		2024 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q
A4074 (N)	0.50	1.1	0.52	1.2	0.53	1.2
B4015	0.69	2.3	0.76	3.2	0.75	3.2
A4074 (N)	0.30	0.5	0.32	0.5	0.32	0.5
Oxford Road	0.45	0.9	0.51	1.1	0.53	1.2

PM Peak Hour	Post HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A4074 (N)	0.60	1.6	0.60	1.7	0.87	7.1	0.87	7.1
B4015	1.15	45.5	1.15	45.8	3.35	543.5	3.36	545.4
A4074 (N)	0.35	0.6	0.35	0.6	0.42	0.8	0.42	0.8
Oxford Road	0.61	1.7	0.64	1.9	1.07	56.3	1.10	71.0

6.36 The results show spare capacity in all the pre-HIF scenarios with very limited impact from the development traffic. There is a maximum increase in RFC of 0.03 and maximum increase in MMQ of 0.2 in the AM peak hour, and even less impact in the PM peak hour.

6.37 The junction is shown to be over capacity in the base post-HIF scenarios, as more traffic uses the junction once the Clifton Hampden bypass is open to traffic. This applies to just the Oxford Road arm in the AM peak hour in 2024 and the B4015 in the PM peak hour in 2024. Both of these minor arms are well over capacity in both peak hours in the base scenario in 2034, although the major arms (A4074) still have operational capacity.

6.38 In the AM peak hour, there is no change in RFC on the Oxford Road arm and increase of just 0.5 PCUs in 2024 and 0.9 PCUs in 2034. In 2034, the B4015 arm also well exceeds an RFC of 1, resulting in a large queue in the base scenario, and the impact of the development traffic has more of an effect.

6.39 In the PM peak hour, there is no change in RFC on the B4015 and increase of just 0.3 PCUs in 2024. In 2034 there is only a change in RFC of 0.01 and increased MMQ of 1.9 PCUs, so still undetectable even though this arm is severely over capacity in the base prior to adding the development traffic. However, in 2034, the Oxford Road arm also exceeds an RFC of 1, resulting in a large queue in the base scenario, and the impact of the development traffic has more of an effect.

6.40 Therefore, the impact of the development traffic is extremely limited until the 2034 sensitivity test, where the junction is already severely over capacity and the impact of the development traffic increases the MMQ on just the B4015 in the AM peak hour and Oxford Road in the PM peak hour.

6.41 It is anticipated that capacity improvement works to the Golden Balls roundabout will be required before 2024, however the impact of this proposed development is demonstrated to have extremely limited effect on the junction until it becomes over capacity as a result of other traffic growth assumptions.

A415 / Tollgate Road, Culham River Crossing and Abingdon Road / Appleford Road

6.42 The results of the capacity assessments for the combination of the signal-controlled junction at the A415 / Tollgate Road and the Culham river crossing traffic signals, and the Abingdon Road / Appleford Road priority junction are summarised in Table 7.9 whilst the full output report is included within Appendix H.

Table 7.9: A415 / Tollgate Road, Culham River Crossing and Abingdon Road / Appleford Road - Capacity Assessment Results

AM Peak Hour	Pre-HIF					
	2021		2024 + Com		2024 + Com + Development	
Arm & Lane	DOS	MMQ	DOS	MMQ	DOS	MMQ
Abingdon Road (E) Ahead Left	81.6 : 81.6%	12.3	87.9 : 87.9%	15.6	88.6 : 88.6%	15.9
Tollgate Road Right Left	85.7 : 85.7%	13.5	87.7 : 87.7%	14.1	88.6 : 88.6%	14.6
Abingdon Road (W) Ahead Right	56.7 : 99.4%	10.9	64.9 : 95.9%	13.4	70.8 : 95.9%	15.7
PRC	-10.4		-6.6		-6.6	
Total Delay (pcuHr)	18.06		21.24		22.50	
Cycle Time (s)	111		111		111	
Culham Bridge Northbound	115.1%	63.7	134.7%	114.9	142.9%	136.9
Culham Bridge Southbound	53.3%	12.5	58.4%	14.1	58.6%	14.2
PRC	-27.9		-49.6		-58.8	
Total Delay (pcuHr)	54.70		105.88		127.89	
Cycle Time (s)	154		154		154	
Appleford Road (E) Right Ahead	20.6%	0.1	28.3%	0.2	29.5%	0.2
Appleford Road (W) Left Ahead	30.7%	0.2	34.8%	0.3	36.9%	0.3
Culham Bridge Southbound	32.4%	0.2	38.0%	0.3	38.2%	0.3

AM Peak Hour	Post-HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
Arm & Lane	DOS	MMQ	DOS	MMQ	DOS	MMQ	DOS	MMQ
Abingdon Road (E) Ahead Left	61.5 : 61.5%	8.8	63.0 : 63.0%	9.2	83.1 : 83.1%	15.5	82.5 : 82.5%	15.4
Tollgate Road Right Left	59.2 : 59.2%	3.6	60.8 : 60.8%	3.9	87.8 : 87.8%	12.0	91.2 : 91.2%	13.4
Abingdon Road (W) Ahead Right	54.6 : 54.6%	10.2	59.6 : 59.6%	12.0	80.2 : 80.2%	23.3	84.3 : 84.3%	26.3
PRC	46.4		43.0		2.6		-1.4	
Total Delay (pcuHr)	7.42		8.45		19.96		22.33	
Cycle Time (s)	111		111		111		111	
Culham Bridge Northbound	37.4%	6.4	45.7%	8.0	93.6%	23.3	101.8%	33.5
Culham Bridge Southbound	15.8%	3.1	16.1%	3.2	17.3%	3.4	17.6%	3.5
PRC	140.5		97.0		-3.9		-13.1	
Total Delay (pcuHr)	3.61		4.32		13.21		22.17	
Cycle Time (s)	154		154		154		154	
Appleford Road (E) Right Ahead	21.1%	0.1	21.2%	0.1	39.6%	0.3	40.6%	0.3
Appleford Road (W) Left Ahead	35.8%	0.3	37.9%	0.3	42.1%	0.4	44.2%	0.4
Culham Bridge Southbound	19.3%	0.1	19.7%	0.1	27.0%	0.2	27.5%	0.2

PM Peak Hour	Pre-HIF					
	2021		2024 + Com		2024 + Com + Development	
Arm & Lane	DOS	MMQ	DOS	MMQ	DOS	MMQ
Abingdon Road (E) Ahead Left	88.0 : 88.0%	17.2	97.6 : 97.6%	29.2	101.6 : 101.6%	42.5
Tollgate Road Right Left	87.6 : 87.6%	9.9	97.7 : 97.7%	16.0	100.7 : 100.7%	19.0
Abingdon Road (W) Ahead Right	81.9 : 81.9%	7.6	91.5 : 91.5%	10.5	99.1 : 99.1%	15.6
PRC	2.3		-8.5		-12.9	
Total Delay (pcuHr)	19.62		35.07		52.54	
Cycle Time (s)	111		111		111	
Culham Bridge Northbound	79.0%	16.2	85.7%	18.7	85.9%	18.8
Culham Bridge Southbound	71.3%	18.7	81.0%	22.9	83.2%	24.1
PRC	14.0		5.0		4.7	
Total Delay (pcuHr)	13.97		17.42		18.08	
Cycle Time (s)	154		154		154	
Appleford Road (E) Right Ahead	16.1%	0.1	19.8%	0.1	19.8%	0.1
Appleford Road (W) Left Ahead	33.9%	0.3	37.2%	0.3	37.3%	0.3
Culham Bridge Southbound	50.1%	0.5	61.6%	0.8	63.6%	0.9

PM Peak Hour	Post-HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
Arm & Lane	DOS	MMQ	DOS	MMQ	DOS	MMQ	DOS	MMQ
Abingdon Road (E) Ahead Left	61.8 : 61.8%	8.9	67.2 : 67.2%	10.3	76.1 : 76.1%	14.3	81.9 : 81.9%	17.0
Tollgate Road Right Left	59.5 : 62.2%	2.4	55.6 : 62.2%	2.4	76.7 : 76.7%	5.2	76.7 : 76.7%	5.2
Abingdon Road (W) Ahead Right	26.8 : 37.5%	2.9	27.0 : 37.5%	2.9	43.6 : 53.7%	6.5	43.7 : 53.7%	6.5
PRC	44.8		34.0		17.3		9.9	
Total Delay (pcuHr)	5.24		328.8		10.13		11.14	
Cycle Time (s)	111		111		111		111	
Culham Bridge Northbound	20.2%	3.3	21.0%	3.3	43.9%	7.6	44.2%	7.7
Culham Bridge Southbound	15.2%	3.0	18.0%	3.6	18.3%	3.7	21.4%	4.3
PRC	344.8		328.8		104.8		103.8	
Total Delay (pcuHr)	2.30		2.54		4.33		4.58	
Cycle Time (s)	154		154		154		154	
Appleford Road (E) Right Ahead	21.3%	0.1	21.3%	0.1	36.9%	0.3	36.9%	0.3
Appleford Road (W) Left Ahead	23.9%	0.2	23.9%	0.2	33.7%	0.3	33.7%	0.3
Culham Bridge Southbound	14.4%	0.1	17.6%	0.1	37.0%	0.3	44.4%	0.4

6.43 In the 2021 and 2024 pre-HIF scenario the western arm of the A415 / Tollgate Road signalised junction has a degree of saturation of over 95% and the northbound approach to the Culham bridge signals exceed operational capacity in the AM peak hour. The impact of the development traffic has very limited impact on A41 / Tollgate Road junction and Appleford Road junction, but as the Culham bridge northbound approach is so over capacity in the base scenario there is more of a difference in the PRC and mean max queue length. There is no AM peak hour capacity issue identified at the Appleford Road junction.

6.44 In 2024 pre-HIF, in the PM peak hour, there is no capacity issue identified at the Appleford Road junction or the Culham river crossing, however, all arms of the A415 / Tollgate Road signalised junction have a degree of saturation of over 90% prior to the addition of development traffic and a PRC is -8.5. As the base scenario is well over capacity, the impact of the development traffic is exacerbated. Again, the building is unlikely to be fully staffed in 2024, and the introduction of the new river crossing would alleviate short term impact of the development on the existing network.

6.45 Post-HIF there are no capacity issues identified in the PM peak hour, in 2024 or 2034. In the AM peak hour, the result suggest potential for the Culham bridge northbound approach to start to reach full capacity in 2034 however, the flows used in this robust assessment assumes no use of the new river crossing for the committed development and development traffic that has been added on manually.

Bridge Street / High Street / Stert Street, Abingdon

6.46 The road network at Bridge Street/High Street/Stert Street has been modelled in LinSig. The results of the capacity assessments are summarised in Table 7.10 whilst the full output report is included within Appendix H.

Table 7.10: Bridge Street / High Street / Stert Street - Capacity Assessment Results

AM Peak Hour	Post-HIF							
	2017		2021		2024 + Com		2024 + Com + Development	
Arm & Lane	DOS	MMQ	DOS	MMQ	DOS	MMQ	DOS	MMQ
Stert Street (Westbound) Ahead	25.9%	0.1	23.3%	0.2	27.1%	0.2	27.3%	0.2
Left (into High Street)	31.3%	0.2	34.7%	0.3	37.5%	0.3	37.6%	0.3
Stert Street (Southbound) Ahead	31.5%	0.3	43.6%	0.4	49.8%	0.5	53.1%	0.5
Bridge Street Entry Ahead Left	48.0%	0.5	52.0%	0.5	56.2%	0.6	56.4%	0.6
PRC	87.9		73.2		60.1		59.5	
Total Delay (pcuHr)	1.4		1.34		1.62		1.70	
Cycle Time (s)	60		60		60		60	
AM Peak Hour	Post-HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
Arm & Lane	DOS	MMQ	DOS	MMQ	DOS	MMQ	DOS	MMQ
Stert Street (Westbound) Ahead	24.8%	0.2	24.9%	0.2	31.8%	0.2	32.1%	0.2
Left (into High Street)	34.8%	0.3	34.9%	0.3	39.5%	0.3	39.7%	0.3
Stert Street (Southbound) Ahead	50.8%	0.5	54.1%	0.6	61.4%	0.8	64.6%	0.9
Bridge Street Entry Ahead Left	52.3%	0.5	52.6%	0.6	59.5%	0.7	59.8%	0.7
PRC	72.0		66.4		46.6		39.2	
Total Delay (pcuHr)	1.49		1.57		2.09		2.22	
Cycle Time (s)	60		60		60		60	

PM Peak Hour	Post-HIF							
	2017		2021		2024 + Com		2024 + Com + Development	
Arm & Lane	DOS	MMQ	DOS	MMQ	DOS	MMQ	DOS	MMQ
Stert Street (Westbound) Ahead	25.9%	0.2	30.0%	0.2	36.1%	0.3	38.4%	0.3
Left (into High Street)	31.3%	0.2	33.7%	0.3	37.6%	0.3	39.2%	0.3
Stert Street (Southbound) Ahead	31.5%	0.2	34.1%	0.3	36.9%	0.3	37.0%	0.3
Bridge Street Entry Ahead Left	48.0%	0.5	51.9%	0.5	57.9%	0.7	60.5%	0.8
PRC	87.5		73.5		55.5		48.9	
Total Delay (pcuHr)	1.09		1.27		1.56		1.69	
Cycle Time (s)	60		60		60		60	
PM Peak Hour	Post-HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
Arm & Lane	DOS	MMQ	DOS	MMQ	DOS	MMQ	DOS	MMQ
Stert Street (Westbound) Ahead	32.8%	0.2	34.7%	0.3	48.7%	0.5	52.8%	0.6
Left (into High Street)	34.7%	0.3	36.4%	0.3	42.8%	0.4	44.6%	0.4
Stert Street (Southbound) Ahead	37.0%	0.3	37.1%	0.3	52.3%	0.5	52.4%	0.5
Bridge Street Entry Ahead Left	53.7%	0.6	56.3%	0.6	66.1%	1.0	68.8%	1.1
PRC	67.5		59.9		36.1		30.9	
Total Delay (pcuHr)	1.38		1.49		2.37		2.60	
Cycle Time (s)	60		60		60		60	

6.47 In all scenarios, this part of the network is shown to operate well within operational capacity in both the AM and PM peak hours. There is extremely limited impact on the base scenarios, with an increased mean max queue of just 0 PCUs – 0.1 PCUs.

A415 Ock Street / Stratton Way, Abingdon

6.48 The results of the capacity assessments at the A415 Ock Street / Stratton Way junction are summarised in Table 7.11 whilst the full output report is included within Appendix H.

Table 7.11: A415 Ock Street / Stratton Way - Capacity Assessment Results

AM Peak Hour	Pre-HIF					
	2021		2024 + Com		2024 + Com + Development	
Arm & Lane	DOS	MMQ	DOS	MMQ	DOS	MMQ
Stratton Way Right	49.7%	7.1	54.4%	7.7	54.4%	7.7
Ock Street (E) Ahead	21.2%	3.8	22.4%	4.1	22.5%	4.1
Ock Street (E) Right	72.1%	16.6	77.2%	18.9	78.3%	19.4
Ock Street (W) Left	70.6%	12.9	78.1%	14.7	78.8%	14.9
PRC	24.8		15.3		14.2	
Total Delay (pcuHr)	14.43		16.68		17.02	
Cycle Time (s)	120		120		120	

AM Peak Hour	Post-HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
Arm & Lane	DOS	MMQ	DOS	MMQ	DOS	MMQ	DOS	MMQ
Straton Way Right	51.0%	7.4	51.0%	7.4	55.4%	8.3	55.4%	8.3
Ock Street (E) Ahead	21.6%	4.0	21.7%	4.0	23.4%	4.4	23.5%	4.4
Ock Street (E) Right	75.3%	17.7	76.5%	18.2	82.0%	20.7	83.0%	21.1
Ock Street (W) Left	74.1%	14.2	74.8%	14.4	80.7%	16.3	81.2%	16.5
PRC	19.5		17.7		9.8		8.5	
Total Delay (pcuHr)	15.6		15.96		18.55		18.92	
Cycle Time (s)	120		120		120		120	

PM Peak Hour	Pre-HIF					
	2021		2024 + Com		2024 + Com + Development	
Arm & Lane	DOS	MMQ	DOS	MMQ	DOS	MMQ
Straton Way Right	69.3%	11.7	75.6%	12.9	78.0%	13.3
Ock Street (E) Ahead	26.2%	5.1	28.3%	5.5	28.9%	5.7
Ock Street (E) Right	73.0%	16.3	79.4%	19.2	80.9%	20.2
Ock Street (W) Left	71.4%	13.8	77.9%	15.6	80.0%	16.0
PRC	23.3		13.3		11.2	
Total Delay (pcuHr)	17.10		20.07		21.01	
Cycle Time (s)	120		120		120	

PM Peak Hour	Post-HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
Arm & Lane	DOS	MMQ	DOS	MMQ	DOS	MMQ	DOS	MMQ
Straton Way Right	73.4%	12.6	75.6%	12.9	80.0%	14.6	82.5%	15.0
Ock Street (E) Ahead	27.2%	5.3	27.7%	5.4	29.7%	5.9	30.2%	6.0
Ock Street (E) Right	75.8%	17.4	77.4%	18.4	82.7%	20.5	84.1%	21.6
Ock Street (W) Left	76.0%	15.3	77.9%	15.6	82.9%	17.8	85.2%	18.3
PRC	18.4		15.5		8.6		5.7	
Total Delay (pcuHr)	18.81		19.63		22.75		24.08	
Cycle Time (s)	120		120		120		120	

6.49 In all scenarios, the signals are shown to operate well within operational capacity in both the AM and PM peak hours. There is extremely limited impact on the base scenarios, with an increased mean max queue of just 0 PCUs - 1.0 PCUs.

A415 Marcham Road / A415 Ock Street / B4017 / Spring Road, Abingdon

6.50 The results of the capacity assessments at the A415 Marcham Road / A415 Ock Street / B4017 / Spring Road junction are summarised in Table 7.12 whilst the full output report is included within Appendix H. The double-mini roundabout is difficult to model and the initial model suggested extensive queues in the 2021 "existing" scenario. Therefore, the model was adjusted to more closely replicate queues where these were significantly higher than those observed at the time of the traffic survey.

Table 7.12: A415 Marcham Road / A415 Ock Street / B4017 / Spring Road - Capacity Assessment Results

AM Peak Hour	Pre HIF							
	2021 Survey		2021 Existing		2024 + Com		2024 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A415 Ock Street	0.307 0.602	23.3	0.320 0.607	22.9	0.310 0.621	47.2	0.316 0.631	44.4
B4017 Drayton Road	0.561	7.0	0.547	6.5	0.589	10.7	0.601	10.7
Northern Mini-Link	0.449	0.6	.0.453	0.6	0.572	0.7	0.574	0.7
Spring Road	0.416	1.0	0.431	1.0	0.889	26.2	0.886	25.8
Southern Mini Link	0.670	0.8	.0.675	0.8	0.678	0.8	0.686	0.8
A415 Marcham Road	0.187 0.724	10.0	0.191 0.730	10.3	0.189 0.723	39.5	0.194 0.728	37.3
AM Peak Hour	Post HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A415 Ock Street	0.331 0.631	35.9	0.328 0.628	36.9	0.332 0.612	70.6	0.323 0.613	69.6
B4017 Drayton Road	0.585	10.0	0.592	10.3	0.643	19.6	0.638	21.3
Northern Mini-Link	0.571	0.7	0.567	0.7	0.577	0.7	0.575	0.7
Spring Road	0.897	26.0	0.896	26.4	0.967	44.5	0.980	45.5
Southern Mini Link	0.680	0.8	0.680	0.8	0.704	0.8	0.694	0.8
A415 Marcham Road	0.192 0.733	37.8	0.191 0.727	41.1	0.187 0.749	80.3	0.196 0.742	80.3

PM Peak Hour	Pre HIF							
	2021 Survey		2021 Existing		2024 + Com		2024 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A415 Ock Street	0.583 0.612	50.6	0.583 0.620	48.4	0.563 0.612	89.3	0.578 0.612	95.0
B4017 Drayton Road	0.634	17.2	0.626	16.4	0.658	27.8	0.666	29.3
Northern Mini-Link	0.745	0.9	0.754	0.9	0765	0.9	0.775	0.9
Spring Road	0.407	3.4	0.416	2.7	0.456	5.3	0.471	5.2
Southern Mini Link	0.700	0.8	0.696	0.8	0.704	0.9	0.708	0.9
A415 Marcham Road	0.056 0492	19.1	0.056 0.497	20.1	0.056 0.507	40.3	0.056 0.509	37.2
PM Peak Hour	Post HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A415 Ock Street	0.598 0.630	70.8	0.590 0.624	76.4	0.598 0.603	136.3	0.598 0.605	142.3
B4017 Drayton Road	0.653	27.6	0.669	27.9	0.727	55.6	0.736	58.7
Northern Mini-Link	0.786	0.9	0.772	0.9	0.780	0.9	0.784	0.9
Spring Road	0.479	5.4	0.470	5.7	0.489	8.0	0.511	9.0
Southern Mini Link	0.700	0.9	0.712	0.9	0.712	0.9	0.711	0.9
A415 Marcham Road	0.059 0.518	40.2	0.055 0.508	40.2	0.057 0.508	93.1	0.059 0.518	96.2

6.51 The results suggest that junction is currently operation over capacity with the queue on the A415 Ock Street approach exceeding reasonable levels in the AM peak hour, and on both A415 approaches the B4017 Drayton Road in the PM peak hour.

6.52 In the AM peak hour, by 2024 there are notable queues on both A415 approaches and Spring Road. In the pre-HIF scenario the development traffic seems to help balance the junction slightly with minor reductions in queues. In the 2024 post-HIF scenario the additional of the development traffic increases the queues by just 0 - 3.3 PCUs. In 2034 the junction is predicted to have large queues on the above arms and also Drayton Road. they increase by just -1 – 1.7 PCUs.

6.53 In the PM peak hour, the additional of the development traffic increases the queues by 5-6 PCUs on Ock Street in all of the assessment years, and by -3 – 3 PCUs on each of the other arms.

A415 Marcham Road / Colwell Drive, Abingdon

6.54 The results of the capacity assessments at the A415 Marcham Road / Colwell Drive junction are summarised in Table 7.13 whilst the full output report is included within Appendix H.

Table 7.13: A415 Marcham Road / Colwell Drive - Capacity Assessment Results

AM Peak Hour	Pre HIF					
	2021		2024 + Com		2024 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q
Marcham Road (W)	0.56	1.4	0.59	1.6	0.59	1.6
Colwell Drive	0.63	1.9	0.69	2.4	0.69	2.4
Marcham Road (E)	0.73	2.9	0.79	3.9	0.79	3.9

AM Peak Hour	Post HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
Marcham Road (W)	0.59	1.6	0.59	1.6	0.65	2.0	0.65	2.0
Colwell Drive	0.69	2.4	0.69	2.4	0.78	3.7	0.78	3.7
Marcham Road (E)	0.77	3.6	0.77	3.6	0.86	6.3	0.86	6.3

PM Peak Hour	Pre HIF					
	2021		2024 + Com		2024 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q
Marcham Road (W)	0.57	1.5	0.61	1.7	0.61	1.7
Colwell Drive	0.63	1.9	0.69	2.4	0.69	2.4
Marcham Road (E)	0.70	2.5	0.76	3.4	0.76	3.4

PM Peak Hour	Post HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
Marcham Road (W)	0.61	1.7	0.61	1.7	0.67	2.2	0.67	2.2
Colwell Drive	0.69	2.4	0.69	2.4	0.80	4.1	0.80	4.1
Marcham Road (E)	0.74	3.1	0.75	3.2	0.83	5.1	0.84	5.2

6.55 In all scenarios, the junction is shown to operate within operational capacity in both the AM and PM peak hours, albeit reaching an RFC of 0.86 on Marcham Road (E) in the AM peak hour, in the robust 2034 scenario. The level of queue is still only 6 PCUs. There is no impact from the development traffic except

in the PM peak hour in 2034 where there is an increase in the RFC value of 0.01 and increase in mean max queue of just 0.1 PCUs.

A415 Marcham Road / Nuffield Way, Abingdon

6.56 The results of the capacity assessments at the A415 Marcham Road / Nuffield Way junction are summarised in Table 7.14 whilst the full output report is included within Appendix H.

Table 7.14: A415 Marcham Road / Nuffield Way - Capacity Assessment Results

AM Peak Hour	Pre HIF					
	2021		2024 + Com		2024 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q
Nuffield Way	0.29	0.5	0.34	0.6	0.34	0.6
Marcham Road (E)	0.76	3.4	0.81	4.6	0.81	4.6
Access Road	0.37	0.6	0.41	0.8	0.41	0.8
Marcham Road (W)	0.60	1.6	0.64	2.0	0.64	2.0

AM Peak Hour	Post HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
Nuffield Way	0.34	0.6	0.34	0.6	0.46	0.9	0.46	0.9
Marcham Road (E)	0.80	4.3	0.80	4.3	0.88	7.6	0.88	7.6
Access Road	0.41	0.7	0.41	0.7	0.48	1.0	0.48	1.0
Marcham Road (W)	0.64	2.0	0.64	2.0	0.71	2.7	0.71	2.7

PM Peak Hour	Pre HIF					
	2021		2024 + Com		2024 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q
Nuffield Way	0.38	2.3	0.80	4.0	0.80	4.0
Marcham Road (E)	0.81	4.4	0.87	7.0	0.88	7.3
Access Road	0.59	1.5	0.66	2.0	0.66	2.1
Marcham Road (W)	0.54	1.3	0.58	1.5	0.58	1.5

PM Peak Hour	Post HIF							
	2024 + Com		2024 + Com + Development		2034 + Com		2034 + Com + Development	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
Nuffield Way	0.80	4.0	0.80	4.0	1.06	19.7	1.06	19.7
Marcham Road (E)	0.86	6.3	0.87	6.5	0.95	14.7	0.96	15.5
Access Road	0.65	2.0	0.65	2.0	0.75	3.1	0.75	3.2
Marcham Road (W)	0.58	1.5	0.58	1.5	0.64	2.0	0.64	2.0

6.57 In all scenarios, the junction is shown to operate within operational capacity in the AM peak hour, albeit reaching an RFC of 0.88 on Marcham Road (E) in the AM peak hour, in the robust 2034 scenario. The level of queue is still only 7.6 PCUs.

6.58 In the PM peak hour, an RFC level of over 0.85 is reach in 2024. The impact of the development traffic in the PM peak hour in 2024, both pre- and post- HIF, only increase the RFC value by 0.01 and the queue by 0.2-0.3 PCUs. In the robust 2034 future scenario, the PM peak hour RFC on Marcham Road (E) and Nuffield Way are 0.95 and 1.06 respectively. However, the impact of the development traffic still only increases the RFC value by a maximum of 0.01 and the queue by a maximum of 0.8 PCUs.

6.59 A summary of the impact at the various junctions within the study area is provided below.

Table 7.15: Summary of Capacity Assessment Results

Junction	Pre-HIF	Post-HIF
Site Access	Capacity issues in 2024 before development traffic added. Mitigation scheme required if HIF1 significantly delayed.	Potential capacity issues in 2034 hypothetical future scenario. Modal shift and use of secondary access expected to address issues.
Clifton Hampden signals (A415 / Oxford Road / High Street / Watery Lane)	Capacity issues prior to addition of development traffic. Some impact but very short-term scenario.	Well within operational capacity. Extremely limited / unperceivable impact.
Clifton Hampden Bridge signals	Well within operational capacity. Extremely limited / unperceivable impact.	Well within operational capacity. Extremely limited / unperceivable impact.
Berinsfield roundabout (A4074 / A415 / Wimblestraw Rd)	Well within operational capacity. Extremely limited / unperceivable impact.	Well within operational capacity. Extremely limited / unperceivable impact.
Golden Balls roundabout junction (A4074 / B4015 / Oxford Rd)	Within capacity. Extremely limited / unperceivable impact.	Capacity issues in the 2024 and 2034 post-HIF scenarios (minor arms only). Extremely limited impact until junction severely over capacity in 2034. Capacity improvements may be required prior to 2024 to accommodate potential expected growth.
Waggon Horse signal junction (A415 / Tollgate Road)	Capacity issues prior to addition of development traffic. Very limited impact.	Well within operational capacity. Very limited impact.
Culham river crossing signals	Capacity issues prior to addition of development traffic northbound approach in AM, otherwise within capacity. Some impact but very short-term scenario.	Well within operational capacity, except 2034 AM. Very limited impact in 2024 and 2034 PM. Limited impact in 2034 AM expected to be alleviated by committed and development making use of the new river crossing.
Appleford Road (B4016) / Abingdon Road	Well within operational capacity. Extremely limited / unperceivable impact.	Well within operational capacity. Extremely limited / unperceivable impact.
A415 / High Street / Stert Street	Well within operational capacity. Extremely limited / unperceivable impact.	Well within operational capacity. Extremely limited / unperceivable impact.
Ock Street / Stratton Way	Well within operational capacity. Extremely limited / unperceivable impact.	Well within operational capacity. Extremely limited / unperceivable impact.
Ock Street / Marcham Road / B4017 / Spring Road	Over capacity. Very limited impact.	Over capacity. Very limited impact.
Marcham Road / Colwell Drive	Within capacity. No impact.	Reaching capacity in 2034. Extremely limited / unperceivable impact.
Marcham Road / Nuffield Way	Reaching capacity in 2024 PM. Extremely limited / unperceivable impact.	Reaching capacity in 2024. Over capacity in 2034 PM. Extremely limited / unperceivable impact.

6.61 Pre-HIF the only notable impact is at the site access junction and two off-site junctions Clifton Hampden signal and Culham river crossing, where capacity is already an issue, and where the proposed HIF1 bypass and river crossing infrastructure will particularly alleviate pressure. The currently anticipated timescale for first occupation of the Research and Development Building is from January 2024. Therefore, the small impact of the development will be very short term.

6.62 Post-HIF in 2024 there is either no perceivable impact or very limited impact across all junctions within the study area. Capacity improvements appear to be needed at the Golden Balls roundabout and the double mini-roundabout in Abingdon by 2024, but the impact of the development traffic is minimal.

6.63 For simplicity, the development traffic (and committed development traffic added manually) has not be diverted to use the new river crossing. Therefore, the post-HIF results (2024 ad 2034) at the Culham river crossing and Clifton Hampden bridge signals are robust.

6.64 The 2034 scenarios are generally very robust and flows are expected to be overestimated. They include for all Local Plan allocations, and there is potential for double counting through the combination of using data from a Paramics model plus traffic surveys and the addition of committed development traffic manually. They do not account for any changes in modal split and more flexible working practices (such as increased working from home, increased peak spreading, more flexible working hours) that are anticipated to occur over the next 13 years, both at CSC and in general across the UK highway network. The extent of the effect of these positive changes on peak hour traffic flows is difficult to predict.

6.65 Capacity improvements may be needed at the Nuffield Way roundabout by 2034, but the impact of the development traffic is minimal.

6.66 There is potential for the new CSC secondary access to be used to a greater extent than currently assumed, which would alleviate potential capacity issues at the site access predicted by 2034, alongside the measures to encourage modal shift towards more sustainable modes of travel.

7.0 Conclusions

7.1 This Addendum Transport Assessment has been prepared on behalf of The United Kingdom Atomic Energy Authority (UKAEA), in respect of their planning application for a proposed Research and Development Building at Culham Science Centre (CSC), and provides additional assessment work requested by the local highway authority, Oxfordshire County Council.

7.2 The proposed Research and Development Building is to be located on the 'western flank' of the CSC campus. The proposed Research and Development Building has an overall GIA of 9,870sqm and comprises office space and a large rig hall. Car parking for staff using the Research and Development Building is to be provided in an adjacent multi-storey car park.

7.3 The site is considered to be in a sustainable location, accessible to pedestrians and cyclists, with recently improved access by public transport. There are various committed and proposed highway and transport schemes being developed in the local area and on campus, which will continue to improve opportunities to access Culham Science by sustainable modes of transport. These include local highway authority schemes, HIF funding, and planning contributions made by UKAEA. The HIF highway improvements will also provide increased highway capacity in the local area.

7.4 The main highway and transport considerations, which have influenced the proposed design, are:

- provision of high-quality access and on-site facilities to support use of sustainable modes of travel and BREEAM accreditation
- provision of suitable operational access/delivery/servicing arrangements, including adequate turning areas
- provision of parking for cycles and cars including disabled badge holders, EV charging, and car sharers

7.5 The main pedestrian entrance to the building is via a proposed public plaza located between the Research and Development Building and the STEP / UKAEA offices on the western side of Main Avenue. Vehicular access to the multi-storey car park and to the service yard for the rig hall will be off Main Avenue. There also will be parking for disabled badge holders and cyclists on Main Avenue adjacent to the building. Footpaths and footways provide connections between the parking facilities and the building and tie into the existing pedestrian network on the campus.

7.6 In terms of construction access, it is anticipated that this will be from the Perimeter Road, with access potentially via the Car Park 11 area. A Construction Traffic Management Plan will be provided by the

contractor in due course and will generally follow previously agreed arrangements for construction projects on campus.

7.7 The only notable impact of the development proposals in the pre-HIF 2024 scenario would be at the CSC site access, the signalised junction on the A415 in Clifton Hampden and the Culham river crossing, where capacity is already an issue, and where the proposed HIF1 bypass and river crossing infrastructure will particularly alleviate pressure. The currently anticipated timescale for first occupation of the Research and Development Building is from January 2024. Therefore, the small impact of the development will be very short term.

7.8 The UKAEA are providing land and liaising with OCC to enable the HIF project. Funding for the overall project is now secure and the new infrastructure is due to be open to traffic in 2024. Therefore, the impact of the development on the existing highway network, at its current levels of capacity, will be very temporary. The currently anticipated timescale for first occupation of the Research and Development Building is from January 2024, and the building is unlikely to be fully staffed within the first year.

7.9 It is acknowledged that a capacity improvement scheme would be required at the site access if the HIF1 infrastructure proposed for the end of 2024 is significantly delayed. Also measures to increase the currently assumed minimal use of the CSC secondary access and to maintain a strong focus on achieving modal shift will be required before 2034.

7.10 Post-HIF in 2024 there is either no perceivable impact or very limited impact across all junctions within the study area. Capacity improvements appear to be needed at the double mini-roundabout in Abingdon, but the impact of the development traffic is minimal. The Golden Balls roundabout looks to require capacity improvements, as a result of the expected traffic growth by 2024 post-HIF, as more traffic uses the junction once the Clifton Hampden bypass is open to traffic. The impact of the development traffic is extremely limited impact until junction severely over capacity in 2034.

7.11 In the hypothetical 2034 scenario, there are indications of some junctions reaching or exceeding capacity. Modal shift and greater use of the proposed secondary access to CSC is expected to address the potential issues at the roundabout forming the new site access off the Clifton Hampden bypass. The results show the Culham river crossing reaching capacity again in the AM peak in 2034, but this is expected to be alleviated by committed and development traffic making use of the new river crossing, that, for robustness and simplicity, has not been accounted for in the modelled flows. Capacity improvements may be needed at the Nuffield Way roundabout in Abingdon, but the impact of the development traffic is minimal.

7.12 A Travel Plan also accompanies the planning application, and alongside the CSC Site-Wide Travel Plan, is targeted to reduce single occupancy car drivers, and sets out how UKAEA will continue to invest in

measures to encourage the use of more sustainable travel options to access, and travel within, the campus. The building is also seeking to achieve BREEAM Excellent. This building will provide EV charging points, car share spaces, cycle storage, showers and changing facilities, amongst other measures to promote sustainable travel options. The UKAEA are committed to seeking modal shift through sustainable transport measures. The UKAEA have provided S106 contributions to improve bus services, and the next amount of S106 funding is expected to be used to increase the frequency of the 45 service.

7.13 The HIF1 infrastructure scheme also provides sustainable transport infrastructure improvements in terms of bus services and more direct access to rail services, cycling and walking.

7.14 The proposals also meet the requirements of OCCs strategy for assisting with the delivery of development prior to HIF1 funded infrastructure being open for public use, in that they will:

- Provide sustainable / active travel infrastructure at the beginning (early occupations) of the development to reduce traffic impact on the highway network prior to HIF 1 delivery.
- Provide a S106 contribution towards new services or enhancements to existing bus service arrangements to be implemented at the beginning (early occupations) of the development.
- Deliver local off-site/on-site highway works at the early stages of the development to lessen the direct impact of a development site on the highway network, if applicable – e.g. site access if HIF1 is significantly delayed.
- Implement the building and Site-Wide Travel Plan, to be approved by OCC, with deliverable and monitored targets.
- Provide strategic transport / highway contributions if required, in accordance with Regulation 122 and the three Section 106 tests.

7.15 OCC recognise the value of development at proposed commercial sites in the area such as Culham Science Centre, and the role such development has in supporting the local and national economy. The UKAEA continues to provide and facilitate “excellent pedestrian, and/or cyclist provisions and enhanced frequent public transport service provisions” to help reduce the impact of on-site development at CSC on the local area. This provides benefits both pre-HIF1 and in the longer term.

7.16 In light of the above, we propose that the impact of the Research and Development Building is acceptable in highways and transport terms. On balance it is considered that the development traffic does not have a severe impact on the study area network that cannot be managed or addressed with the currently proposed infrastructure, although capacity improvements are needed to accommodate committed

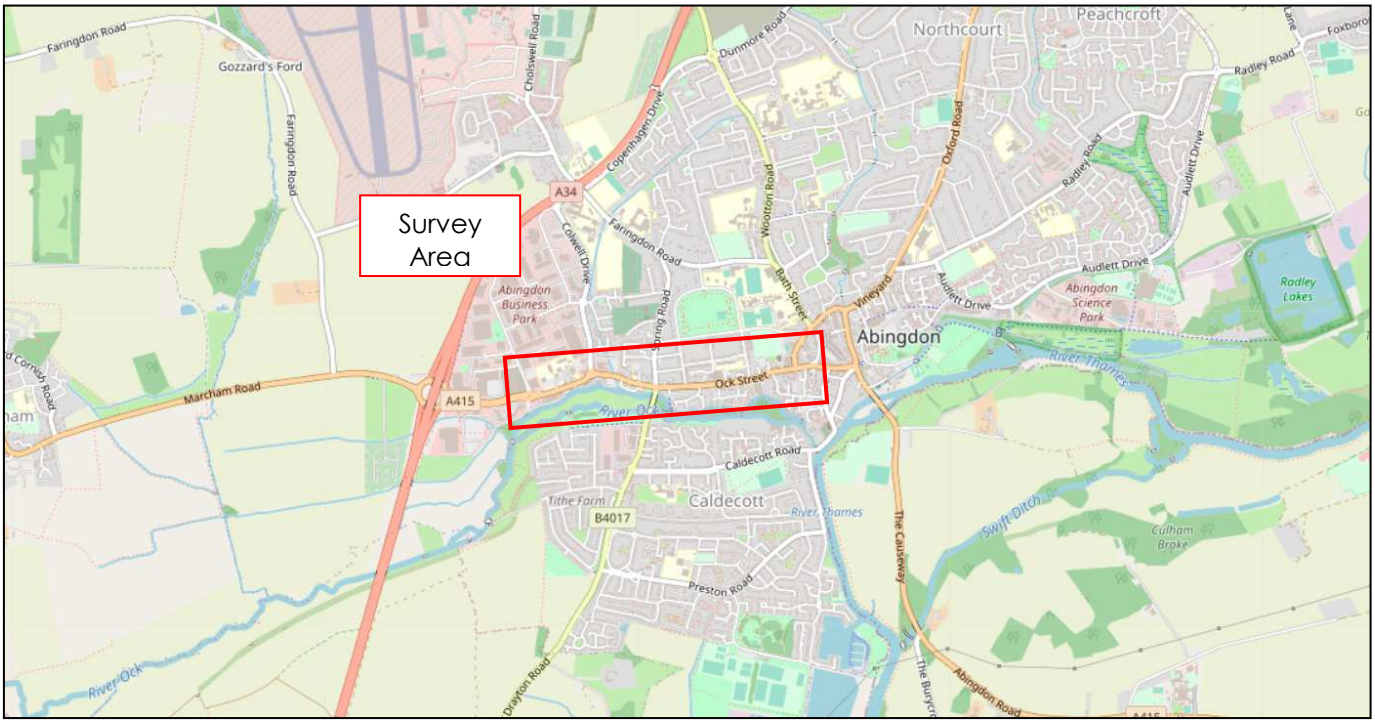
development traffic by 2024 at the Golden Balls roundabout and the double-mini roundabout in Abingdon, and potentially by 2034 at the Nuffield Way roundabout in Abingdon.

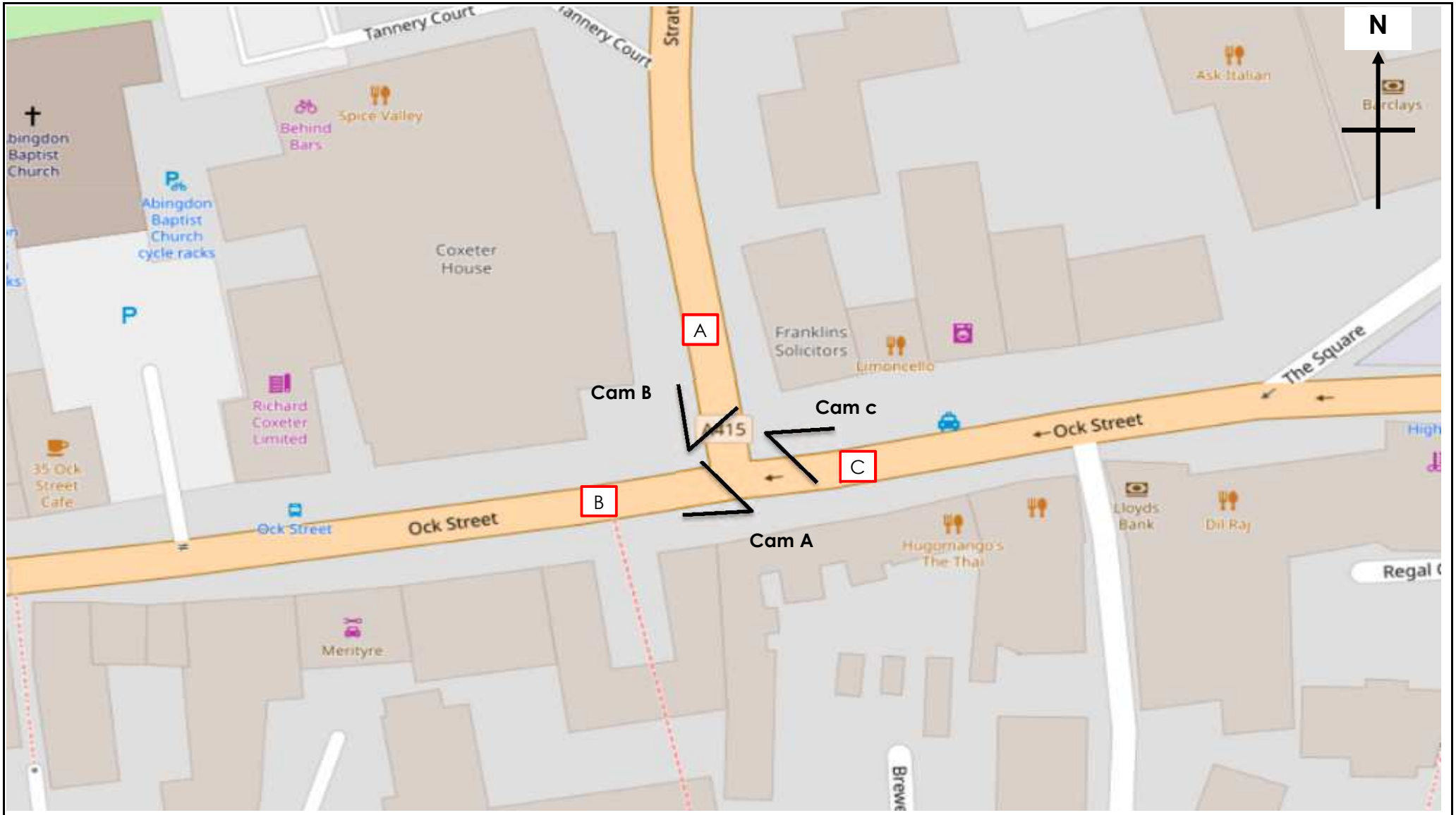
7.17 The few junctions that are expected to see the most impact will only experience this for a very short period prior to the HIF1 infrastructure being open to traffic. In the post-HIF scenario, the development traffic has extremely limited impact on the Golden Balls roundabout, and the double-mini roundabout and Nuffield Way roundabout in Abingdon, and all other junctions are expected to operate within or at capacity. Therefore, no interim off-site highway capacity or road safety improvements are proposed. Nonetheless, the is a strong commitment to continue to implement measures to maximise the opportunities for sustainable travel and minimise the traffic impact of development at CSC.

Appendix A

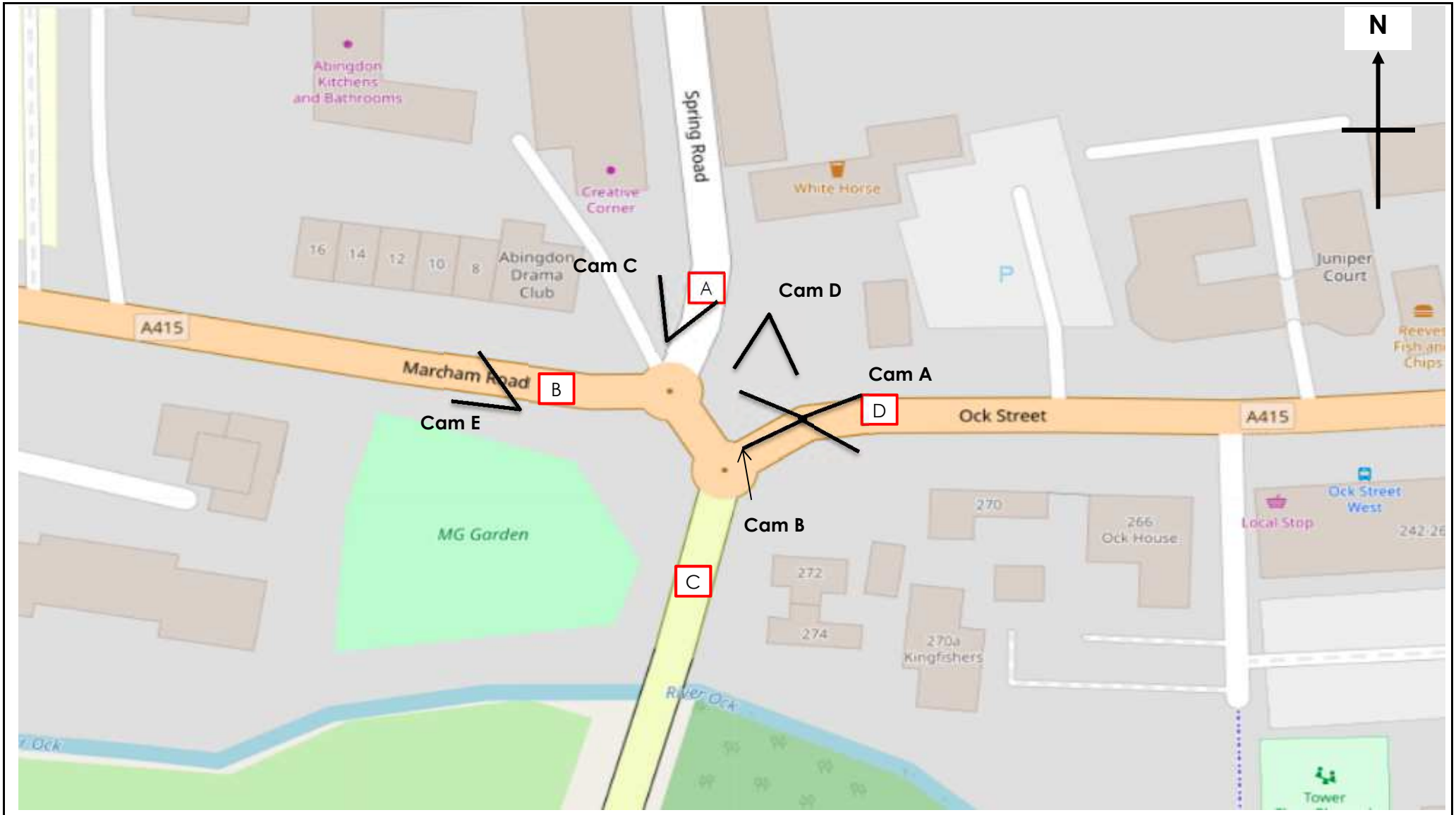
Traffic Data

Diagram 1 – General Location Plan

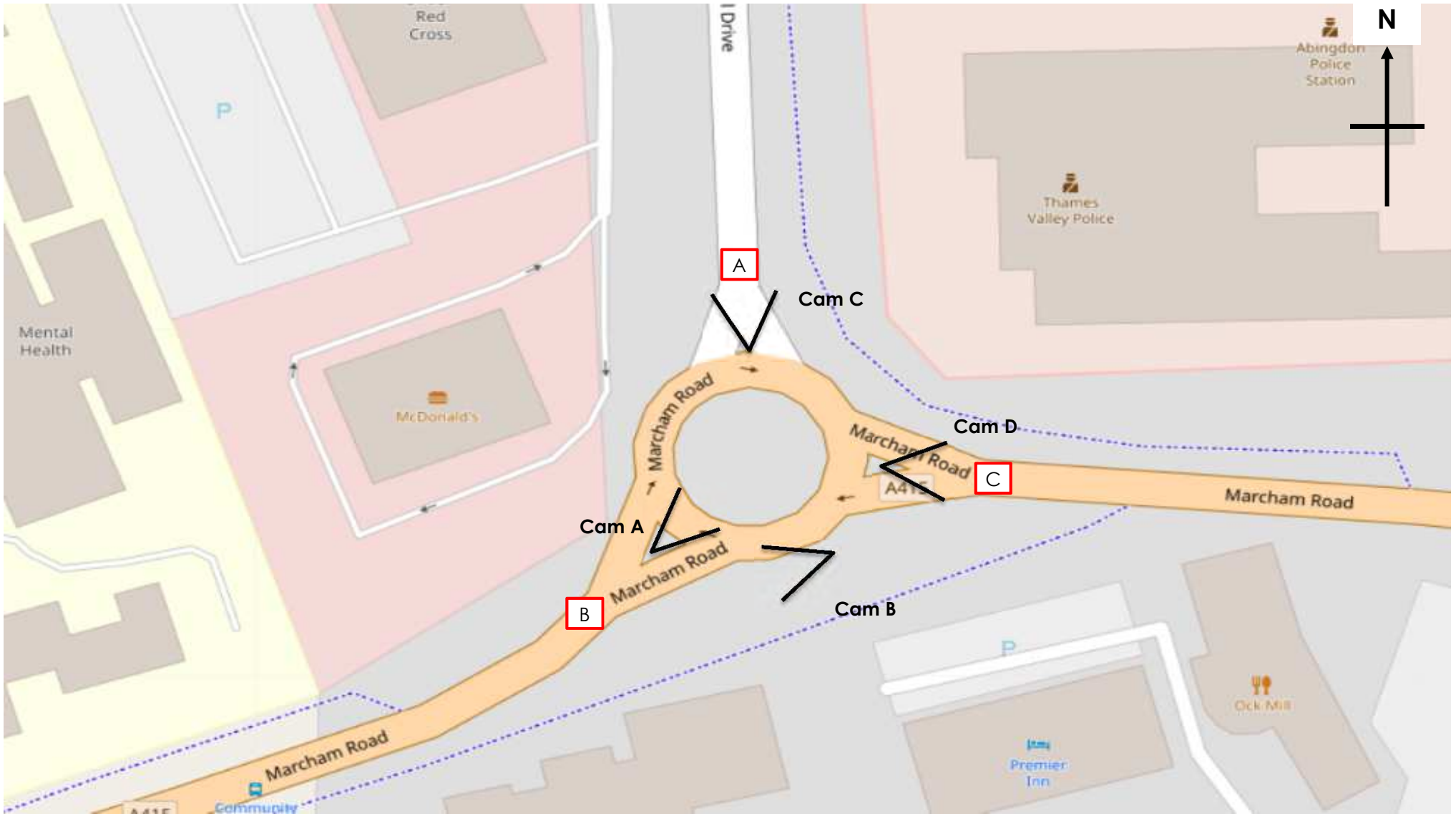




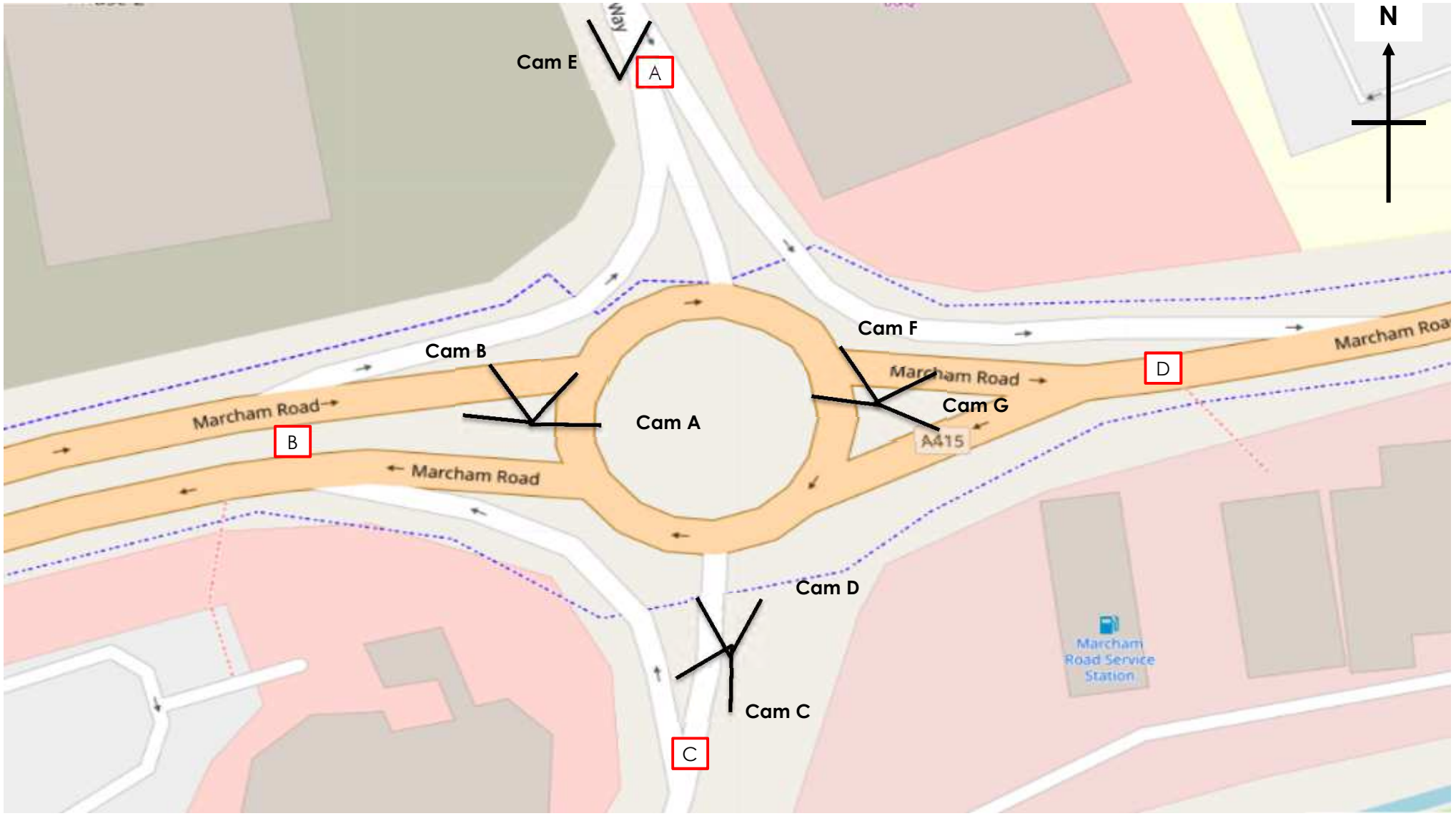
NDC NATIONWIDE DATA COLLECTION	**Site / Location:**	Site 2, Ock Street / Stratton Way	**Project No:**	12115	**Drawing No:**	12115-02	**Drawn By:** MN
	Survey Date:	Wednesday 13th October 2021	**Project Name:**	Abingdon			
	Survey Times:	07:00 to 10:00 & 16:00 to 19:00	**Drawing Title:**	Site Layout and Observed Movements			



NDC NATIONWIDE DATA COLLECTION	**Site / Location:**	Site 3, Ock Street / Marcham Road / B4017 / Spring Road	**Project No:**	12115	**Drawing No:**	12115-03	**Drawn By:** MN
	Survey Date:	Wednesday 13th October 2021	**Project Name:**	Abingdon			
	Survey Times:	07:00 to 10:00 & 16:00 to 19:00	**Drawing Title:**	Site Layout and Observed Movements			



NDC NATIONWIDE DATA COLLECTION	**Site / Location:**	Site 4, Marcham Road / Colwell Drive	**Project No:**	12115	**Drawing No:**	12115-04	**Drawn By:**	MN
	Survey Date:	Wednesday 13th October 2021	**Project Name:**	Abingdon				
	Survey Times:	07:00 to 10:00 & 16:00 to 19:00	**Drawing Title:**	Site Layout and Observed Movements				



NDC NATIONWIDE DATA COLLECTION	**Site / Location:**	Site 5, Marcham Road / Nuffield Way	**Project No:**	12115	**Drawing No:**	12115-05	**Drawn By:** MN
	Survey Date:	Wednesday 13th October 2021	**Project Name:**	Abingdon			
	Survey Times:	07:00 to 10:00 & 16:00 to 19:00	**Drawing Title:**	Site Layout and Observed Movements			

12115 / ABINGDON
OCTOBER 2021
CLASSIFIED TURNING COUNT

SITE: 2 DATE: 13/10/2021

LOCATION: Ock Street / Stratton Way DAY: Wednesday

	A to C (Banned Movement)								A to B							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0	48	12	0	0	2	1	0	63
07:15	0	0	0	0	0	0	0	0	36	6	1	1	1	0	1	46
07:30	0	0	0	0	0	0	0	0	45	7	2	0	2	0	1	57
07:45	0	0	0	0	0	0	0	0	31	4	1	0	5	3	0	44
08:00	0	0	0	0	0	0	0	0	44	4	0	0	1	1	3	53
08:15	0	0	0	0	0	0	0	0	42	4	2	0	3	1	2	54
08:30	0	0	0	0	0	0	0	0	48	6	2	0	1	1	1	59
08:45	0	0	0	0	0	0	0	0	51	5	1	0	4	0	1	62
09:00	0	0	0	0	0	0	0	0	57	5	1	1	1	0	2	67
09:15	0	0	0	0	0	0	0	0	71	8	1	0	3	1	3	87
09:30	0	0	0	0	0	0	0	0	47	6	0	1	2	0	0	56
09:45	0	0	0	0	0	0	0	0	63	8	1	0	1	0	0	73
P/TOT	0	0	0	0	0	0	0	0	583	75	12	3	26	8	14	721

	A to C (Banned Movement)								A to B							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	0	0	0	0	0	0	0	0	80	6	0	0	2	2	1	91
16:15	0	0	0	0	0	0	0	0	76	6	1	0	4	3	0	90
16:30	0	0	0	0	0	0	1	1	69	10	2	0	0	2	1	84
16:45	0	0	0	0	0	0	0	0	78	6	3	0	1	1	1	90
17:00	0	0	0	0	0	0	0	0	71	9	1	0	1	0	0	82
17:15	0	0	0	0	0	0	0	0	77	4	1	0	1	1	1	85
17:30	0	0	0	0	0	0	0	0	92	5	1	1	0	0	0	99
17:45	0	0	0	0	0	0	0	0	78	3	1	0	1	2	1	86
18:00	0	0	0	0	0	0	0	0	71	3	0	0	1	2	2	79
18:15	0	0	0	0	0	0	0	0	78	4	0	0	2	1	0	85
18:30	0	0	0	0	0	0	0	0	77	2	0	0	2	1	1	83
18:45	0	0	0	0	0	0	0	0	54	6	0	0	1	0	0	61
P/TOT	0	0	0	0	0	0	1	1	901	64	10	1	16	15	8	1015

SITE: 2 DATE: 13/10/2021

LOCATION: Ock Street / Stratton Way DAY: Wednesday

	B to A								B to C (Banned Movement)							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	72	16	4	0	2	0	0	94	0	0	0	0	0	0	0	0
07:15	73	20	5	1	3	3	0	105	0	0	0	0	0	0	0	0
07:30	83	20	5	1	1	0	3	113	0	0	0	0	0	0	0	0
07:45	71	10	4	1	1	3	4	94	0	0	0	0	0	0	0	0
08:00	79	20	2	1	2	2	2	108	0	0	0	0	0	0	0	0
08:15	57	11	5	0	1	1	2	77	0	0	0	0	0	0	0	0
08:30	71	26	9	1	3	2	6	118	0	0	0	0	0	0	0	0
08:45	63	8	5	2	1	0	4	83	0	0	0	0	0	0	0	0
09:00	85	13	3	1	0	1	2	105	0	0	0	0	0	0	0	0
09:15	90	10	3	1	3	0	2	109	0	0	0	0	0	0	0	0
09:30	78	20	9	0	1	2	0	110	0	0	0	0	0	0	0	0
09:45	90	14	7	0	3	0	1	115	0	0	0	0	0	0	0	0
P/TOT	912	188	61	9	21	14	26	1231	0	0	0	0	0	0	0	0

	B to A								B to C (Banned Movement)							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	96	11	2	0	3	3	1	116	0	0	0	0	0	0	0	0
16:15	99	14	0	0	3	1	7	124	0	0	0	0	0	0	0	0
16:30	82	11	1	0	1	0	1	96	0	0	0	0	0	0	0	0
16:45	87	8	2	0	0	3	2	102	0	0	0	0	0	0	0	0
17:00	108	12	2	0	2	4	2	130	0	0	0	0	0	0	0	0
17:15	92	4	2	0	2	0	2	102	0	0	0	0	0	0	0	0
17:30	87	3	1	1	1	1	2	96	0	0	0	0	0	0	0	0
17:45	94	8	1	0	2	0	1	106	0	0	0	0	0	0	0	0
18:00	109	5	2	0	1	3	3	123	0	0	0	0	0	0	0	0
18:15	114	11	1	0	0	1	4	131	0	0	0	0	0	0	0	0
18:30	88	7	2	1	3	2	0	103	0	0	0	0	0	0	0	0
18:45	107	2	0	1	2	2	3	117	0	0	0	0	0	0	0	0
P/TOT	1163	96	16	3	20	20	28	1346	0	0	0	0	0	0	0	0

12115 / ABINGDON
OCTOBER 2021
CLASSIFIED TURNING COUNT

SITE: 2 DATE: 13/10/2021

LOCATION: Ock Street / Stratton Way DAY: Wednesday

	C to B								C to A							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	18	8	7	0	0	1	0	34	46	8	7	0	4	0	0	65
07:15	36	4	3	0	0	1	3	47	70	13	2	0	4	1	0	90
07:30	46	12	1	1	1	1	1	63	82	17	7	0	1	0	3	110
07:45	50	12	4	0	1	1	1	69	154	17	3	0	3	4	0	181
08:00	42	6	3	0	0	1	0	52	120	9	3	1	9	0	2	144
08:15	57	7	5	0	2	2	2	75	107	9	2	0	11	4	2	135
08:30	53	5	3	0	0	1	0	62	100	10	6	0	5	2	4	127
08:45	46	7	3	0	1	0	2	59	119	9	3	0	6	1	2	140
09:00	44	4	1	0	0	1	1	51	81	13	4	1	2	1	0	102
09:15	32	10	5	1	0	1	2	51	77	12	4	1	3	2	1	100
09:30	37	6	4	0	0	0	0	47	79	7	4	3	6	1	0	100
09:45	52	7	5	2	0	0	0	66	79	8	5	0	2	1	0	95
P/TOT	513	88	44	4	5	10	12	676	1114	132	50	6	56	17	14	1389

	C to B								C to A							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	64	15	1	0	1	2	1	84	93	19	0	0	8	2	3	125
16:15	51	13	1	1	0	1	2	69	105	17	2	0	1	4	2	131
16:30	69	10	6	0	0	1	2	88	103	10	1	0	7	1	2	124
16:45	76	14	2	0	0	4	0	96	148	19	0	0	4	1	2	174
17:00	67	10	2	0	1	0	3	83	104	18	1	1	1	5	1	131
17:15	74	9	1	0	0	1	2	87	137	8	1	0	3	2	3	154
17:30	45	9	1	0	2	2	0	59	125	16	0	0	2	1	1	145
17:45	69	6	0	0	1	1	3	80	111	12	0	0	1	2	3	129
18:00	58	8	1	0	0	3	4	74	114	10	0	0	3	2	3	132
18:15	60	2	1	0	0	2	2	67	79	7	2	0	2	2	3	95
18:30	50	5	0	0	0	2	0	57	92	6	0	0	2	0	3	103
18:45	46	5	2	0	1	2	1	57	84	4	0	0	4	2	0	94
P/TOT	729	106	18	1	6	21	20	901	1295	146	7	1	38	24	26	1537

12115 / ABINGDON
OCTOBER 2021
CLASSIFIED TURNING COUNT

SITE: 2 DATE: 13/10/2021

LOCATION: Ock Street / Stratton Way DAY: Wednesday

	TO ARM A								FROM ARM A							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	118	24	11	0	6	0	0	159	48	12	0	0	2	1	0	63
07:15	143	33	7	1	7	4	0	195	36	6	1	1	1	0	1	46
07:30	165	37	12	1	2	0	6	223	45	7	2	0	2	0	1	57
07:45	225	27	7	1	4	7	4	275	31	4	1	0	5	3	0	44
08:00	199	29	5	2	11	2	4	252	44	4	0	0	1	1	3	53
08:15	164	20	7	0	12	5	4	212	42	4	2	0	3	1	2	54
08:30	171	36	15	1	8	4	10	245	48	6	2	0	1	1	1	59
08:45	182	17	8	2	7	1	6	223	51	5	1	0	4	0	1	62
09:00	166	26	7	2	2	2	2	207	57	5	1	1	1	0	2	67
09:15	167	22	7	2	6	2	3	209	71	8	1	0	3	1	3	87
09:30	157	27	13	3	7	3	0	210	47	6	0	1	2	0	0	56
09:45	169	22	12	0	5	1	1	210	63	8	1	0	1	0	0	73
P/TOT	2026	320	111	15	77	31	40	2620	583	75	12	3	26	8	14	721

	TO ARM A								FROM ARM A							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	189	30	2	0	11	5	4	241	80	6	0	0	2	2	1	91
16:15	204	31	2	0	4	5	9	255	76	6	1	0	4	3	0	90
16:30	185	21	2	0	8	1	3	220	69	10	2	0	0	2	2	85
16:45	235	27	2	0	4	4	4	276	78	6	3	0	1	1	1	90
17:00	212	30	3	1	3	9	3	261	71	9	1	0	1	0	0	82
17:15	229	12	3	0	5	2	5	256	77	4	1	0	1	1	1	85
17:30	212	19	1	1	3	2	3	241	92	5	1	1	0	0	0	99
17:45	205	20	1	0	3	2	4	235	78	3	1	0	1	2	1	86
18:00	223	15	2	0	4	5	6	255	71	3	0	0	1	2	2	79
18:15	193	18	3	0	2	3	7	226	78	4	0	0	2	1	0	85
18:30	180	13	2	1	5	2	3	206	77	2	0	0	2	1	1	83
18:45	191	6	0	1	6	4	3	211	54	6	0	0	1	0	0	61
P/TOT	2458	242	23	4	58	44	54	2883	901	64	10	1	16	15	9	1016

12115 / ABINGDON
OCTOBER 2021
CLASSIFIED TURNING COUNT

SITE: 2 DATE: 13/10/2021

LOCATION: Ock Street / Stratton Way DAY: Wednesday

	TO ARM B								FROM ARM B							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	66	20	7	0	2	2	0	97	72	16	4	0	2	0	0	94
07:15	72	10	4	1	1	1	4	93	73	20	5	1	3	3	0	105
07:30	91	19	3	1	3	1	2	120	83	20	5	1	1	0	3	113
07:45	81	16	5	0	6	4	1	113	71	10	4	1	1	3	4	94
08:00	86	10	3	0	1	2	3	105	79	20	2	1	2	2	2	108
08:15	99	11	7	0	5	3	4	129	57	11	5	0	1	1	2	77
08:30	101	11	5	0	1	2	1	121	71	26	9	1	3	2	6	118
08:45	97	12	4	0	5	0	3	121	63	8	5	2	1	0	4	83
09:00	101	9	2	1	1	1	3	118	85	13	3	1	0	1	2	105
09:15	103	18	6	1	3	2	5	138	90	10	3	1	3	0	2	109
09:30	84	12	4	1	2	0	0	103	78	20	9	0	1	2	0	110
09:45	115	15	6	2	1	0	0	139	90	14	7	0	3	0	1	115
P/TOT	1096	163	56	7	31	18	26	1397	912	188	61	9	21	14	26	1231

	TO ARM B								FROM ARM B							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	144	21	1	0	3	4	2	175	96	11	2	0	3	3	1	116
16:15	127	19	2	1	4	4	2	159	99	14	0	0	3	1	7	124
16:30	138	20	8	0	0	3	3	172	82	11	1	0	1	0	1	96
16:45	154	20	5	0	1	5	1	186	87	8	2	0	0	3	2	102
17:00	138	19	3	0	2	0	3	165	108	12	2	0	2	4	2	130
17:15	151	13	2	0	1	2	3	172	92	4	2	0	2	0	2	102
17:30	137	14	2	1	2	2	0	158	87	3	1	1	1	1	2	96
17:45	147	9	1	0	2	3	4	166	94	8	1	0	2	0	1	106
18:00	129	11	1	0	1	5	6	153	109	5	2	0	1	3	3	123
18:15	138	6	1	0	2	3	2	152	114	11	1	0	0	1	4	131
18:30	127	7	0	0	2	3	1	140	88	7	2	1	3	2	0	103
18:45	100	11	2	0	2	2	1	118	107	2	0	1	2	2	3	117
P/TOT	1630	170	28	2	22	36	28	1916	1163	96	16	3	20	20	28	1346

SITE: 2 DATE: 13/10/2021

LOCATION: Ock Street / Stratton Way DAY: Wednesday

	TO ARM C								FROM ARM C							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0	64	16	14	0	4	1	0	99
07:15	0	0	0	0	0	0	0	0	106	17	5	0	4	2	3	137
07:30	0	0	0	0	0	0	0	0	128	29	8	1	2	1	4	173
07:45	0	0	0	0	0	0	0	0	204	29	7	0	4	5	1	250
08:00	0	0	0	0	0	0	0	0	162	15	6	1	9	1	2	196
08:15	0	0	0	0	0	0	0	0	164	16	7	0	13	6	4	210
08:30	0	0	0	0	0	0	0	0	153	15	9	0	5	3	4	189
08:45	0	0	0	0	0	0	0	0	165	16	6	0	7	1	4	199
09:00	0	0	0	0	0	0	0	0	125	17	5	1	2	2	1	153
09:15	0	0	0	0	0	0	0	0	109	22	9	2	3	3	3	151
09:30	0	0	0	0	0	0	0	0	116	13	8	3	6	1	0	147
09:45	0	0	0	0	0	0	0	0	131	15	10	2	2	1	0	161
P/TOT	0	0	0	0	0	0	0	0	1627	220	94	10	61	27	26	2065

	TO ARM C								FROM ARM C							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	0	0	0	0	0	0	0	0	157	34	1	0	9	4	4	209
16:15	0	0	0	0	0	0	0	0	156	30	3	1	1	5	4	200
16:30	0	0	0	0	0	0	1	1	172	20	7	0	7	2	4	212
16:45	0	0	0	0	0	0	0	0	224	33	2	0	4	5	2	270
17:00	0	0	0	0	0	0	0	0	171	28	3	1	2	5	4	214
17:15	0	0	0	0	0	0	0	0	211	17	2	0	3	3	5	241
17:30	0	0	0	0	0	0	0	0	170	25	1	0	4	3	1	204
17:45	0	0	0	0	0	0	0	0	180	18	0	0	2	3	6	209
18:00	0	0	0	0	0	0	0	0	172	18	1	0	3	5	7	206
18:15	0	0	0	0	0	0	0	0	139	9	3	0	2	4	5	162
18:30	0	0	0	0	0	0	0	0	142	11	0	0	2	2	3	160
18:45	0	0	0	0	0	0	0	0	130	9	2	0	5	4	1	151
P/TOT	0	0	0	0	0	0	1	1	2024	252	25	2	44	45	46	2438

12115 / ABINGDON
OCTOBER 2021
CLASSIFIED TURNING COUNT

SITE: 2 DATE: 13/10/2021

LOCATION: Ock Street / Stratton Way DAY: Wednesday

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	184	44	18	0	8	2	0	256
07:15	215	43	11	2	8	5	4	288
07:30	256	56	15	2	5	1	8	343
07:45	306	43	12	1	10	11	5	388
08:00	285	39	8	2	12	4	7	357
08:15	263	31	14	0	17	8	8	341
08:30	272	47	20	1	9	6	11	366
08:45	279	29	12	2	12	1	9	344
09:00	267	35	9	3	3	3	5	325
09:15	270	40	13	3	9	4	8	347
09:30	241	39	17	4	9	3	0	313
09:45	284	37	18	2	6	1	1	349
P/TOT	3122	483	167	22	108	49	66	4017

PEAK HOUR CALCULATION	
07:00 to 08:00	1275
07:15 to 08:15	1376
07:30 to 08:30	1429
07:45 to 08:45	**1452**
08:00 to 09:00	1408
08:15 to 09:15	1376
08:30 to 09:30	1382
08:45 to 09:45	1329
09:00 to 10:00	1334
PEAK VALUE	**1452**

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	333	51	3	0	14	9	6	416
16:15	331	50	4	1	8	9	11	414
16:30	323	41	10	0	8	4	7	393
16:45	389	47	7	0	5	9	5	462
17:00	350	49	6	1	5	9	6	426
17:15	380	25	5	0	6	4	8	428
17:30	349	33	3	2	5	4	3	399
17:45	352	29	2	0	5	5	8	401
18:00	352	26	3	0	5	10	12	408
18:15	331	24	4	0	4	6	9	378
18:30	307	20	2	1	7	5	4	346
18:45	291	17	2	1	8	6	4	329
P/TOT	4088	412	51	6	80	80	83	4800

PEAK HOUR CALCULATION	
16:00 to 17:00	1685
16:15 to 17:15	1695
16:30 to 17:30	1709
16:45 to 17:45	**1715**
17:00 to 18:00	1654
17:15 to 18:15	1636
17:30 to 18:30	1586
17:45 to 18:45	1533
18:00 to 19:00	1461
PEAK VALUE	**1715**

SITE: 3 DATE: 13/10/2021

LOCATION: Ock Street / Marcham Road / B4017 / Spring Road DAY: Wednesday

	A to D								A to C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	1	0	0	0	0	0	1	2	14	2	0	0	0	0	0	16
07:15	1	0	0	0	0	0	1	2	16	3	0	0	0	1	1	21
07:30	4	0	0	0	0	0	1	5	17	3	0	0	0	1	0	21
07:45	3	1	1	0	0	0	1	6	24	2	1	0	0	3	1	31
08:00	4	1	0	0	1	0	0	6	40	3	2	0	0	0	1	46
08:15	4	0	1	0	0	0	0	5	30	4	0	0	1	0	2	37
08:30	4	0	0	0	1	0	0	5	47	1	0	0	0	0	1	49
08:45	3	0	0	0	0	0	2	5	48	2	2	0	0	0	0	52
09:00	2	0	0	0	0	0	1	3	28	5	2	0	0	0	1	36
09:15	2	2	0	0	0	0	0	4	17	0	0	0	0	0	0	17
09:30	4	1	2	0	0	0	0	7	15	3	1	2	0	0	0	21
09:45	4	0	0	0	0	0	0	4	11	4	1	0	0	0	0	16
P/TOT	36	5	4	0	2	0	7	54	307	32	9	2	1	5	7	363

	A to D								A to C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	4	1	1	0	0	0	4	10	19	4	0	0	2	1	1	27
16:15	1	0	0	0	0	1	1	3	28	12	0	0	2	0	2	44
16:30	6	1	0	0	0	0	1	8	29	7	0	0	0	1	0	37
16:45	2	1	0	0	0	0	1	4	50	6	0	0	0	0	1	57
17:00	3	0	0	0	0	0	0	3	44	8	2	0	0	0	0	54
17:15	1	0	0	0	0	0	0	1	34	4	0	0	0	1	0	39
17:30	1	0	0	0	0	0	0	1	34	5	0	0	3	0	0	42
17:45	11	1	0	0	0	0	0	12	28	4	0	0	0	0	0	32
18:00	4	1	0	0	0	0	1	6	28	1	0	0	0	0	0	29
18:15	6	0	1	0	0	0	1	8	19	1	0	0	0	0	0	20
18:30	8	0	0	0	0	0	0	8	24	1	0	0	0	0	0	25
18:45	6	0	0	0	0	0	0	6	19	0	0	0	0	0	0	19
P/TOT	53	5	2	0	0	1	9	70	356	53	2	0	7	3	4	425

SITE: 3 DATE: 13/10/2021

LOCATION: Ock Street / Marcham Road / B4017 / Spring Road DAY: Wednesday

	A to B								A to A							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	14	1	0	0	0	0	0	15	0	0	0	0	0	0	0	0
07:15	31	6	1	0	0	0	0	38	0	0	0	0	0	0	0	0
07:30	22	1	1	0	0	0	0	24	0	0	0	0	0	0	0	0
07:45	19	3	0	0	0	0	0	22	0	0	0	0	0	0	0	0
08:00	27	1	0	0	0	0	0	28	0	0	0	0	0	0	0	0
08:15	40	1	2	0	3	0	0	46	0	0	0	0	0	0	0	0
08:30	34	2	0	0	4	0	0	40	0	0	0	0	0	0	0	0
08:45	32	1	0	0	1	0	1	35	0	0	0	0	0	0	0	0
09:00	13	3	0	0	0	0	0	16	0	0	0	0	0	0	0	0
09:15	13	3	1	0	0	0	0	17	0	0	0	0	0	0	0	0
09:30	11	2	2	0	0	0	2	17	0	0	0	0	0	0	0	0
09:45	14	2	1	0	0	1	0	18	0	0	0	0	0	0	0	0
P/TOT	270	26	8	0	8	1	3	316	0	0	0	0	0	0	0	0

	A to B								A to A							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	19	1	0	0	0	0	2	22	0	0	0	0	0	0	0	0
16:15	26	2	0	0	1	0	0	29	0	0	0	0	0	0	0	0
16:30	20	1	0	0	0	0	1	22	0	0	0	0	0	0	0	0
16:45	15	2	0	0	0	0	0	17	0	0	0	0	0	0	0	0
17:00	20	0	1	0	0	1	0	22	0	0	0	0	0	0	0	0
17:15	27	3	0	0	0	0	0	30	0	0	0	0	0	0	0	0
17:30	28	1	0	0	1	0	0	30	0	0	0	0	0	0	0	0
17:45	23	1	0	0	0	1	0	25	0	0	0	0	0	0	0	0
18:00	25	2	0	0	0	1	0	28	0	0	0	0	0	0	0	0
18:15	18	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0
18:30	18	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0
18:45	13	0	0	0	0	0	1	14	0	0	0	0	0	0	0	0
P/TOT	252	13	1	0	2	3	4	275	0	0	0	0	0	0	0	0

SITE: 3 DATE: 13/10/2021

LOCATION: Ock Street / Marcham Road / B4017 / Spring Road DAY: Wednesday

	B to A								B to D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	8	1	1	0	0	0	0	10	37	11	2	0	1	0	0	51
07:15	9	3	1	0	0	0	0	13	64	17	3	1	2	3	1	91
07:30	8	1	1	1	0	0	0	11	57	18	6	3	0	0	1	85
07:45	26	2	2	0	0	0	0	30	56	17	2	0	0	1	0	76
08:00	40	6	1	1	3	0	2	53	60	14	4	0	1	1	0	80
08:15	58	4	3	0	0	0	1	66	65	4	3	1	1	0	1	75
08:30	15	5	0	0	1	0	0	21	58	17	9	1	1	0	0	86
08:45	20	2	1	0	0	0	1	24	71	8	6	2	0	0	4	91
09:00	8	2	2	0	0	0	1	13	52	11	3	1	0	1	3	71
09:15	7	2	2	1	0	0	0	12	69	13	3	2	1	0	0	88
09:30	11	4	1	0	0	0	0	16	55	12	5	0	0	0	0	72
09:45	8	2	1	0	0	0	0	11	63	14	6	1	1	0	0	85
P/TOT	218	34	16	3	4	0	5	280	707	156	52	12	8	6	10	951

	B to A								B to D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	27	1	0	0	2	0	2	32	69	9	1	0	1	0	3	83
16:15	24	2	1	0	0	0	0	27	54	6	1	0	0	0	2	63
16:30	23	2	0	0	0	0	1	26	63	8	1	0	0	0	0	72
16:45	26	3	0	0	0	0	0	29	74	8	3	0	1	2	1	89
17:00	22	3	0	0	0	0	1	26	56	5	1	0	0	1	2	65
17:15	26	1	0	0	0	0	0	27	72	1	1	0	0	1	0	75
17:30	26	1	0	0	0	1	2	30	73	2	3	0	0	0	1	79
17:45	20	3	0	0	0	0	1	24	93	6	0	0	2	0	1	102
18:00	23	1	1	0	0	0	1	26	78	4	1	0	0	4	1	88
18:15	25	3	0	0	0	1	0	29	78	9	1	0	0	3	1	92
18:30	16	0	0	0	0	0	0	16	77	5	1	0	0	1	0	84
18:45	17	2	0	0	0	0	0	19	76	6	0	1	1	2	1	87
P/TOT	275	22	2	0	2	2	8	311	863	69	14	1	5	14	13	979

SITE: 3 DATE: 13/10/2021

LOCATION: Ock Street / Marcham Road / B4017 / Spring Road DAY: Wednesday

	B to C								B to B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	28	5	1	0	1	1	0	36	0	0	0	0	0	0	0	0
07:15	39	9	3	0	1	1	0	53	0	0	0	0	0	0	0	0
07:30	33	7	2	1	1	1	0	45	0	0	0	0	0	0	0	0
07:45	43	13	0	0	0	1	1	58	0	0	0	0	0	0	0	0
08:00	43	19	3	1	0	1	0	67	0	0	0	0	0	0	0	0
08:15	48	9	5	1	0	0	2	65	1	0	0	0	0	0	0	1
08:30	62	15	0	0	0	0	0	77	1	0	0	0	0	0	0	1
08:45	57	15	1	2	0	0	0	75	0	0	0	0	1	0	0	1
09:00	52	9	2	0	0	0	0	63	1	0	0	0	0	0	0	1
09:15	49	11	4	1	0	2	1	68	0	0	0	0	0	0	0	0
09:30	55	8	6	2	0	0	0	71	1	0	0	0	0	0	0	1
09:45	60	12	2	2	0	1	1	78	0	0	0	0	0	0	0	0
P/TOT	569	132	29	10	3	8	5	756	4	0	0	0	1	0	0	5

	B to C								B to B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	108	22	1	0	1	0	0	132	0	0	0	0	0	0	0	0
16:15	104	26	3	0	0	3	1	137	0	0	0	0	0	0	0	0
16:30	121	27	3	0	0	0	3	154	1	0	0	0	0	0	0	1
16:45	114	17	2	0	1	2	2	138	0	0	0	0	0	0	0	0
17:00	125	20	4	0	1	2	1	153	0	0	0	0	0	0	0	0
17:15	142	17	2	0	0	2	0	163	0	0	0	0	0	0	0	0
17:30	134	20	0	0	1	3	1	159	0	0	0	0	0	0	0	0
17:45	102	10	2	0	0	2	1	117	1	0	0	0	0	0	0	1
18:00	120	4	0	0	0	1	0	125	0	0	0	0	0	0	0	0
18:15	105	9	1	0	0	1	0	116	0	0	0	0	0	0	0	0
18:30	96	16	0	0	1	1	0	114	0	0	0	0	0	0	0	0
18:45	90	4	1	0	1	2	0	98	0	0	0	0	0	0	0	0
P/TOT	1361	192	19	0	6	19	9	1606	2	0	0	0	0	0	0	2

SITE: 3 DATE: 13/10/2021

LOCATION: Ock Street / Marcham Road / B4017 / Spring Road DAY: Wednesday

	C to B								C to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	91	23	4	0	0	2	2	122	6	3	0	0	0	0	0	9
07:15	104	26	5	0	0	1	1	137	13	2	2	0	0	0	0	17
07:30	83	19	1	0	0	0	0	103	22	3	1	0	0	0	0	26
07:45	96	14	3	0	0	0	2	115	46	2	1	0	0	0	0	49
08:00	87	10	0	0	0	2	0	99	47	6	1	0	1	1	0	56
08:15	49	8	2	0	0	2	0	61	28	1	0	0	0	0	1	30
08:30	33	5	2	1	1	1	0	43	33	1	0	0	0	0	1	35
08:45	50	7	4	1	0	0	0	62	22	2	2	0	0	1	0	27
09:00	99	12	2	1	0	0	1	115	24	3	1	1	0	1	0	30
09:15	54	9	4	2	1	0	0	70	20	1	0	0	0	1	0	22
09:30	86	8	3	0	1	1	0	99	12	0	1	0	0	1	0	14
09:45	77	10	2	1	0	1	1	92	15	2	0	0	0	0	0	17
P/TOT	909	151	32	6	3	10	7	1118	288	26	9	1	1	5	2	332

	C to B								C to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	67	14	4	1	0	0	1	87	19	3	0	0	2	0	0	24
16:15	70	7	3	0	1	2	1	84	21	7	1	0	0	0	0	29
16:30	74	13	1	0	0	1	2	91	31	7	0	0	0	1	1	40
16:45	58	6	1	0	0	1	1	67	30	7	0	0	0	1	0	38
17:00	69	11	0	0	0	0	1	81	32	5	0	0	1	0	1	39
17:15	68	7	2	0	0	0	1	78	36	4	0	0	1	0	0	41
17:30	82	12	3	0	1	0	2	100	35	3	0	0	0	0	2	40
17:45	74	6	0	0	0	0	3	83	36	6	0	0	0	0	0	42
18:00	76	8	0	0	0	0	0	84	20	2	0	0	0	1	2	25
18:15	69	4	2	0	0	0	2	77	22	1	0	0	0	4	1	28
18:30	66	8	0	0	0	1	0	75	19	2	0	0	0	0	0	21
18:45	68	2	1	0	0	2	0	73	19	5	0	0	0	0	0	24
P/TOT	841	98	17	1	2	7	14	980	320	52	1	0	4	7	7	391

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LOCATION: Ock Street / Marcham Road / B4017 / Spring Road DAY: Wednesday

	C to D								C to C							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	27	4	2	0	1	0	0	34	0	0	0	0	0	0	0	0
07:15	22	8	2	0	1	0	0	33	0	0	0	0	0	0	0	0
07:30	19	3	1	0	0	0	2	25	0	0	0	0	0	0	0	0
07:45	18	6	1	0	1	2	1	29	0	0	0	0	0	0	0	0
08:00	17	5	2	0	1	1	0	26	0	0	0	0	0	0	0	0
08:15	11	4	1	0	1	0	0	17	0	0	0	0	0	0	0	0
08:30	13	3	0	0	1	2	1	20	0	0	0	0	0	0	0	0
08:45	9	1	1	0	1	0	1	13	0	0	0	0	0	0	0	0
09:00	33	2	1	0	1	0	2	39	0	0	0	0	0	0	0	0
09:15	20	3	2	0	1	0	0	26	0	0	0	0	0	0	0	0
09:30	22	5	2	0	1	2	0	32	0	0	0	0	0	0	0	0
09:45	21	1	0	0	2	0	0	24	0	0	0	0	0	0	0	0
P/TOT	232	45	15	0	12	7	7	318	0	0	0	0	0	0	0	0

	C to D								C to C							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	29	1	1	0	4	3	1	39	0	0	0	0	0	0	0	0
16:15	25	7	0	0	1	0	0	33	0	0	0	0	0	0	0	0
16:30	31	9	0	0	0	0	0	40	0	0	0	0	0	0	0	0
16:45	28	4	0	0	0	1	1	34	0	0	0	0	0	0	0	0
17:00	30	7	0	0	1	0	2	40	0	0	0	0	0	0	0	0
17:15	33	3	1	0	2	0	2	41	0	0	0	0	0	0	0	0
17:30	24	5	0	0	0	0	2	31	0	0	0	0	0	0	0	0
17:45	36	1	1	0	1	0	0	39	0	0	0	0	0	0	0	0
18:00	44	2	0	0	1	0	2	49	0	0	0	0	0	0	0	0
18:15	33	1	1	0	1	0	2	38	0	0	0	0	0	0	0	0
18:30	24	2	0	0	2	1	1	30	0	0	0	0	0	0	0	0
18:45	40	2	0	0	1	0	1	44	0	0	0	0	0	0	0	0
P/TOT	377	44	4	0	14	5	14	458	0	0	0	0	0	0	0	0

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LOCATION: Ock Street / Marcham Road / B4017 / Spring Road DAY: Wednesday

	D to C								D to B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	13	4	0	0	2	0	1	20	60	17	6	0	0	1	1	85
07:15	10	0	0	0	1	0	2	13	60	11	2	1	0	0	1	75
07:30	39	6	3	1	2	0	2	53	67	13	3	1	1	1	0	86
07:45	19	3	2	0	4	0	0	28	59	13	0	0	3	4	2	81
08:00	27	5	0	0	0	0	2	34	72	9	6	0	0	0	1	88
08:15	31	7	2	0	4	1	1	46	66	5	4	2	3	2	1	83
08:30	31	6	1	0	1	0	0	39	60	7	4	0	0	2	2	75
08:45	49	1	4	0	2	0	0	56	64	10	3	0	2	0	2	81
09:00	36	4	0	0	1	0	1	42	59	4	2	1	0	1	0	67
09:15	32	3	2	0	1	0	1	39	82	10	2	1	3	2	0	100
09:30	27	8	2	0	1	0	2	40	54	12	2	1	0	0	0	69
09:45	27	4	2	0	1	0	0	34	74	12	3	4	1	0	0	94
P/TOT	341	51	18	1	20	1	12	444	777	123	37	11	13	13	10	984

	D to C								D to B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	65	6	0	0	1	4	4	80	83	12	1	0	1	0	0	97
16:15	66	3	2	0	2	2	1	76	60	9	2	0	1	1	0	73
16:30	63	10	5	0	1	1	4	84	74	12	2	1	2	3	0	94
16:45	74	12	2	0	1	0	0	89	68	13	4	0	0	2	0	87
17:00	77	8	1	0	0	0	2	88	60	9	4	0	0	0	0	73
17:15	63	11	0	0	1	2	2	79	76	4	1	0	0	0	1	82
17:30	67	8	2	0	1	1	1	80	76	8	2	0	1	0	0	87
17:45	98	8	0	0	1	1	3	111	100	5	3	0	2	2	1	113
18:00	65	4	0	0	1	4	1	75	72	8	1	0	0	2	4	87
18:15	58	4	0	0	1	2	2	67	68	6	1	0	1	3	1	80
18:30	69	6	0	0	1	3	1	80	67	5	0	0	0	0	0	72
18:45	52	4	0	0	1	0	2	59	61	7	0	0	1	1	0	70
P/TOT	817	84	12	0	12	20	23	968	865	98	21	1	9	14	7	1015

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LOCATION: Ock Street / Marcham Road / B4017 / Spring Road DAY: Wednesday

	D to A								D to D							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	4	1	0	0	0	0	0	5	0	0	0	0	0	0	0	0
07:15	4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
07:30	1	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0
07:45	5	1	2	0	0	0	0	8	0	1	0	0	0	0	0	1
08:00	4	1	0	0	0	0	0	5	0	0	0	0	0	0	0	0
08:15	9	0	0	0	0	0	1	10	0	0	0	0	0	0	0	0
08:30	5	0	1	0	0	0	0	6	0	0	0	0	0	0	0	0
08:45	1	1	0	0	1	0	0	3	0	0	0	0	0	0	0	0
09:00	5	1	1	0	0	0	0	7	0	0	0	0	0	0	0	0
09:15	4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
09:30	3	0	0	0	0	0	0	3	1	0	0	0	0	0	0	1
09:45	7	5	0	0	0	0	0	12	1	0	0	0	0	0	0	1
P/TOT	52	10	5	0	1	0	1	69	2	1	0	0	0	0	0	3

	D to A								D to D							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	9	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0
16:15	6	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0
16:30	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
16:45	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
17:00	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
17:15	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
17:30	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
17:45	3	1	0	0	0	0	0	4	1	0	0	0	0	0	0	1
18:00	11	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0
18:15	6	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0
18:30	6	1	0	0	0	0	0	7	0	0	0	0	0	0	0	0
18:45	6	0	0	0	0	0	0	6	1	0	0	0	0	0	0	1
P/TOT	54	2	0	0	0	0	0	56	2	0	0	0	0	0	0	2

SITE: 3 DATE: 13/10/2021

LOCATION: Ock Street / Marcham Road / B4017 / Spring Road DAY: Wednesday

	TO ARM A								FROM ARM A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	18	5	1	0	0	0	0	24	29	3	0	0	0	0	1	33
07:15	26	5	3	0	0	0	0	34	48	9	1	0	0	1	2	61
07:30	31	4	3	1	0	0	0	39	43	4	1	0	0	1	1	50
07:45	77	5	5	0	0	0	0	87	46	6	2	0	0	3	2	59
08:00	91	13	2	1	4	1	2	114	71	5	2	0	1	0	1	80
08:15	95	5	3	0	0	0	3	106	74	5	3	0	4	0	2	88
08:30	53	6	1	0	1	0	1	62	85	3	0	0	5	0	1	94
08:45	43	5	3	0	1	1	1	54	83	3	2	0	1	0	3	92
09:00	37	6	4	1	0	1	1	50	43	8	2	0	0	0	2	55
09:15	31	3	2	1	0	1	0	38	32	5	1	0	0	0	0	38
09:30	26	4	2	0	0	1	0	33	30	6	5	2	0	0	2	45
09:45	30	9	1	0	0	0	0	40	29	6	2	0	0	1	0	38
P/TOT	558	70	30	4	6	5	8	681	613	63	21	2	11	6	17	733

	TO ARM A								FROM ARM A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	55	4	0	0	4	0	2	65	42	6	1	0	2	1	7	59
16:15	51	9	2	0	0	0	0	62	55	14	0	0	3	1	3	76
16:30	56	9	0	0	0	1	2	68	55	9	0	0	0	1	2	67
16:45	57	10	0	0	0	1	0	68	67	9	0	0	0	0	2	78
17:00	55	8	0	0	1	0	2	66	67	8	3	0	0	1	0	79
17:15	64	5	0	0	1	0	0	70	62	7	0	0	0	1	0	70
17:30	62	4	0	0	0	1	4	71	63	6	0	0	4	0	0	73
17:45	59	10	0	0	0	0	1	70	62	6	0	0	0	1	0	69
18:00	54	3	1	0	0	1	3	62	57	4	0	0	0	1	1	63
18:15	53	4	0	0	0	5	1	63	43	1	1	0	0	0	1	46
18:30	41	3	0	0	0	0	0	44	50	1	0	0	0	0	0	51
18:45	42	7	0	0	0	0	0	49	38	0	0	0	0	0	1	39
P/TOT	649	76	3	0	6	9	15	758	661	71	5	0	9	7	17	770

SITE: 3 DATE: 13/10/2021

LOCATION: Ock Street / Marcham Road / B4017 / Spring Road DAY: Wednesday

	TO ARM B								FROM ARM B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	165	41	10	0	0	3	3	222	73	17	4	0	2	1	0	97
07:15	195	43	8	1	0	1	2	250	112	29	7	1	3	4	1	157
07:30	172	33	5	1	1	1	0	213	98	26	9	5	1	1	1	141
07:45	174	30	3	0	3	4	4	218	125	32	4	0	0	2	1	164
08:00	186	20	6	0	0	2	1	215	143	39	8	2	4	2	2	200
08:15	156	14	8	2	6	4	1	191	172	17	11	2	1	0	4	207
08:30	128	14	6	1	5	3	2	159	136	37	9	1	2	0	0	185
08:45	146	18	7	1	4	0	3	179	148	25	8	4	1	0	5	191
09:00	172	19	4	2	0	1	1	199	113	22	7	1	0	1	4	148
09:15	149	22	7	3	4	2	0	187	125	26	9	4	1	2	1	168
09:30	152	22	7	1	1	1	2	186	122	24	12	2	0	0	0	160
09:45	165	24	6	5	1	2	1	204	131	28	9	3	1	1	1	174
P/TOT	1960	300	77	17	25	24	20	2423	1498	322	97	25	16	14	20	1992

	TO ARM B								FROM ARM B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	169	27	5	1	1	0	3	206	204	32	2	0	4	0	5	247
16:15	156	18	5	0	3	3	1	186	182	34	5	0	0	3	3	227
16:30	169	26	3	1	2	4	3	208	208	37	4	0	0	0	4	253
16:45	141	21	5	0	0	3	1	171	214	28	5	0	2	4	3	256
17:00	149	20	5	0	0	1	1	176	203	28	5	0	1	3	4	244
17:15	171	14	3	0	0	0	2	190	240	19	3	0	0	3	0	265
17:30	186	21	5	0	3	0	2	217	233	23	3	0	1	4	4	268
17:45	198	12	3	0	2	3	4	222	216	19	2	0	2	2	3	244
18:00	173	18	1	0	0	3	4	199	221	9	2	0	0	5	2	239
18:15	155	10	3	0	1	3	3	175	208	21	2	0	0	5	1	237
18:30	151	13	0	0	0	1	0	165	189	21	1	0	1	2	0	214
18:45	142	9	1	0	1	3	1	157	183	12	1	1	2	4	1	204
P/TOT	1960	209	39	2	13	24	25	2272	2501	283	35	1	13	35	30	2898

SITE: 3 DATE: 13/10/2021

LOCATION: Ock Street / Marcham Road / B4017 / Spring Road DAY: Wednesday

	TO ARM C								FROM ARM C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	55	11	1	0	3	1	1	72	124	30	6	0	1	2	2	165
07:15	65	12	3	0	2	2	3	87	139	36	9	0	1	1	1	187
07:30	89	16	5	2	3	2	2	119	124	25	3	0	0	0	2	154
07:45	86	18	3	0	4	4	2	117	160	22	5	0	1	2	3	193
08:00	110	27	5	1	0	1	3	147	151	21	3	0	2	4	0	181
08:15	109	20	7	1	5	1	5	148	88	13	3	0	1	2	1	108
08:30	140	22	1	0	1	0	1	165	79	9	2	1	2	3	2	98
08:45	154	18	7	2	2	0	0	183	81	10	7	1	1	1	1	102
09:00	116	18	4	0	1	0	2	141	156	17	4	2	1	1	3	184
09:15	98	14	6	1	1	2	2	124	94	13	6	2	2	1	0	118
09:30	97	19	9	4	1	0	2	132	120	13	6	0	2	4	0	145
09:45	98	20	5	2	1	1	1	128	113	13	2	1	2	1	1	133
P/TOT	1217	215	56	13	24	14	24	1563	1429	222	56	7	16	22	16	1768

	TO ARM C								FROM ARM C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	192	32	1	0	4	5	5	239	115	18	5	1	6	3	2	150
16:15	198	41	5	0	4	5	4	257	116	21	4	0	2	2	1	146
16:30	213	44	8	0	1	2	7	275	136	29	1	0	0	2	3	171
16:45	238	35	4	0	2	2	3	284	116	17	1	0	0	3	2	139
17:00	246	36	7	0	1	2	3	295	131	23	0	0	2	0	4	160
17:15	239	32	2	0	1	5	2	281	137	14	3	0	3	0	3	160
17:30	235	33	2	0	5	4	2	281	141	20	3	0	1	0	6	171
17:45	228	22	2	0	1	3	4	260	146	13	1	0	1	0	3	164
18:00	213	9	0	0	1	5	1	229	140	12	0	0	1	1	4	158
18:15	182	14	1	0	1	3	2	203	124	6	3	0	1	4	5	143
18:30	189	23	0	0	2	4	1	219	109	12	0	0	2	2	1	126
18:45	161	8	1	0	2	2	2	176	127	9	1	0	1	2	1	141
P/TOT	2534	329	33	0	25	42	36	2999	1538	194	22	1	20	19	35	1829

SITE: 3 DATE: 13/10/2021

LOCATION: Ock Street / Marcham Road / B4017 / Spring Road DAY: Wednesday

	TO ARM D								FROM ARM D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	65	15	4	0	2	0	1	87	77	22	6	0	2	1	2	110
07:15	87	25	5	1	3	3	2	126	74	11	2	1	1	0	3	92
07:30	80	21	7	3	0	0	4	115	107	19	7	2	3	1	2	141
07:45	77	25	4	0	1	3	2	112	83	18	4	0	7	4	2	118
08:00	81	20	6	0	3	2	0	112	103	15	6	0	0	0	3	127
08:15	80	8	5	1	2	0	1	97	106	12	6	2	7	3	3	139
08:30	75	20	9	1	3	2	1	111	96	13	6	0	1	2	2	120
08:45	83	9	7	2	1	0	7	109	114	12	7	0	5	0	2	140
09:00	87	13	4	1	1	1	6	113	100	9	3	1	1	1	1	116
09:15	91	18	5	2	2	0	0	118	118	13	4	1	4	2	1	143
09:30	82	18	9	0	1	2	0	112	85	20	4	1	1	0	2	113
09:45	89	15	6	1	3	0	0	114	109	21	5	4	2	0	0	141
P/TOT	977	207	71	12	22	13	24	1326	1172	185	60	12	34	14	23	1500

	TO ARM D								FROM ARM D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	102	11	3	0	5	3	8	132	157	18	1	0	2	4	4	186
16:15	80	13	1	0	1	1	3	99	132	12	4	0	3	3	1	155
16:30	100	18	1	0	0	0	1	120	139	22	7	1	3	4	4	180
16:45	104	13	3	0	1	3	3	127	143	25	6	0	1	2	0	177
17:00	89	12	1	0	1	1	4	108	138	17	5	0	0	0	2	162
17:15	106	4	2	0	2	1	2	117	141	15	1	0	1	2	3	163
17:30	98	7	3	0	0	0	3	111	144	16	4	0	2	1	1	168
17:45	141	8	1	0	3	0	1	154	202	14	3	0	3	3	4	229
18:00	126	7	1	0	1	4	4	143	148	12	1	0	1	6	5	173
18:15	117	10	3	0	1	3	4	138	132	10	1	0	2	5	3	153
18:30	109	7	1	0	2	2	1	122	142	12	0	0	1	3	1	159
18:45	123	8	0	1	2	2	2	138	120	11	0	0	2	1	2	136
P/TOT	1295	118	20	1	19	20	36	1509	1738	184	33	1	21	34	30	2041

12115 / ABINGDON
OCTOBER 2021
CLASSIFIED TURNING COUNT

SITE: 3 DATE: 13/10/2021

LOCATION: Ock Street / Marcham Road / B4017 / Spring Road DAY: Wednesday

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	303	72	16	0	5	4	5	405
07:15	373	85	19	2	5	6	7	497
07:30	372	74	20	7	4	3	6	486
07:45	414	78	15	0	8	11	8	534
08:00	468	80	19	2	7	6	6	588
08:15	440	47	23	4	13	5	10	542
08:30	396	62	17	2	10	5	5	497
08:45	426	50	24	5	8	1	11	525
09:00	412	56	16	4	2	3	10	503
09:15	369	57	20	7	7	5	2	467
09:30	357	63	27	5	3	4	4	463
09:45	382	68	18	8	5	3	2	486
P/TOT	4712	792	234	46	77	56	76	5993

PEAK HOUR CALCULATION	
07:00 to 08:00	1922
07:15 to 08:15	2105
07:30 to 08:30	2150
07:45 to 08:45	**2161**
08:00 to 09:00	2152
08:15 to 09:15	2067
08:30 to 09:30	1992
08:45 to 09:45	1958
09:00 to 10:00	1919
PEAK VALUE	**2161**

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	518	74	9	1	14	8	18	642
16:15	485	81	13	0	8	9	8	604
16:30	538	97	12	1	3	7	13	671
16:45	540	79	12	0	3	9	7	650
17:00	539	76	13	0	3	4	10	645
17:15	580	55	7	0	4	6	6	658
17:30	581	65	10	0	8	5	11	680
17:45	626	52	6	0	6	6	10	706
18:00	566	37	3	0	2	13	12	633
18:15	507	38	7	0	3	14	10	579
18:30	490	46	1	0	4	7	2	550
18:45	468	32	2	1	5	7	5	520
P/TOT	6438	732	95	3	63	95	112	7538

PEAK HOUR CALCULATION	
16:00 to 17:00	2567
16:15 to 17:15	2570
16:30 to 17:30	2624
16:45 to 17:45	2633
17:00 to 18:00	**2689**
17:15 to 18:15	2677
17:30 to 18:30	2598
17:45 to 18:45	2468
18:00 to 19:00	2282
PEAK VALUE	**2689**

SITE: 4 DATE: 13/10/2021

LOCATION: Marcham Road / Colwell Drive DAY: Wednesday

	A to C								A to B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	11	6	0	0	0	0	0	17	56	19	0	1	0	1	0	77
07:15	18	5	2	0	0	0	0	25	75	21	1	0	0	0	0	97
07:30	19	3	0	0	0	0	0	22	107	24	6	0	1	0	0	138
07:45	23	6	0	0	0	1	0	30	103	19	4	1	0	3	0	130
08:00	30	13	3	0	0	1	1	48	96	18	2	1	0	2	1	120
08:15	41	3	2	0	0	0	2	48	109	12	2	1	0	2	0	126
08:30	35	5	1	0	0	0	0	41	98	9	4	5	2	1	0	119
08:45	32	2	1	0	0	0	0	35	113	14	2	2	1	0	1	133
09:00	32	4	2	0	0	0	0	38	104	14	2	3	0	1	1	125
09:15	20	5	3	0	0	2	0	30	96	15	2	1	0	1	1	116
09:30	22	2	3	0	0	0	0	27	77	12	0	2	0	0	1	92
09:45	23	5	1	0	0	1	0	30	68	13	0	5	0	0	0	86
P/TOT	306	59	18	0	0	5	3	391	1102	190	25	22	4	11	5	1359

	A to C								A to B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	54	17	1	0	0	0	0	72	81	25	2	0	0	1	0	109
16:15	34	13	1	0	0	1	2	51	89	11	2	1	0	1	0	104
16:30	62	11	1	0	0	0	1	75	104	16	1	0	0	0	0	121
16:45	45	5	0	0	1	2	2	55	84	8	0	1	0	1	0	94
17:00	65	3	1	0	0	1	1	71	99	10	0	0	0	2	0	111
17:15	68	4	0	0	0	3	0	75	88	13	0	0	0	1	0	102
17:30	51	8	0	0	0	2	0	61	100	8	0	0	0	1	0	109
17:45	42	3	1	0	0	1	0	47	79	3	0	0	1	2	0	85
18:00	45	1	1	0	0	1	0	48	89	8	1	0	1	0	0	99
18:15	32	4	0	0	1	0	0	37	70	7	0	0	0	0	0	77
18:30	39	2	0	0	0	2	0	43	74	3	0	0	0	3	0	80
18:45	30	0	0	0	0	0	0	30	65	6	0	0	0	0	0	71
P/TOT	567	71	6	0	2	13	6	665	1022	118	6	2	2	12	0	1162

SITE: 4 DATE: 13/10/2021

LOCATION: Marcham Road / Colwell Drive DAY: Wednesday

TIME	CAR	LGV	OGV1	A to A OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	1	0	0	0	0	0	0	1
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	1	0	0	0	0	0	0	1
P/TOT	2	0	0	0	0	0	0	2

TIME	CAR	LGV	OGV1	A to A OGV2	PSV	MCL	PCL	TOT
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	0	0	0	0	0	0	0	0

SITE: 4 DATE: 13/10/2021

LOCATION: Marcham Road / Colwell Drive DAY: Wednesday

	B to A								B to C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	34	11	5	1	0	0	1	52	67	10	4	0	2	1	0	84
07:15	60	24	1	2	0	1	0	88	93	24	6	1	3	4	1	132
07:30	75	23	3	1	0	0	0	102	84	21	8	5	1	1	0	120
07:45	95	26	4	0	0	1	0	126	108	24	4	0	0	1	0	137
08:00	92	20	7	4	0	0	1	124	121	30	5	2	4	1	0	163
08:15	100	23	1	3	0	0	1	128	145	15	10	2	1	0	1	174
08:30	94	11	5	4	0	0	1	115	113	30	8	1	2	0	0	154
08:45	88	18	3	4	0	0	0	113	116	20	7	4	0	0	0	147
09:00	74	23	4	4	0	0	1	106	89	14	5	1	0	1	0	110
09:15	67	16	2	2	1	0	0	88	112	26	6	5	1	0	0	150
09:30	62	16	1	3	2	0	0	84	101	24	10	1	0	0	0	136
09:45	76	13	2	3	0	0	0	94	112	23	7	3	1	0	1	147
P/TOT	917	224	38	31	3	2	5	1220	1261	261	80	25	15	9	3	1654

	B to A								B to C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	105	18	3	2	1	2	2	133	155	23	1	0	3	0	1	183
16:15	85	15	2	1	0	0	2	105	146	22	4	0	1	2	1	176
16:30	106	10	3	0	0	1	1	121	144	21	4	0	0	0	0	169
16:45	114	7	1	0	0	2	1	125	175	22	5	0	1	2	0	205
17:00	88	15	1	0	0	2	0	106	148	25	6	0	1	2	1	183
17:15	91	7	1	0	0	2	1	102	175	13	1	0	0	1	0	190
17:30	108	8	1	0	0	2	1	120	167	15	3	0	1	2	3	191
17:45	111	7	0	0	0	0	1	119	185	12	1	0	2	1	1	202
18:00	106	11	1	1	0	3	0	122	162	10	1	0	0	5	0	178
18:15	95	8	0	0	0	2	3	108	179	16	2	0	0	3	1	201
18:30	104	7	0	0	0	0	0	111	141	16	1	0	0	0	0	158
18:45	83	4	0	0	0	0	2	89	160	10	1	1	2	4	1	179
P/TOT	1196	117	13	4	1	16	14	1361	1937	205	30	1	11	22	9	2215

SITE: 4 DATE: 13/10/2021

LOCATION: Marcham Road / Colwell Drive DAY: Wednesday

TIME	CAR	LGV	OGV1	B to B OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	1	1	0	0	0	0	0	2
07:30	3	0	1	0	0	0	0	4
07:45	9	2	0	0	0	0	0	11
08:00	5	1	0	0	0	0	0	6
08:15	0	2	0	0	0	0	0	2
08:30	2	2	1	0	0	0	0	5
08:45	5	0	0	1	0	0	0	6
09:00	2	2	0	0	0	0	0	4
09:15	7	3	0	0	0	0	0	10
09:30	6	2	0	0	0	0	0	8
09:45	2	1	0	0	0	0	0	3
P/TOT	42	16	2	1	0	0	0	61

TIME	CAR	LGV	OGV1	B to B OGV2	PSV	MCL	PCL	TOT
16:00	11	0	0	0	0	0	0	11
16:15	8	0	1	0	0	0	0	9
16:30	12	1	0	0	0	0	0	13
16:45	9	1	0	0	0	0	0	10
17:00	15	1	0	0	0	0	0	16
17:15	5	0	0	0	0	1	0	6
17:30	7	1	0	0	0	0	0	8
17:45	7	2	0	0	0	0	0	9
18:00	4	0	0	0	0	0	0	4
18:15	4	1	0	0	0	0	0	5
18:30	3	1	0	0	0	0	0	4
18:45	7	0	0	0	0	0	0	7
P/TOT	92	8	1	0	0	1	0	102

SITE: 4 DATE: 13/10/2021

LOCATION: Marcham Road / Colwell Drive DAY: Wednesday

	C to B								C to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	137	41	10	0	0	3	0	191	17	6	0	0	0	0	0	23
07:15	143	37	8	0	0	1	0	189	34	4	1	0	0	0	2	41
07:30	134	25	5	2	1	1	0	168	32	7	0	0	0	0	0	39
07:45	151	27	1	0	2	3	0	184	41	5	2	0	1	1	2	52
08:00	136	15	6	0	0	1	1	159	53	2	0	0	0	1	1	57
08:15	116	10	6	2	5	3	1	143	35	2	1	0	0	1	0	39
08:30	111	15	7	1	4	1	0	139	28	2	0	0	0	2	1	33
08:45	132	12	6	1	5	0	1	157	30	4	1	0	0	0	0	35
09:00	145	18	4	2	0	1	0	170	39	1	0	0	0	0	0	40
09:15	129	25	4	3	4	2	0	167	24	0	2	0	0	0	0	26
09:30	121	23	5	1	0	1	0	151	27	2	2	0	1	0	0	32
09:45	138	21	5	5	1	1	1	172	19	2	1	0	0	1	0	23
P/TOT	1593	269	67	17	22	18	4	1990	379	37	10	0	2	6	6	440

	C to B								C to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	148	20	3	1	2	2	0	176	30	7	2	0	0	0	0	39
16:15	119	20	5	0	3	1	0	148	37	4	0	0	0	0	0	41
16:30	127	23	2	1	2	4	0	159	37	3	0	0	0	1	0	41
16:45	125	22	6	0	0	4	0	157	28	2	0	0	0	0	1	31
17:00	115	16	5	0	0	0	0	136	33	3	0	0	0	0	0	36
17:15	136	12	3	0	0	1	0	152	35	3	0	0	0	0	0	38
17:30	149	8	5	0	2	0	1	165	27	7	0	0	0	0	1	35
17:45	172	12	3	0	2	2	1	192	35	3	0	0	0	1	0	39
18:00	141	13	1	0	0	3	2	160	27	4	0	0	0	0	1	32
18:15	134	9	3	0	0	2	1	149	31	3	0	0	0	1	0	35
18:30	117	11	0	0	1	0	0	129	35	3	0	0	0	1	0	39
18:45	118	8	2	0	1	2	0	131	26	3	0	0	0	1	0	30
P/TOT	1601	174	38	2	13	21	5	1854	381	45	2	0	0	5	3	436

SITE: 4 DATE: 13/10/2021

LOCATION: Marcham Road / Colwell Drive DAY: Wednesday

TIME	C to C CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	1	0	0	0	1	0	0	2
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
P/TOT	1	0	0	0	1	0	0	2

TIME	C to C CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	1	0	0	0	0	0	0	1
17:15	1	0	0	0	0	0	0	1
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
P/TOT	2	0	0	0	0	0	0	2

SITE: 4 DATE: 13/10/2021

LOCATION: Marcham Road / Colwell Drive DAY: Wednesday

	TO ARM A								FROM ARM A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	51	17	5	1	0	0	1	75	67	25	0	1	0	1	0	94
07:15	94	28	2	2	0	1	2	129	93	26	3	0	0	0	0	122
07:30	108	30	3	1	0	0	0	142	127	27	6	0	1	0	0	161
07:45	136	31	6	0	1	2	2	178	126	25	4	1	0	4	0	160
08:00	145	22	7	4	0	1	2	181	126	31	5	1	0	3	2	168
08:15	135	25	2	3	0	1	1	167	150	15	4	1	0	2	2	174
08:30	122	13	5	4	0	2	2	148	133	14	5	5	2	1	0	160
08:45	118	22	4	4	0	0	0	148	145	16	3	2	1	0	1	168
09:00	113	24	4	4	0	0	1	146	136	18	4	3	0	1	1	163
09:15	91	16	4	2	1	0	0	114	116	20	5	1	0	3	1	146
09:30	89	18	3	3	3	0	0	116	99	14	3	2	0	0	1	119
09:45	96	15	3	3	0	1	0	118	92	18	1	5	0	1	0	117
P/TOT	1298	261	48	31	5	8	11	1662	1410	249	43	22	4	16	8	1752

	TO ARM A								FROM ARM A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	135	25	5	2	1	2	2	172	135	42	3	0	0	1	0	181
16:15	122	19	2	1	0	0	2	146	123	24	3	1	0	2	2	155
16:30	143	13	3	0	0	2	1	162	166	27	2	0	0	0	1	196
16:45	142	9	1	0	0	2	2	156	129	13	0	1	1	3	2	149
17:00	121	18	1	0	0	2	0	142	164	13	1	0	0	3	1	182
17:15	126	10	1	0	0	2	1	140	156	17	0	0	0	4	0	177
17:30	135	15	1	0	0	2	2	155	151	16	0	0	0	3	0	170
17:45	146	10	0	0	0	1	1	158	121	6	1	0	1	3	0	132
18:00	133	15	1	1	0	3	1	154	134	9	2	0	1	1	0	147
18:15	126	11	0	0	0	3	3	143	102	11	0	0	1	0	0	114
18:30	139	10	0	0	0	1	0	150	113	5	0	0	0	5	0	123
18:45	109	7	0	0	0	1	2	119	95	6	0	0	0	0	0	101
P/TOT	1577	162	15	4	1	21	17	1797	1589	189	12	2	4	25	6	1827

SITE: 4 DATE: 13/10/2021

LOCATION: Marcham Road / Colwell Drive DAY: Wednesday

	TO ARM B								FROM ARM B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	193	60	10	1	0	4	0	268	101	21	9	1	2	1	1	136
07:15	219	59	9	0	0	1	0	288	154	49	7	3	3	5	1	222
07:30	244	49	12	2	2	1	0	310	162	44	12	6	1	1	0	226
07:45	263	48	5	1	2	6	0	325	212	52	8	0	0	2	0	274
08:00	237	34	8	1	0	3	2	285	218	51	12	6	4	1	1	293
08:15	225	24	8	3	5	5	1	271	245	40	11	5	1	0	2	304
08:30	211	26	12	6	6	2	0	263	209	43	14	5	2	0	1	274
08:45	250	26	8	4	6	0	2	296	209	38	10	9	0	0	0	266
09:00	251	34	6	5	0	2	1	299	165	39	9	5	0	1	1	220
09:15	232	43	6	4	4	3	1	293	186	45	8	7	2	0	0	248
09:30	204	37	5	3	0	1	1	251	169	42	11	4	2	0	0	228
09:45	208	35	5	10	1	1	1	261	190	37	9	6	1	0	1	244
P/TOT	2737	475	94	40	26	29	9	3410	2220	501	120	57	18	11	8	2935

	TO ARM B								FROM ARM B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	240	45	5	1	2	3	0	296	271	41	4	2	4	2	3	327
16:15	216	31	8	1	3	2	0	261	239	37	7	1	1	2	3	290
16:30	243	40	3	1	2	4	0	293	262	32	7	0	0	1	1	303
16:45	218	31	6	1	0	5	0	261	298	30	6	0	1	4	1	340
17:00	229	27	5	0	0	2	0	263	251	41	7	0	1	4	1	305
17:15	229	25	3	0	0	3	0	260	271	20	2	0	0	4	1	298
17:30	256	17	5	0	2	1	1	282	282	24	4	0	1	4	4	319
17:45	258	17	3	0	3	4	1	286	303	21	1	0	2	1	2	330
18:00	234	21	2	0	1	3	2	263	272	21	2	1	0	8	0	304
18:15	208	17	3	0	0	2	1	231	278	25	2	0	0	5	4	314
18:30	194	15	0	0	1	3	0	213	248	24	1	0	0	0	0	273
18:45	190	14	2	0	1	2	0	209	250	14	1	1	2	4	3	275
P/TOT	2715	300	45	4	15	34	5	3118	3225	330	44	5	12	39	23	3678

SITE: 4 DATE: 13/10/2021

LOCATION: Marcham Road / Colwell Drive DAY: Wednesday

	TO ARM C								FROM ARM C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	78	16	4	0	2	1	0	101	154	47	10	0	0	3	0	214
07:15	111	29	8	1	3	4	1	157	177	41	9	0	0	1	2	230
07:30	103	24	8	5	1	1	0	142	166	32	5	2	1	1	0	207
07:45	131	30	4	0	0	2	0	167	192	32	3	0	3	4	2	236
08:00	151	43	8	2	4	2	1	211	189	17	6	0	0	2	2	216
08:15	186	18	12	2	1	0	3	222	151	12	7	2	5	4	1	182
08:30	148	35	9	1	2	0	0	195	139	17	7	1	4	3	1	172
08:45	149	22	8	4	1	0	0	184	163	16	7	1	6	0	1	194
09:00	121	18	7	1	0	1	0	148	184	19	4	2	0	1	0	210
09:15	132	31	9	5	1	2	0	180	153	25	6	3	4	2	0	193
09:30	123	26	13	1	0	0	0	163	148	25	7	1	1	1	0	183
09:45	135	28	8	3	1	1	1	177	157	23	6	5	1	2	1	195
P/TOT	1568	320	98	25	16	14	6	2047	1973	306	77	17	25	24	10	2432

	TO ARM C								FROM ARM C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	209	40	2	0	3	0	1	255	178	27	5	1	2	2	0	215
16:15	180	35	5	0	1	3	3	227	156	24	5	0	3	1	0	189
16:30	206	32	5	0	0	0	1	244	164	26	2	1	2	5	0	200
16:45	220	27	5	0	2	4	2	260	153	24	6	0	0	4	1	188
17:00	214	28	7	0	1	3	2	255	149	19	5	0	0	0	0	173
17:15	244	17	1	0	0	4	0	266	172	15	3	0	0	1	0	191
17:30	218	23	3	0	1	4	3	252	176	15	5	0	2	0	2	200
17:45	227	15	2	0	2	2	1	249	207	15	3	0	2	3	1	231
18:00	207	11	2	0	0	6	0	226	168	17	1	0	0	3	3	192
18:15	211	20	2	0	1	3	1	238	165	12	3	0	0	3	1	184
18:30	180	18	1	0	0	2	0	201	152	14	0	0	1	1	0	168
18:45	190	10	1	1	2	4	1	209	144	11	2	0	1	3	0	161
P/TOT	2506	276	36	1	13	35	15	2882	1984	219	40	2	13	26	8	2292

12115 / ABINGDON
OCTOBER 2021
CLASSIFIED TURNING COUNT

SITE: 4 DATE: 13/10/2021

LOCATION: Marcham Road / Colwell Drive DAY: Wednesday

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	322	93	19	2	2	5	1	444
07:15	424	116	19	3	3	6	3	574
07:30	455	103	23	8	3	2	0	594
07:45	530	109	15	1	3	10	2	670
08:00	533	99	23	7	4	6	5	677
08:15	546	67	22	8	6	6	5	660
08:30	481	74	26	11	8	4	2	606
08:45	517	70	20	12	7	0	2	628
09:00	485	76	17	10	0	3	2	593
09:15	455	90	19	11	6	5	1	587
09:30	416	81	21	7	3	1	1	530
09:45	439	78	16	16	2	3	2	556
P/TOT	5603	1056	240	96	47	51	26	7119

PEAK HOUR CALCULATION	
07:00 to 08:00	2282
07:15 to 08:15	2515
07:30 to 08:30	2601
07:45 to 08:45	**2613**
08:00 to 09:00	2571
08:15 to 09:15	2487
08:30 to 09:30	2414
08:45 to 09:45	2338
09:00 to 10:00	2266
PEAK VALUE	**2613**

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	584	110	12	3	6	5	3	723
16:15	518	85	15	2	4	5	5	634
16:30	592	85	11	1	2	6	2	699
16:45	580	67	12	1	2	11	4	677
17:00	564	73	13	0	1	7	2	660
17:15	599	52	5	0	0	9	1	666
17:30	609	55	9	0	3	7	6	689
17:45	631	42	5	0	5	7	3	693
18:00	574	47	5	1	1	12	3	643
18:15	545	48	5	0	1	8	5	612
18:30	513	43	1	0	1	6	0	564
18:45	489	31	3	1	3	7	3	537
P/TOT	6798	738	96	9	29	90	37	7797

PEAK HOUR CALCULATION	
16:00 to 17:00	**2733**
16:15 to 17:15	2670
16:30 to 17:30	2702
16:45 to 17:45	2692
17:00 to 18:00	2708
17:15 to 18:15	2691
17:30 to 18:30	2637
17:45 to 18:45	2512
18:00 to 19:00	2356
PEAK VALUE	**2733**

SITE: 5 DATE: 13/10/2021

LOCATION: Marcham Road / Nuffield Way DAY: Wednesday

	A to D								A to C							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	6	4	1	1	0	0	0	12	2	1	0	0	0	0	0	3
07:15	9	5	2	0	0	1	1	18	0	2	0	0	0	0	0	2
07:30	4	3	2	0	0	0	0	9	1	2	1	0	0	0	0	4
07:45	6	10	1	0	0	0	0	17	2	2	0	0	0	3	0	7
08:00	18	14	2	0	0	1	0	35	1	1	0	0	0	0	0	2
08:15	13	11	0	0	0	0	0	24	2	0	0	0	0	0	0	2
08:30	12	11	1	0	0	0	0	24	4	2	0	0	0	0	0	6
08:45	15	10	3	2	0	0	0	30	5	0	0	0	0	0	0	5
09:00	15	13	4	0	0	1	0	33	4	0	0	0	0	0	0	4
09:15	28	11	1	0	0	0	1	41	5	3	0	0	0	0	0	8
09:30	28	13	0	0	0	0	0	41	6	2	0	0	0	0	0	8
09:45	32	8	1	0	0	0	1	42	6	1	1	0	0	0	0	8
P/TOT	186	113	18	3	0	3	3	326	38	16	2	0	0	3	0	59

	A to D								A to C							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	70	8	0	0	0	0	1	79	7	1	0	0	0	0	0	8
16:15	68	8	1	0	0	1	4	82	15	0	1	0	0	0	0	16
16:30	51	6	0	0	0	1	0	58	12	1	0	0	0	0	0	13
16:45	63	9	0	0	0	2	1	75	5	0	0	0	0	0	0	5
17:00	39	5	1	0	1	1	2	49	6	2	0	0	0	0	0	8
17:15	67	6	0	0	0	4	0	77	7	2	0	0	0	0	0	9
17:30	41	6	0	0	0	0	4	51	7	0	0	0	0	0	0	7
17:45	41	6	0	0	0	0	0	47	9	1	1	0	0	3	0	14
18:00	70	4	0	0	0	1	2	77	16	0	0	0	0	1	0	17
18:15	43	8	1	0	0	1	1	54	10	0	0	0	0	1	0	11
18:30	34	5	0	0	0	0	0	39	12	0	0	0	0	1	0	13
18:45	51	2	0	0	0	0	0	53	5	0	0	0	0	0	0	5
P/TOT	638	73	3	0	1	11	15	741	111	7	2	0	0	6	0	126

SITE: 5 DATE: 13/10/2021

LOCATION: Marcham Road / Nuffield Way DAY: Wednesday

	A to B								A to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	5	5	1	2	0	0	0	13	0	0	0	0	0	0	0	0
07:15	3	10	3	3	0	0	0	19	0	0	0	0	0	0	0	0
07:30	6	5	0	0	0	0	0	11	0	0	0	0	0	0	0	0
07:45	7	6	0	1	0	0	0	14	0	0	0	0	0	0	0	0
08:00	11	7	2	1	0	0	0	21	0	0	0	0	0	0	0	0
08:15	9	8	2	1	0	0	0	20	0	0	0	0	0	0	0	0
08:30	10	12	2	2	0	0	0	26	0	0	0	0	0	0	0	0
08:45	12	9	3	3	0	0	0	27	0	0	0	0	0	0	0	0
09:00	10	2	2	3	0	0	0	17	0	0	0	0	0	0	0	0
09:15	19	9	2	0	0	0	0	30	0	0	0	0	0	0	0	0
09:30	19	14	2	2	0	1	0	38	0	0	0	0	0	0	0	0
09:45	11	7	3	1	2	2	0	26	0	0	0	0	0	0	0	0
P/TOT	122	94	22	19	2	3	0	262	0	0	0	0	0	0	0	0

	A to B								A to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	75	9	0	1	0	0	0	85	0	0	0	0	0	0	0	0
16:15	65	11	0	1	0	0	0	77	0	0	0	0	0	0	0	0
16:30	62	7	1	1	0	1	0	72	0	0	0	0	0	0	0	0
16:45	56	17	2	0	0	0	0	75	0	0	0	0	0	0	0	0
17:00	61	8	0	2	0	3	0	74	0	0	0	0	0	0	0	0
17:15	57	11	1	0	0	1	0	70	0	0	0	0	0	0	0	0
17:30	53	3	0	0	0	0	0	56	0	0	0	0	0	0	0	0
17:45	55	3	1	3	0	0	0	62	0	0	0	0	0	0	0	0
18:00	64	3	1	1	0	0	0	69	0	0	0	0	0	0	0	0
18:15	35	1	0	0	0	1	0	37	0	0	0	0	0	0	0	0
18:30	29	2	0	0	0	0	0	31	0	0	0	0	0	0	0	0
18:45	27	5	0	0	0	1	0	33	0	0	0	0	0	0	0	0
P/TOT	639	80	6	9	0	7	0	741	0	0	0	0	0	0	0	0

SITE: 5 DATE: 13/10/2021

LOCATION: Marcham Road / Nuffield Way DAY: Wednesday

	B to A								B to D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	35	11	1	0	0	0	0	47	79	17	6	1	2	1	0	106
07:15	33	6	1	2	0	1	0	43	122	38	5	2	2	4	0	173
07:30	64	10	2	1	0	1	1	79	138	38	9	6	1	0	0	192
07:45	72	15	1	2	0	1	1	92	185	40	7	0	0	2	0	234
08:00	58	23	4	3	0	2	1	91	170	29	6	6	4	0	0	215
08:15	39	13	2	3	0	2	0	59	185	25	4	4	1	0	0	219
08:30	52	12	3	1	0	1	0	69	176	30	11	6	2	0	0	225
08:45	48	11	4	2	0	2	0	67	166	21	7	6	0	0	0	200
09:00	41	17	2	2	0	0	0	62	134	24	4	5	0	0	0	167
09:15	32	9	1	0	0	0	0	42	116	26	7	6	2	0	0	157
09:30	34	10	4	1	0	1	0	50	92	23	9	4	0	0	0	128
09:45	30	9	2	2	0	0	0	43	98	29	7	3	1	0	0	138
P/TOT	538	146	27	19	0	11	3	744	1661	340	82	49	15	7	0	2154

	B to A								B to D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	32	6	3	0	0	1	1	43	142	27	5	2	4	1	1	182
16:15	25	11	2	0	0	0	0	38	124	25	5	0	0	1	0	155
16:30	34	9	0	0	0	1	0	44	146	25	5	0	1	0	0	177
16:45	25	6	2	4	1	0	1	39	173	19	4	0	1	2	0	199
17:00	28	8	0	3	0	0	1	40	139	27	5	0	0	1	0	172
17:15	19	3	1	2	0	0	0	25	133	13	2	0	0	1	0	149
17:30	20	3	0	2	0	0	0	25	176	10	3	0	1	1	1	192
17:45	29	2	1	1	0	0	0	33	186	8	1	0	2	1	0	198
18:00	31	3	1	0	0	0	0	35	138	15	0	1	0	2	0	156
18:15	20	2	0	1	0	0	0	23	162	13	2	0	0	1	0	178
18:30	20	4	0	0	0	0	0	24	126	19	1	0	1	0	0	147
18:45	30	1	0	0	0	0	0	31	144	14	0	1	1	3	1	164
P/TOT	313	58	10	13	1	2	3	400	1789	215	33	4	11	14	3	2069

SITE: 5 DATE: 13/10/2021

LOCATION: Marcham Road / Nuffield Way DAY: Wednesday

	B to C								B to B							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	20	8	2	2	0	0	0	32	0	0	0	0	0	0	0	0
07:15	24	4	1	0	0	0	0	29	0	0	0	0	0	0	0	0
07:30	25	8	2	0	0	0	0	35	1	0	0	0	0	0	0	1
07:45	25	9	1	0	0	0	0	35	0	0	0	0	0	0	0	0
08:00	36	4	3	0	0	0	0	43	0	0	0	0	0	0	0	0
08:15	33	9	1	0	0	0	0	43	1	0	0	0	0	0	0	1
08:30	22	7	3	0	0	0	0	32	0	0	0	0	0	0	0	0
08:45	27	6	0	0	0	2	0	35	0	1	0	0	0	0	0	1
09:00	39	1	0	1	0	0	0	41	0	0	0	0	0	0	0	0
09:15	27	8	1	0	0	1	0	37	0	0	0	0	0	0	0	0
09:30	27	5	0	2	0	0	0	34	1	0	1	0	0	0	0	2
09:45	37	4	1	1	0	0	0	43	0	0	0	0	0	0	0	0
P/TOT	342	73	15	6	0	3	0	439	3	1	1	0	0	0	0	5

	B to C								B to B							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	31	7	0	1	0	0	0	39	0	0	0	0	0	0	0	0
16:15	42	5	0	0	0	0	0	47	1	1	0	0	0	0	0	2
16:30	46	5	1	0	1	0	0	53	1	0	0	0	0	0	0	1
16:45	33	9	1	0	0	0	0	43	2	0	0	0	0	0	0	2
17:00	59	5	1	0	0	0	0	65	3	0	0	0	0	0	0	3
17:15	47	5	3	0	0	0	0	55	2	0	0	0	0	0	0	2
17:30	40	3	0	0	1	0	0	44	0	0	0	0	0	0	0	0
17:45	37	3	2	0	2	0	0	44	0	0	0	0	0	0	0	0
18:00	36	4	3	0	0	0	0	43	1	0	0	0	0	0	0	1
18:15	54	1	1	0	0	0	0	56	0	0	0	0	0	0	0	0
18:30	40	1	1	0	0	0	0	42	1	0	0	0	0	0	0	1
18:45	29	3	0	1	0	1	0	34	0	0	0	0	0	0	0	0
P/TOT	494	51	13	2	4	1	0	565	11	1	0	0	0	0	0	12

SITE: 5 DATE: 13/10/2021

LOCATION: Marcham Road / Nuffield Way DAY: Wednesday

	C to B								C to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	19	9	4	1	0	1	0	34	6	0	1	0	0	0	0	7
07:15	32	10	1	2	0	0	0	45	9	2	0	0	0	0	0	11
07:30	21	5	2	0	0	0	0	28	12	2	0	0	0	0	0	14
07:45	27	9	3	0	0	0	0	39	12	8	0	0	0	0	0	20
08:00	23	6	0	1	0	0	0	30	9	3	1	0	0	0	1	14
08:15	22	7	4	1	0	0	0	34	14	3	1	0	0	0	0	18
08:30	36	10	1	0	0	0	0	47	10	0	3	0	0	0	0	13
08:45	29	7	0	1	0	1	0	38	8	3	0	0	0	0	0	11
09:00	30	6	6	0	1	1	0	44	7	4	0	0	0	0	0	11
09:15	31	4	1	1	0	1	0	38	15	3	0	0	0	0	0	18
09:30	26	8	0	0	0	0	0	34	11	1	0	0	0	1	0	13
09:45	29	6	2	2	0	0	0	39	12	0	0	0	0	0	0	12
P/TOT	325	87	24	9	1	4	0	450	125	29	6	0	0	1	1	162

	C to B								C to A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	51	3	0	0	0	1	2	57	4	0	0	0	0	0	0	4
16:15	59	7	2	0	0	0	0	68	5	0	0	0	0	0	0	5
16:30	51	6	1	1	0	0	0	59	1	1	0	0	0	0	1	3
16:45	48	7	0	1	1	3	0	60	7	2	0	0	0	0	0	9
17:00	54	5	0	0	0	0	0	59	6	2	0	0	0	0	0	8
17:15	57	7	0	0	0	0	0	64	8	1	0	0	0	0	0	9
17:30	54	5	0	0	0	0	0	59	8	1	0	0	0	0	0	9
17:45	49	3	2	0	0	0	0	54	1	1	0	0	0	0	1	3
18:00	52	3	6	1	0	0	0	62	11	0	0	0	0	0	0	11
18:15	50	4	2	0	1	0	0	57	6	0	1	0	0	0	0	7
18:30	45	3	0	0	1	0	0	49	7	0	0	0	0	0	0	7
18:45	37	4	1	0	0	2	0	44	6	0	0	0	0	0	0	6
P/TOT	607	57	14	3	3	6	2	692	70	8	1	0	0	0	2	81

SITE: 5 DATE: 13/10/2021

LOCATION: Marcham Road / Nuffield Way DAY: Wednesday

	C to D								C to C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	21	4	1	0	1	0	0	27	0	0	0	0	0	0	0	0
07:15	23	10	0	0	0	0	0	33	0	0	0	0	0	0	0	0
07:30	16	7	1	0	0	1	0	25	0	0	0	0	0	0	0	0
07:45	21	2	1	0	0	0	0	24	0	0	0	0	0	0	0	0
08:00	30	7	4	1	0	0	0	42	0	0	0	0	0	0	0	0
08:15	26	2	6	0	0	0	0	34	0	0	0	0	0	0	0	0
08:30	23	5	1	0	0	0	0	29	0	0	0	0	0	0	0	0
08:45	23	4	0	0	0	0	0	27	0	0	0	0	0	0	0	0
09:00	23	1	1	0	0	0	0	25	0	0	0	0	0	0	0	0
09:15	31	4	0	1	1	0	0	37	0	0	0	0	0	0	0	0
09:30	47	3	1	0	1	0	0	52	0	0	0	0	0	0	0	0
09:45	53	5	1	3	0	0	0	62	0	0	0	0	0	0	0	0
P/TOT	337	54	17	5	3	1	0	417	0	0	0	0	0	0	0	0

	C to D								C to C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	52	6	0	1	0	1	0	60	0	0	0	0	0	0	0	0
16:15	63	2	1	0	0	0	0	66	0	0	0	0	0	0	0	0
16:30	46	3	1	0	0	0	0	50	0	0	0	0	0	0	0	0
16:45	56	2	3	0	0	0	0	61	0	0	0	0	0	0	0	0
17:00	61	10	0	0	0	1	0	72	0	0	0	0	0	0	0	0
17:15	74	3	0	0	0	1	0	78	0	0	0	0	0	0	0	0
17:30	64	8	1	0	0	0	0	73	0	0	0	0	0	0	0	0
17:45	70	4	0	0	0	0	0	74	0	0	0	0	0	0	0	0
18:00	71	2	2	0	0	5	0	80	0	0	0	0	0	0	0	0
18:15	72	3	0	0	0	3	0	78	0	0	0	0	0	0	0	0
18:30	66	3	0	0	0	0	0	69	0	0	0	0	0	0	0	0
18:45	54	1	0	0	0	3	0	58	0	0	0	0	0	0	0	0
P/TOT	749	47	8	1	0	14	0	819	0	0	0	0	0	0	0	0

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LOCATION: Marcham Road / Nuffield Way DAY: Wednesday

	D to C								D to B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	28	7	1	1	0	0	1	38	147	47	9	0	0	3	0	206
07:15	31	15	2	0	0	1	0	49	160	38	7	0	0	0	0	205
07:30	37	6	3	0	0	0	0	46	171	29	8	2	2	0	0	212
07:45	38	8	0	1	0	0	1	48	168	37	5	0	2	2	0	214
08:00	29	6	3	0	0	0	0	38	169	21	4	1	0	1	0	196
08:15	32	7	1	0	0	0	0	40	151	8	7	2	3	3	0	174
08:30	44	4	1	1	1	0	0	51	135	20	9	5	6	2	0	177
08:45	52	6	0	1	1	0	0	60	140	11	7	4	4	0	0	166
09:00	68	5	0	1	0	1	0	75	130	22	5	4	1	0	0	162
09:15	65	10	1	0	0	1	1	78	128	20	5	4	4	1	0	162
09:30	51	5	0	0	0	0	0	56	103	22	4	3	0	0	0	132
09:45	74	5	1	1	0	1	0	82	79	20	4	9	1	0	1	114
P/TOT	549	84	13	6	2	4	3	661	1681	295	74	34	23	12	1	2120

	D to C								D to B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	47	7	3	0	0	1	0	58	153	35	2	1	2	3	0	196
16:15	62	5	2	0	0	0	0	69	119	25	5	1	2	1	0	153
16:30	62	10	1	0	0	3	1	77	148	22	3	1	2	1	0	177
16:45	60	6	3	0	0	1	0	70	128	26	2	1	1	3	0	161
17:00	54	4	1	0	0	0	0	59	145	20	3	0	0	2	0	170
17:15	60	6	0	0	0	1	0	67	145	14	3	0	0	2	0	164
17:30	64	5	0	0	0	0	0	69	151	11	5	0	2	1	0	170
17:45	69	3	1	0	0	2	0	75	152	15	2	0	2	1	0	172
18:00	71	2	1	0	0	0	1	75	124	13	0	0	2	3	0	142
18:15	55	5	1	0	0	0	0	61	125	9	2	0	0	2	1	139
18:30	59	4	0	0	0	2	0	65	101	7	1	0	1	0	1	111
18:45	56	3	0	0	0	2	0	61	111	7	2	0	1	0	0	121
P/TOT	719	60	13	0	0	12	2	806	1602	204	30	4	15	19	2	1876

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LOCATION: Marcham Road / Nuffield Way DAY: Wednesday

	D to A								D to D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	9	11	0	0	0	1	0	21	7	0	0	0	0	0	0	7
07:15	16	8	0	0	0	0	0	24	3	0	0	0	0	0	0	3
07:30	27	13	1	0	0	1	0	42	7	0	0	0	0	0	0	7
07:45	38	5	0	0	0	1	0	44	8	0	0	0	0	0	0	8
08:00	31	6	0	0	0	2	0	39	14	1	1	0	0	0	0	16
08:15	29	9	0	0	1	2	1	42	12	0	0	0	0	0	0	12
08:30	23	4	2	0	0	0	0	29	12	0	0	0	0	0	0	12
08:45	46	5	1	0	0	0	1	53	15	1	0	0	0	0	0	16
09:00	40	12	0	0	0	1	0	53	6	1	1	0	0	0	0	8
09:15	32	11	0	0	0	1	0	44	8	2	0	0	0	0	0	10
09:30	33	9	1	0	0	1	1	45	7	0	0	0	0	0	0	7
09:45	37	10	0	0	0	0	0	47	15	3	0	0	0	0	0	18
P/TOT	361	103	5	0	1	10	3	483	114	8	2	0	0	0	0	124

	D to A								D to D							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	36	5	0	0	0	0	0	41	4	1	0	0	0	0	0	5
16:15	38	4	0	0	0	1	0	43	5	0	0	0	0	0	0	5
16:30	36	5	0	0	0	0	1	42	0	0	0	0	0	0	0	0
16:45	32	3	1	0	0	1	0	37	2	0	0	0	0	0	0	2
17:00	24	4	1	0	0	0	0	29	2	0	0	0	0	0	0	2
17:15	28	5	0	0	0	0	0	33	5	0	0	0	0	0	0	5
17:30	33	2	0	0	0	0	1	36	5	1	0	0	0	0	0	6
17:45	41	2	0	0	0	1	0	44	3	0	0	0	0	0	0	3
18:00	31	8	0	0	0	0	1	40	4	0	0	0	0	0	0	4
18:15	33	2	0	0	0	0	0	35	6	0	0	0	0	0	0	6
18:30	32	4	0	0	0	1	0	37	2	0	0	0	0	0	0	2
18:45	30	2	0	0	0	0	0	32	2	0	0	0	0	0	0	2
P/TOT	394	46	2	0	0	4	3	449	40	2	0	0	0	0	0	42

SITE: 5 DATE: 13/10/2021

LOCATION: Marcham Road / Nuffield Way DAY: Wednesday

	TO ARM A								FROM ARM A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	50	22	2	0	0	1	0	75	13	10	2	3	0	0	0	28
07:15	58	16	1	2	0	1	0	78	12	17	5	3	0	1	1	39
07:30	103	25	3	1	0	2	1	135	11	10	3	0	0	0	0	24
07:45	122	28	1	2	0	2	1	156	15	18	1	1	0	3	0	38
08:00	98	32	5	3	0	4	2	144	30	22	4	1	0	1	0	58
08:15	82	25	3	3	1	4	1	119	24	19	2	1	0	0	0	46
08:30	85	16	8	1	0	1	0	111	26	25	3	2	0	0	0	56
08:45	102	19	5	2	0	2	1	131	32	19	6	5	0	0	0	62
09:00	88	33	2	2	0	1	0	126	29	15	6	3	0	1	0	54
09:15	79	23	1	0	0	1	0	104	52	23	3	0	0	0	1	79
09:30	78	20	5	1	0	3	1	108	53	29	2	2	0	1	0	87
09:45	79	19	2	2	0	0	0	102	49	16	5	1	2	2	1	76
P/TOT	1024	278	38	19	1	22	7	1389	346	223	42	22	2	9	3	647

	TO ARM A								FROM ARM A							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	72	11	3	0	0	1	1	88	152	18	0	1	0	0	1	172
16:15	68	15	2	0	0	1	0	86	148	19	2	1	0	1	4	175
16:30	71	15	0	0	0	1	2	89	125	14	1	1	0	2	0	143
16:45	64	11	3	4	1	1	1	85	124	26	2	0	0	2	1	155
17:00	58	14	1	3	0	0	1	77	106	15	1	2	1	4	2	131
17:15	55	9	1	2	0	0	0	67	131	19	1	0	0	5	0	156
17:30	61	6	0	2	0	0	1	70	101	9	0	0	0	0	4	114
17:45	71	5	1	1	0	1	1	80	105	10	2	3	0	3	0	123
18:00	73	11	1	0	0	0	1	86	150	7	1	1	0	2	2	163
18:15	59	4	1	1	0	0	0	65	88	9	1	0	0	3	1	102
18:30	59	8	0	0	0	1	0	68	75	7	0	0	0	1	0	83
18:45	66	3	0	0	0	0	0	69	83	7	0	0	0	1	0	91
P/TOT	777	112	13	13	1	6	8	930	1388	160	11	9	1	24	15	1608

SITE: 5 DATE: 13/10/2021

LOCATION: Marcham Road / Nuffield Way DAY: Wednesday

	TO ARM B								FROM ARM B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	171	61	14	3	0	4	0	253	134	36	9	3	2	1	0	185
07:15	195	58	11	5	0	0	0	269	179	48	7	4	2	5	0	245
07:30	199	39	10	2	2	0	0	252	228	56	13	7	1	1	1	307
07:45	202	52	8	1	2	2	0	267	282	64	9	2	0	3	1	361
08:00	203	34	6	3	0	1	0	247	264	56	13	9	4	2	1	349
08:15	183	23	13	4	3	3	0	229	258	47	7	7	1	2	0	322
08:30	181	42	12	7	6	2	0	250	250	49	17	7	2	1	0	326
08:45	181	28	10	8	4	1	0	232	241	39	11	8	0	4	0	303
09:00	170	30	13	7	2	1	0	223	214	42	6	8	0	0	0	270
09:15	178	33	8	5	4	2	0	230	175	43	9	6	2	1	0	236
09:30	149	44	7	5	0	1	0	206	154	38	14	7	0	1	0	214
09:45	119	33	9	12	3	2	1	179	165	42	10	6	1	0	0	224
P/TOT	2131	477	121	62	26	19	1	2837	2544	560	125	74	15	21	3	3342

	TO ARM B								FROM ARM B							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	279	47	2	2	2	4	2	338	205	40	8	3	4	2	2	264
16:15	244	44	7	2	2	1	0	300	192	42	7	0	0	1	0	242
16:30	262	35	5	3	2	2	0	309	227	39	6	0	2	1	0	275
16:45	234	50	4	2	2	6	0	298	233	34	7	4	2	2	1	283
17:00	263	33	3	2	0	5	0	306	229	40	6	3	0	1	1	280
17:15	261	32	4	0	0	3	0	300	201	21	6	2	0	1	0	231
17:30	258	19	5	0	2	1	0	285	236	16	3	2	2	1	1	261
17:45	256	21	5	3	2	1	0	288	252	13	4	1	4	1	0	275
18:00	241	19	7	2	2	3	0	274	206	22	4	1	0	2	0	235
18:15	210	14	4	0	1	3	1	233	236	16	3	1	0	1	0	257
18:30	176	12	1	0	2	0	1	192	187	24	2	0	1	0	0	214
18:45	175	16	3	0	1	3	0	198	203	18	0	2	1	4	1	229
P/TOT	2859	342	50	16	18	32	4	3321	2607	325	56	19	16	17	6	3046

SITE: 5 DATE: 13/10/2021

LOCATION: Marcham Road / Nuffield Way DAY: Wednesday

	TO ARM C								FROM ARM C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
07:00	50	16	3	3	0	0	1	73	46	13	6	1	1	1	0	68
07:15	55	21	3	0	0	1	0	80	64	22	1	2	0	0	0	89
07:30	63	16	6	0	0	0	0	85	49	14	3	0	0	1	0	67
07:45	65	19	1	1	0	3	1	90	60	19	4	0	0	0	0	83
08:00	66	11	6	0	0	0	0	83	62	16	5	2	0	0	1	86
08:15	67	16	2	0	0	0	0	85	62	12	11	1	0	0	0	86
08:30	70	13	4	1	1	0	0	89	69	15	5	0	0	0	0	89
08:45	84	12	0	1	1	2	0	100	60	14	0	1	0	1	0	76
09:00	111	6	0	2	0	1	0	120	60	11	7	0	1	1	0	80
09:15	97	21	2	0	0	2	1	123	77	11	1	2	1	1	0	93
09:30	84	12	0	2	0	0	0	98	84	12	1	0	1	1	0	99
09:45	117	10	3	2	0	1	0	133	94	11	3	5	0	0	0	113
P/TOT	929	173	30	12	2	10	3	1159	787	170	47	14	4	6	1	1029

	TO ARM C								FROM ARM C							
TIME	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**MCL**	**PCL**	**TOT**
16:00	85	15	3	1	0	1	0	105	107	9	0	1	0	2	2	121
16:15	119	10	3	0	0	0	0	132	127	9	3	0	0	0	0	139
16:30	120	16	2	0	1	3	1	143	98	10	2	1	0	0	1	112
16:45	98	15	4	0	0	1	0	118	111	11	3	1	1	3	0	130
17:00	119	11	2	0	0	0	0	132	121	17	0	0	0	1	0	139
17:15	114	13	3	0	0	1	0	131	139	11	0	0	0	1	0	151
17:30	111	8	0	0	1	0	0	120	126	14	1	0	0	0	0	141
17:45	115	7	4	0	2	5	0	133	120	8	2	0	0	0	1	131
18:00	123	6	4	0	0	1	1	135	134	5	8	1	0	5	0	153
18:15	119	6	2	0	0	1	0	128	128	7	3	0	1	3	0	142
18:30	111	5	1	0	0	3	0	120	118	6	0	0	1	0	0	125
18:45	90	6	0	1	0	3	0	100	97	5	1	0	0	5	0	108
P/TOT	1324	118	28	2	4	19	2	1497	1426	112	23	4	3	20	4	1592

12115 / ABINGDON
OCTOBER 2021
CLASSIFIED TURNING COUNT

SITE: 5 DATE: 13/10/2021

LOCATION: Marcham Road / Nuffield Way DAY: Wednesday

	TO ARM D								FROM ARM D							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	113	25	8	2	3	1	0	152	191	65	10	1	0	4	1	272
07:15	157	53	7	2	2	5	1	227	210	61	9	0	0	1	0	281
07:30	165	48	12	6	1	1	0	233	242	48	12	2	2	1	0	307
07:45	220	52	9	0	0	2	0	283	252	50	5	1	2	3	1	314
08:00	232	51	13	7	4	1	0	308	243	34	8	1	0	3	0	289
08:15	236	38	10	4	1	0	0	289	224	24	8	2	4	5	1	268
08:30	223	46	13	6	2	0	0	290	214	28	12	6	7	2	0	269
08:45	219	36	10	8	0	0	0	273	253	23	8	5	5	0	1	295
09:00	178	39	10	5	0	1	0	233	244	40	6	5	1	2	0	298
09:15	183	43	8	7	3	0	1	245	233	43	6	4	4	3	1	294
09:30	174	39	10	4	1	0	0	228	194	36	5	3	0	1	1	240
09:45	198	45	9	6	1	0	1	260	205	38	5	10	1	1	1	261
P/TOT	2298	515	119	57	18	11	3	3021	2705	490	94	40	26	26	7	3388

	TO ARM D								FROM ARM D							
TIME	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT	CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	268	42	5	3	4	2	2	326	240	48	5	1	2	4	0	300
16:15	260	35	7	0	0	2	4	308	224	34	7	1	2	2	0	270
16:30	243	34	6	0	1	1	0	285	246	37	4	1	2	4	2	296
16:45	294	30	7	0	1	4	1	337	222	35	6	1	1	5	0	270
17:00	241	42	6	0	1	3	2	295	225	28	5	0	0	2	0	260
17:15	279	22	2	0	0	6	0	309	238	25	3	0	0	3	0	269
17:30	286	25	4	0	1	1	5	322	253	19	5	0	2	1	1	281
17:45	300	18	1	0	2	1	0	322	265	20	3	0	2	4	0	294
18:00	283	21	2	1	0	8	2	317	230	23	1	0	2	3	2	261
18:15	283	24	3	0	0	5	1	316	219	16	3	0	0	2	1	241
18:30	228	27	1	0	1	0	0	257	194	15	1	0	1	3	1	215
18:45	251	17	0	1	1	6	1	277	199	12	2	0	1	2	0	216
P/TOT	3216	337	44	5	12	39	18	3671	2755	312	45	4	15	35	7	3173

12115 / ABINGDON
OCTOBER 2021
CLASSIFIED TURNING COUNT

SITE: 5 DATE: 13/10/2021

LOCATION: Marcham Road / Nuffield Way DAY: Wednesday

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
07:00	384	124	27	8	3	6	1	553
07:15	465	148	22	9	2	7	1	654
07:30	530	128	31	9	3	3	1	705
07:45	609	151	19	4	2	9	2	796
08:00	599	128	30	13	4	6	2	782
08:15	568	102	28	11	5	7	1	722
08:30	559	117	37	15	9	3	0	740
08:45	586	95	25	19	5	5	1	736
09:00	547	108	25	16	2	4	0	702
09:15	537	120	19	12	7	5	2	702
09:30	485	115	22	12	1	4	1	640
09:45	513	107	23	22	4	3	2	674
P/TOT	6382	1443	308	150	47	62	14	8406

PEAK HOUR CALCULATION	
07:00 to 08:00	2708
07:15 to 08:15	2937
07:30 to 08:30	3005
07:45 to 08:45	**3040**
08:00 to 09:00	2980
08:15 to 09:15	2900
08:30 to 09:30	2880
08:45 to 09:45	2780
09:00 to 10:00	2718
PEAK VALUE	**3040**

TIME	JUNCTION TOTAL CAR	LGV	OGV1	OGV2	PSV	MCL	PCL	TOT
16:00	704	115	13	6	6	8	5	857
16:15	691	104	19	2	2	4	4	826
16:30	696	100	13	3	4	7	3	826
16:45	690	106	18	6	4	12	2	838
17:00	681	100	12	5	1	8	3	810
17:15	709	76	10	2	0	10	0	807
17:30	716	58	9	2	4	2	6	797
17:45	742	51	11	4	6	8	1	823
18:00	720	57	14	3	2	12	4	812
18:15	671	48	10	1	1	9	2	742
18:30	574	52	3	0	3	4	1	637
18:45	582	42	3	2	2	12	1	644
P/TOT	8176	909	135	36	35	96	32	9419

PEAK HOUR CALCULATION	
16:00 to 17:00	**3347**
16:15 to 17:15	3300
16:30 to 17:30	3281
16:45 to 17:45	3252
17:00 to 18:00	3237
17:15 to 18:15	3239
17:30 to 18:30	3174
17:45 to 18:45	3014
18:00 to 19:00	2835
PEAK VALUE	**3347**

SITE: 3 DATE: 13/10/2021

LOCATION: Ock Street / Marcham Road / B4017 / Spring Road DAY: Wednesday

Notes: All queues are measured in vehicle numbers on the 5-minute interval.
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalised, queues are taken at the end of the red phase nearest to the time interval.

	ARM A	ARM B		ARM C	ARM D	
TIME	LANE 1	LANE 1	LANE 2	LANE 1	LANE 1	LANE 2
07:00	0	0	0	0	0	0
07:05	0	0	0	4	0	0
07:10	0	0	0	0	0	0
07:15	0	0	0	2	0	0
07:20	0	0	0	0	0	0
07:25	0	0	0	11	0	0
07:30	0	0	0	0	**4**	0
07:35	0	0	0	0	0	0
07:40	2	0	0	6	0	1
07:45	0	0	0	0	0	0
07:50	0	0	0	0	0	0
07:55	0	0	0	0	1	1
08:00	2	0	0	0	0	0
08:05	0	0	0	11	0	0
08:10	0	0	0	0	0	0
08:15	0	**6**	0	5	0	0
08:20	0	2	1	0	0	0
08:25	2	0	0	23	3	0
08:30	7	1	**3**	16	0	4
08:35	**13**	5	0	11	0	1
08:40	0	0	0	25	0	3
08:45	1	0	0	25	0	4
08:50	9	0	0	24	0	**13**
08:55	0	0	0	**27**	0	0
09:00	0	0	0	8	1	2
09:05	0	0	0	0	0	0
09:10	0	0	0	0	0	0
09:15	0	0	**3**	0	0	3
09:20	3	0	0	0	0	0
09:25	0	0	0	0	1	0
09:30	2	0	0	0	0	0
09:35	0	0	0	0	0	0
09:40	5	0	0	10	0	2
09:45	0	0	0	0	0	0
09:50	0	0	1	0	0	0
09:55	1	0	0	0	0	6
10:00	2	0	2	0	0	0
MAX QUEUE	**13**	**6**	**3**	**27**	**4**	**13**

SITE: 3 DATE: 13/10/2021

LOCATION: Ock Street / Marcham Road / B4017 / Spring Road DAY: Wednesday

Notes: All queues are measured in vehicle numbers on the 5-minute interval.
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalised, queues are taken at the end of the red phase nearest to the time interval.

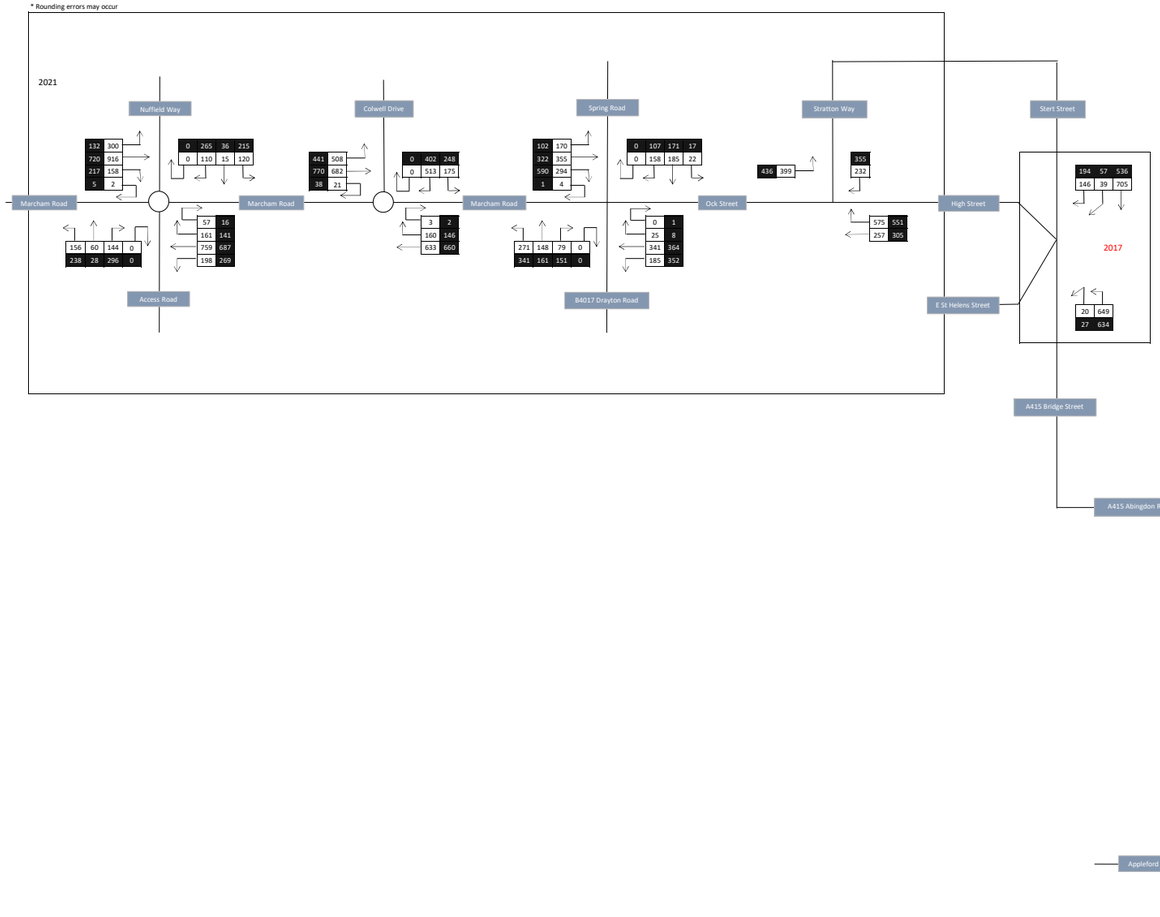
	ARM A	ARM B		ARM C	ARM D	
TIME	LANE 1	LANE 1	LANE 2	LANE 1	LANE 1	LANE 2
16:00	7	1	3	0	0	0
16:05	1	0	0	0	2	3
16:10	3	0	0	3	0	0
16:15	0	0	10	0	0	7
16:20	0	0	2	12	0	2
16:25	5	**3**	6	0	0	0
16:30	0	0	0	0	3	7
16:35	9	0	8	0	0	0
16:40	12	2	8	0	0	0
16:45	16	1	2	0	1	0
16:50	11	0	0	0	**12**	10
16:55	16	0	6	0	8	5
17:00	14	0	0	0	10	10
17:05	0	0	0	0	0	0
17:10	0	0	4	0	0	0
17:15	9	1	0	0	3	0
17:20	12	0	0	0	2	13
17:25	**20**	0	0	**14**	0	0
17:30	10	0	**12**	0	7	**34**
17:35	11	0	0	0	7	13
17:40	17	0	3	2	2	3
17:45	8	0	0	3	0	10
17:50	0	1	1	10	1	17
17:55	6	0	0	11	0	0
18:00	2	0	6	0	0	1
18:05	3	0	0	0	2	3
18:10	1	0	4	12	0	1
18:15	2	0	0	0	0	0
18:20	3	0	0	0	0	0
18:25	0	0	0	2	0	0
18:30	3	0	0	0	0	4
18:35	0	0	0	0	1	5
18:40	4	0	0	0	0	2
18:45	0	0	0	0	0	0
18:50	1	0	5	2	0	0
18:55	0	2	0	0	0	2
19:00	0	0	0	0	0	0
MAX QUEUE	**20**	**3**	**12**	**14**	**12**	**34**

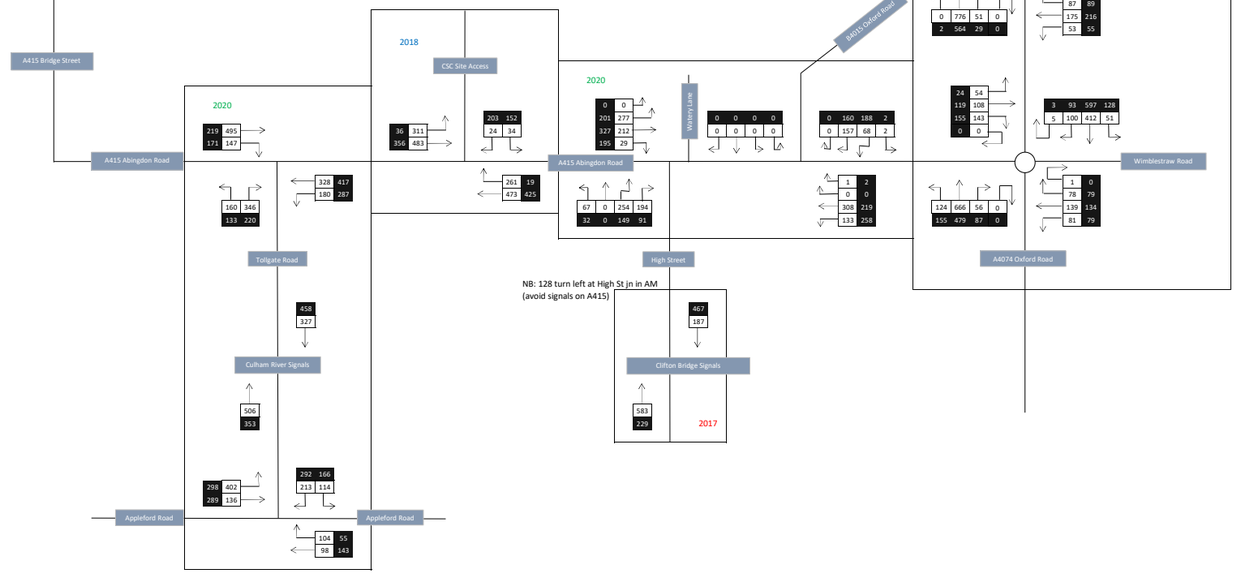
Appendix B

Flow Diagrams

123 = AM Peak Hour
123 = PM Peak Hour

* All flows in PCUs
* Rounding errors may occur

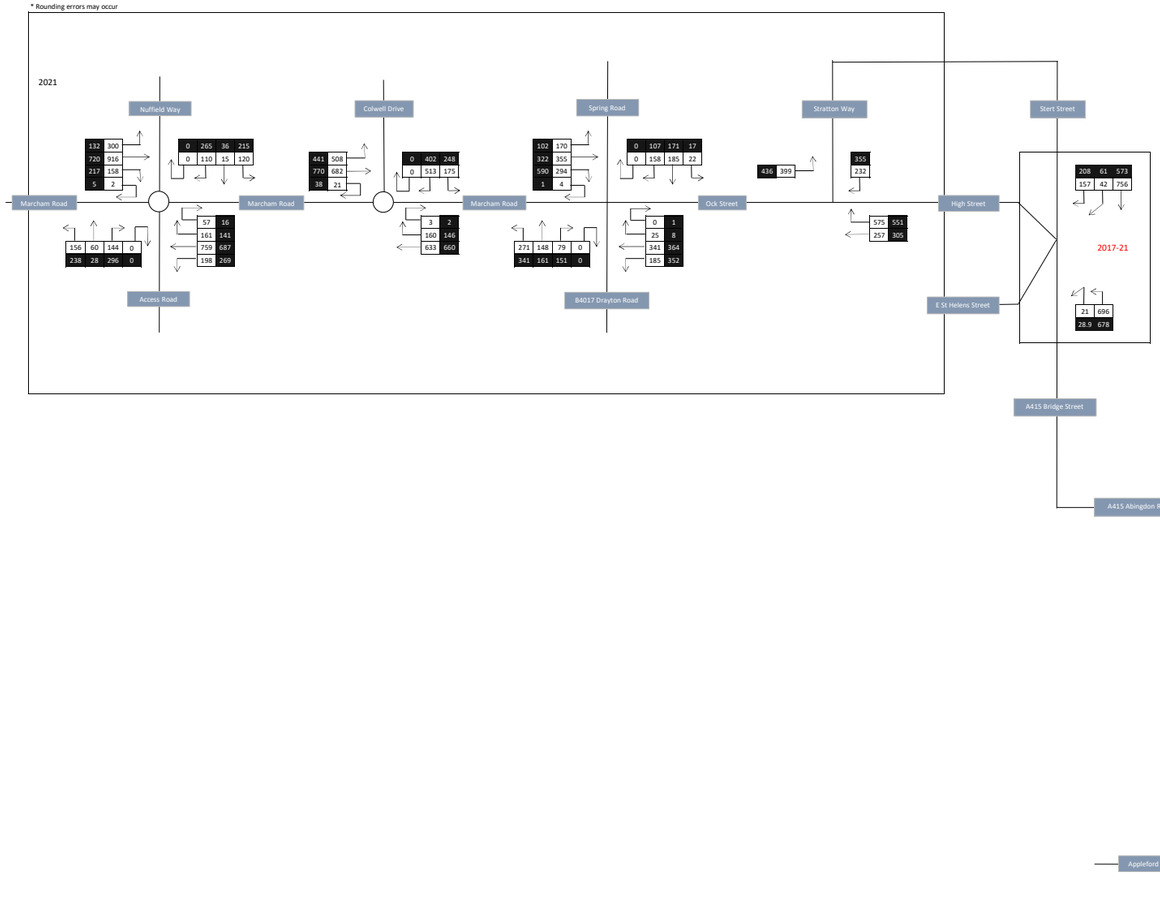




Flow Diagram 1: Traffic Count Data	
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656
Client: UK Atomic Energy Authority (UKAEA)	

123 = AM Peak Hour
123 = PM Peak Hour

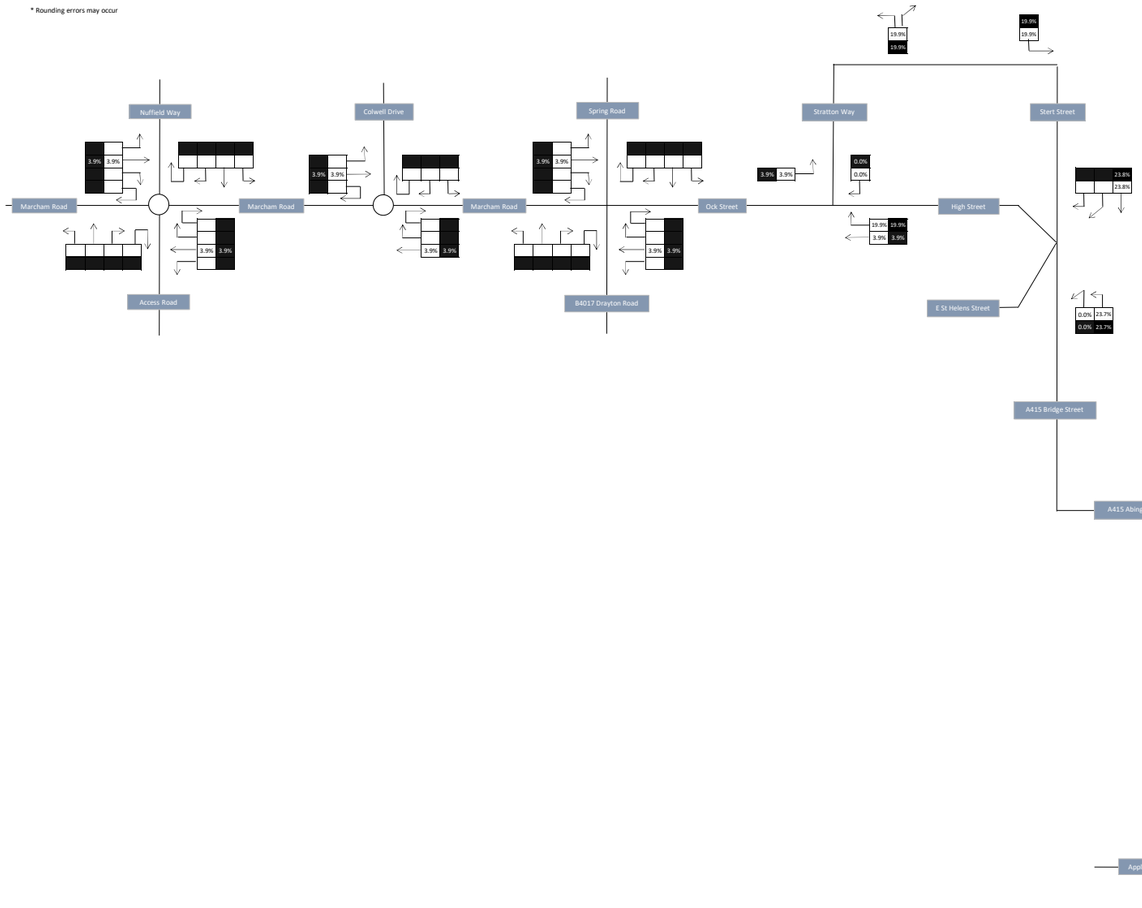
* All flows in PCUs
* Rounding errors may occur



Flow Diagram 2: 2021 Base Traffic Flows	
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656
Client: UK Atomic Energy Authority (UKAEA)	

123 = AM Peak Hour
123 = PM Peak Hour

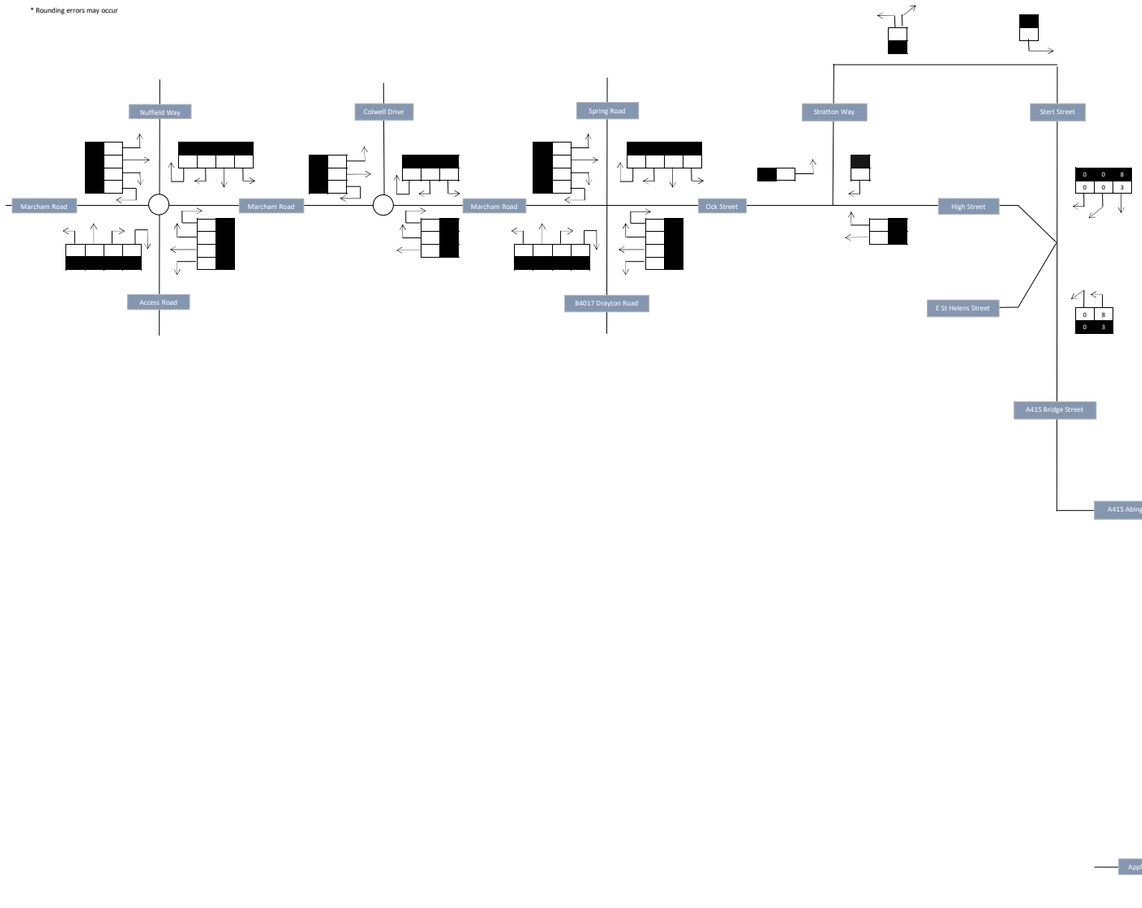
* Rounding errors may occur



Flow Diagram 3: Committed Housing Distribution	
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656
Client: UK Atomic Energy Authority (UKAEA)	

123 = AM Peak Hour
123 = PM Peak Hour

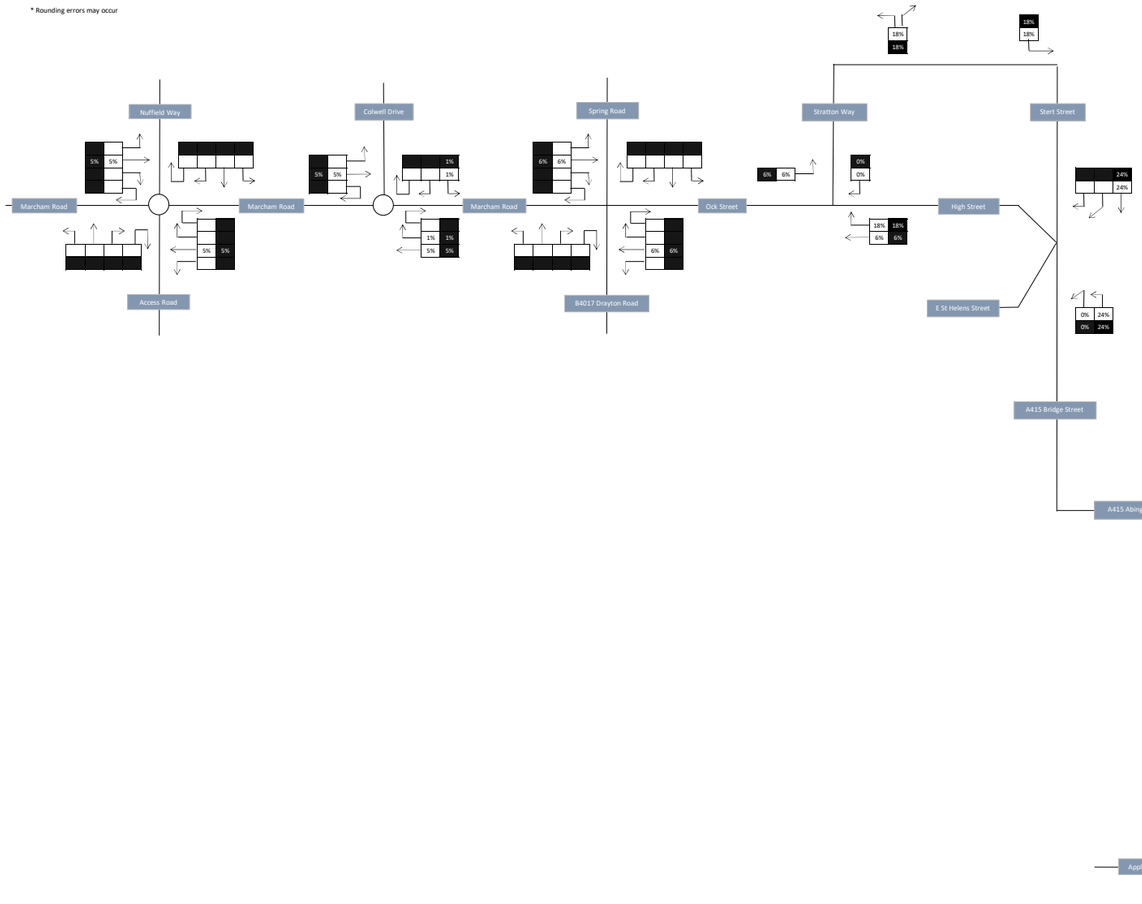
* All flows in PCUs
* Rounding errors may occur

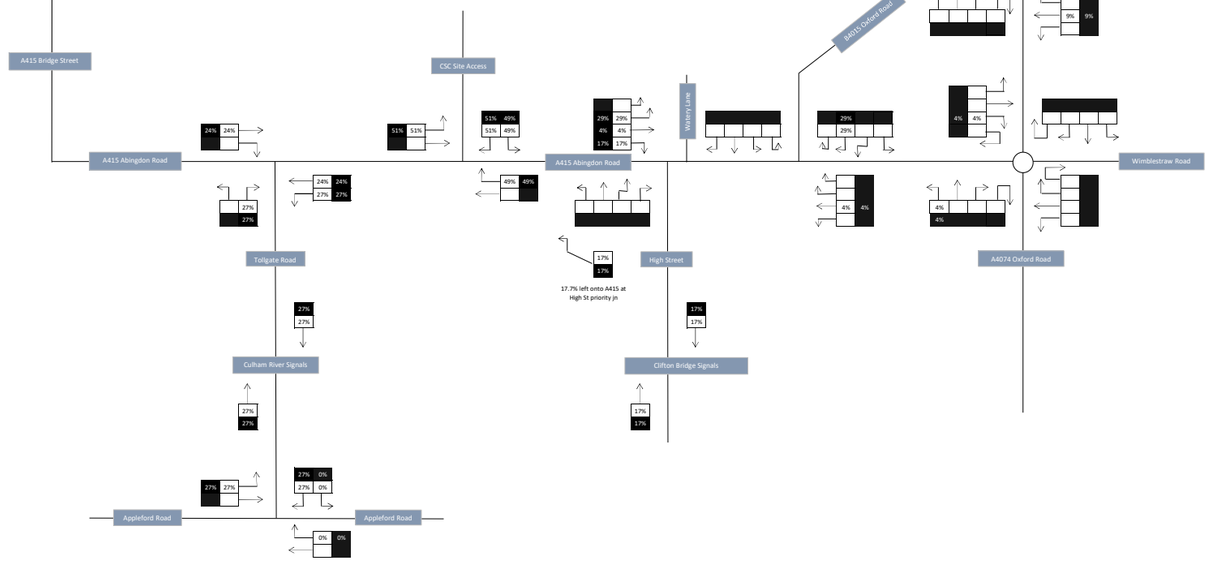


Flow Diagram 4: Committed Housing at Appleford Road, Sutton Courtney (North and South) (2021)		
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656	
Client: UK Atomic Energy Authority (UKAEA)		

123 = AM Peak Hour
123 = PM Peak Hour

* Rounding errors may occur

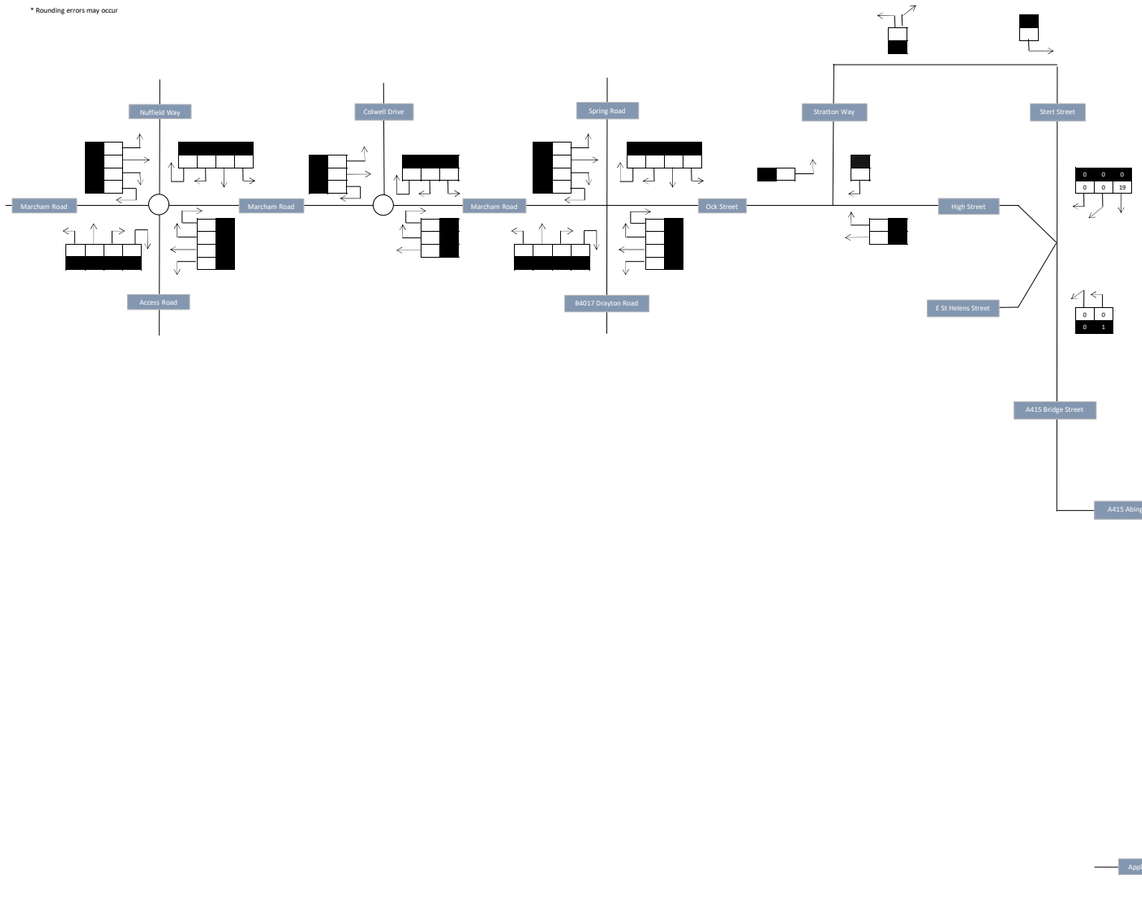




Flow Diagram 5: OAS Distribution	
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656
Client: UK Atomic Energy Authority (UKAEA)	

123 = AM Peak Hour
123 = PM Peak Hour

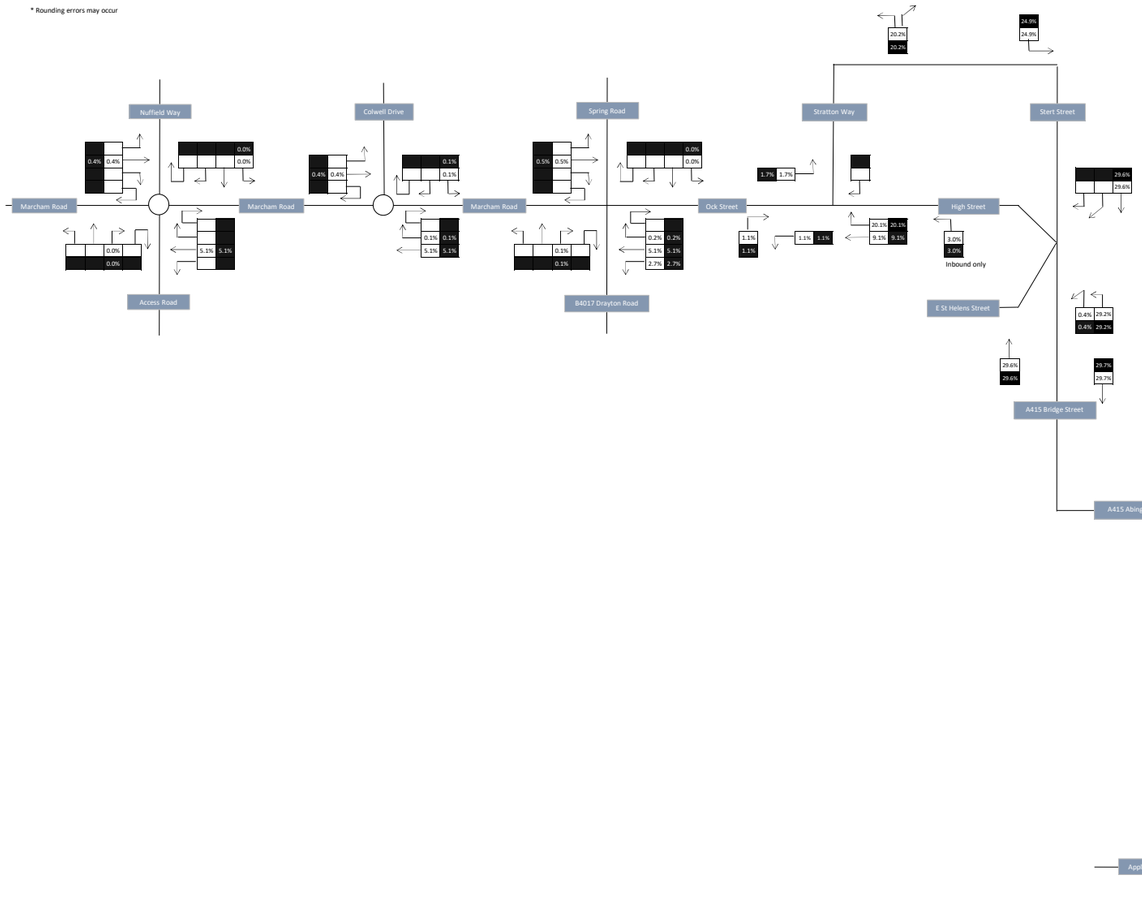
* All flows in PCUs
* Rounding errors may occur

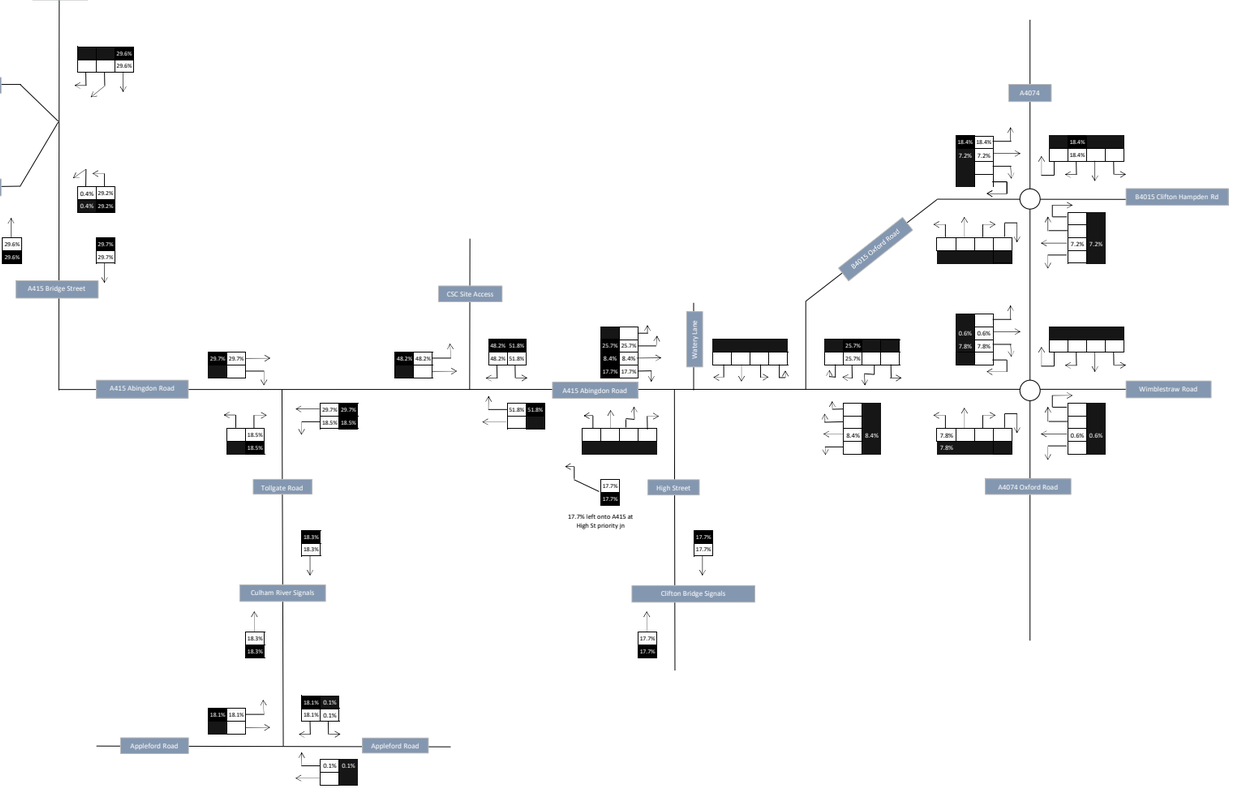


Flow Diagram 6: Committed OAS2 Training Facility at CSC (2021)		
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656	
Client: UK Atomic Energy Authority (UKAEA)		

123 = AM Peak Hour
123 = PM Peak Hour

* Rounding errors may occur

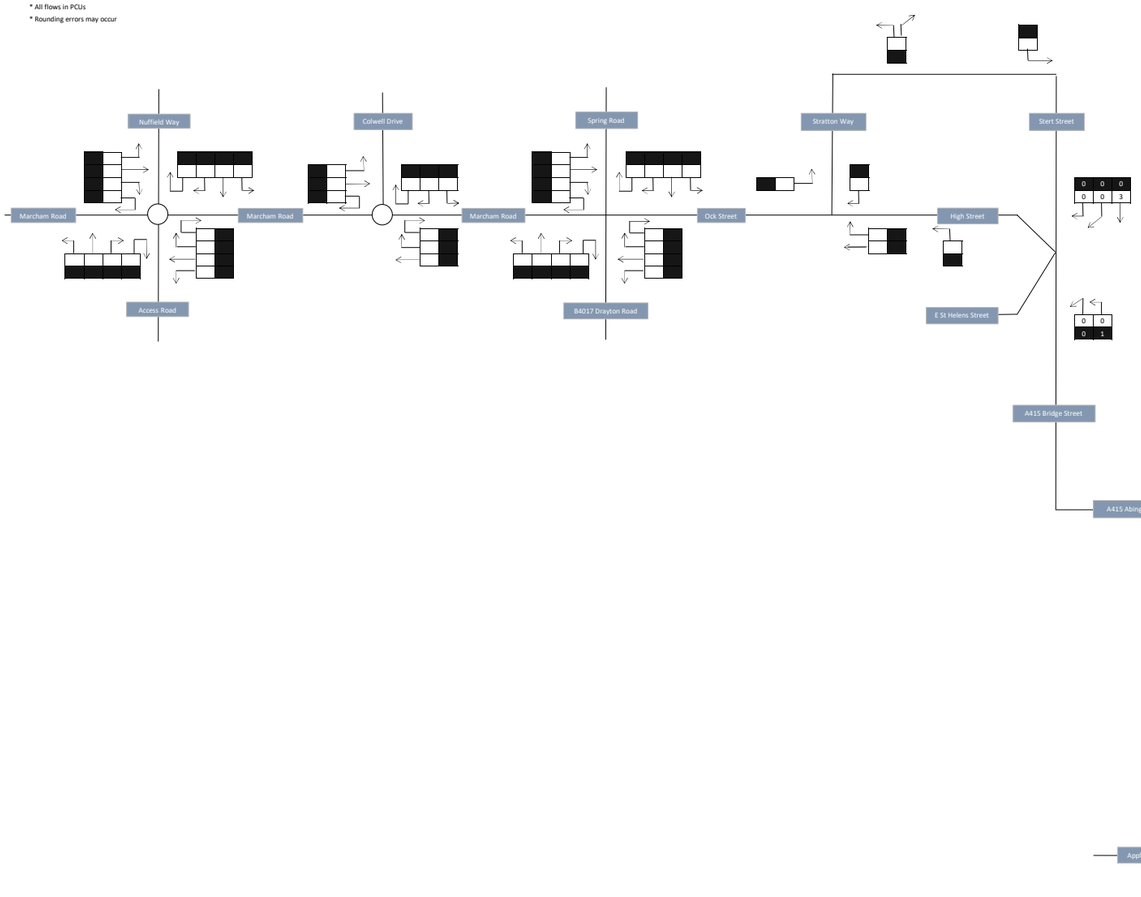




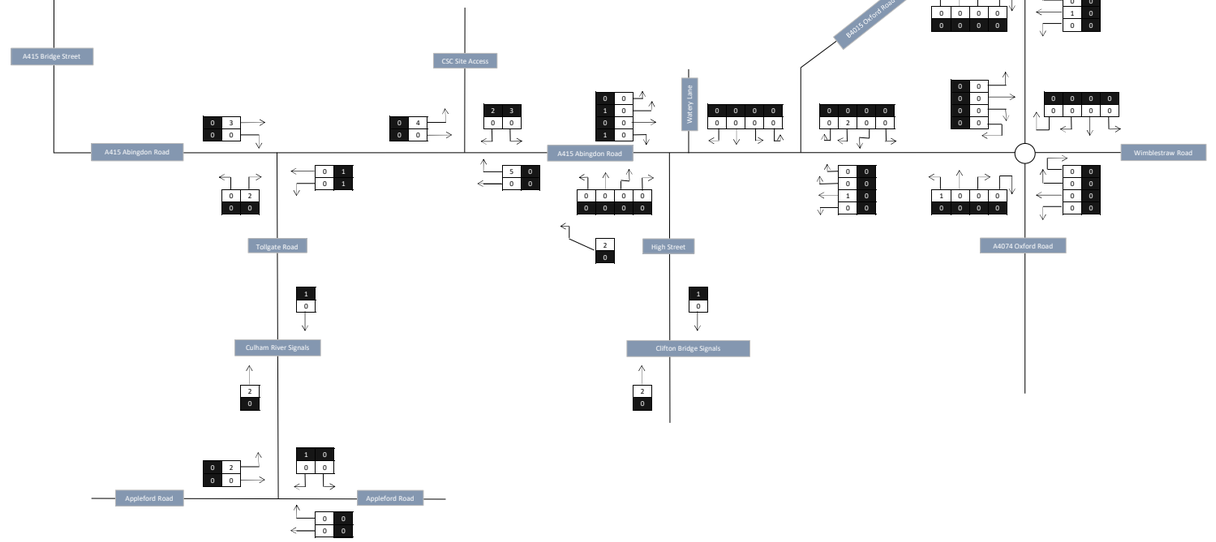
Flow Diagram 7: CSC Development Distribution	
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656
Client: UK Atomic Energy Authority (UKAEA)	

123 = AM Peak Hour
123 = PM Peak Hour

* All flows in PCUs
* Rounding errors may occur



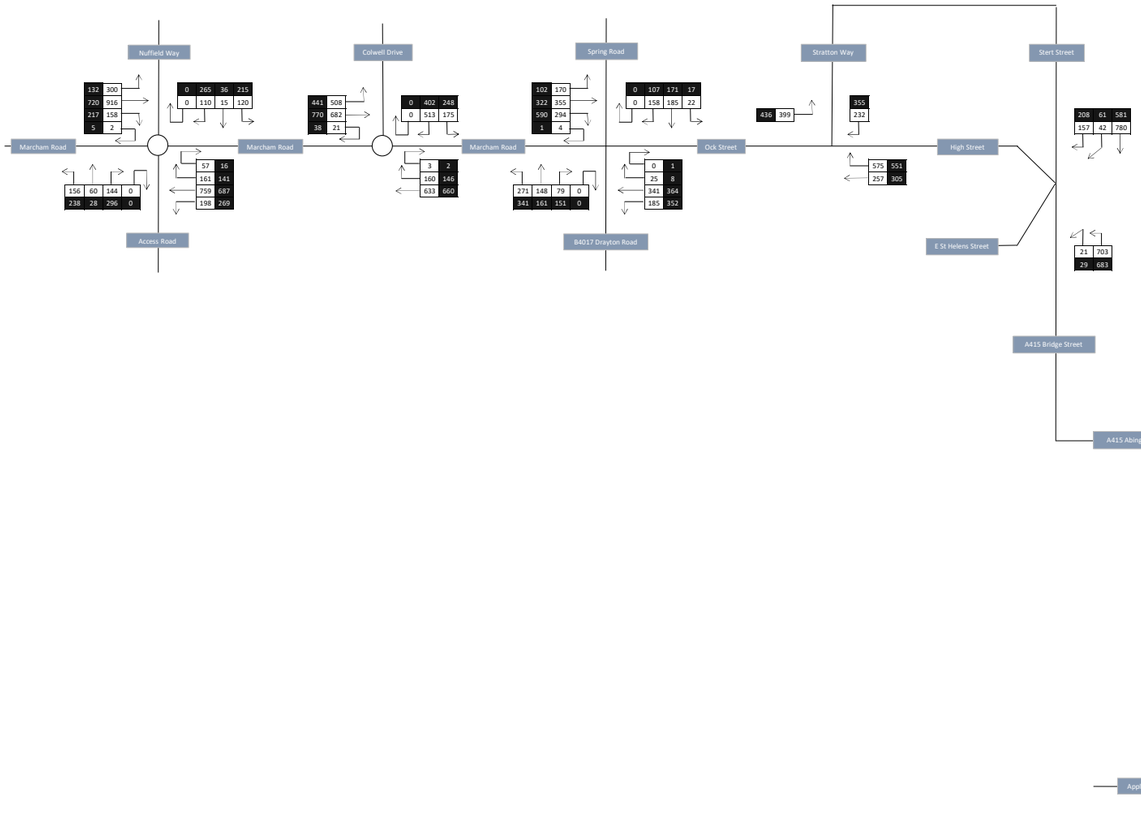
Extra movements to add to Study Area
with traffic survey data prior to 2021 only

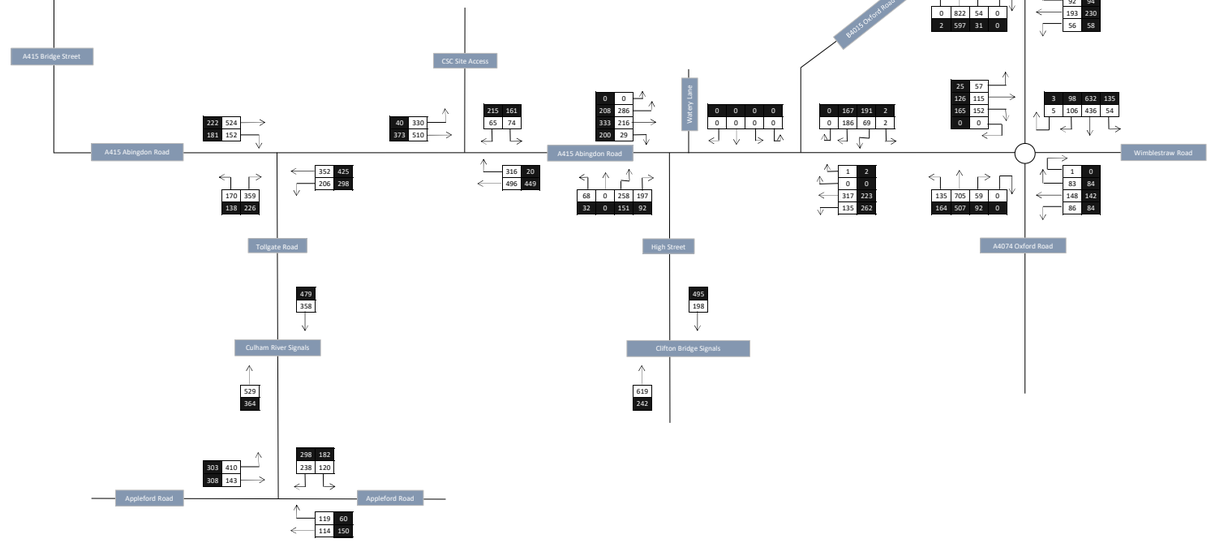


Flow Diagram 8: Committed Development at CSC (2021)	
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656
Client: UK Atomic Energy Authority (UKAEA)	

123 = AM Peak Hour
123 = PM Peak Hour

* All flows in PCUs

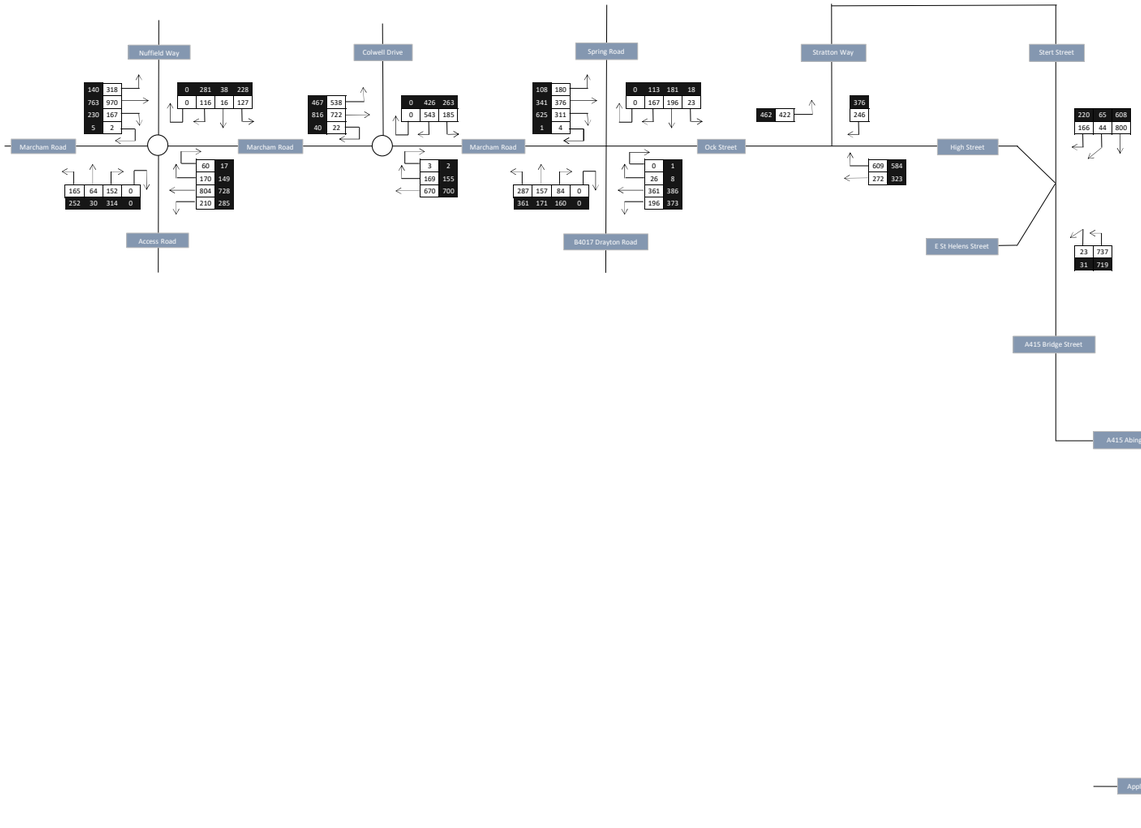


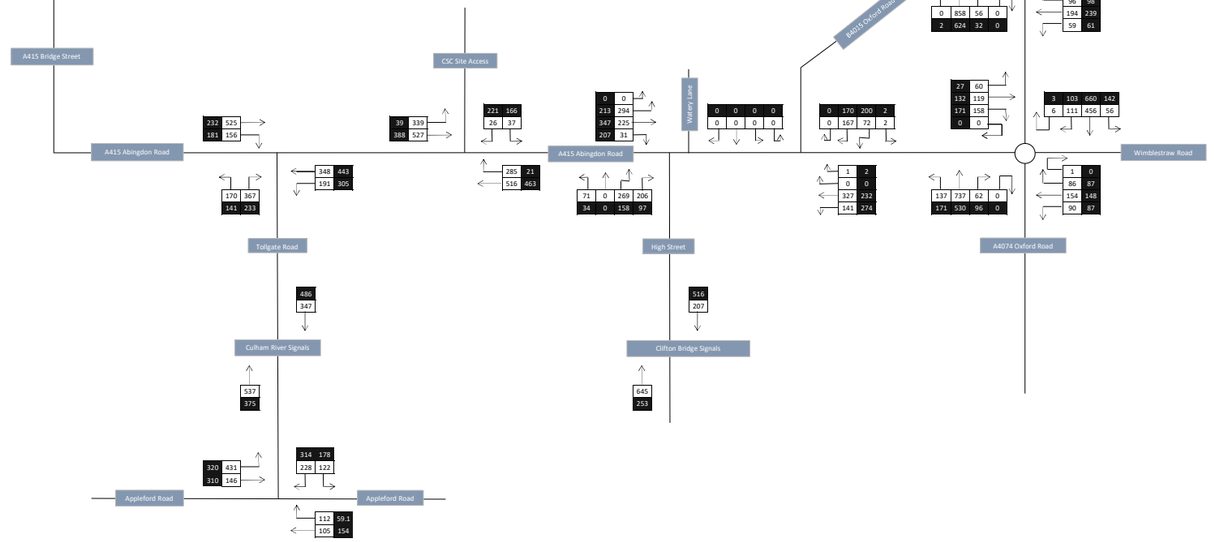


Flow Diagram 9: 2021 + Committed Traffic Flows (Existing)	
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656
Client: UK Atomic Energy Authority (UKAEA)	

123 = AM Peak Hour
123 = PM Peak Hour

* All flows in PCUs
* Rounding errors may occur

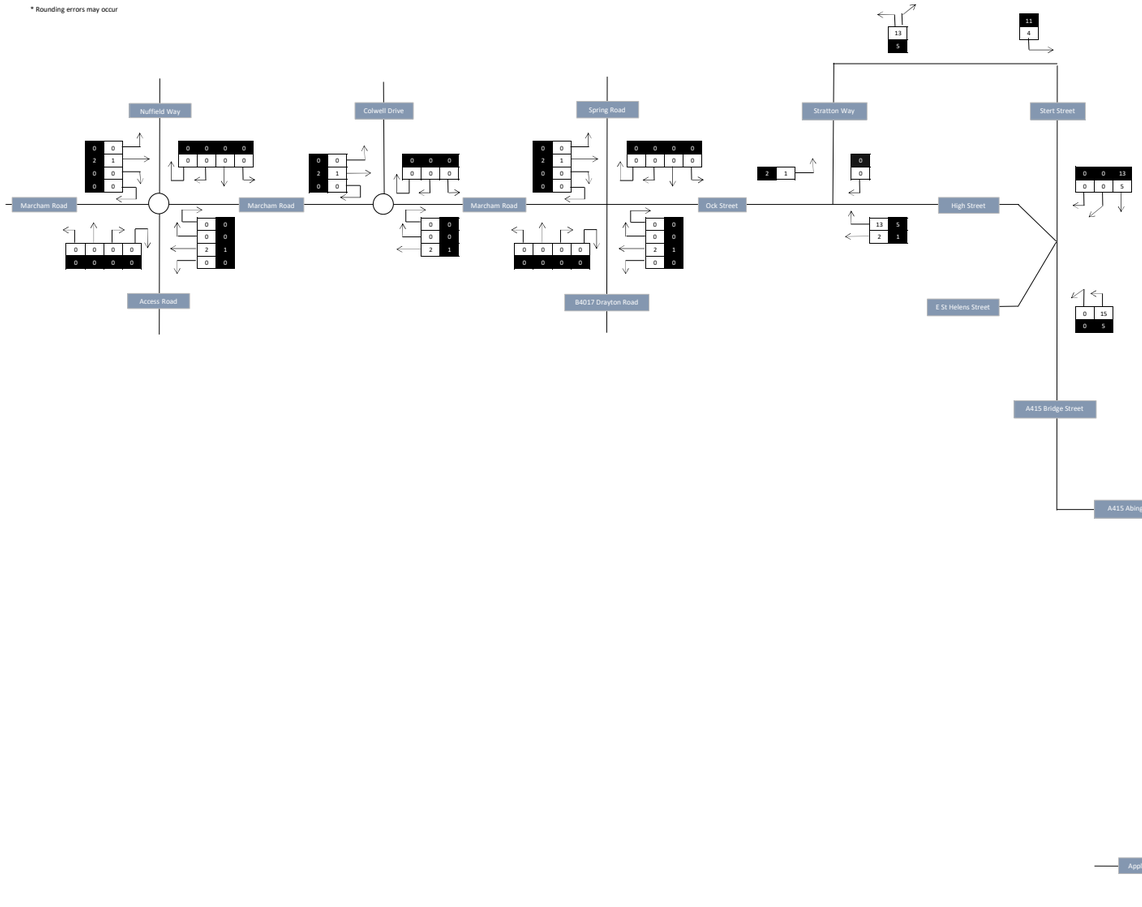




Flow Diagram 10: 2024 Base Traffic Flows	
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656
Client: UK Atomic Energy Authority (UKAEA)	

123 = AM Peak Hour
123 = PM Peak Hour

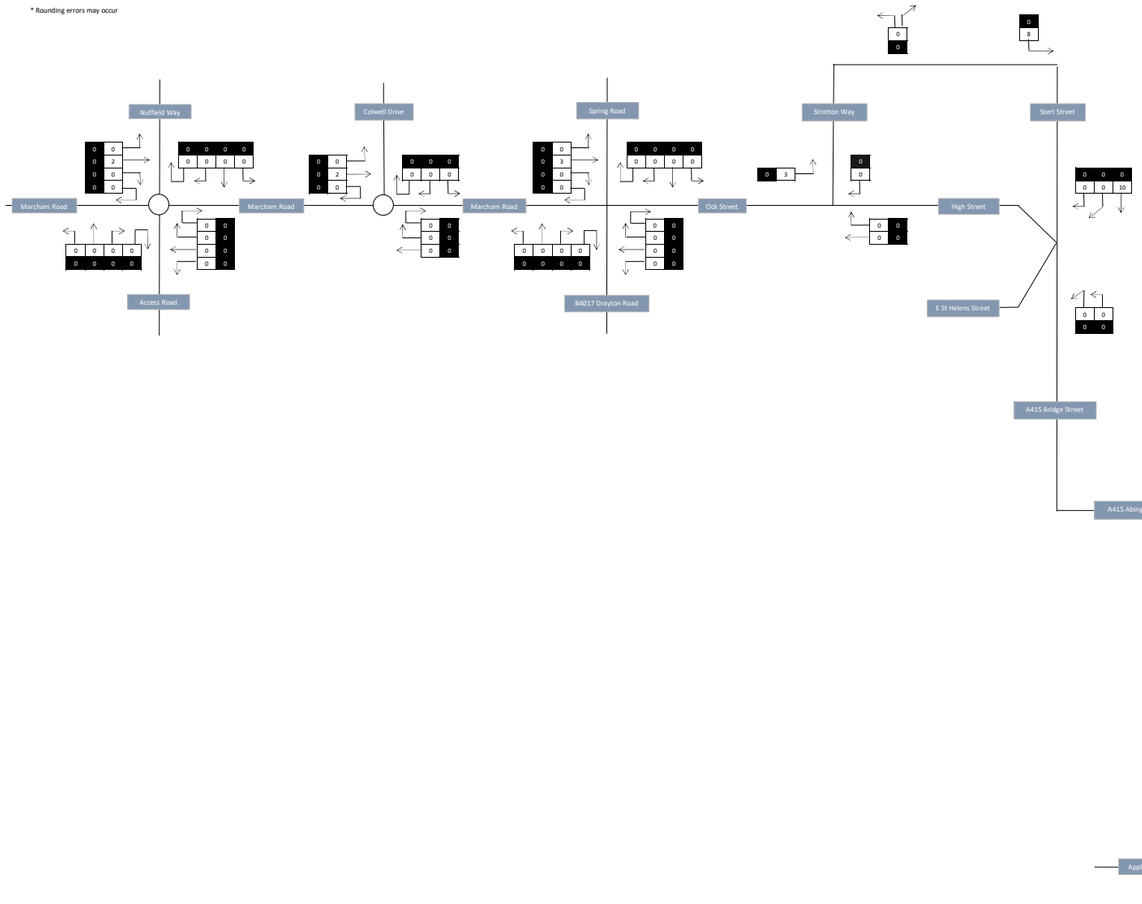
* All flows in PCUs
* Rounding errors may occur



Flow Diagram 11: Committed Housing at Appleford Road, Sutton Courtney (North and South) (2024)		
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656	
Client: UK Atomic Energy Authority (UKAEA)		

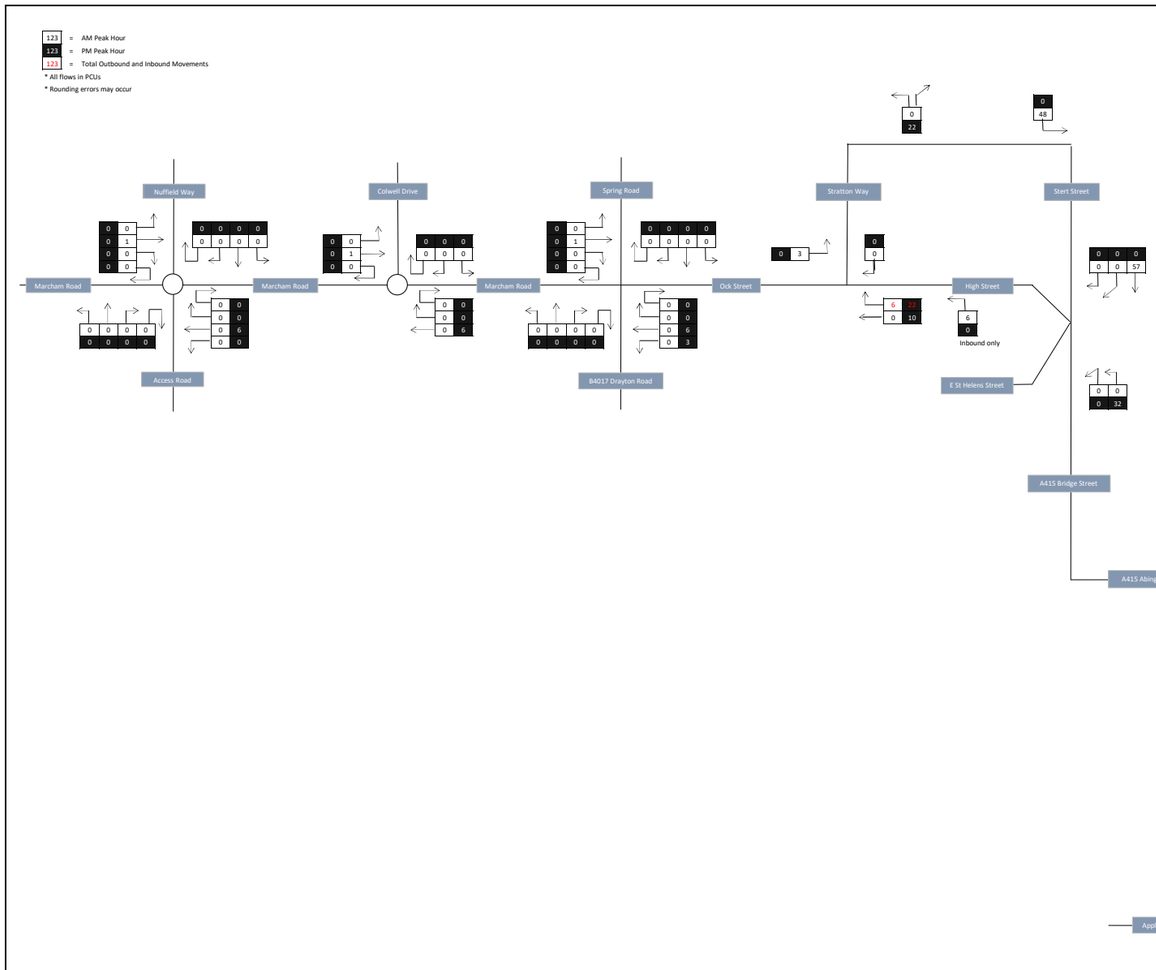
123 = AM Peak Hour
123 = PM Peak Hour

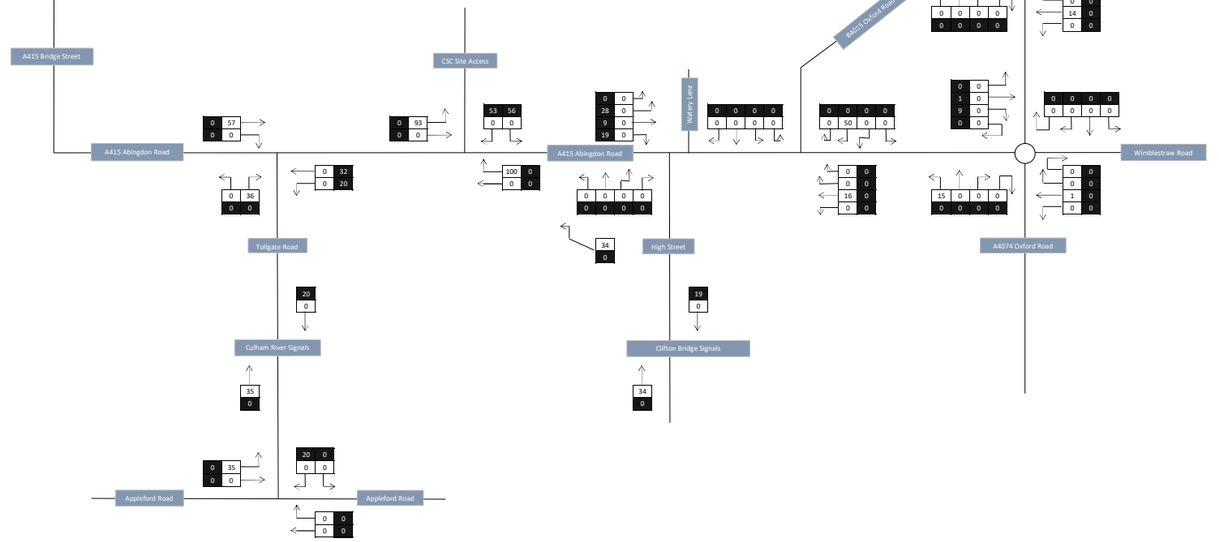
* All flows in PCUs
* Rounding errors may occur



Flow Diagram 12: Committed OAS3 Training Facility at CSC (2024)		
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656	
Client: UK Atomic Energy Authority (UKAEA)		

123 = AM Peak Hour
123 = PM Peak Hour
123 = Total Outbound and Inbound Movements
* All flows in PCUs
* Rounding errors may occur

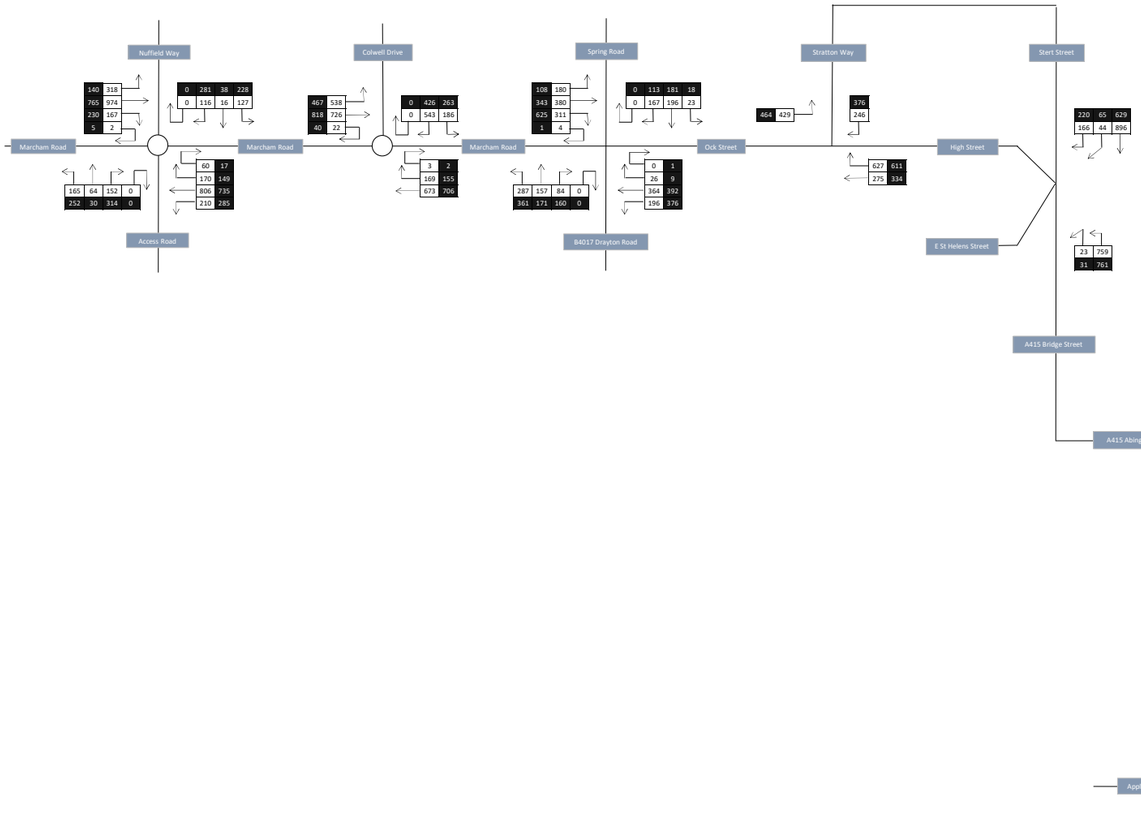


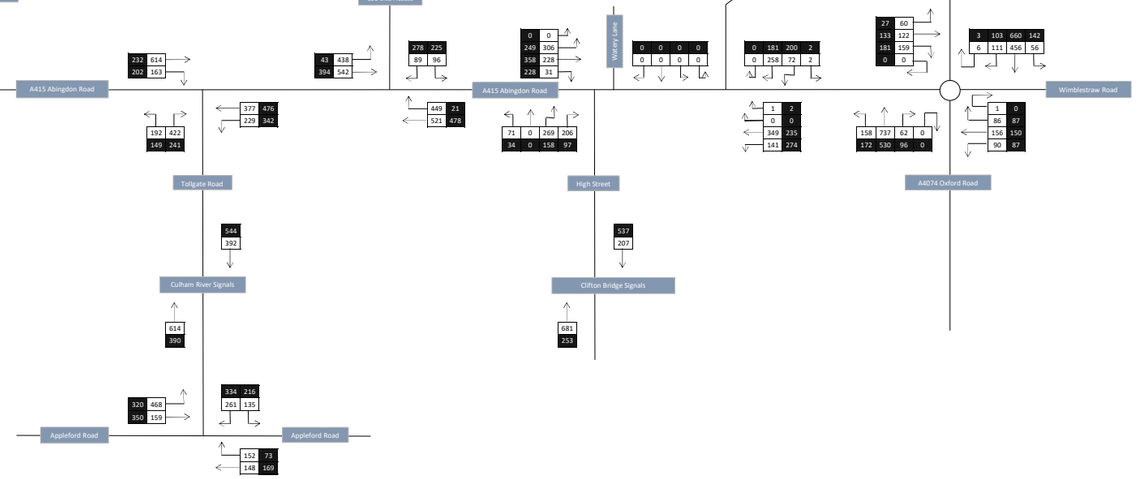


Flow Diagram 13: Committed Development at CSC (2024)	
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656
Client: UK Atomic Energy Authority (UKAEA)	

123 = AM Peak Hour
123 = PM Peak Hour

* All flows in PCUs

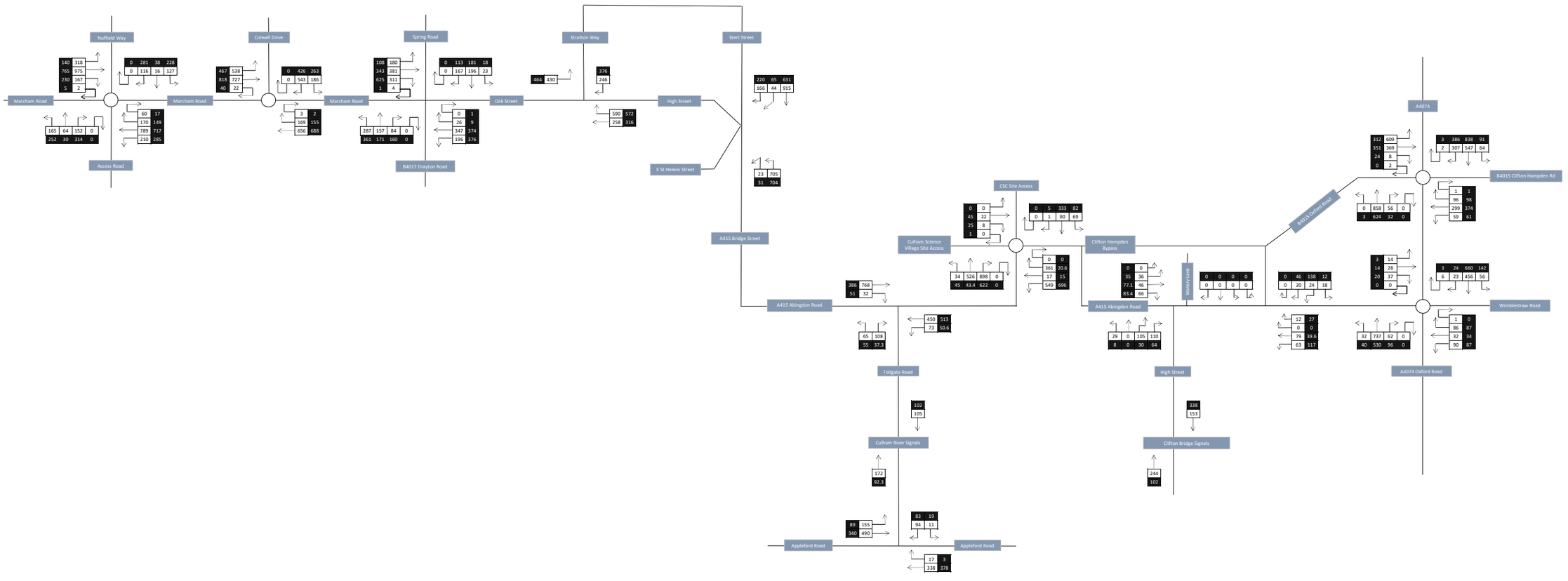




Flow Diagram 14: 2024 Pre-HIF + Committed	
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656
Client: UK Atomic Energy Authority (UKAEA)	

123 = AM Peak Hour
123 = PM Peak Hour

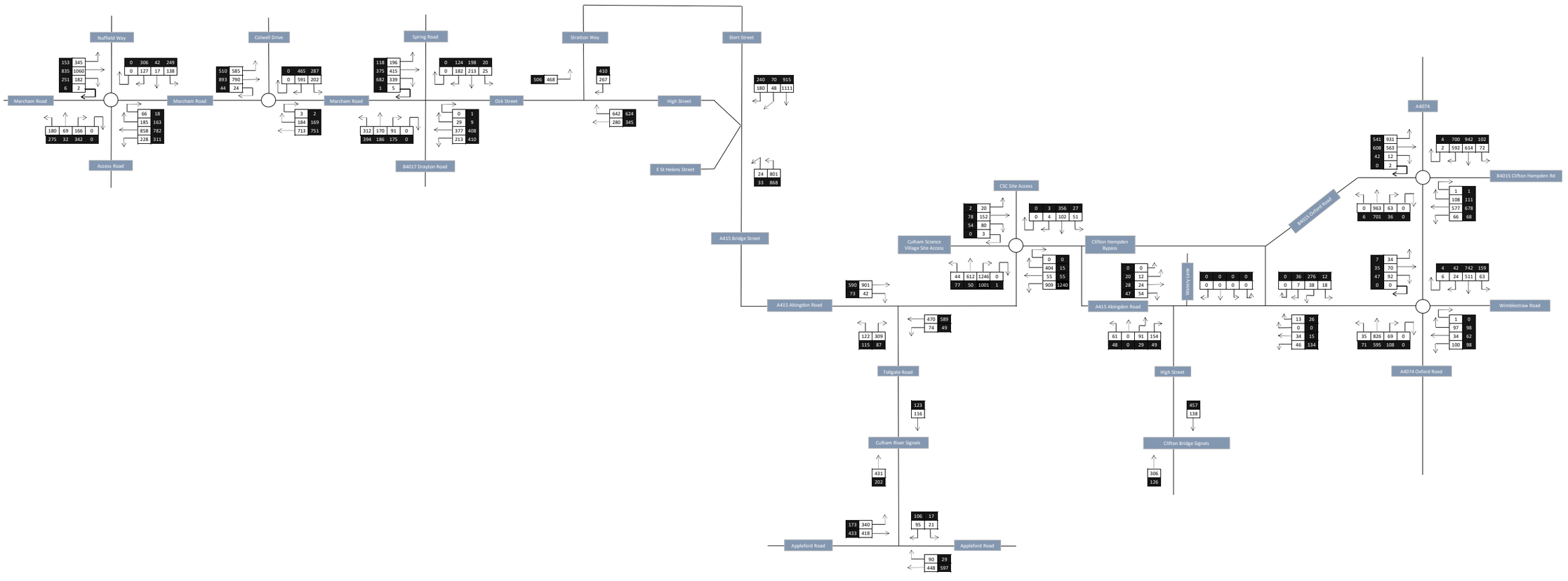
* All flows in PCUs



Flow Diagram 15: 2024 Post-HIF + Committed	
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656
Client: UK Atomic Energy Authority (UKAEA)	

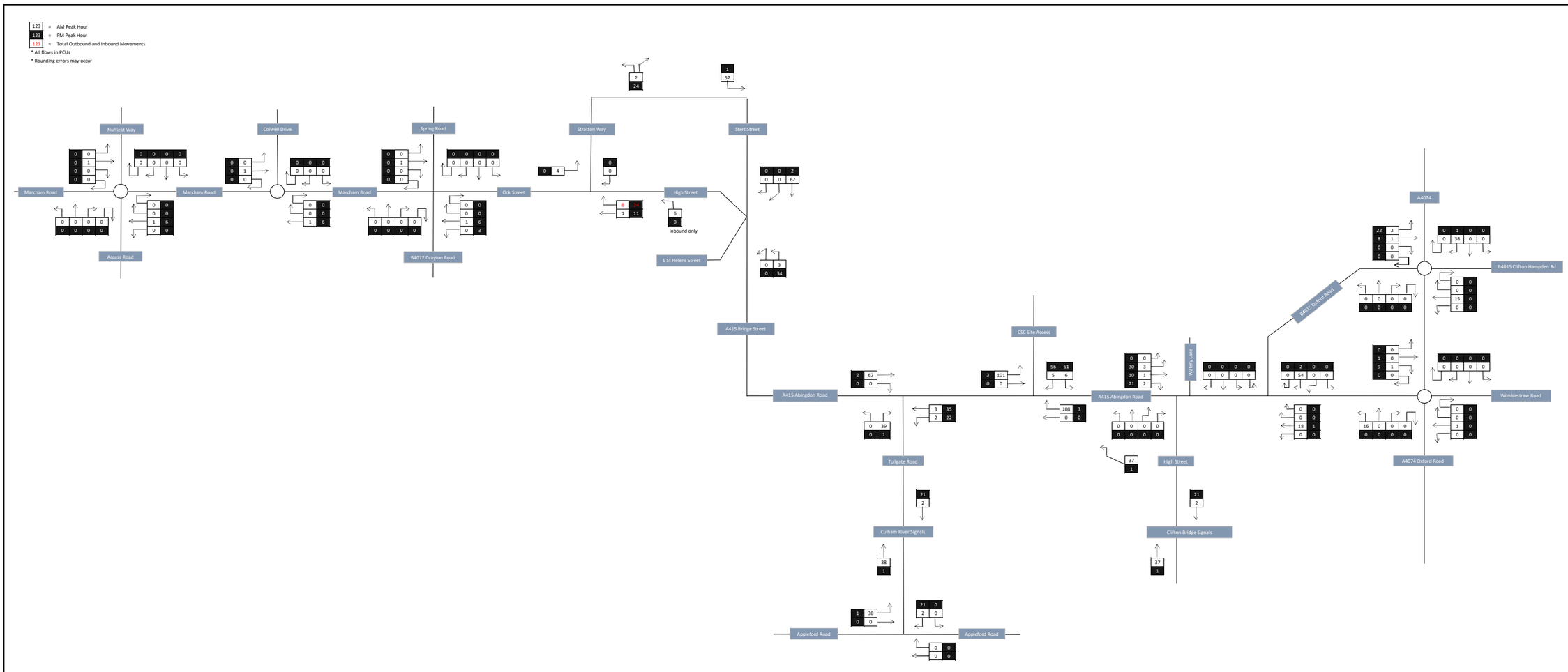
123 = AM Peak Hour
123 = PM Peak Hour

* All flows in PCUs

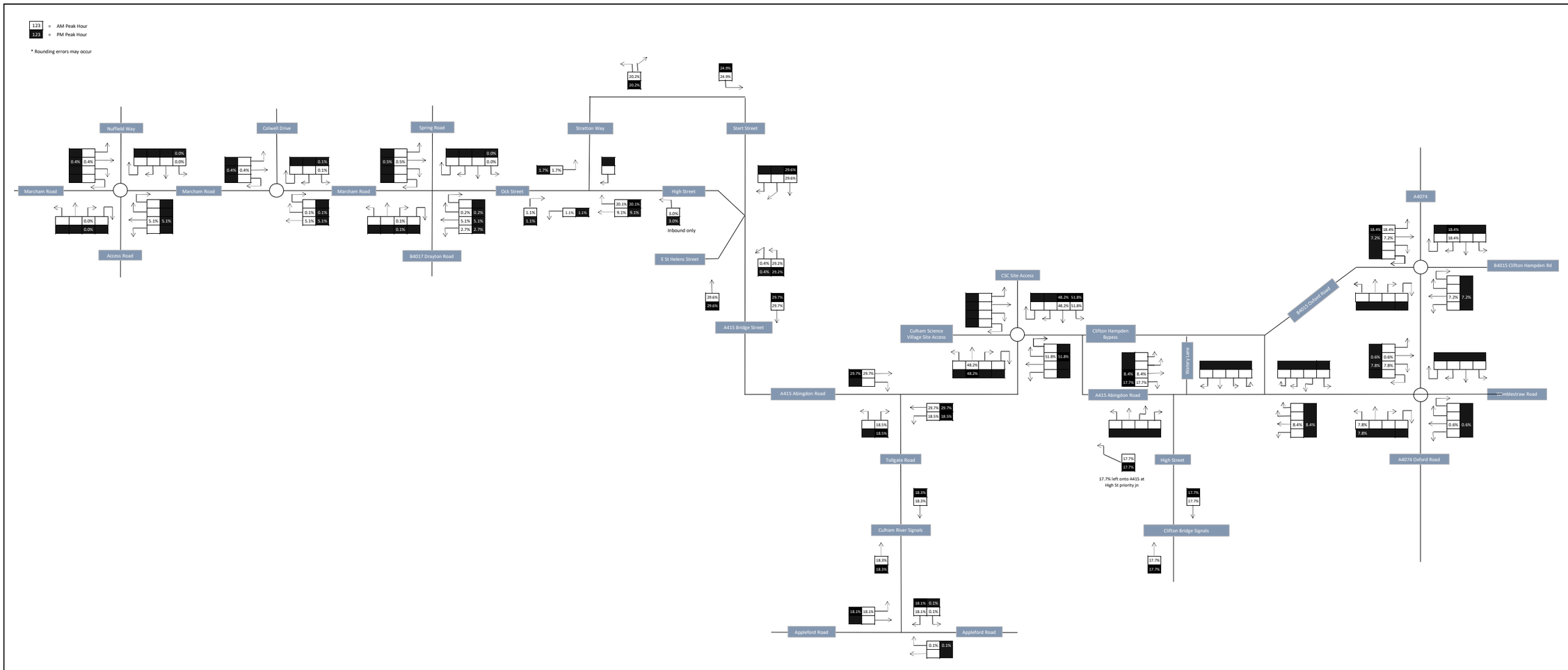


Flow Diagram 16: 2034 Post-HIF + Committed	
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656
Client: UK Atomic Energy Authority (UKAEA)	

123 = AM Peak Hour
123 = PM Peak Hour
123 = Total Outbound and Inbound Movements
* All flows in PCUs
* Rounding errors may occur

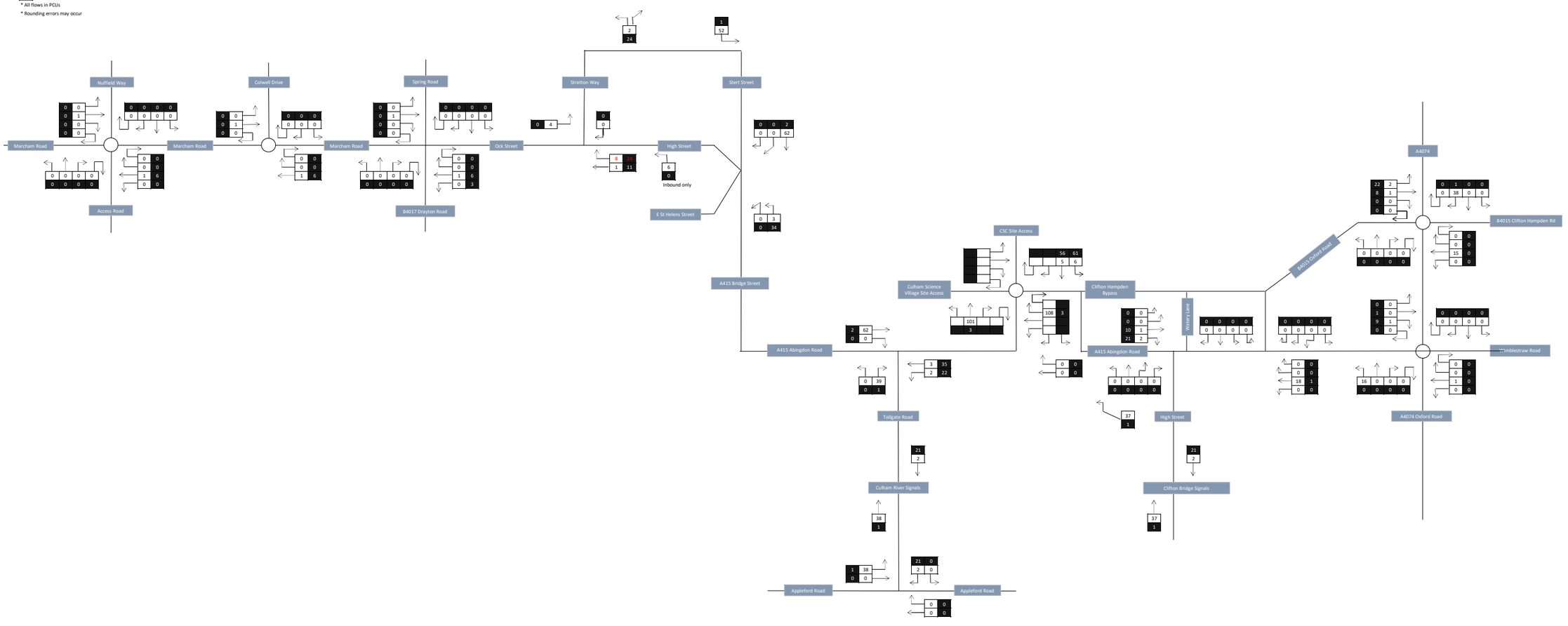


Flow Diagram 17: Development Traffic (Pre-HIF)	
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656
Client: UK Atomic Energy Authority (UKAEA)	



Flow Diagram 18: CSC Development Distribution (With HIF Infrastucture)	
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656
Client: UK Atomic Energy Authority (UKAEA)	

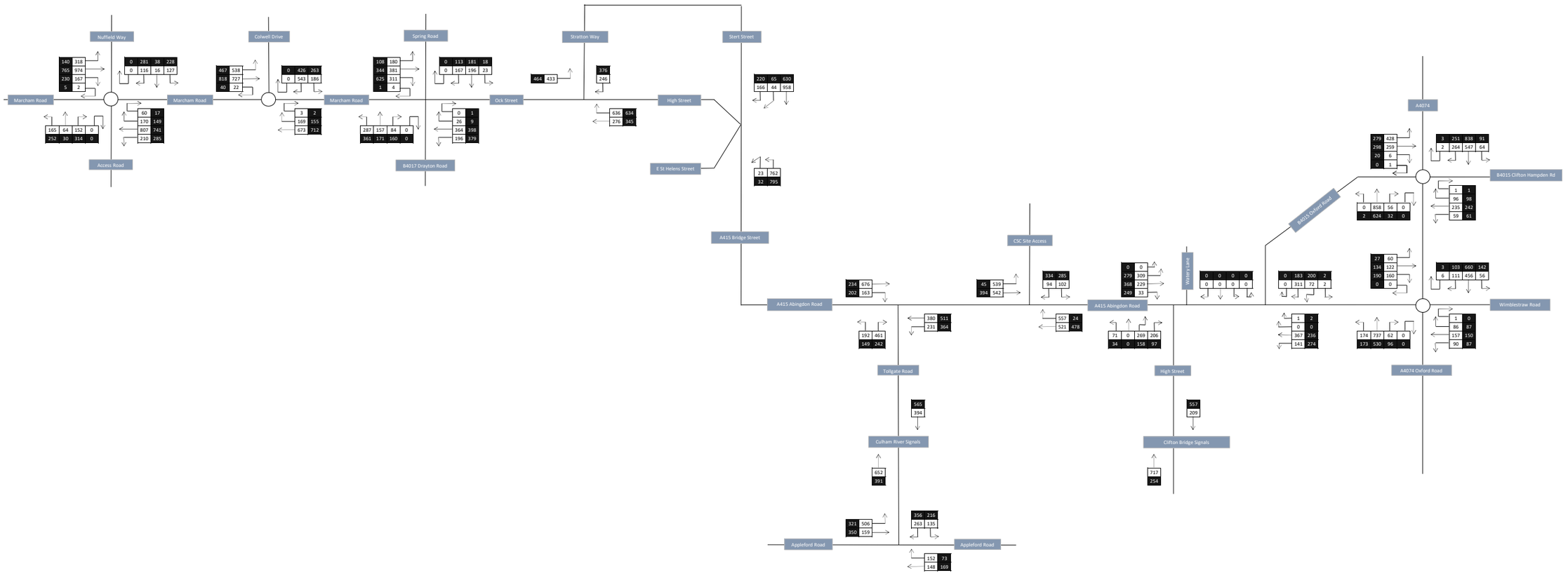
123 = AM Peak Hour
123 = PM Peak Hour
123 = Total Outbound and Inbound Movements
* All flows in PCUs
* Rounding errors may occur



Flow Diagram 19: Development Traffic (Post-HIF)	
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656
Client: UK Atomic Energy Authority (UKAEA)	

123 = AM Peak Hour
123 = PM Peak Hour

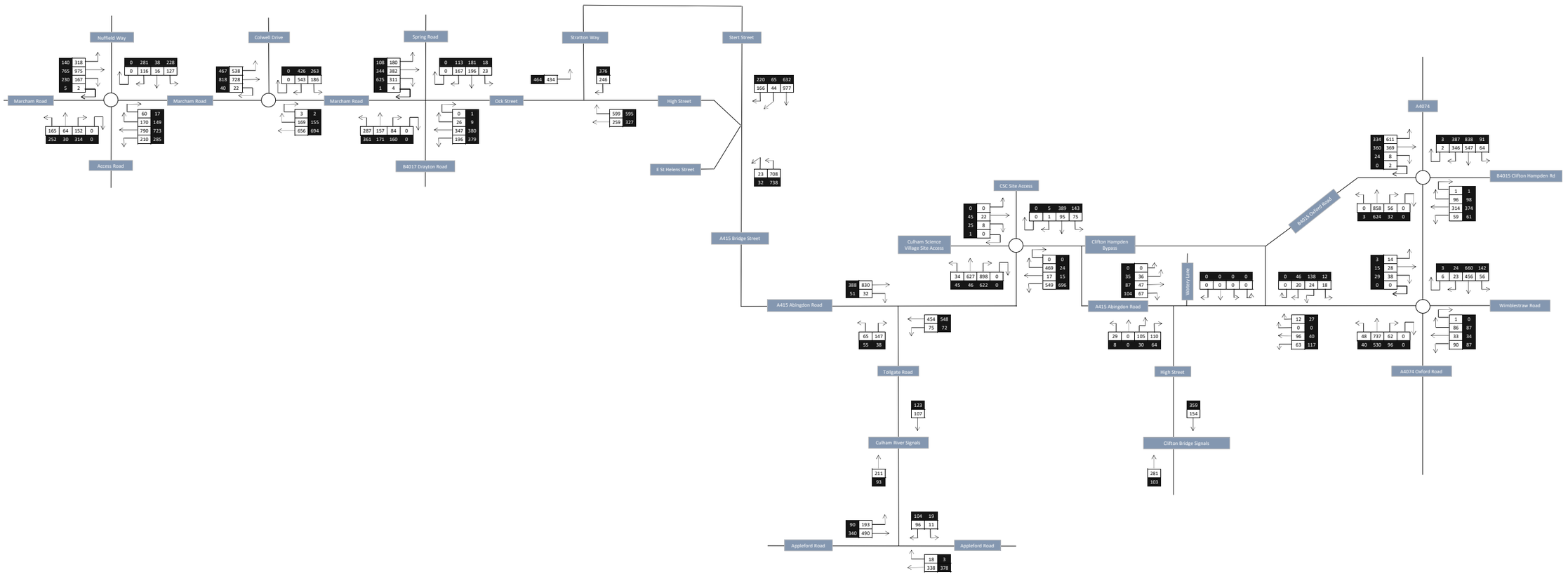
* All flows in PCUs



Flow Diagram 20: 2024 Pre-HIF + Committed + Development Traffic	
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656
Client: UK Atomic Energy Authority (UKAEA)	

123 = AM Peak Hour
123 = PM Peak Hour

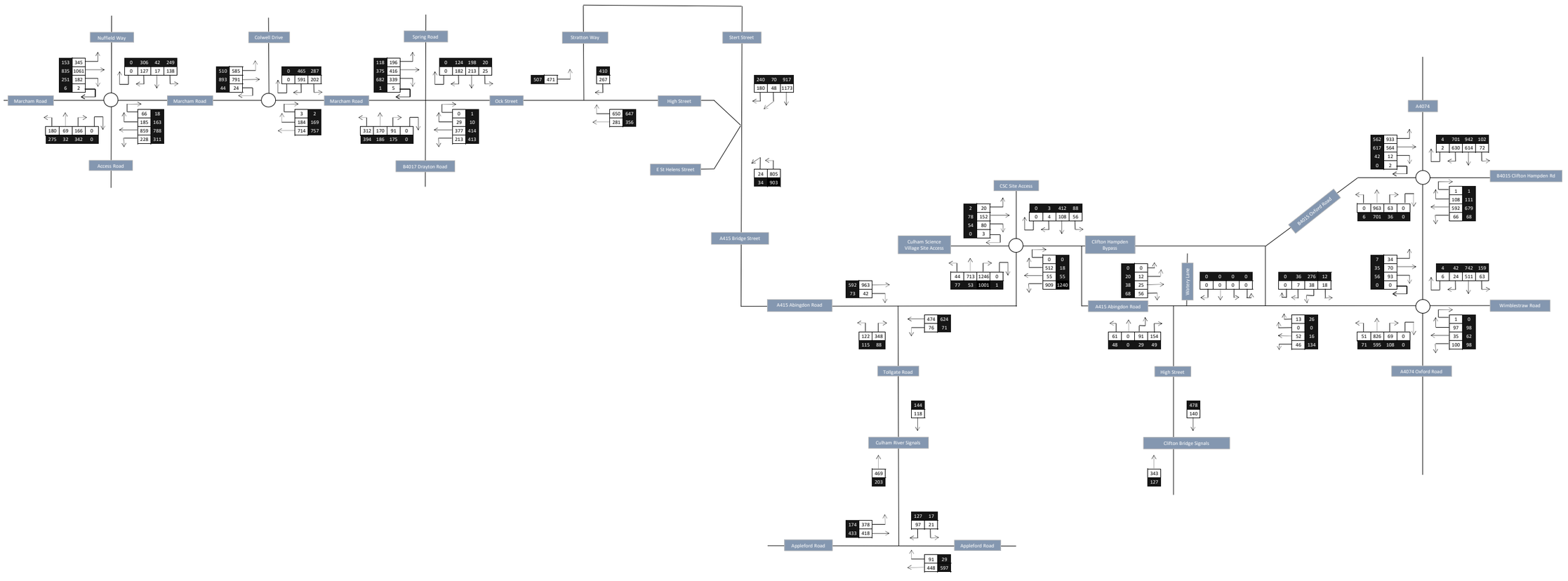
* All flows in PCUs



Flow Diagram 21: 2024 Post-HIF + Committed + Development Traffic	
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656
Client: UK Atomic Energy Authority (UKAEA)	

123 = AM Peak Hour
123 = PM Peak Hour

* All flows in PCUs



Flow Diagram 22: 2034 Post-HIF + Committed + Development Traffic	
Project: CCDP Offices, Culham Science Centre	Job Number: 18-0656
Client: UK Atomic Energy Authority (UKAEA)	

Appendix C

Residential Distribution Model

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

ONS Crown Copyright Reserved [from Nomis on 9 November 2021]

population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
method of travel to work	Driving a car or van

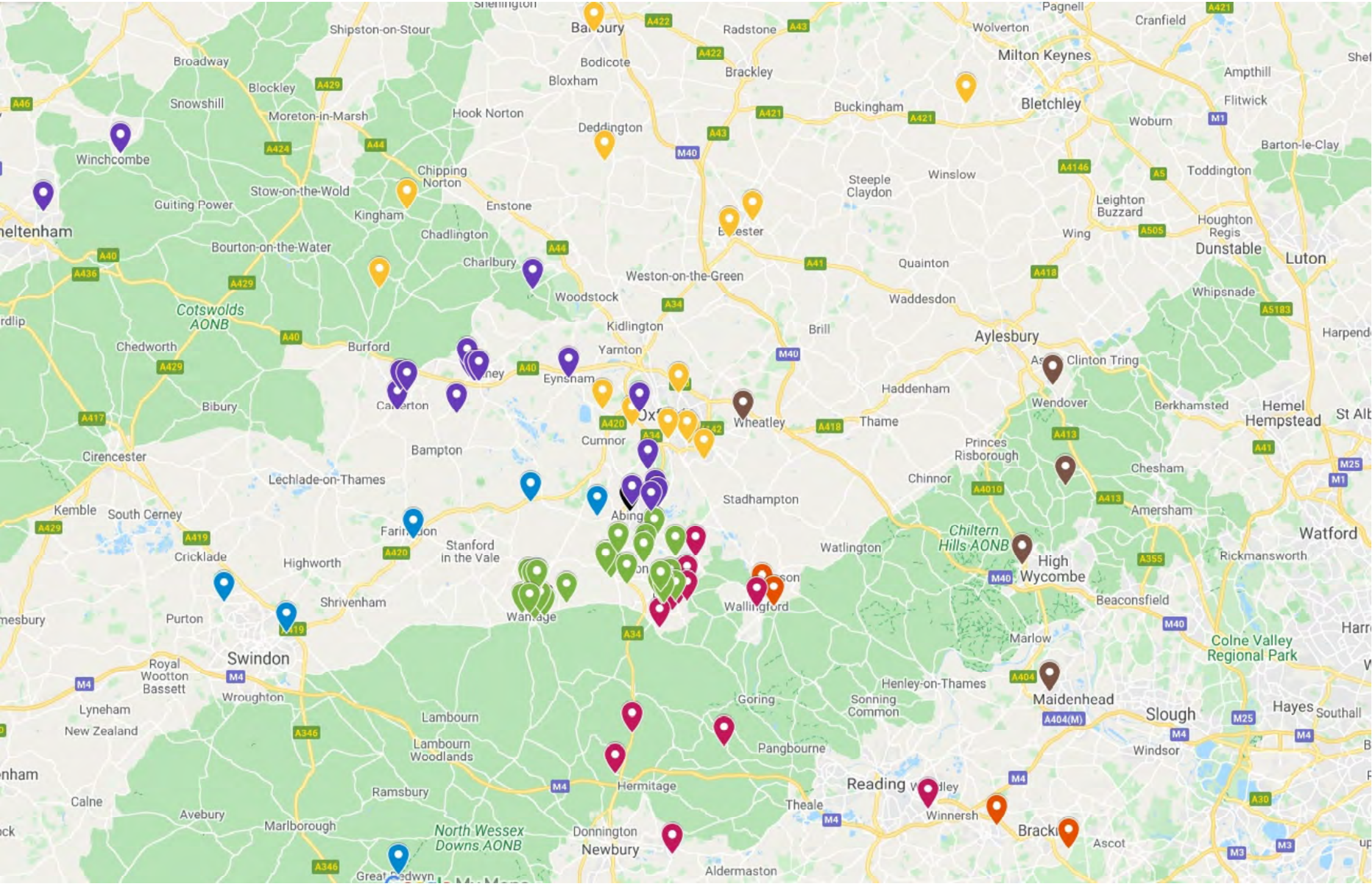
place of work	usual residence E02005987 : Vale of White Horse 010	
Vale of White Horse	1,136	Split into SOAs for more detailed distribution
South Oxfordshire	380	Split into SOAs for more detailed distribution
E02005959 : South Oxfordshire 002	7	A
Oxford	355	A/H 50/50
West Oxfordshire	71	A/H 50/50
Aylesbury Vale	15	B
Wycombe	11	B
E02005961 : South Oxfordshire 004	8	B
E02005958 : South Oxfordshire 001	7	B
Hounslow	6	B
Westminster,City of London	5	B
Elmbridge	3	B
E02005960 : South Oxfordshire 003	2	B
Brent	2	B
Hammersmith and Fulham	2	B
Tower Hamlets	2	B
Runnymede	2	B
Colchester	1	B
Maldon	1	B
Broxbourne	1	B
Dacorum	1	B
Three Rivers	1	B
Watford	1	B
Barnet	1	B
Camden	1	B
Ealing	1	B
Harrow	1	B
Wandsworth	1	B
Chiltern	1	B
South Bucks	1	B
Epsom and Ewell	1	B
Reigate and Banstead	1	B
Spelthorne	1	B
E02005964 : South Oxfordshire 007	7	C/D 50/50
E02005968 : South Oxfordshire 011	40	C/E 50/50
E02005974 : South Oxfordshire 017	3	C/E 50/50
E02005973 : South Oxfordshire 016	2	C/E 50/50
E02005965 : South Oxfordshire 008	3	D (Watlington main source of emp)
E02005967 : South Oxfordshire 010	69	E
E02005966 : South Oxfordshire 009	52	E
E02005969 : South Oxfordshire 012	38	E
Reading	26	E
E02005972 : South Oxfordshire 015	18	E
E02005970 : South Oxfordshire 013	17	E
E02005971 : South Oxfordshire 014	14	E
Slough	12	E
Windsor and Maidenhead	10	E
E02005975 : South Oxfordshire 018	5	E
E02005977 : South Oxfordshire 020	2	E
E02005992 : Vale of White Horse 015	277	F
E02005987 : Vale of White Horse 010	260	F
E02005983 : Vale of White Horse 006	245	F
West Berkshire	57	F
E02005991 : Vale of White Horse 014	42	F
E02005985 : Vale of White Horse 008	38	F
E02005988 : Vale of White Horse 011	21	F
Swindon	14	F
Wokingham	13	F
Bracknell Forest	10	F
Wiltshire	4	F
Hart	3	F
Surrey Heath	3	F
Portsmouth	2	F
Basingstoke and Deane	2	F
East Hampshire	2	F
Rushmoor	2	F
Poole	2	F
Southampton	1	F
Fareham	1	F
New Forest	1	F
Winchester	1	F
Bath and North East Somerset	1	F
North Somerset	1	F
South Gloucestershire	1	F
South Hams	1	F
Christchurch	1	F
Forest of Dean	1	F
Gloucester	1	F
Mendip	1	F

Golden Balls North	via Culham Bridge	A	220	9.67%
Golden Balls East	via Culham Bridge	B	81	3.56%
Berringsfield Rbt Soutl	via Culham Bridge	C	26	1.14%
Berringsfield Rbt East	via Culham Bridge	D	49.5	2.18%
Appleford Road East		E	286	12.55%
Appleford Road West		F	1,029	45.25%
Culham Bridge-A415 E	Just to CSC	G	43	1.89%
Vineyard to A34 North	via Culham Bridge	H	425.6667	18.72%
B4017	via Culham Bridge	I	26.66667	1.17%
Abingdon West	via Culham Bridge	J	87.66667	3.86%
			2274	**100%**

Blaenau Gwent	1	F
E02006886 : Vale of White Horse 016	38	F/J 50/50
E02005963 : South Oxfordshire 006	86	G/D 50/50
Cherwell	53	H
E02005982 : Vale of White Horse 005	46	H
E02005979 : Vale of White Horse 002	41	H
E02005978 : Vale of White Horse 001	12	H
Hillingdon	6	H
E02005981 : Vale of White Horse 004	4	H
Stratford-on-Avon	3	H
South Northamptonshire	2	H
Nuneaton and Bedworth	2	H
Warwick	2	H
Milton Keynes	2	H
County Durham	1	H
South Ribble	1	H
Leeds	1	H
Leicester	1	H
Hinckley and Bosworth	1	H
North Kesteven	1	H
Daventry	1	H
Northampton	1	H
Broxtowe	1	H
Bromsgrove	1	H
Redditch	1	H
Worcester	1	H
Birmingham	1	H
Coventry	1	H
Wolverhampton	1	H
Central Bedfordshire	1	H
Cheltenham	1	H
Tewkesbury	1	H
E02005980 : Vale of White Horse 003	65	H/I/J
Cotswold	5	I
E02005984 : Vale of White Horse 007	39	J
E02005986 : Vale of White Horse 009	8	J
	2,274	

Appendix D

OAS Distribution Model

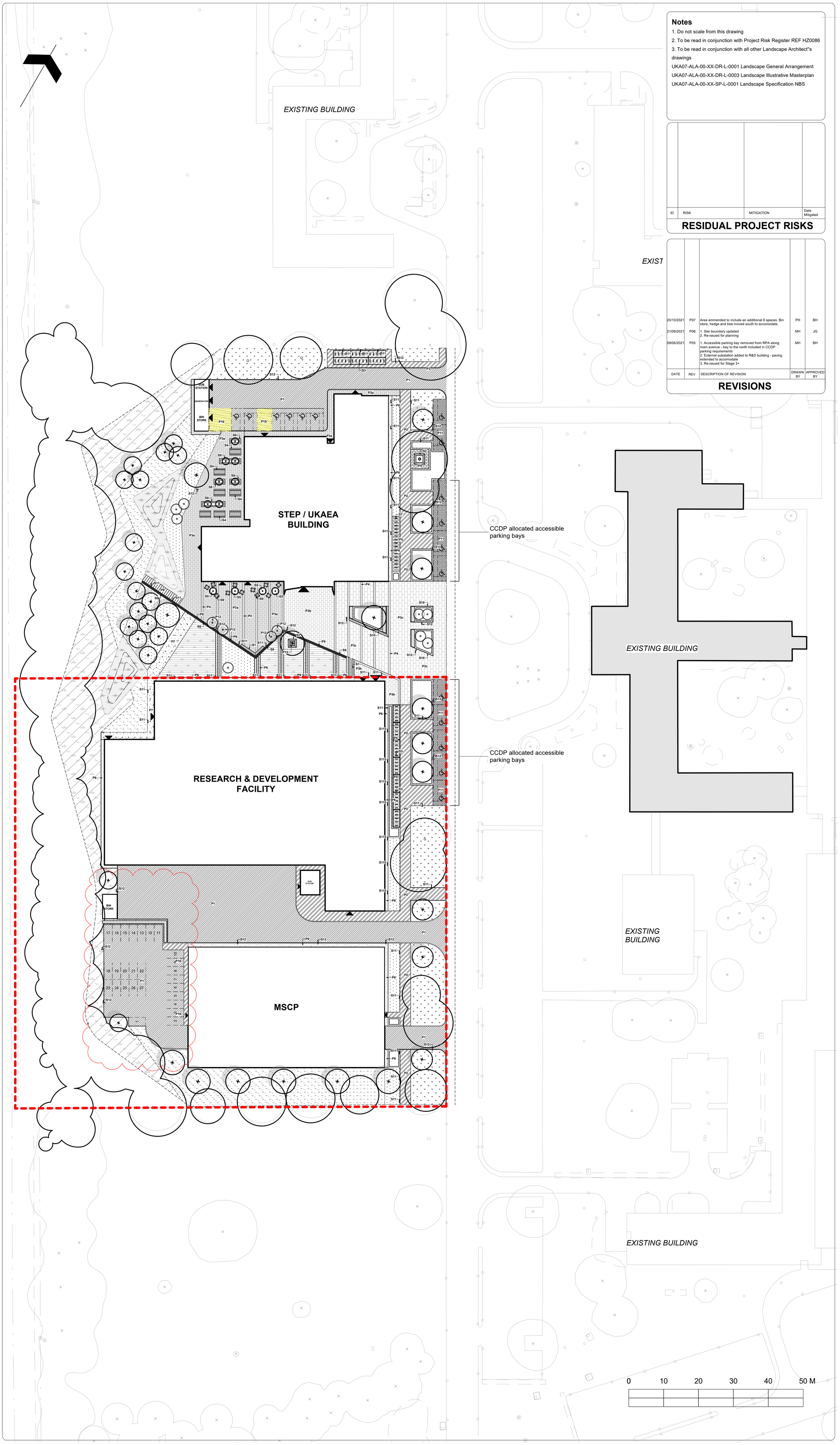

Shipston-on-Stour
Broadway
Blockley
Snowshill
Moreton-in-Marsh
Hook Norton
Winchcombe
Stow-on-the-Wold
Guiting Power
Kingham
Chipping Norton
Enstone
Chadlington
Bourton-on-the-Water
Cotswolds AONB
Chedworth
Burford
Charlbury
Woodstock
Bibury
Cirencester
Lechlade-on-Thames
Bampton
Kemble
South Cerney
Cricklade
Highworth
Shrivenham
Purton
Swindon
Royal Wootton Bassett
Wroughton
Lyneham
New Zealand
Calne
Avebury
Marlborough
Ramsbury
Lambourn
Lambourn Woodlands
North Wessex Downs AONB
Great Bedwyn
Aldermaston
Donnington
Newbury
Hermitage
Theale
Reading
Winnersh
Pangbourne
Goring
Sonning Common
Henley-on-Thames
Maidenhead
Slough
Windsor
Ascot
Bracknell
Marlow
Beaconsfield
High Wycombe
Chiltern Hills AONB
Watlington
Wallingford
Wantage
Stanford in the Vale
Abingdon
Cumnor
Wheatley
Oxford
Eynsham
Yarnton
Kidlington
Weston-on-the-Green
Stadhampton
Chinnor
Princes Risborough
Thame
Haddenham
Aylesbury
Wendover
Clinton Tring
Berkhamsted
Hemel Hempstead
Chesham
Amersham
Watford
Rickmansworth
Colne Valley Regional Park
Harrow
Hayes
Southall
Brill
Waddesdon
Quainton
Winslow
Steeple Claydon
Buckingham
Bletchley
Milton Keynes
Wolverton
Cranfield
Pagnell
Ampthill
Flitwick
Woburn
Toddington
Barton-le-Clay
Leighton Buzzard
Houghton Regis
Dunstable
Luton
Whipsnade
Wing
Bicester
Deddington
Bodicote
Bloxham
Brackley
Radstone
Banbury
A34
M40
A40
A420
A4010
A413
A355
A404
A404(M)
M4
M25
M1
A5
A505
A5183
A4146
A418
A41
A43
A422
A421
A429
A436
A46
A44
A424
A417
A419
A346

Postcodes	Route	
OX13 5EY	Abingdon	West
OX13 6PL	Abingdon	West
SN7 7FU	Abingdon	West
SN8 3LU	Abingdon	West
SN25 2EF	Abingdon	West
SN3 4LB	Abingdon	West
RG40 1QA	Clifton H	East
RG12 0UX	Clifton H	East
OX10 8JR	Clifton H	East
OX10 8EW	Clifton H	East
RG20 8SJ	Clifton H	South
RG8 8RP	Clifton H	South
RG19 4GZ	Clifton H	South
RG20 8TZ	Clifton H	South
RG6 7LR	Clifton H	South
OX11 8EJ	Clifton H	South
OX11 8HD	Clifton H	South
OX11 7SW	Clifton H	South
OX11 9LZ	Clifton H	South
OX11 8HW	Clifton H	South
OX10 9GF	Clifton H	South
OX11 8HS	Clifton H	South
OX11 8DP	Clifton H	South
OX11 9JU	Clifton H	South
OX14 4RF	Clifton H	South
OX11 7XQ	Clifton H	South
OX11 7TZ	Clifton H	South
OX11 9RL	Clifton H	South
OX11 9HY	Clifton H	South
OX14 1TF	Colwell Drive	
OX12 8DL	Culham	
OX12 8HW	Culham	
OX12 7DH	Culham	
OX12 7NR	Culham	
OX12 9HF	Culham	
OX12 9ER	Culham	
OX12 0QE	Culham	
OX12 0AF	Culham	
OX12 0BN	Culham	
OX12 7LL	Culham	
OX12 8PW	Culham	
OX12 9AS	Culham	
OX13 6BA	Culham	
OX13 6SS	Culham	
OX13 6GE	Culham	
OX14 4XB	Culham	
OX11 0BN	Culham	
OX11 7AL	Culham	
OX11 7JQ	Culham	
OX11 0BH	Culham	
OX11 7JU	Culham	
OX11 8AU	Culham	
OX14 4NB	Culham	
OX14 4LD	Culham	
OX11 0BY	Culham	
OX11 8QT	Culham	
OX14 4NB	Culham	
OX14 4PE	Culham	
OX11 7BN	Culham	

Abingdon - West	6	5%
Clifton H - East	4	4%
Clifton H - South	19	17%
Colwell Drive	1	1%
Culham	31	27%
Golden Balls - North	23	20%
Golden Balls - East	10	9%
Stratton Way	20	18%
	114	100%

Appendix E

Proposed Site Layout and Floor Plan



Notes

1. Do not scale from this drawing
2. To be read in conjunction with Project Risk Register REF HZ0086
3. To be read in conjunction with all other Landscape Architect"s drawings

UKA07-ALA-00-XX-DR-L-0001 Landscape General Arrangement
UKA07-ALA-00-XX-DR-L-0003 Landscape Illustrative Masterplan
UKA07-ALA-00-XX-SP-L-0001 Landscape Specification NBS

ID	RISK	MITIGATION	Date Mitigated

RESIDUAL PROJECT RISKS

DATE	REV	DESCRIPTION OF REVISION	DRAWN BY	APPROVED BY
20/10/2021	P07	Area ammended to include an additional 6 spaces. Bin store, hedge and tree moved south to accomodate.	PH	BH
21/09/2021	P06	1. Site boundary updated 2. Re-issued for planning	MH	JG
09/06/2021	P05	1. Accessible parking bay removed from RPA along main avenue - bay to the north included in CCDP parking requirements 2. External substation added to R&D building - paving extended to accomodate 3. Re-issued for Stage 3+	MH	BH

REVISIONS

KEY

SITE BOUNDARY

HARD LANDSCAPE

P1 - VEHICULAR TARMAC
To engineer's specification

P2 - PEDESTRIAN TARMAC
To engineer's specification

P3a CONCRETE BLOCK PAVING
Supplier: Tobermore
Product: Fusion
Colour: Mid Grey
Size: 300x200x60mm
Laid in stretcher bond
Location: To back of plaza and seating areas
NBS CLAUSE Q24/110A

P3b CONCRETE BLOCK PAVING
Supplier: Tobermore
Product: Fusion
Colour: Graphite
Size: 200x100x60mm
Laid in stretcher bond
Location: To main door entraceways
NBS CLAUSE Q24/110B

P3c CONCRETE BLOCK PAVING
Supplier: Tobermore
Product: Fusion
Colour: Silver
Size: 300x200x60mm
Laid in stretcher bond
Location: To entrance plaza
NBS CLAUSE Q24/110C

P4 CONCRETE BLOCK PAVING BANDING
Supplier: Tobermore
Product: Fusion
Colour: Blanc
Size: 300x200x60mm
Laid in stacked bond and banding
Location: Banding to plaza
NBS CLAUSE Q24/110D

P5 CONCRETE BLOCK PAVING
Supplier: Tobermore
Product: Fusion
Colour: Silver
Size: 200x100x60mm
Laid in stretcher bond
Location: To cycle parking
NBS CLAUSE Q24/110E

P6 GRAVEL
Supplier: Breedon
Product: Breedon Buff
10mm stone
Location: To maintenance pathways
NBS CLAUSE Q23/160

P7 RESIN-BOUND GRAVEL
Supplier: Addagrip or similar approved
Product: Porous Addaset Resinbound Gravel
Colour: Trent
Location: To back pathway
NBS CLAUSE Q23/110A

P8 COMPOSITE DECKING
Supplier: Envirobuild or similar approved
Product: Pioneer
Colour: Oak
Location: Pathway alongside attenuation basin
NBS CLAUSE Q55/380

P9 GRANITE SETTS TO RILL
Supplier: Tobermore
Product: Tegula Setts to middle (P3b to edge of rill)
Colour: Charcoal
Size: 100x100x50
NBS CLAUSE Q25/335

P10 THERMOPLASTIC LINE MARKINGS
Location: To car parking areas
NBS CLAUSE Q10/395

P11 PERMEABLE BLOCK PAVING
Supplier: Tobermore
Product: Hydropave
Colour: Charcoal
240x120x80mm
Location: To disabled parking bays along Main Avenue
NBS CLAUSE Q24/115

P12 PERMEABLE RESIN BOUND GRAVEL TREE PIT
Supplier: Addaset
Product: Addastone TP
Colour: Silver Grey Granite
6-10mm
Location: To tree pits in main plaza
NBS CLAUSE Q23/110B

PLANTING

PROPOSED LAWN
Refer to drawing UKA07-ALA-00-XX-DR-L-0004 Planting Plan

PROPOSED GRASS SEED
Refer to drawing UKA07-ALA-00-XX-DR-L-0004 Planting Plan

PROPOSED AMENITY PLANTING
Refer to drawing UKA07-ALA-00-XX-DR-L-0004 Planting Plan

RAIN GARDEN PLANTING
Refer to drawing UKA07-ALA-00-XX-DR-L-0004 Planting Plan

ATTENUATION BASIN PLANTING
Refer to drawing UKA07-ALA-00-XX-DR-L-0004 Planting Plan

MEADOW PLANTING
Refer to drawing UKA07-ALA-00-XX-DR-L-0004 Planting Plan

WOODLAND EDGE PLANTING
Refer to drawing UKA07-ALA-00-XX-DR-L-0004 Planting Plan

PROPOSED HEDGE
Refer to drawing UKA07-ALA-00-XX-DR-L-0004 Planting Plan

PROPOSED TREE
Refer to drawing UKA07-ALA-00-XX-DR-L-0004 Planting Plan

EXISTING TREE
Refer to drawing UKA07-ALA-00-XX-DR-L-0004 Planting Plan

EXISTING TREES TO BE REMOVED

STREET FURNITURE

S1 - PROPOSED BESPOKE TIMBER BENCH
For details refer to UKA08-ALA-00-XX-DR-L-1001 and 1003
Location: To main plaza
NBS CLAUSE Q50/220A

S2 - BESPOKE TIMBER TREE SEAT
For details refer to UKA08-ALA-00-XX-DR-L-1001
Location: To main plaza and along main avenue
NBS CLAUSE Q50/220B

S3 - CYCLE SHELTER & HOOPS
Supplier: Bailey Streetscene or similar
Product: Heron Cycle Shelter, to include 5no. Cycle Hoops
Size: 2000 x 5000mm
Finish: Smoked Grey
NBS CLAUSE Q50/210B

S4 - PROPOSED OUTDOOR BENCHES
Supplier: Streetlife or similar approved
Product: Solid Series Picnic Set
Size: 3000x1930x780mm
Location: To back cafe area
NBS CLAUSE Q50/230

S5 - PROPOSED BESPOKE SMALL PLANTER
Supplier: IOTA
Bespoke Planter
Material: Corten Steel
Location: To cafe spill out area in main plaza
NBS CLAUSE Q50/380

S6 - PROPOSED RILL
Edge of rill - Tobermore Fusion in Graphite
Base of rill - Tobermore Tegula Setts in Charcoal
Setts to form an arc shape as middle of rill
Location: To main plaza

S7 - SHEFFIELD CYCLE STANDS
Supplier: Broxap or similar
Material: Stainless steel
Location: Alongside office building
NBS CLAUSE Q50/210A

S8 - LARGE BESPOKE PLANTER
Supplier: IOTA
Material: Corten Steel
Location: To main outdoor cafe seating area
NBS CLAUSE Q50/380

S9 - PROPOSED OUTDOOR SEATING
Shown indicatively - furniture to be provided by UKAEA

S10 - BESPOKE INTEGRATED TIMBER SEATING TO RAISED PLANTER
Supplier: Streetlife or similar
Material: FSC Hardwood and Powder-coated Steel
Location: To main plaza
For details refer to UKA08-ALA-00-XX-DR-L-1002
NBS CLAUSE Q50/220C

S11 - PROPOSED LIGHTING BOLLARD
For details, see McBains drawing P115-3025-01 and Tetra Tech drawing UKA007-TT-SI-00-DR-ME-63005

S12 - PROPOSED LIGHTING COLUMNS
For details, see McBains drawing P115-3025-01 and Tetra Tech drawing UKA007-TT-SI-00-DR-ME-63005

S13 - MANHOLE COVER
For details, see McBains drawing

SUITABILITY
S2 - PLANNING

ares LANDSCAPE ARCHITECTS
Ares Landscape Architects LTD
Formal House
60 St Georges Place
Cheltenham
GL50 3PN
t: 01242 700 931
e: hello@ares.eu.com
w: ares.eu.com

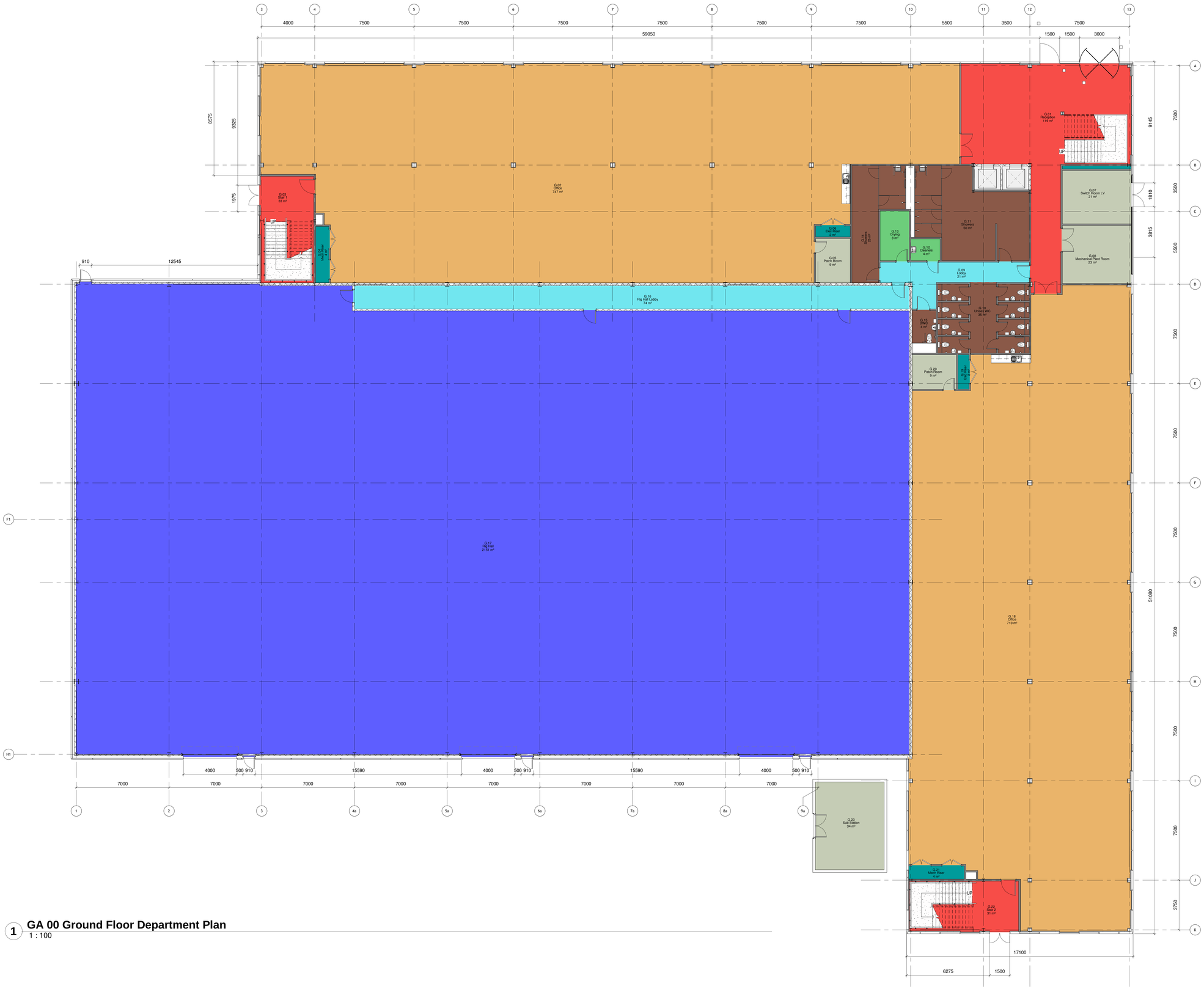
CLIENT :
UKAEA

PROJECT TITLE :
Research & Developement Building

DRAWING TITLE :
Landscape General Arrangement Wider Context

DRAWING SCALE :	DRAWN BY :	DRAWN DATE :
1:500	MH	15.02.2021
PAPER SIZE :	APPROVED BY :	ALA PROJECT CODE :
A1	BH	ALA645

DRAWING NUMBER :	SUITABILITY :	REVISION :
UKA07-ALA-00-XX-DR-L-0002	**S2**	**P07**



1 GA 00 Ground Floor Department Plan

1 : 100

0 5 10 m

North

By Department Legend

- ANCILLARY
- CIRCULATION
- CORE
- IT
- OPEN PLAN OFFICE
- RIG HALL
- RISER
- SANITARY

Rev	Description	Date	Drn / Chk / App
P03	External water tank replaced by external sub station. Internal HV switch room removed and replaced by a reduced mechanical plant room. External louvre doors and wall amended to suit.	24/09/21	MS
P02	Issued for Planning Review	05/02/21	RA
P01	Issued for Planning	24/02/21	RA

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TETRA TECH

Client

UK Atomic Energy Authority

Project

UKAEA
Culham
CCDP

Sheet Title

Planning
Ground Floor Plan
Office / Rig Hall

Model Reference

UKA07-TT-C8-ZZ-M3-A-70100

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A0	Suitability
AA100140-65	MRJS	03/02/21	RA	03/02/21	AC	03/02/21	1 : 100	S4

Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision
UKA07	TT	C8	00	DR	A	10102	P03

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TTE_R_TB_v1

Appendix F

Trip Calculations

CULHAM SCIENCE CENTRE - VEHICULAR TRIP CALCULATIONS

Peak Spreading at CSC	
7-8AM	42.7%
8-9AM	41.8%
9-10AM	15.5%
AM Total	100.0%
3-4PM	23.5%
4-5PM	53.1%
5-6PM	23.4%
PM Total	100.0%

Proposed Trip Rates

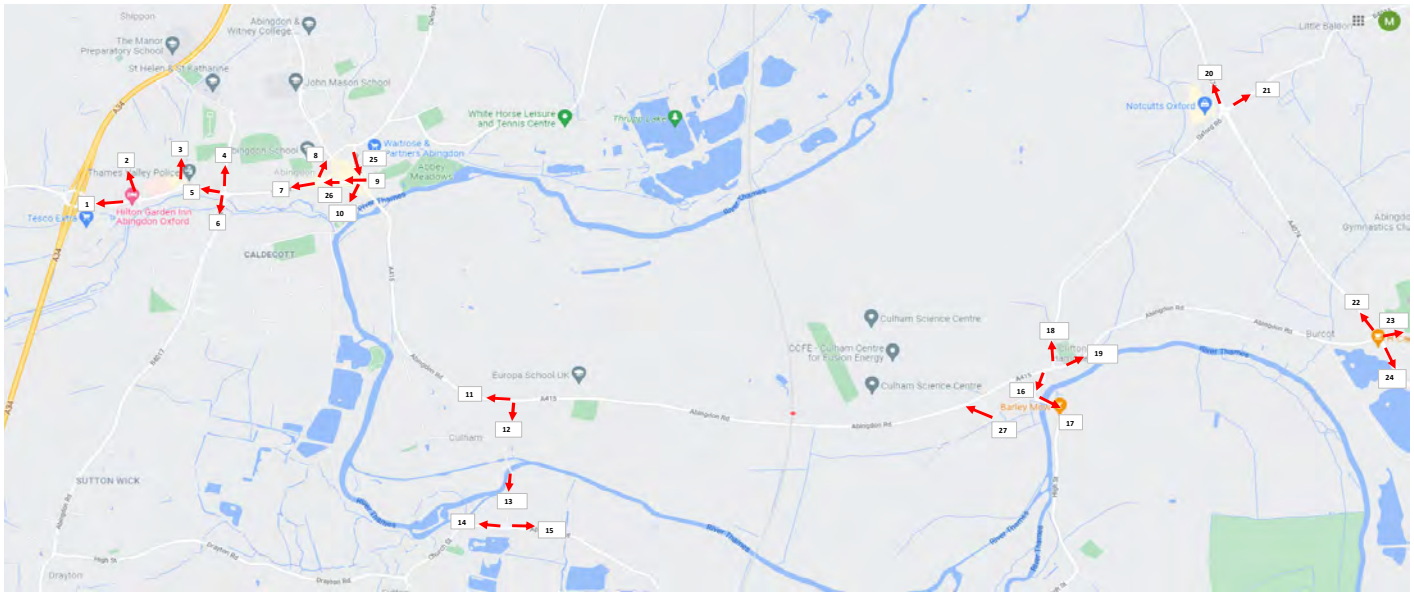
	8-9AM		5-6PM	
	In	Out	In	Out
Trip per employee	**0.298**	**0.015**	**0.008**	**0.167**

Notes:

1. % car drivers at CSC from 2019 survey = 71.2% 0.712
2. Peak spreading from 2018* survey calaculated in table above (network AM peak hour = 41.8% and PM peak hour = 23.4%) (*2019 data potentially affect by incident on A415)
3. Vehicular trip rates calculated as proportion of drivers (71.2%) x % spread for network peak hour
4. Vehicular trips calculated as number of staff x % drivers (71.2%) x % spread for network peak hour

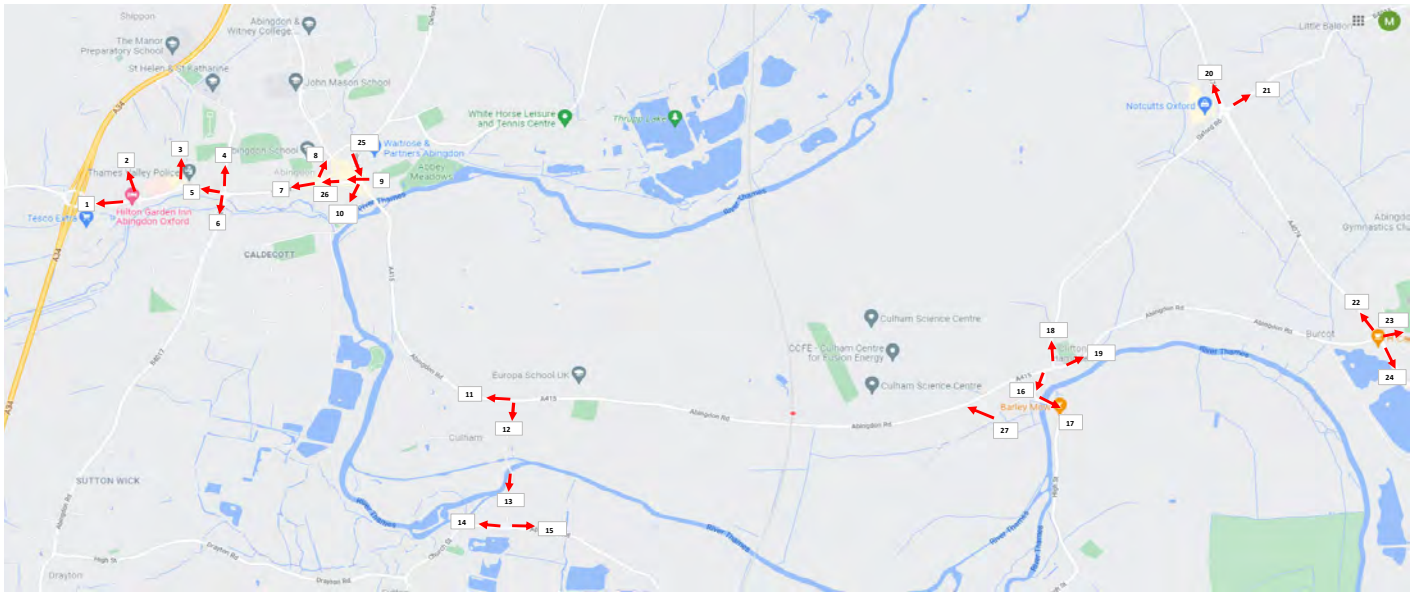
Appendix G

CSC Distribution Model



INBOUND

Route Number	Route Name		
1	Marcham Rd (A34)	6	0.4%
2	Nuffield Way	0	0.0%
3	Colwell Drive	2	0.1%
4	Spring Rd	0	0.0%
5	Marcham Rd	0	0.0%
6	Drayton Rd	2	0.1%
7	Ock Street	18	1.1%
8	Stratton Way	0	0.0%
9	High Street	0	0.0%
10	Market Place	0	0.0%
11	Abingdon Road (West)	2	0.1%
12	Tollgate Road	3	0.2%
13	Culham River Crossing	2	0.1%
14	Appleford Road (West)	298	18.1%
15	Appleford Road (East)	1	0.1%
16	High Street (Clifton Hampden)	0	0.0%
17	Clifton Hampden (River Crossing)	0	0.0%
18	Oxford Rd	1	0.1%
19	Abingdon Road (East)	1	0.1%
20	Golden Balls (North)	303	18.4%
21	Golden Balls (East)	118	7.2%
22	Berinsfield Rbt (North)	0	0.0%
23	Berinsfield Rbt (East)	10	0.6%
24	Berinsfield Rbt (South)	128	7.8%
25	Stert Street	411	24.9%
26	Ock Street (East)	50	3.0%
27	High Street (Turnpike)	292	17.7%
		1648	100.0%



OUTBOUND

Route Number	Route Name	Totals	
1	Marcham Rd (A34)	83	5.1%
2	Nuffield Way	0	0.0%
3	Colwell Drive	2	0.1%
4	Spring Rd	3	0.2%
5	Marcham Rd	0	0.0%
6	Drayton Rd	44	2.7%
7	Ock Street	18	1.1%
8	Stratton Way	331	20.2%
9	High Street	2	0.1%
10	Market Place	6	0.4%
11	Abingdon Road (West)	2	0.1%
12	Tollgate Road	3	0.2%
13	Culham River Crossing	2	0.1%
14	Appleford Road (West)	298	18.1%
15	Appleford Road (East)	1	0.1%
16	High Street (Clifton Hampden)	0	0.0%
17	Clifton Hampden (River Crossing)	292	17.8%
18	Oxford Rd	1	0.1%
19	Abingdon Road (East)	1	0.1%
20	Golden Balls (North)	297	18.1%
21	Golden Balls (East)	118	7.2%
22	Berinsfield Rbt (North)	0	0.0%
23	Berinsfield Rbt (East)	10	0.6%
24	Berinsfield Rbt (South)	128	7.8%
25	Stert Street	0	0.0%
26	Ock Street (East)	0	0.0%
27	High Street (Turnpike)	0	0.0%
		1642	100.0%

Appendix H

Capacity Assessments

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: Existing Priority CSC Access Junction.j9
Path: \\ARES\Files\Projects\Projects 18\18-0656 Culham Science Centre\Developments at CSC, on-site work\CCDP Offices\TA October 2021\Capacity Assessments\Site Access Junction
Report generation date: 11/22/2021 7:21:57 PM

»2021, AM
»2021, PM
»2024 +Com, AM
»2024 +Com, PM
»2024 +Com +Dev, AM
»2024 +Com +Dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2021							
Stream B-C	0.2	7.37	0.14	A	0.4	8.20	0.29	A
Stream B-A	0.4	20.31	0.29	C	0.9	13.16	0.46	B
Stream C-AB	1.7	18.38	0.64	C	0.0	5.44	0.03	A
	2024 +Com							
Stream B-C	0.3	9.78	0.22	A	0.7	10.76	0.43	B
Stream B-A	2.2	89.96	0.74	F	1.6	19.02	0.62	C
Stream C-AB	17.2	69.16	1.00	F	0.0	5.51	0.03	A
	2024 +Com +Dev							
Stream B-C	0.3	11.25	0.26	B	1.3	14.69	0.56	B
Stream B-A	58.6	2677.92	9999999999.00	F	2.8	28.34	0.75	D
Stream C-AB	147.3	789.45	1.33	F	0.0	5.55	0.04	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	11/22/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	BSP-CONSULTING\jposnett
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021	AM	ONE HOUR	07:45	09:15	15
D2	2021	PM	ONE HOUR	16:45	18:15	15
D3	2024 +Com	AM	ONE HOUR	07:45	09:15	15
D4	2024 +Com	PM	ONE HOUR	16:45	18:15	15
D5	2024 +Com +Dev	AM	ONE HOUR	07:45	09:15	15
D6	2024 +Com +Dev	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2021, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		4.28	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A415 (W)		Major
B	CSC Site Access		Minor
C	A415 (E)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.30		✓	3.50	250.0	✓	17.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane Width (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
B	Two lanes	3.60	4.00	250	250

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	767	0.132	0.333	0.210	0.476
1	B-C	828	0.120	0.303	-	-
1	C-B	820	0.300	0.300	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	840	100.000
B		✓	139	100.000
C		✓	812	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	330	510
	B	65	0	74
	C	496	316	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.14	7.37	0.2	A
B-A	0.29	20.31	0.4	C
C-AB	0.64	18.38	1.7	C
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	56	662	0.084	55	0.1	5.928	A
B-A	49	415	0.118	48	0.1	9.813	A
C-AB	238	631	0.377	236	0.6	9.055	A
C-A	373			373			
A-B	248			248			
A-C	384			384			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	67	626	0.106	66	0.1	6.433	A

B-A	58	345	0.169	58	0.2	12.526	B
C-AB	284	594	0.478	283	0.9	11.525	B
C-A	446			446			
A-B	297			297			
A-C	458			458			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	81	570	0.143	81	0.2	7.356	A
B-A	72	250	0.286	71	0.4	19.979	C
C-AB	348	543	0.641	345	1.7	17.854	C
C-A	546			546			
A-B	363			363			
A-C	562			562			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	81	570	0.143	81	0.2	7.374	A
B-A	72	249	0.288	72	0.4	20.306	C
C-AB	348	543	0.641	348	1.7	18.378	C
C-A	546			546			
A-B	363			363			
A-C	562			562			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	67	625	0.106	67	0.1	6.445	A
B-A	58	343	0.170	59	0.2	12.712	B
C-AB	284	594	0.478	287	0.9	11.855	B
C-A	446			446			
A-B	297			297			
A-C	458			458			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	56	662	0.084	56	0.1	5.944	A
B-A	49	413	0.118	49	0.1	9.904	A
C-AB	238	631	0.377	239	0.6	9.223	A
C-A	373			373			
A-B	248			248			
A-C	384			384			

2021, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.38	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2021	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	413	100.000
B		✓	376	100.000
C		✓	469	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	40	373
	B	215	0	161
	C	449	20	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.29	8.20	0.4	A
B-A	0.46	13.16	0.9	B
C-AB	0.03	5.44	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	121	689	0.176	120	0.2	6.322	A
B-A	162	591	0.274	160	0.4	8.326	A
C-AB	15	727	0.021	15	0.0	5.054	A
C-A	338			338			
A-B	30			30			
A-C	281			281			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	145	659	0.220	144	0.3	6.989	A
B-A	193	557	0.347	193	0.5	9.858	A
C-AB	18	709	0.025	18	0.0	5.208	A
C-A	404			404			
A-B	36			36			
A-C	335			335			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	177	617	0.287	177	0.4	8.171	A
B-A	237	510	0.464	235	0.8	13.043	B
C-AB	22	684	0.032	22	0.0	5.437	A
C-A	494			494			
A-B	44			44			
A-C	411			411			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	177	616	0.288	177	0.4	8.197	A
B-A	237	510	0.464	237	0.9	13.159	B
C-AB	22	684	0.032	22	0.0	5.437	A
C-A	494			494			
A-B	44			44			
A-C	411			411			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	145	659	0.220	145	0.3	7.016	A
B-A	193	557	0.347	195	0.5	9.960	A
C-AB	18	709	0.025	18	0.0	5.210	A
C-A	404			404			
A-B	36			36			

A-C	335			335			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	121	688	0.176	121	0.2	6.355	A
B-A	162	591	0.274	162	0.4	8.409	A
C-AB	15	727	0.021	15	0.0	5.057	A
C-A	338			338			
A-B	30			30			
A-C	281			281			

2024 +Com, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		24.92	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 +Com	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	980	100.000
B		✓	185	100.000
C		✓	970	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	438	542
	B	89	0	96
	C	521	449	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.22	9.78	0.3	A
B-A	0.74	89.96	2.2	F
C-AB	1.00	69.16	17.2	F
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	72	633	0.114	72	0.1	6.410	A
B-A	67	344	0.195	66	0.2	12.888	B
C-AB	338	599	0.564	333	1.3	13.291	B
C-A	392			392			
A-B	330			330			
A-C	408			408			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	86	584	0.148	86	0.2	7.225	A
B-A	80	260	0.308	79	0.4	19.821	C
C-AB	405	558	0.726	400	2.4	22.144	C
C-A	467			467			
A-B	394			394			
A-C	487			487			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	106	488	0.217	105	0.3	9.396	A
B-A	98	144	0.678	93	1.7	64.553	F
C-AB	1019	1021	0.998	981	11.8	45.284	E
C-A	49			49			
A-B	482			482			
A-C	597			597			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	106	474	0.223	106	0.3	9.780	A
B-A	98	133	0.736	96	2.2	89.963	F
C-AB	1019	1024	0.995	997	17.2	69.160	F
C-A	49			49			
A-B	482			482			
A-C	597			597			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	86	575	0.150	87	0.2	7.383	A
B-A	80	239	0.334	87	0.5	24.596	C
C-AB	405	562	0.720	462	3.0	50.307	F
C-A	467			467			
A-B	394			394			

A-C	487			487			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	72	631	0.114	72	0.1	6.443	A
B-A	67	339	0.198	68	0.3	13.347	B
C-AB	338	599	0.564	345	1.3	14.473	B
C-A	392			392			
A-B	330			330			
A-C	408			408			

2024 +Com, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		5.44	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 +Com	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	437	100.000
B		✓	503	100.000
C		✓	499	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	43	394
	B	278	0	225
	C	478	21	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.43	10.76	0.7	B
B-A	0.62	19.02	1.6	C
C-AB	0.03	5.51	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	169	668	0.253	168	0.3	7.176	A
B-A	209	581	0.360	207	0.6	9.577	A
C-AB	16	722	0.022	16	0.0	5.098	A
C-A	360			360			
A-B	32			32			
A-C	297			297			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	202	633	0.319	202	0.5	8.328	A
B-A	250	545	0.459	249	0.8	12.121	B
C-AB	19	703	0.027	19	0.0	5.264	A
C-A	430			430			
A-B	39			39			
A-C	354			354			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	248	583	0.425	247	0.7	10.664	B
B-A	306	495	0.619	303	1.5	18.515	C
C-AB	23	676	0.034	23	0.0	5.512	A
C-A	526			526			
A-B	47			47			
A-C	434			434			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	248	582	0.426	248	0.7	10.762	B
B-A	306	495	0.619	306	1.6	19.023	C
C-AB	23	676	0.034	23	0.0	5.512	A
C-A	526			526			
A-B	47			47			
A-C	434			434			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	202	632	0.320	203	0.5	8.416	A
B-A	250	545	0.459	253	0.9	12.448	B
C-AB	19	703	0.027	19	0.0	5.265	A
C-A	430			430			
A-B	39			39			

A-C	354			354			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	169	667	0.254	170	0.3	7.247	A
B-A	209	581	0.360	210	0.6	9.754	A
C-AB	16	722	0.022	16	0.0	5.099	A
C-A	360			360			
A-B	32			32			
A-C	297			297			

2024 +Com +Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		385.33	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 +Com +Dev	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1081	100.000
B		✓	196	100.000
C		✓	1078	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	539	542
	B	94	0	102
	C	521	557	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.26	11.25	0.3	B
B-A	9999999999.00	2677.92	58.6	F
C-AB	1.33	789.45	147.3	F
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	77	617	0.124	76	0.1	6.651	A
B-A	71	296	0.239	70	0.3	15.832	C
C-AB	421	578	0.728	411	2.5	20.477	C
C-A	391			391			
A-B	406			406			
A-C	408			408			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	92	556	0.165	91	0.2	7.749	A
B-A	85	200	0.423	83	0.7	30.460	D
C-AB	675	712	0.948	650	8.6	44.646	E
C-A	294			294			
A-B	485			485			
A-C	487			487			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	112	432	0.260	112	0.3	11.205	B
B-A	103	64	1.622	60	11.6	1201.075	F
C-AB	1187	896	1.325	923	74.7	193.748	F
C-A	0			0			
A-B	593			593			
A-C	597			597			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	112	432	0.260	112	0.3	11.246	B
B-A	103	0	9999999999.000	0	37.5	2510.017	F
C-AB	1187	897	1.323	897	147.3	491.016	F
C-A	0			0			
A-B	593			593			
A-C	597			597			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	92	467	0.196	92	0.2	9.613	A
B-A	85	0	9999999999.000	0	58.6	2677.917	F
C-AB	675	715	0.944	732	133.0	789.447	F
C-A	294			294			
A-B	485			485			

A-C	487			487			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	77	492	0.156	77	0.2	8.680	A
B-A	71	79	0.893	78	56.8	2667.578	F
C-AB	421	580	0.725	580	93.1	711.574	F
C-A	391			391			
A-B	406			406			
A-C	408			408			

2024 +Com +Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		8.84	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 +Com +Dev	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	439	100.000
B		✓	619	100.000
C		✓	502	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	45	394
	B	334	0	285
	C	478	24	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	2
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.56	14.69	1.3	B
B-A	0.75	28.34	2.8	D
C-AB	0.04	5.55	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	215	655	0.328	213	0.5	8.109	A
B-A	251	580	0.434	248	0.8	10.778	B
C-AB	18	721	0.025	18	0.0	5.118	A
C-A	360			360			
A-B	34			34			
A-C	297			297			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	256	616	0.416	255	0.7	9.950	A
B-A	300	543	0.553	298	1.2	14.602	B
C-AB	22	702	0.031	22	0.0	5.289	A
C-A	430			430			
A-B	40			40			
A-C	354			354			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	314	560	0.560	312	1.2	14.347	B
B-A	368	493	0.746	362	2.6	26.375	D
C-AB	26	675	0.039	26	0.0	5.545	A
C-A	526			526			
A-B	50			50			
A-C	434			434			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	314	558	0.562	314	1.3	14.694	B
B-A	368	493	0.746	367	2.8	28.340	D
C-AB	26	675	0.039	26	0.0	5.545	A
C-A	526			526			
A-B	50			50			
A-C	434			434			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	256	614	0.418	258	0.7	10.193	B
B-A	300	543	0.553	306	1.3	15.555	C
C-AB	22	702	0.031	22	0.0	5.290	A
C-A	430			430			
A-B	40			40			

A-C	354			354			

18:00 - 18:15

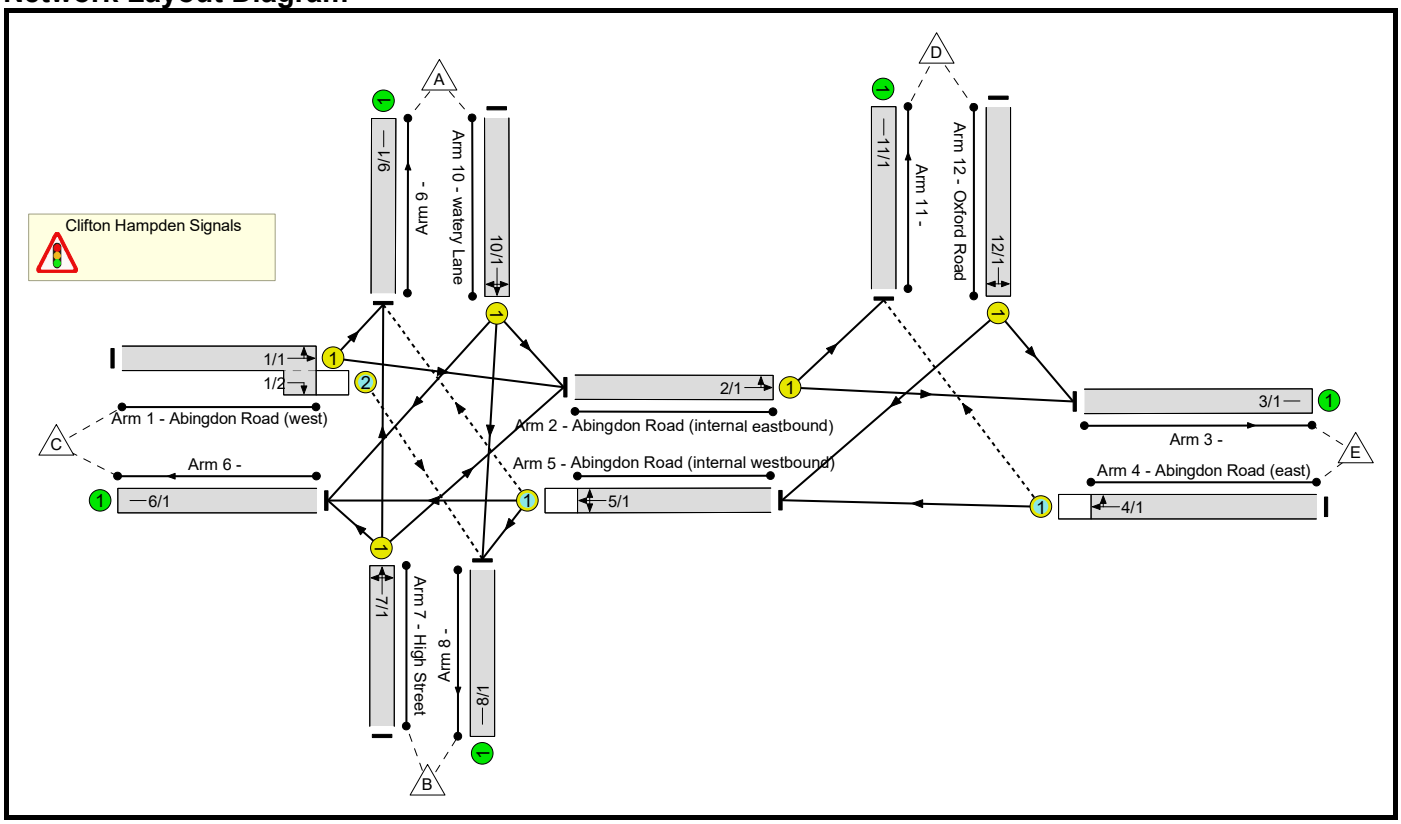
Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	215	653	0.329	216	0.5	8.245	A
B-A	251	579	0.434	253	0.8	11.109	B
C-AB	18	721	0.025	18	0.0	5.120	A
C-A	360			360			
A-B	34			34			
A-C	297			297			

LinSig V1 style report

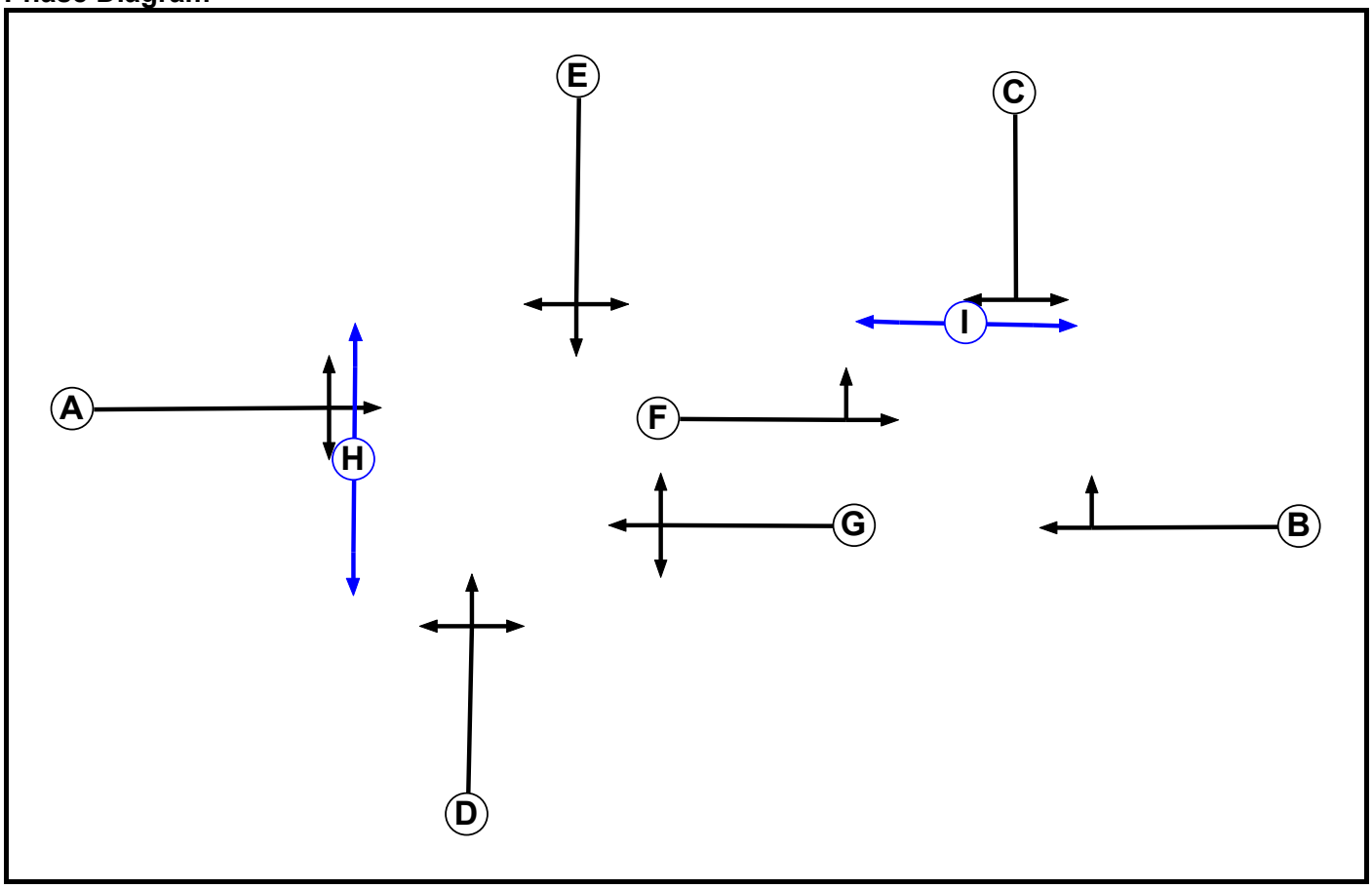
User and Project Details

Project:	**Clifton Hampden Signals**
Title:	
Location:	Oxfordshire
Client:	UKAEA
Additional detail:	
File name:	Clifton Hampden Signals.lsg3x
Author:	MAM
Company:	BSP
Address:	Notts

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		5	5
F	Traffic		7	7
G	Traffic		7	7
H	Pedestrian		8	8
I	Pedestrian		6	6

Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I
A		-	-	6	8	-	-	5	-
B	-		5	-	-	-	-	-	8
C	-	5		-	-	7	-	-	7
D	5	-	-		7	-	7	8	-
E	5	-	-	5		-	5	6	-
F	-	-	5	-	-		-	-	7
G	-	-	-	5	6	-		9	-
H	9	-	-	9	9	-	9		-
I	-	8	8	-	-	8	-	-	

Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage \ To Stage	1	2	3	4	5
1		6	9	5	8
2	7		8	7	7
3	9	9		9	9
4	7	7	9		7
5	8	8	6	8	

Phases in Stage

Stage No.	Phases in Stage
1	A B F G
2	D F
3	H
4	C G
5	E I

Give-Way Lane Input Data

Junction: Clifton Hampden Signals

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/2 (Abingdon Road (west))	8/1 (Right)	1439	0	5/1	1.09	To 6/1 (Ahead) To 8/1 (Left)	2.00	-	0.50	2	2.00
4/1 (Abingdon Road (east))	11/1 (Right)	1439	0	2/1	1.09	All	2.00	-	0.50	2	2.00
5/1 (Abingdon Road (internal westbound))	9/1 (Right)	1439	0	1/1	1.09	All	2.00	-	0.50	2	2.00

Lane Input Data

Junction: Clifton Hampden Signals

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Abingdon Road (west))	U	A	2	3	60.0	Geom	-	2.10	0.00	Y	Arm 2 Ahead	Inf
											Arm 9 Left	6.00
1/2 (Abingdon Road (west))	O	A	2	3	2.0	Geom	-	2.10	0.00	Y	Arm 8 Right	14.00
2/1 (Abingdon Road (internal eastbound))	U	F	2	3	12.5	Geom	-	3.03	0.00	Y	Arm 3 Ahead	Inf
											Arm 11 Left	12.00
3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/1 (Abingdon Road (east))	O	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 5 Ahead	Inf
											Arm 11 Right	16.00
5/1 (Abingdon Road (internal westbound))	O	G	2	3	12.5	Geom	-	3.09	0.00	Y	Arm 6 Ahead	Inf
											Arm 8 Left	12.00
											Arm 9 Right	8.00
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (High Street)	U	D	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 2 Right	Inf
											Arm 6 Left	14.00
											Arm 9 Ahead	Inf
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-
9/1	U		2	3	60.0	Inf	-	-	-	-	-	-
10/1 (watery Lane)	U	E	2	3	60.0	Geom	-	3.34	0.00	Y	Arm 2 Left	Inf
											Arm 6 Right	12.00
											Arm 8 Ahead	Inf
11/1	U		2	3	60.0	Inf	-	-	-	-	-	-
12/1 (Oxford Road)	U	C	2	3	60.0	Geom	-	2.85	0.00	Y	Arm 3 Left	12.00
											Arm 5 Right	Inf

Lane Saturation Flows

Scenario 1: '2021 Base + Com AM' (FG1: '2021 Base + Com - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Abingdon Road (west))	2.10	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1825	1825
				Arm 9 Left	6.00	0.0 %		
1/2 (Abingdon Road (west))	2.10	0.00	Y	Arm 8 Right	14.00	100.0 %	1648	1648
2/1 (Abingdon Road (internal eastbound))	3.03	0.00	Y	Arm 3 Ahead	Inf	43.2 %	1791	1791
				Arm 11 Left	12.00	56.8 %		
3/1	Infinite Saturation Flow						Inf	Inf
4/1 (Abingdon Road (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	99.8 %	1965	1965
				Arm 11 Right	16.00	0.2 %		
5/1 (Abingdon Road (internal westbound))	3.09	0.00	Y	Arm 6 Ahead	Inf	71.1 %	1857	1857
				Arm 8 Left	12.00	28.9 %		
				Arm 9 Right	8.00	0.0 %		
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (High Street)	3.25	0.00	Y	Arm 2 Right	Inf	87.0 %	1913	1913
				Arm 6 Left	14.00	13.0 %		
				Arm 9 Ahead	Inf	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1 (watery Lane)	3.34	0.00	Y	Arm 2 Left	Inf	0.0 %	1949	1949
				Arm 6 Right	12.00	0.0 %		
				Arm 8 Ahead	Inf	0.0 %		
11/1	Infinite Saturation Flow						Inf	Inf
12/1 (Oxford Road)	2.85	0.00	Y	Arm 3 Left	12.00	0.8 %	1898	1898
				Arm 5 Right	Inf	99.2 %		

Scenario 2: '2021 Base + Com PM' (FG2: '2021 Base + Com - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Abingdon Road (west))	2.10	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1825	1825
				Arm 9 Left	6.00	0.0 %		
1/2 (Abingdon Road (west))	2.10	0.00	Y	Arm 8 Right	14.00	100.0 %	1648	1648
2/1 (Abingdon Road (internal eastbound))	3.03	0.00	Y	Arm 3 Ahead	Inf	54.2 %	1814	1814
				Arm 11 Left	12.00	45.8 %		
3/1	Infinite Saturation Flow						Inf	Inf
4/1 (Abingdon Road (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	99.6 %	1964	1964
				Arm 11 Right	16.00	0.4 %		
5/1 (Abingdon Road (internal westbound))	3.09	0.00	Y	Arm 6 Ahead	Inf	46.3 %	1803	1803
				Arm 8 Left	12.00	53.7 %		
				Arm 9 Right	8.00	0.0 %		
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (High Street)	3.25	0.00	Y	Arm 2 Right	Inf	88.4 %	1916	1916
				Arm 6 Left	14.00	11.6 %		
				Arm 9 Ahead	Inf	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1 (watery Lane)	3.34	0.00	Y	Arm 2 Left	Inf	0.0 %	1949	1949
				Arm 6 Right	12.00	0.0 %		
				Arm 8 Ahead	Inf	0.0 %		
11/1	Infinite Saturation Flow						Inf	Inf
12/1 (Oxford Road)	2.85	0.00	Y	Arm 3 Left	12.00	0.6 %	1899	1899
				Arm 5 Right	Inf	99.4 %		

Scenario 3: '2024 Base + Com AM' (FG3: '2024 Base + Com - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Abingdon Road (west))	2.10	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1825	1825
				Arm 9 Left	6.00	0.0 %		
1/2 (Abingdon Road (west))	2.10	0.00	Y	Arm 8 Right	14.00	100.0 %	1648	1648
2/1 (Abingdon Road (internal eastbound))	3.03	0.00	Y	Arm 3 Ahead	Inf	43.0 %	1790	1790
				Arm 11 Left	12.00	57.0 %		
3/1	Infinite Saturation Flow						Inf	Inf
4/1 (Abingdon Road (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	99.8 %	1965	1965
				Arm 11 Right	16.00	0.2 %		
5/1 (Abingdon Road (internal westbound))	3.09	0.00	Y	Arm 6 Ahead	Inf	74.0 %	1863	1863
				Arm 8 Left	12.00	26.0 %		
				Arm 9 Right	8.00	0.0 %		
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (High Street)	3.25	0.00	Y	Arm 2 Right	Inf	87.0 %	1913	1913
				Arm 6 Left	14.00	13.0 %		
				Arm 9 Ahead	Inf	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1 (watery Lane)	3.34	0.00	Y	Arm 2 Left	Inf	0.0 %	1949	1949
				Arm 6 Right	12.00	0.0 %		
				Arm 8 Ahead	Inf	0.0 %		
11/1	Infinite Saturation Flow						Inf	Inf
12/1 (Oxford Road)	2.85	0.00	Y	Arm 3 Left	12.00	0.6 %	1899	1899
				Arm 5 Right	Inf	99.4 %		

Scenario 4: '2024 Base + Com PM' (FG4: '2024 Base + Com - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Abingdon Road (west))	2.10	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1825	1825
				Arm 9 Left	6.00	0.0 %		
1/2 (Abingdon Road (west))	2.10	0.00	Y	Arm 8 Right	14.00	100.0 %	1648	1648
2/1 (Abingdon Road (internal eastbound))	3.03	0.00	Y	Arm 3 Ahead	Inf	52.8 %	1811	1811
				Arm 11 Left	12.00	47.2 %		
3/1	Infinite Saturation Flow						Inf	Inf
4/1 (Abingdon Road (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	99.6 %	1964	1964
				Arm 11 Right	16.00	0.4 %		
5/1 (Abingdon Road (internal westbound))	3.09	0.00	Y	Arm 6 Ahead	Inf	46.7 %	1804	1804
				Arm 8 Left	12.00	53.3 %		
				Arm 9 Right	8.00	0.0 %		
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (High Street)	3.25	0.00	Y	Arm 2 Right	Inf	88.2 %	1916	1916
				Arm 6 Left	14.00	11.8 %		
				Arm 9 Ahead	Inf	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1 (watery Lane)	3.34	0.00	Y	Arm 2 Left	Inf	0.0 %	1949	1949
				Arm 6 Right	12.00	0.0 %		
				Arm 8 Ahead	Inf	0.0 %		
11/1	Infinite Saturation Flow						Inf	Inf
12/1 (Oxford Road)	2.85	0.00	Y	Arm 3 Left	12.00	0.5 %	1899	1899
				Arm 5 Right	Inf	99.5 %		

Scenario 5: '2024 With Dev AM' (FG5: '2024 Base + Com + Dev - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Abingdon Road (west))	2.10	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1825	1825
				Arm 9 Left	6.00	0.0 %		
1/2 (Abingdon Road (west))	2.10	0.00	Y	Arm 8 Right	14.00	100.0 %	1648	1648
2/1 (Abingdon Road (internal eastbound))	3.03	0.00	Y	Arm 3 Ahead	Inf	42.9 %	1790	1790
				Arm 11 Left	12.00	57.1 %		
3/1	Infinite Saturation Flow						Inf	Inf
4/1 (Abingdon Road (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	99.8 %	1965	1965
				Arm 11 Right	16.00	0.2 %		
5/1 (Abingdon Road (internal westbound))	3.09	0.00	Y	Arm 6 Ahead	Inf	76.1 %	1868	1868
				Arm 8 Left	12.00	23.9 %		
				Arm 9 Right	8.00	0.0 %		
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (High Street)	3.25	0.00	Y	Arm 2 Right	Inf	87.0 %	1913	1913
				Arm 6 Left	14.00	13.0 %		
				Arm 9 Ahead	Inf	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1 (watery Lane)	3.34	0.00	Y	Arm 2 Left	Inf	0.0 %	1949	1949
				Arm 6 Right	12.00	0.0 %		
				Arm 8 Ahead	Inf	0.0 %		
11/1	Infinite Saturation Flow						Inf	Inf
12/1 (Oxford Road)	2.85	0.00	Y	Arm 3 Left	12.00	0.5 %	1899	1899
				Arm 5 Right	Inf	99.5 %		

Scenario 6: '2024 With Dev PM' (FG6: '2024 Base + Com + Dev - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Abingdon Road (west))	2.10	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1825	1825
				Arm 9 Left	6.00	0.0 %		
1/2 (Abingdon Road (west))	2.10	0.00	Y	Arm 8 Right	14.00	100.0 %	1648	1648
2/1 (Abingdon Road (internal eastbound))	3.03	0.00	Y	Arm 3 Ahead	Inf	51.6 %	1808	1808
				Arm 11 Left	12.00	48.4 %		
3/1	Infinite Saturation Flow						Inf	Inf
4/1 (Abingdon Road (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	99.6 %	1964	1964
				Arm 11 Right	16.00	0.4 %		
5/1 (Abingdon Road (internal westbound))	3.09	0.00	Y	Arm 6 Ahead	Inf	46.9 %	1804	1804
				Arm 8 Left	12.00	53.1 %		
				Arm 9 Right	8.00	0.0 %		
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (High Street)	3.25	0.00	Y	Arm 2 Right	Inf	88.2 %	1916	1916
				Arm 6 Left	14.00	11.8 %		
				Arm 9 Ahead	Inf	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1 (watery Lane)	3.34	0.00	Y	Arm 2 Left	Inf	0.0 %	1949	1949
				Arm 6 Right	12.00	0.0 %		
				Arm 8 Ahead	Inf	0.0 %		
11/1	Infinite Saturation Flow						Inf	Inf
12/1 (Oxford Road)	2.85	0.00	Y	Arm 3 Left	12.00	0.5 %	1899	1899
				Arm 5 Right	Inf	99.5 %		

Scenario 7: '2024 With HIF AM' (FG7: '2024 with HIF - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Abingdon Road (west))	2.10	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1825	1825
				Arm 9 Left	6.00	0.0 %		
1/2 (Abingdon Road (west))	2.10	0.00	Y	Arm 8 Right	14.00	100.0 %	1648	1648
2/1 (Abingdon Road (internal eastbound))	3.03	0.00	Y	Arm 3 Ahead	Inf	52.5 %	1811	1811
				Arm 11 Left	12.00	47.5 %		
3/1	Infinite Saturation Flow						Inf	Inf
4/1 (Abingdon Road (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	92.2 %	1951	1951
				Arm 11 Right	16.00	7.8 %		
5/1 (Abingdon Road (internal westbound))	3.09	0.00	Y	Arm 6 Ahead	Inf	53.2 %	1818	1818
				Arm 8 Left	12.00	46.8 %		
				Arm 9 Right	8.00	0.0 %		
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (High Street)	3.25	0.00	Y	Arm 2 Right	Inf	88.1 %	1916	1916
				Arm 6 Left	14.00	11.9 %		
				Arm 9 Ahead	Inf	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1 (watery Lane)	3.34	0.00	Y	Arm 2 Left	Inf	0.0 %	1949	1949
				Arm 6 Right	12.00	0.0 %		
				Arm 8 Ahead	Inf	0.0 %		
11/1	Infinite Saturation Flow						Inf	Inf
12/1 (Oxford Road)	2.85	0.00	Y	Arm 3 Left	12.00	29.0 %	1833	1833
				Arm 5 Right	Inf	71.0 %		

Scenario 8: '2024 With HIF PM' (FG8: '2024 with HIF - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Abingdon Road (west))	2.10	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1825	1825
				Arm 9 Left	6.00	0.0 %		
1/2 (Abingdon Road (west))	2.10	0.00	Y	Arm 8 Right	14.00	100.0 %	1648	1648
2/1 (Abingdon Road (internal eastbound))	3.03	0.00	Y	Arm 3 Ahead	Inf	68.4 %	1845	1845
				Arm 11 Left	12.00	31.6 %		
3/1	Infinite Saturation Flow						Inf	Inf
4/1 (Abingdon Road (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	85.3 %	1938	1938
				Arm 11 Right	16.00	14.7 %		
5/1 (Abingdon Road (internal westbound))	3.09	0.00	Y	Arm 6 Ahead	Inf	25.2 %	1760	1760
				Arm 8 Left	12.00	74.8 %		
				Arm 9 Right	8.00	0.0 %		
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (High Street)	3.25	0.00	Y	Arm 2 Right	Inf	92.2 %	1924	1924
				Arm 6 Left	14.00	7.8 %		
				Arm 9 Ahead	Inf	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1 (watery Lane)	3.34	0.00	Y	Arm 2 Left	Inf	0.0 %	1949	1949
				Arm 6 Right	12.00	0.0 %		
				Arm 8 Ahead	Inf	0.0 %		
11/1	Infinite Saturation Flow						Inf	Inf
12/1 (Oxford Road)	2.85	0.00	Y	Arm 3 Left	12.00	6.1 %	1886	1886
				Arm 5 Right	Inf	93.9 %		

Scenario 9: '2024 With HIF With Dev AM' (FG9: '2024 with HIF + Dev - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Abingdon Road (west))	2.10	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1825	1825
				Arm 9 Left	6.00	0.0 %		
1/2 (Abingdon Road (west))	2.10	0.00	Y	Arm 8 Right	14.00	100.0 %	1648	1648
2/1 (Abingdon Road (internal eastbound))	3.03	0.00	Y	Arm 3 Ahead	Inf	52.7 %	1811	1811
				Arm 11 Left	12.00	47.3 %		
3/1	Infinite Saturation Flow						Inf	Inf
4/1 (Abingdon Road (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	93.0 %	1952	1952
				Arm 11 Right	16.00	7.0 %		
5/1 (Abingdon Road (internal westbound))	3.09	0.00	Y	Arm 6 Ahead	Inf	57.1 %	1826	1826
				Arm 8 Left	12.00	42.9 %		
				Arm 9 Right	8.00	0.0 %		
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (High Street)	3.25	0.00	Y	Arm 2 Right	Inf	88.1 %	1916	1916
				Arm 6 Left	14.00	11.9 %		
				Arm 9 Ahead	Inf	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1 (watery Lane)	3.34	0.00	Y	Arm 2 Left	Inf	0.0 %	1949	1949
				Arm 6 Right	12.00	0.0 %		
				Arm 8 Ahead	Inf	0.0 %		
11/1	Infinite Saturation Flow						Inf	Inf
12/1 (Oxford Road)	2.85	0.00	Y	Arm 3 Left	12.00	29.0 %	1833	1833
				Arm 5 Right	Inf	71.0 %		

Scenario 10: '2024 With HIF With Dev PM' (FG10: '2024 with HIF + Dev - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Abingdon Road (west))	2.10	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1825	1825
				Arm 9 Left	6.00	0.0 %		
1/2 (Abingdon Road (west))	2.10	0.00	Y	Arm 8 Right	14.00	100.0 %	1648	1648
2/1 (Abingdon Road (internal eastbound))	3.03	0.00	Y	Arm 3 Ahead	Inf	69.9 %	1848	1848
				Arm 11 Left	12.00	30.1 %		
3/1	Infinite Saturation Flow						Inf	Inf
4/1 (Abingdon Road (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	85.3 %	1938	1938
				Arm 11 Right	16.00	14.7 %		
5/1 (Abingdon Road (internal westbound))	3.09	0.00	Y	Arm 6 Ahead	Inf	25.2 %	1760	1760
				Arm 8 Left	12.00	74.8 %		
				Arm 9 Right	8.00	0.0 %		
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (High Street)	3.25	0.00	Y	Arm 2 Right	Inf	92.2 %	1924	1924
				Arm 6 Left	14.00	7.8 %		
				Arm 9 Ahead	Inf	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1 (watery Lane)	3.34	0.00	Y	Arm 2 Left	Inf	0.0 %	1949	1949
				Arm 6 Right	12.00	0.0 %		
				Arm 8 Ahead	Inf	0.0 %		
11/1	Infinite Saturation Flow						Inf	Inf
12/1 (Oxford Road)	2.85	0.00	Y	Arm 3 Left	12.00	6.1 %	1886	1886
				Arm 5 Right	Inf	93.9 %		

Scenario 11: '2034 With HIF AM' (FG11: '2034 with HIF - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Abingdon Road (west))	2.10	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1825	1825
				Arm 9 Left	6.00	0.0 %		
1/2 (Abingdon Road (west))	2.10	0.00	Y	Arm 8 Right	14.00	100.0 %	1648	1648
2/1 (Abingdon Road (internal eastbound))	3.03	0.00	Y	Arm 3 Ahead	Inf	63.3 %	1834	1834
				Arm 11 Left	12.00	36.7 %		
3/1	Infinite Saturation Flow						Inf	Inf
4/1 (Abingdon Road (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	86.0 %	1940	1940
				Arm 11 Right	16.00	14.0 %		
5/1 (Abingdon Road (internal westbound))	3.09	0.00	Y	Arm 6 Ahead	Inf	32.8 %	1775	1775
				Arm 8 Left	12.00	67.2 %		
				Arm 9 Right	8.00	0.0 %		
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (High Street)	3.25	0.00	Y	Arm 2 Right	Inf	80.1 %	1899	1899
				Arm 6 Left	14.00	19.9 %		
				Arm 9 Ahead	Inf	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1 (watery Lane)	3.34	0.00	Y	Arm 2 Left	Inf	0.0 %	1949	1949
				Arm 6 Right	12.00	0.0 %		
				Arm 8 Ahead	Inf	0.0 %		
11/1	Infinite Saturation Flow						Inf	Inf
12/1 (Oxford Road)	2.85	0.00	Y	Arm 3 Left	12.00	28.6 %	1834	1834
				Arm 5 Right	Inf	71.4 %		

Scenario 12: '2034 With HIF PM' (FG12: '2034 with HIF - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Abingdon Road (west))	2.10	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1825	1825
				Arm 9 Left	6.00	0.0 %		
1/2 (Abingdon Road (west))	2.10	0.00	Y	Arm 8 Right	14.00	100.0 %	1648	1648
2/1 (Abingdon Road (internal eastbound))	3.03	0.00	Y	Arm 3 Ahead	Inf	61.1 %	1829	1829
				Arm 11 Left	12.00	38.9 %		
3/1	Infinite Saturation Flow						Inf	Inf
4/1 (Abingdon Road (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	85.1 %	1938	1938
				Arm 11 Right	16.00	14.9 %		
5/1 (Abingdon Road (internal westbound))	3.09	0.00	Y	Arm 6 Ahead	Inf	11.1 %	1732	1732
				Arm 8 Left	12.00	88.9 %		
				Arm 9 Right	8.00	0.0 %		
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (High Street)	3.25	0.00	Y	Arm 2 Right	Inf	61.9 %	1864	1864
				Arm 6 Left	14.00	38.1 %		
				Arm 9 Ahead	Inf	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1 (watery Lane)	3.34	0.00	Y	Arm 2 Left	Inf	0.0 %	1949	1949
				Arm 6 Right	12.00	0.0 %		
				Arm 8 Ahead	Inf	0.0 %		
11/1	Infinite Saturation Flow						Inf	Inf
12/1 (Oxford Road)	2.85	0.00	Y	Arm 3 Left	12.00	3.7 %	1891	1891
				Arm 5 Right	Inf	96.3 %		

Scenario 13: '2034 With HIF With Dev AM' (FG13: '2034 with HIF + dev - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Abingdon Road (west))	2.10	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1825	1825
				Arm 9 Left	6.00	0.0 %		
1/2 (Abingdon Road (west))	2.10	0.00	Y	Arm 8 Right	14.00	100.0 %	1648	1648
2/1 (Abingdon Road (internal eastbound))	3.03	0.00	Y	Arm 3 Ahead	Inf	63.5 %	1834	1834
				Arm 11 Left	12.00	36.5 %		
3/1	Infinite Saturation Flow						Inf	Inf
4/1 (Abingdon Road (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	88.3 %	1944	1944
				Arm 11 Right	16.00	11.7 %		
5/1 (Abingdon Road (internal westbound))	3.09	0.00	Y	Arm 6 Ahead	Inf	41.3 %	1792	1792
				Arm 8 Left	12.00	58.7 %		
				Arm 9 Right	8.00	0.0 %		
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (High Street)	3.25	0.00	Y	Arm 2 Right	Inf	80.1 %	1899	1899
				Arm 6 Left	14.00	19.9 %		
				Arm 9 Ahead	Inf	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1 (watery Lane)	3.34	0.00	Y	Arm 2 Left	Inf	0.0 %	1949	1949
				Arm 6 Right	12.00	0.0 %		
				Arm 8 Ahead	Inf	0.0 %		
11/1	Infinite Saturation Flow						Inf	Inf
12/1 (Oxford Road)	2.85	0.00	Y	Arm 3 Left	12.00	28.6 %	1834	1834
				Arm 5 Right	Inf	71.4 %		

Scenario 14: '2034 With HIF With Dev PM' (FG14: '2034 with HIF + dev - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Abingdon Road (west))	2.10	0.00	Y	Arm 2 Ahead	Inf	100.0 %	1825	1825
				Arm 9 Left	6.00	0.0 %		
1/2 (Abingdon Road (west))	2.10	0.00	Y	Arm 8 Right	14.00	100.0 %	1648	1648
2/1 (Abingdon Road (internal eastbound))	3.03	0.00	Y	Arm 3 Ahead	Inf	64.0 %	1835	1835
				Arm 11 Left	12.00	36.0 %		
3/1	Infinite Saturation Flow						Inf	Inf
4/1 (Abingdon Road (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	85.2 %	1938	1938
				Arm 11 Right	16.00	14.8 %		
5/1 (Abingdon Road (internal westbound))	3.09	0.00	Y	Arm 6 Ahead	Inf	11.3 %	1732	1732
				Arm 8 Left	12.00	88.7 %		
				Arm 9 Right	8.00	0.0 %		
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (High Street)	3.25	0.00	Y	Arm 2 Right	Inf	61.9 %	1864	1864
				Arm 6 Left	14.00	38.1 %		
				Arm 9 Ahead	Inf	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf
9/1	Infinite Saturation Flow						Inf	Inf
10/1 (watery Lane)	3.34	0.00	Y	Arm 2 Left	Inf	0.0 %	1949	1949
				Arm 6 Right	12.00	0.0 %		
				Arm 8 Ahead	Inf	0.0 %		
11/1	Infinite Saturation Flow						Inf	Inf
12/1 (Oxford Road)	2.85	0.00	Y	Arm 3 Left	12.00	3.7 %	1891	1891
				Arm 5 Right	Inf	96.3 %		

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2021 Base + Com - AM Peak'	08:00	09:00	01:00	
2: '2021 Base + Com - PM Peak'	17:00	18:00	01:00	
3: '2024 Base + Com - AM Peak'	08:00	09:00	01:00	
4: '2024 Base + Com - PM Peak'	17:00	18:00	01:00	
5: '2024 Base + Com + Dev - AM Peak'	08:00	09:00	01:00	
6: '2024 Base + Com + Dev - PM Peak'	17:00	18:00	01:00	
7: '2024 with HIF - AM Peak'	08:00	09:00	01:00	
8: '2024 with HIF - PM Peak'	17:00	18:00	01:00	
9: '2024 with HIF + Dev - AM Peak'	08:00	09:00	01:00	
10: '2024 with HIF + Dev - PM Peak'	17:00	18:00	01:00	
11: '2034 with HIF - AM Peak'	08:00	09:00	01:00	
12: '2034 with HIF - PM Peak'	17:00	18:00	01:00	
13: '2034 with HIF + dev - AM Peak'	08:00	09:00	01:00	
14: '2034 with HIF + dev - PM Peak'	17:00	18:00	01:00	

Traffic Flows, Desired

FG1: '2021 Base + Com - AM Peak'

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	0	0
	B	0	0	68	258	197	523
	C	0	29	0	286	216	531
	D	0	69	186	0	2	257
	E	0	135	317	1	0	453
	Tot.	0	233	571	545	415	1764

FG2: '2021 Base + Com - PM Peak'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	0	0
	B	0	0	32	151	92	275
	C	0	200	0	208	333	741
	D	0	191	167	0	2	360
	E	0	262	223	2	0	487
	Tot.	0	653	422	361	427	1863

FG3: '2024 Base + Com - AM Peak'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	0	0
	B	0	0	71	269	206	546
	C	0	31	0	306	228	565
	D	0	72	258	0	2	332
	E	0	141	349	1	0	491
	Tot.	0	244	678	576	436	1934

FG4: '2024 Base + Com - PM Peak'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	0	0
	B	0	0	34	158	97	289
	C	0	228	0	249	358	835
	D	0	200	181	0	2	383
	E	0	274	235	2	0	511
	Tot.	0	702	450	409	457	2018

FG5: '2024 Base + Com + Dev - AM Peak'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	0	0
	B	0	0	71	269	206	546
	C	0	33	0	309	229	571
	D	0	72	311	0	2	385
	E	0	141	367	1	0	509
	Tot.	0	246	749	579	437	2011

FG6: '2024 Base + Com + Dev - PM Peak'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	0	0
	B	0	0	34	158	97	289
	C	0	249	0	279	368	896
	D	0	200	183	0	2	385
	E	0	274	236	2	0	512
	Tot.	0	723	453	439	467	2082

FG7: '2024 with HIF - AM Peak'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	0	0
	B	0	0	29	105	110	244
	C	0	66	0	36	46	148
	D	0	24	20	0	18	62
	E	0	63	79	12	0	154
	Tot.	0	153	128	153	174	608

FG8: '2024 with HIF - PM Peak'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	0	0
	B	0	0	8	30	64	102
	C	0	83	0	35	77	195
	D	0	138	46	0	12	196
	E	0	117	40	27	0	184
	Tot.	0	338	94	92	153	677

FG9: '2024 with HIF + Dev - AM Peak'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	0	0
	B	0	0	29	105	110	244
	C	0	67	0	36	47	150
	D	0	24	20	0	18	62
	E	0	63	96	12	0	171
	Tot.	0	154	145	153	175	627

FG10: '2024 with HIF + Dev - PM Peak'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	0	0
	B	0	0	8	30	64	102
	C	0	104	0	35	87	226
	D	0	138	46	0	12	196
	E	0	117	40	27	0	184
	Tot.	0	359	94	92	163	708

FG11: '2034 with HIF - AM Peak'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	0	0
	B	0	0	61	91	154	306
	C	0	54	0	12	24	90
	D	0	38	7	0	18	63
	E	0	46	34	13	0	93
	Tot.	0	138	102	116	196	552

FG12: '2034 with HIF - PM Peak'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	0	0
	B	0	0	48	29	49	126
	C	0	47	0	20	28	95
	D	0	276	36	0	12	324
	E	0	134	15	26	0	175
	Tot.	0	457	99	75	89	720

FG13: '2034 with HIF + dev - AM Peak'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	0	0
	B	0	0	61	91	154	306
	C	0	56	0	12	25	93
	D	0	38	7	0	18	63
	E	0	46	52	13	0	111
	Tot.	0	140	120	116	197	573

FG14: '2034 with HIF + dev - PM Peak'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	0	0
	B	0	0	48	29	49	126
	C	0	68	0	20	38	126
	D	0	276	36	0	12	324
	E	0	134	16	26	0	176
	Tot.	0	478	100	75	99	752

Stage Timings

Scenario 1: '2021 Base + Com AM' (FG1: '2021 Base + Com - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	**1**	**2**	**3**	**4**	**5**
Duration	48	13	8	7	6
Change Point	0	56	75	91	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**234.3%**
Clifton Hampden Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**234.3%**
1/1+1/2	Abingdon Road (west) Ahead Right Left	U+O	N/A	N/A	A		1	51	-	531	1825:1648	746+43	67.3 : 67.3%
2/1	Abingdon Road (internal eastbound) Ahead Left	U	N/A	N/A	F		1	67	-	957	1791	1015	68.6%
3/1		U	N/A	N/A	-		-	-	-	415	Inf	Inf	0.0%
4/1	Abingdon Road (east) Ahead Right	O	N/A	N/A	B		1	48	-	453	1965	207	218.4%
5/1	Abingdon Road (internal westbound) Ahead Left Right	O	N/A	N/A	G		2	58	-	707	1857	929	47.6%
6/1		U	N/A	N/A	-		-	-	-	571	Inf	Inf	0.0%
7/1	High Street Right Left Ahead	U	N/A	N/A	D		1	13	-	523	1913	223	234.3%
8/1		U	N/A	N/A	-		-	-	-	233	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
10/1	watery Lane Left Right Ahead	U	N/A	N/A	E		1	7	-	0	1949	130	0.0%
11/1		U	N/A	N/A	-		-	-	-	545	Inf	Inf	0.0%
12/1	Oxford Road Left Right	U	N/A	N/A	C		1	14	-	257	1898	237	108.3%

LinSig V1 style report

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**29**	**0**	**0**	**60.3**	**291.4**	**0.0**	**351.8**	**-**	**-**	**-**	**-**
Clifton Hampden Signals	**-**	**-**	**29**	**0**	**0**	**60.3**	**291.4**	**0.0**	**351.8**	**-**	**-**	**-**	**-**
1/1+1/2	531	531	29	0	0	4.0	1.0	0.0	5.1	34.2	13.9	1.0	14.9
2/1	696	696	-	-	-	2.2	1.1	-	3.3	17.0	17.6	1.1	18.7
3/1	302	302	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	453	207	0	0	0	19.5	123.7	0.0	143.2	1138.1	24.6	123.7	148.3
5/1	442	442	0	0	0	4.4	0.5	0.0	4.9	39.8	12.6	0.5	13.1
6/1	346	346	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	523	223	-	-	-	25.7	150.8	-	176.5	1214.8	31.3	150.8	182.1
8/1	154	154	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	397	397	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	257	237	-	-	-	4.5	14.4	-	18.9	264.1	9.2	14.4	23.6

C1 PRC for Signalled Lanes (%): -160.4 Total Delay for Signalled Lanes (pcuHr): 351.78 Cycle Time (s): 120
PRC Over All Lanes (%): -160.4 Total Delay Over All Lanes(pcuHr): 351.78

Stage Timings

Scenario 2: '2021 Base + Com PM' (FG2: '2021 Base + Com - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4	5
Duration	40	18	8	10	6
Change Point	0	48	72	88	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**128.3%**
Clifton Hampden Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**128.3%**
1/1+1/2	Abingdon Road (west) Ahead Right Left	U+O	N/A	N/A	A		1	43	-	741	1825:1648	489+176	110.7 : 113.5%
2/1	Abingdon Road (internal eastbound) Ahead Left	U	N/A	N/A	F		1	64	-	784	1814	983	74.8%
3/1		U	N/A	N/A	-		-	-	-	427	Inf	Inf	0.0%
4/1	Abingdon Road (east) Ahead Right	O	N/A	N/A	B		1	40	-	487	1964	380	128.3%
5/1	Abingdon Road (internal westbound) Ahead Left Right	O	N/A	N/A	G		2	53	-	843	1803	826	80.0%
6/1		U	N/A	N/A	-		-	-	-	422	Inf	Inf	0.0%
7/1	High Street Right Left Ahead	U	N/A	N/A	D		1	18	-	275	1916	303	90.6%
8/1		U	N/A	N/A	-		-	-	-	653	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
10/1	watery Lane Left Right Ahead	U	N/A	N/A	E		1	7	-	0	1949	130	0.0%
11/1		U	N/A	N/A	-		-	-	-	361	Inf	Inf	0.0%
12/1	Oxford Road Left Right	U	N/A	N/A	C		1	17	-	360	1899	285	126.4%

LinSig V1 style report

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**118**	**0**	**60**	**44.3**	**145.3**	**0.5**	**190.0**	**-**	**-**	**-**	**-**
Clifton Hampden Signals	**-**	**-**	**118**	**0**	**60**	**44.3**	**145.3**	**0.5**	**190.0**	**-**	**-**	**-**	**-**
1/1+1/2	741	668	116	0	60	12.0	42.3	0.5	54.8	266.2	26.6	42.3	68.9
2/1	735	735	-	-	-	1.9	1.5	-	3.4	16.6	6.6	1.5	8.1
3/1	396	396	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	487	380	1	0	0	12.0	55.9	0.0	68.0	502.3	19.8	55.9	75.7
5/1	661	661	0	0	0	5.0	2.0	0.0	6.9	37.8	14.6	2.0	16.5
6/1	338	338	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	275	275	-	-	-	3.8	3.8	-	7.6	99.6	8.9	3.8	12.8
8/1	532	532	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	342	342	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	360	285	-	-	-	9.5	39.8	-	49.4	493.5	16.0	39.8	55.8

C1 PRC for Signalled Lanes (%): -42.6 Total Delay for Signalled Lanes (pcuHr): 190.03 Cycle Time (s): 120
PRC Over All Lanes (%): -42.6 Total Delay Over All Lanes(pcuHr): 190.03

Stage Timings

Scenario 3: '2024 Base + Com AM' (FG3: '2024 Base + Com - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4	5
Duration	49	12	8	7	6
Change Point	0	57	75	91	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**263.5%**
Clifton Hampden Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**263.5%**
1/1+1/2	Abingdon Road (west) Ahead Right Left	U+O	N/A	N/A	A		1	52	-	565	1825:1648	760+44	70.2 : 70.2%
2/1	Abingdon Road (internal eastbound) Ahead Left	U	N/A	N/A	F		1	67	-	1009	1790	1014	70.4%
3/1		U	N/A	N/A	-		-	-	-	436	Inf	Inf	0.0%
4/1	Abingdon Road (east) Ahead Right	O	N/A	N/A	B		1	49	-	491	1965	191	257.1%
5/1	Abingdon Road (internal westbound) Ahead Left Right	O	N/A	N/A	G		2	59	-	820	1863	947	45.0%
6/1		U	N/A	N/A	-		-	-	-	678	Inf	Inf	0.0%
7/1	High Street Right Left Ahead	U	N/A	N/A	D		1	12	-	546	1913	207	263.5%
8/1		U	N/A	N/A	-		-	-	-	244	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
10/1	watery Lane Left Right Ahead	U	N/A	N/A	E		1	7	-	0	1949	130	0.0%
11/1		U	N/A	N/A	-		-	-	-	576	Inf	Inf	0.0%
12/1	Oxford Road Left Right	U	N/A	N/A	C		1	14	-	332	1899	237	139.9%

LinSig V1 style report

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**31**	**0**	**0**	**74.4**	**372.8**	**0.0**	**447.2**	**-**	**-**	**-**	**-**
Clifton Hampden Signals	**-**	**-**	**31**	**0**	**0**	**74.4**	**372.8**	**0.0**	**447.2**	**-**	**-**	**-**	**-**
1/1+1/2	565	565	31	0	0	4.2	1.2	0.0	5.4	34.7	15.1	1.2	16.3
2/1	714	714	-	-	-	2.2	1.2	-	3.3	16.9	18.5	1.2	19.7
3/1	308	308	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	491	191	0	0	0	24.1	150.8	0.0	174.9	1282.4	30.0	150.8	180.8
5/1	427	427	0	0	0	4.2	0.4	0.0	4.6	39.2	12.4	0.4	12.8
6/1	347	347	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	546	207	-	-	-	28.9	170.2	-	199.1	1312.9	34.4	170.2	204.6
8/1	137	137	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	408	408	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	332	237	-	-	-	10.7	49.0	-	59.7	647.4	16.5	49.0	65.5

C1 PRC for Signalled Lanes (%): -192.7 Total Delay for Signalled Lanes (pcuHr): 447.18 Cycle Time (s): 120
PRC Over All Lanes (%): -192.7 Total Delay Over All Lanes(pcuHr): 447.18

Stage Timings

Scenario 4: '2024 Base + Com PM' (FG4: '2024 Base + Com - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4	5
Duration	44	13	8	11	6
Change Point	0	52	71	87	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**133.9%**
Clifton Hampden Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**133.9%**
1/1+1/2	Abingdon Road (west) Ahead Right Left	U+O	N/A	N/A	A		1	47	-	835	1825:1648	533+200	114.0 : 114.0%
2/1	Abingdon Road (internal eastbound) Ahead Left	U	N/A	N/A	F		1	63	-	862	1811	966	75.6%
3/1		U	N/A	N/A	-		-	-	-	457	Inf	Inf	0.0%
4/1	Abingdon Road (east) Ahead Right	O	N/A	N/A	B		1	44	-	511	1964	382	133.9%
5/1	Abingdon Road (internal westbound) Ahead Left Right	O	N/A	N/A	G		2	58	-	890	1804	902	75.3%
6/1		U	N/A	N/A	-		-	-	-	450	Inf	Inf	0.0%
7/1	High Street Right Left Ahead	U	N/A	N/A	D		1	13	-	289	1916	224	129.3%
8/1		U	N/A	N/A	-		-	-	-	702	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
10/1	watery Lane Left Right Ahead	U	N/A	N/A	E		1	7	-	0	1949	130	0.0%
11/1		U	N/A	N/A	-		-	-	-	409	Inf	Inf	0.0%
12/1	Oxford Road Left Right	U	N/A	N/A	C		1	18	-	383	1899	301	127.4%

LinSig V1 style report

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**158**	**0**	**43**	**52.7**	**202.7**	**0.4**	**255.8**	**-**	**-**	**-**	**-**
Clifton Hampden Signals	**-**	**-**	**158**	**0**	**43**	**52.7**	**202.7**	**0.4**	**255.8**	**-**	**-**	**-**	**-**
1/1+1/2	835	733	157	0	43	14.2	55.0	0.4	69.5	299.8	31.0	55.0	85.9
2/1	730	730	-	-	-	2.3	1.5	-	3.8	18.9	9.1	1.5	10.6
3/1	391	391	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	511	382	1	0	0	13.4	66.5	0.0	80.0	563.4	21.3	66.5	87.9
5/1	679	679	0	0	0	5.1	1.5	0.0	6.6	34.8	15.3	1.5	16.8
6/1	344	344	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	289	224	-	-	-	7.4	34.8	-	42.2	525.9	11.8	34.8	46.6
8/1	562	562	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	342	342	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	383	301	-	-	-	10.3	43.4	-	53.6	504.0	17.2	43.4	60.6

C1 PRC for Signalled Lanes (%): -48.7 Total Delay for Signalled Lanes (pcuHr): 255.75 Cycle Time (s): 120
PRC Over All Lanes (%): -48.7 Total Delay Over All Lanes(pcuHr): 255.75

Stage Timings

Scenario 5: '2024 With Dev AM' (FG5: '2024 Base + Com + Dev - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4	5
Duration	49	12	8	7	6
Change Point	0	57	75	91	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**266.5%**
Clifton Hampden Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**266.5%**
1/1+1/2	Abingdon Road (west) Ahead Right Left	U+O	N/A	N/A	A		1	52	-	571	1825:1648	758+46	71.0 : 71.0%
2/1	Abingdon Road (internal eastbound) Ahead Left	U	N/A	N/A	F		1	67	-	1013	1790	1014	70.8%
3/1		U	N/A	N/A	-		-	-	-	437	Inf	Inf	0.0%
4/1	Abingdon Road (east) Ahead Right	O	N/A	N/A	B		1	49	-	509	1965	191	266.5%
5/1	Abingdon Road (internal westbound) Ahead Left Right	O	N/A	N/A	G		2	59	-	891	1868	950	44.9%
6/1		U	N/A	N/A	-		-	-	-	749	Inf	Inf	0.0%
7/1	High Street Right Left Ahead	U	N/A	N/A	D		1	12	-	546	1913	207	263.5%
8/1		U	N/A	N/A	-		-	-	-	246	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
10/1	watery Lane Left Right Ahead	U	N/A	N/A	E		1	7	-	0	1949	130	0.0%
11/1		U	N/A	N/A	-		-	-	-	579	Inf	Inf	0.0%
12/1	Oxford Road Left Right	U	N/A	N/A	C		1	14	-	385	1899	237	162.2%

LinSig V1 style report

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**33**	**0**	**0**	**80.4**	**407.9**	**0.0**	**488.3**	**-**	**-**	**-**	**-**
Clifton Hampden Signals	**-**	**-**	**33**	**0**	**0**	**80.4**	**407.9**	**0.0**	**488.3**	**-**	**-**	**-**	**-**
1/1+1/2	571	571	33	0	0	4.3	1.2	0.0	5.6	35.0	15.3	1.2	16.5
2/1	718	718	-	-	-	2.2	1.2	-	3.4	16.9	18.5	1.2	19.7
3/1	308	308	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	509	191	0	0	0	25.6	159.8	0.0	185.4	1311.2	31.8	159.8	191.6
5/1	427	427	0	0	0	4.2	0.4	0.0	4.6	39.2	12.4	0.4	12.8
6/1	356	356	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	546	207	-	-	-	28.9	170.2	-	199.1	1312.9	34.4	170.2	204.6
8/1	130	130	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	411	411	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	385	237	-	-	-	15.1	75.1	-	90.2	843.6	21.6	75.1	96.7

C1 PRC for Signalled Lanes (%): -196.1 Total Delay for Signalled Lanes (pcuHr): 488.30 Cycle Time (s): 120
PRC Over All Lanes (%): -196.1 Total Delay Over All Lanes(pcuHr): 488.30

Stage Timings

Scenario 6: '2024 With Dev PM' (FG6: '2024 Base + Com + Dev - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4	5
Duration	44	13	8	11	6
Change Point	0	52	71	87	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**129.3%**
Clifton Hampden Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**129.3%**
1/1+1/2	Abingdon Road (west) Ahead Right Left	U+O	N/A	N/A	A		1	47	-	896	1825:1648	529+204	122.3 : 122.3%
2/1	Abingdon Road (internal eastbound) Ahead Left	U	N/A	N/A	F		1	63	-	902	1808	964	75.3%
3/1		U	N/A	N/A	-		-	-	-	467	Inf	Inf	0.0%
4/1	Abingdon Road (east) Ahead Right	O	N/A	N/A	B		1	44	-	512	1964	396	129.3%
5/1	Abingdon Road (internal westbound) Ahead Left Right	O	N/A	N/A	G		2	58	-	893	1804	902	76.9%
6/1		U	N/A	N/A	-		-	-	-	453	Inf	Inf	0.0%
7/1	High Street Right Left Ahead	U	N/A	N/A	D		1	13	-	289	1916	224	129.3%
8/1		U	N/A	N/A	-		-	-	-	723	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
10/1	watery Lane Left Right Ahead	U	N/A	N/A	E		1	7	-	0	1949	130	0.0%
11/1		U	N/A	N/A	-		-	-	-	439	Inf	Inf	0.0%
12/1	Oxford Road Left Right	U	N/A	N/A	C		1	18	-	385	1899	301	128.0%

LinSig V1 style report

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**160**	**0**	**45**	**56.5**	**226.8**	**0.4**	**283.7**	**-**	**-**	**-**	**-**
Clifton Hampden Signals	**-**	**-**	**160**	**0**	**45**	**56.5**	**226.8**	**0.4**	**283.7**	**-**	**-**	**-**	**-**
1/1+1/2	896	733	159	0	45	18.4	84.3	0.4	103.1	414.2	35.0	84.3	119.4
2/1	726	726	-	-	-	2.3	1.5	-	3.8	18.9	9.1	1.5	10.6
3/1	378	378	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	512	396	1	0	0	12.7	60.2	0.0	72.9	512.8	20.9	60.2	81.1
5/1	693	693	0	0	0	5.2	1.6	0.0	6.9	35.6	15.6	1.6	17.2
6/1	352	352	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	289	224	-	-	-	7.4	34.8	-	42.2	525.9	11.8	34.8	46.6
8/1	572	572	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	352	352	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	385	301	-	-	-	10.4	44.3	-	54.8	512.0	17.4	44.3	61.7

C1 PRC for Signalled Lanes (%): -43.7 Total Delay for Signalled Lanes (pcuHr): 283.66 Cycle Time (s): 120
PRC Over All Lanes (%): -43.7 Total Delay Over All Lanes(pcuHr): 283.66

Stage Timings

Scenario 7: '2024 With HIF AM' (FG7: '2024 with HIF - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4	5
Duration	24	37	8	7	6
Change Point	0	32	75	91	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**41.2%**
Clifton Hampden Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**41.2%**
1/1+1/2	Abingdon Road (west) Ahead Right Left	U+O	N/A	N/A	A		1	27	-	148	1825:1648	253+204	32.4 : 32.4%
2/1	Abingdon Road (internal eastbound) Ahead Left	U	N/A	N/A	F		1	67	-	297	1811	1026	28.9%
3/1		U	N/A	N/A	-		-	-	-	174	Inf	Inf	0.0%
4/1	Abingdon Road (east) Ahead Right	O	N/A	N/A	B		1	24	-	154	1951	374	41.2%
5/1	Abingdon Road (internal westbound) Ahead Left Right	O	N/A	N/A	G		2	34	-	186	1818	545	34.1%
6/1		U	N/A	N/A	-		-	-	-	128	Inf	Inf	0.0%
7/1	High Street Right Left Ahead	U	N/A	N/A	D		1	37	-	244	1916	607	40.2%
8/1		U	N/A	N/A	-		-	-	-	153	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
10/1	watery Lane Left Right Ahead	U	N/A	N/A	E		1	7	-	0	1949	130	0.0%
11/1		U	N/A	N/A	-		-	-	-	153	Inf	Inf	0.0%
12/1	Oxford Road Left Right	U	N/A	N/A	C		1	14	-	62	1833	229	27.1%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**78**	**0**	**0**	**7.0**	**1.6**	**0.0**	**8.6**	**-**	**-**	**-**	**-**
Clifton Hampden Signals	**-**	**-**	**78**	**0**	**0**	**7.0**	**1.6**	**0.0**	**8.6**	**-**	**-**	**-**	**-**
1/1+1/2	148	148	66	0	0	1.5	0.2	0.0	1.8	42.8	2.3	0.2	2.6
2/1	297	297	-	-	-	0.3	0.2	-	0.5	5.5	0.6	0.2	0.9
3/1	174	174	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	154	154	12	0	0	1.7	0.3	0.0	2.1	49.2	4.4	0.3	4.8
5/1	186	186	0	0	0	0.5	0.3	0.0	0.7	13.8	2.2	0.3	2.4
6/1	128	128	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	244	244	-	-	-	2.2	0.3	-	2.5	37.1	6.3	0.3	6.6
8/1	153	153	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	153	153	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	62	62	-	-	-	0.8	0.2	-	1.0	58.3	1.9	0.2	2.0

C1 PRC for Signalled Lanes (%): 118.6 Total Delay for Signalled Lanes (pcuHr): 8.55 Cycle Time (s): 120
PRC Over All Lanes (%): 118.6 Total Delay Over All Lanes(pcuHr): 8.55

Stage Timings

Scenario 8: '2024 With HIF PM' (FG8: '2024 with HIF - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4	5
Duration	32	14	8	22	6
Change Point	0	40	60	76	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**42.4%**
Clifton Hampden Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**42.4%**
1/1+1/2	Abingdon Road (west) Ahead Right Left	U+O	N/A	N/A	A		1	35	-	195	1825:1648	327+243	34.2 : 34.2%
2/1	Abingdon Road (internal eastbound) Ahead Left	U	N/A	N/A	F		1	52	-	206	1845	815	25.3%
3/1		U	N/A	N/A	-		-	-	-	153	Inf	Inf	0.0%
4/1	Abingdon Road (east) Ahead Right	O	N/A	N/A	B		1	32	-	184	1938	440	41.8%
5/1	Abingdon Road (internal westbound) Ahead Left Right	O	N/A	N/A	G		2	57	-	341	1760	865	39.4%
6/1		U	N/A	N/A	-		-	-	-	94	Inf	Inf	0.0%
7/1	High Street Right Left Ahead	U	N/A	N/A	D		1	14	-	102	1924	241	42.4%
8/1		U	N/A	N/A	-		-	-	-	338	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
10/1	watery Lane Left Right Ahead	U	N/A	N/A	E		1	7	-	0	1949	130	0.0%
11/1		U	N/A	N/A	-		-	-	-	92	Inf	Inf	0.0%
12/1	Oxford Road Left Right	U	N/A	N/A	C		1	29	-	196	1886	471	41.6%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**110**	**0**	**0**	**8.0**	**1.8**	**0.0**	**9.9**	**-**	**-**	**-**	**-**
Clifton Hampden Signals	**-**	**-**	**110**	**0**	**0**	**8.0**	**1.8**	**0.0**	**9.9**	**-**	**-**	**-**	**-**
1/1+1/2	195	195	83	0	0	1.7	0.3	0.0	2.0	36.3	3.4	0.3	3.7
2/1	206	206	-	-	-	0.6	0.2	-	0.7	12.8	1.1	0.2	1.2
3/1	153	153	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	184	184	27	0	0	1.8	0.4	0.0	2.2	43.4	5.1	0.4	5.4
5/1	341	341	0	0	0	0.5	0.3	0.0	0.8	8.3	6.1	0.3	6.4
6/1	94	94	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	102	102	-	-	-	1.4	0.4	-	1.7	61.4	3.1	0.4	3.5
8/1	338	338	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	92	92	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	196	196	-	-	-	2.1	0.4	-	2.4	44.2	5.4	0.4	5.8

C1 PRC for Signalled Lanes (%): 112.2 Total Delay for Signalled Lanes (pcuHr): 9.85 Cycle Time (s): 120
PRC Over All Lanes (%): 112.2 Total Delay Over All Lanes(pcuHr): 9.85

Stage Timings

Scenario 9: '2024 With HIF With Dev AM' (FG9: '2024 with HIF + Dev - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4	5
Duration	26	35	8	7	6
Change Point	0	34	75	91	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**42.4%**
Clifton Hampden Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**42.4%**
1/1+1/2	Abingdon Road (west) Ahead Right Left	U+O	N/A	N/A	A		1	29	-	150	1825:1648	267+216	31.0 : 31.0%
2/1	Abingdon Road (internal eastbound) Ahead Left	U	N/A	N/A	F		1	67	-	298	1811	1026	29.0%
3/1		U	N/A	N/A	-		-	-	-	175	Inf	Inf	0.0%
4/1	Abingdon Road (east) Ahead Right	O	N/A	N/A	B		1	26	-	171	1952	409	41.8%
5/1	Abingdon Road (internal westbound) Ahead Left Right	O	N/A	N/A	G		2	36	-	203	1826	578	35.1%
6/1		U	N/A	N/A	-		-	-	-	145	Inf	Inf	0.0%
7/1	High Street Right Left Ahead	U	N/A	N/A	D		1	35	-	244	1916	575	42.4%
8/1		U	N/A	N/A	-		-	-	-	154	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
10/1	watery Lane Left Right Ahead	U	N/A	N/A	E		1	7	-	0	1949	130	0.0%
11/1		U	N/A	N/A	-		-	-	-	153	Inf	Inf	0.0%
12/1	Oxford Road Left Right	U	N/A	N/A	C		1	14	-	62	1833	229	27.1%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**79**	**0**	**0**	**7.1**	**1.6**	**0.0**	**8.8**	**-**	**-**	**-**	**-**
Clifton Hampden Signals	**-**	**-**	**79**	**0**	**0**	**7.1**	**1.6**	**0.0**	**8.8**	**-**	**-**	**-**	**-**
1/1+1/2	150	150	67	0	0	1.5	0.2	0.0	1.7	40.8	2.3	0.2	2.5
2/1	298	298	-	-	-	0.3	0.2	-	0.5	5.6	0.7	0.2	0.9
3/1	175	175	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	171	171	12	0	0	1.9	0.4	0.0	2.2	47.2	4.8	0.4	5.2
5/1	203	203	0	0	0	0.4	0.3	0.0	0.7	12.4	2.2	0.3	2.4
6/1	145	145	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	244	244	-	-	-	2.3	0.4	-	2.7	39.1	6.5	0.4	6.9
8/1	154	154	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	153	153	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	62	62	-	-	-	0.8	0.2	-	1.0	58.3	1.9	0.2	2.0

C1 PRC for Signalled Lanes (%): 112.0 Total Delay for Signalled Lanes (pcuHr): 8.76 Cycle Time (s): 120
PRC Over All Lanes (%): 112.0 Total Delay Over All Lanes(pcuHr): 8.76

Stage Timings

Scenario 10: '2024 With HIF With Dev PM' (FG10: '2024 with HIF + Dev - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4	5
Duration	31	16	8	21	6
Change Point	0	39	61	77	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**43.0%**
Clifton Hampden Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**43.0%**
1/1+1/2	Abingdon Road (west) Ahead Right Left	U+O	N/A	N/A	A		1	34	-	226	1825:1648	303+258	40.3 : 40.3%
2/1	Abingdon Road (internal eastbound) Ahead Left	U	N/A	N/A	F		1	53	-	216	1848	832	26.0%
3/1		U	N/A	N/A	-		-	-	-	163	Inf	Inf	0.0%
4/1	Abingdon Road (east) Ahead Right	O	N/A	N/A	B		1	31	-	184	1938	432	42.6%
5/1	Abingdon Road (internal westbound) Ahead Left Right	O	N/A	N/A	G		2	55	-	341	1760	836	40.8%
6/1		U	N/A	N/A	-		-	-	-	94	Inf	Inf	0.0%
7/1	High Street Right Left Ahead	U	N/A	N/A	D		1	16	-	102	1924	273	37.4%
8/1		U	N/A	N/A	-		-	-	-	359	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
10/1	watery Lane Left Right Ahead	U	N/A	N/A	E		1	7	-	0	1949	130	0.0%
11/1		U	N/A	N/A	-		-	-	-	92	Inf	Inf	0.0%
12/1	Oxford Road Left Right	U	N/A	N/A	C		1	28	-	196	1886	456	43.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**131**	**0**	**0**	**8.1**	**1.9**	**0.0**	**10.0**	**-**	**-**	**-**	**-**
Clifton Hampden Signals	**-**	**-**	**131**	**0**	**0**	**8.1**	**1.9**	**0.0**	**10.0**	**-**	**-**	**-**	**-**
1/1+1/2	226	226	104	0	0	2.0	0.3	0.0	2.4	38.0	4.1	0.3	4.5
2/1	216	216	-	-	-	0.4	0.2	-	0.5	8.9	0.7	0.2	0.9
3/1	163	163	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	184	184	27	0	0	1.8	0.4	0.0	2.2	43.3	5.0	0.4	5.3
5/1	341	341	0	0	0	0.5	0.3	0.0	0.8	8.7	6.1	0.3	6.5
6/1	94	94	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	102	102	-	-	-	1.3	0.3	-	1.6	57.2	3.1	0.3	3.4
8/1	359	359	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	92	92	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	196	196	-	-	-	2.1	0.4	-	2.5	45.4	5.5	0.4	5.9

C1 PRC for Signalled Lanes (%): 109.3 Total Delay for Signalled Lanes (pcuHr): 10.05 Cycle Time (s): 120
PRC Over All Lanes (%): 109.3 Total Delay Over All Lanes(pcuHr): 10.05

Stage Timings

Scenario 11: '2034 With HIF AM' (FG11: '2034 with HIF - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4	5
Duration	14	47	8	7	6
Change Point	0	22	75	91	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**40.4%**
Clifton Hampden Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**40.4%**
1/1+1/2	Abingdon Road (west) Ahead Right Left	U+O	N/A	N/A	A		1	17	-	90	1825:1648	120+180	30.0 : 30.0%
2/1	Abingdon Road (internal eastbound) Ahead Left	U	N/A	N/A	F		1	67	-	281	1834	1039	27.0%
3/1		U	N/A	N/A	-		-	-	-	196	Inf	Inf	0.0%
4/1	Abingdon Road (east) Ahead Right	O	N/A	N/A	B		1	14	-	93	1940	230	40.4%
5/1	Abingdon Road (internal westbound) Ahead Left Right	O	N/A	N/A	G		2	24	-	125	1775	385	32.5%
6/1		U	N/A	N/A	-		-	-	-	102	Inf	Inf	0.0%
7/1	High Street Right Left Ahead	U	N/A	N/A	D		1	47	-	306	1899	760	40.3%
8/1		U	N/A	N/A	-		-	-	-	138	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
10/1	watery Lane Left Right Ahead	U	N/A	N/A	E		1	7	-	0	1949	130	0.0%
11/1		U	N/A	N/A	-		-	-	-	116	Inf	Inf	0.0%
12/1	Oxford Road Left Right	U	N/A	N/A	C		1	14	-	63	1834	229	27.5%

LinSig V1 style report

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**67**	**0**	**0**	**6.9**	**1.5**	**0.0**	**8.4**	**-**	**-**	**-**	**-**
Clifton Hampden Signals	**-**	**-**	**67**	**0**	**0**	**6.9**	**1.5**	**0.0**	**8.4**	**-**	**-**	**-**	**-**
1/1+1/2	90	90	54	0	0	1.1	0.2	0.0	1.3	53.3	1.6	0.2	1.8
2/1	281	281	-	-	-	0.3	0.2	-	0.5	6.1	0.7	0.2	0.9
3/1	196	196	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	93	93	13	0	0	1.2	0.3	0.0	1.6	61.6	2.8	0.3	3.2
5/1	125	125	0	0	0	1.2	0.2	0.0	1.5	42.0	3.3	0.2	3.5
6/1	102	102	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	306	306	-	-	-	2.2	0.3	-	2.5	29.7	7.2	0.3	7.6
8/1	138	138	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	116	116	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	63	63	-	-	-	0.8	0.2	-	1.0	58.4	1.9	0.2	2.1

C1 PRC for Signalled Lanes (%): 122.7 Total Delay for Signalled Lanes (pcuHr): 8.41 Cycle Time (s): 120
PRC Over All Lanes (%): 122.7 Total Delay Over All Lanes(pcuHr): 8.41

Stage Timings

Scenario 12: '2034 With HIF PM' (FG12: '2034 with HIF - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4	5
Duration	24	14	8	30	6
Change Point	0	32	52	68	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**54.1%**
Clifton Hampden Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**54.1%**
1/1+1/2	Abingdon Road (west) Ahead Right Left	U+O	N/A	N/A	A		1	27	-	95	1825:1648	235+230	20.4 : 20.4%
2/1	Abingdon Road (internal eastbound) Ahead Left	U	N/A	N/A	F		1	44	-	126	1829	686	18.4%
3/1		U	N/A	N/A	-		-	-	-	89	Inf	Inf	0.0%
4/1	Abingdon Road (east) Ahead Right	O	N/A	N/A	B		1	24	-	175	1938	363	48.2%
5/1	Abingdon Road (internal westbound) Ahead Left Right	O	N/A	N/A	G		2	57	-	461	1732	852	54.1%
6/1		U	N/A	N/A	-		-	-	-	99	Inf	Inf	0.0%
7/1	High Street Right Left Ahead	U	N/A	N/A	D		1	14	-	126	1864	233	54.1%
8/1		U	N/A	N/A	-		-	-	-	457	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
10/1	watery Lane Left Right Ahead	U	N/A	N/A	E		1	7	-	0	1949	130	0.0%
11/1		U	N/A	N/A	-		-	-	-	75	Inf	Inf	0.0%
12/1	Oxford Road Left Right	U	N/A	N/A	C		1	37	-	324	1891	599	54.1%

LinSig V1 style report

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**72**	**0**	**1**	**9.4**	**2.5**	**0.0**	**11.9**	**-**	**-**	**-**	**-**
Clifton Hampden Signals	**-**	**-**	**72**	**0**	**1**	**9.4**	**2.5**	**0.0**	**11.9**	**-**	**-**	**-**	**-**
1/1+1/2	95	95	46	0	1	1.0	0.1	0.0	1.1	41.3	1.3	0.1	1.4
2/1	126	126	-	-	-	0.7	0.1	-	0.8	23.0	1.1	0.1	1.3
3/1	89	89	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	175	175	26	0	0	2.1	0.5	0.0	2.5	52.3	5.2	0.5	5.6
5/1	461	461	0	0	0	0.9	0.6	0.0	1.5	11.9	10.4	0.6	11.0
6/1	99	99	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	126	126	-	-	-	1.7	0.6	-	2.3	65.9	3.9	0.6	4.5
8/1	457	457	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	75	75	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	324	324	-	-	-	3.0	0.6	-	3.6	40.3	8.8	0.6	9.4

C1 PRC for Signalled Lanes (%): 66.2 Total Delay for Signalled Lanes (pcuHr): 11.90 Cycle Time (s): 120
PRC Over All Lanes (%): 66.2 Total Delay Over All Lanes(pcuHr): 11.90

Stage Timings

Scenario 13: '2034 With HIF With Dev AM' (FG13: '2034 with HIF + dev - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4	5
Duration	16	45	8	7	6
Change Point	0	24	75	91	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**42.0%**
Clifton Hampden Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**42.0%**
1/1+1/2	Abingdon Road (west) Ahead Right Left	U+O	N/A	N/A	A		1	19	-	93	1825:1648	131+198	28.3 : 28.3%
2/1	Abingdon Road (internal eastbound) Ahead Left	U	N/A	N/A	F		1	67	-	282	1834	1039	27.1%
3/1		U	N/A	N/A	-		-	-	-	197	Inf	Inf	0.0%
4/1	Abingdon Road (east) Ahead Right	O	N/A	N/A	B		1	16	-	111	1944	264	42.0%
5/1	Abingdon Road (internal westbound) Ahead Left Right	O	N/A	N/A	G		2	26	-	143	1792	418	34.2%
6/1		U	N/A	N/A	-		-	-	-	120	Inf	Inf	0.0%
7/1	High Street Right Left Ahead	U	N/A	N/A	D		1	45	-	306	1899	728	42.0%
8/1		U	N/A	N/A	-		-	-	-	140	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
10/1	watery Lane Left Right Ahead	U	N/A	N/A	E		1	7	-	0	1949	130	0.0%
11/1		U	N/A	N/A	-		-	-	-	116	Inf	Inf	0.0%
12/1	Oxford Road Left Right	U	N/A	N/A	C		1	14	-	63	1834	229	27.5%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**69**	**0**	**0**	**7.1**	**1.6**	**0.0**	**8.7**	**-**	**-**	**-**	**-**
Clifton Hampden Signals	**-**	**-**	**69**	**0**	**0**	**7.1**	**1.6**	**0.0**	**8.7**	**-**	**-**	**-**	**-**
1/1+1/2	93	93	56	0	0	1.1	0.2	0.0	1.3	50.7	1.6	0.2	1.8
2/1	282	282	-	-	-	0.3	0.2	-	0.5	6.0	0.7	0.2	0.9
3/1	197	197	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	111	111	13	0	0	1.4	0.4	0.0	1.8	58.8	3.4	0.4	3.7
5/1	143	143	0	0	0	1.1	0.3	0.0	1.4	34.3	3.2	0.3	3.4
6/1	120	120	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	306	306	-	-	-	2.3	0.4	-	2.7	31.5	7.5	0.4	7.8
8/1	140	140	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	116	116	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	63	63	-	-	-	0.8	0.2	-	1.0	58.4	1.9	0.2	2.1

C1 PRC for Signalled Lanes (%): 114.1 Total Delay for Signalled Lanes (pcuHr): 8.66 Cycle Time (s): 120
PRC Over All Lanes (%): 114.1 Total Delay Over All Lanes(pcuHr): 8.66

Stage Timings

Scenario 14: '2034 With HIF With Dev PM' (FG14: '2034 with HIF + dev - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4	5
Duration	24	14	8	30	6
Change Point	0	32	52	68	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**54.3%**
Clifton Hampden Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**54.3%**
1/1+1/2	Abingdon Road (west) Ahead Right Left	U+O	N/A	N/A	A		1	27	-	126	1825:1648	210+246	27.6 : 27.6%
2/1	Abingdon Road (internal eastbound) Ahead Left	U	N/A	N/A	F		1	44	-	136	1835	688	19.8%
3/1		U	N/A	N/A	-		-	-	-	99	Inf	Inf	0.0%
4/1	Abingdon Road (east) Ahead Right	O	N/A	N/A	B		1	24	-	176	1938	356	49.4%
5/1	Abingdon Road (internal westbound) Ahead Left Right	O	N/A	N/A	G		2	57	-	462	1732	852	54.3%
6/1		U	N/A	N/A	-		-	-	-	100	Inf	Inf	0.0%
7/1	High Street Right Left Ahead	U	N/A	N/A	D		1	14	-	126	1864	233	54.1%
8/1		U	N/A	N/A	-		-	-	-	478	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
10/1	watery Lane Left Right Ahead	U	N/A	N/A	E		1	7	-	0	1949	130	0.0%
11/1		U	N/A	N/A	-		-	-	-	75	Inf	Inf	0.0%
12/1	Oxford Road Left Right	U	N/A	N/A	C		1	37	-	324	1891	599	54.1%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**93**	**0**	**1**	**9.8**	**2.6**	**0.0**	**12.4**	**-**	**-**	**-**	**-**
Clifton Hampden Signals	**-**	**-**	**93**	**0**	**1**	**9.8**	**2.6**	**0.0**	**12.4**	**-**	**-**	**-**	**-**
1/1+1/2	126	126	67	0	1	1.3	0.2	0.0	1.5	42.4	1.8	0.2	2.0
2/1	136	136	-	-	-	0.7	0.1	-	0.8	21.6	1.1	0.1	1.3
3/1	99	99	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	176	176	26	0	0	2.1	0.5	0.0	2.6	52.8	5.2	0.5	5.7
5/1	462	462	0	0	0	1.0	0.6	0.0	1.6	12.2	10.6	0.6	11.2
6/1	100	100	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	126	126	-	-	-	1.7	0.6	-	2.3	65.9	3.9	0.6	4.5
8/1	478	478	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/1	75	75	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	324	324	-	-	-	3.0	0.6	-	3.6	40.3	8.8	0.6	9.4

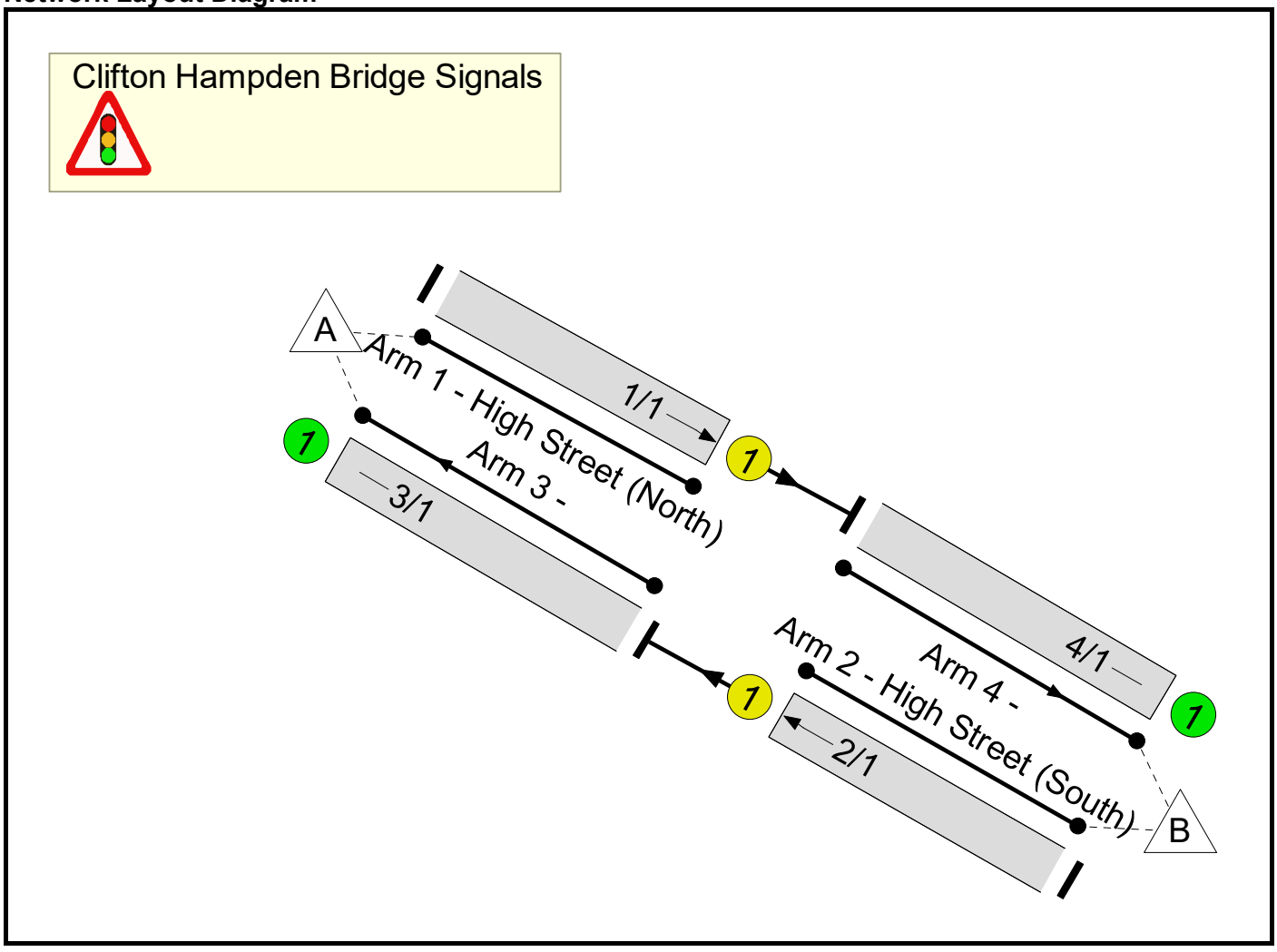
C1 PRC for Signalled Lanes (%): 65.9 Total Delay for Signalled Lanes (pcuHr): 12.39 Cycle Time (s): 120
PRC Over All Lanes (%): 65.9 Total Delay Over All Lanes(pcuHr): 12.39

LinSig V1 style report

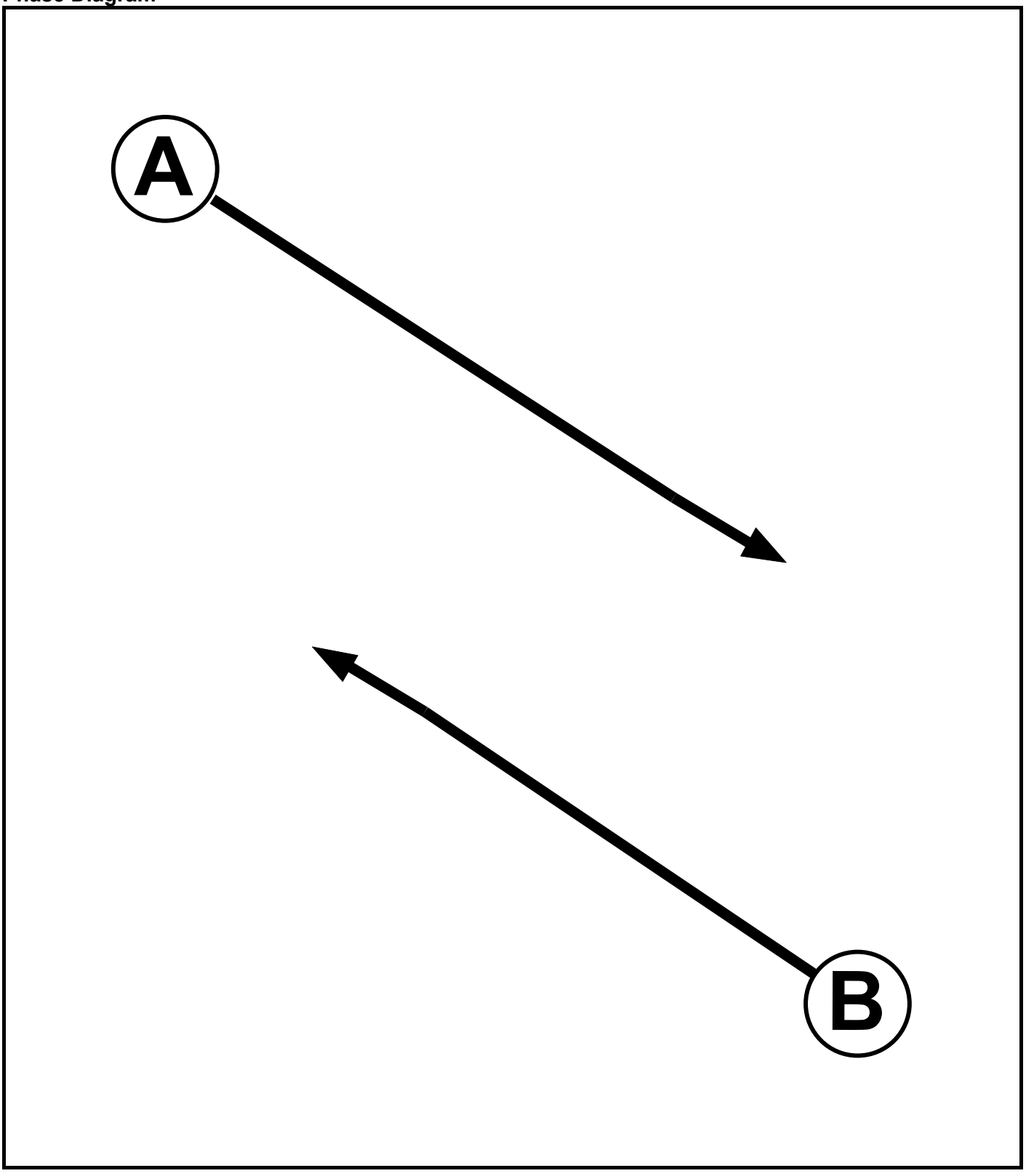
User and Project Details

Project:	**Clifton Hampden Bridge Signals**
Title:	
Location:	Oxfordshire
Client:	UKAEA
Additional detail:	
File name:	Clifton Hampden Bridge Signals.lsg3x
Author:	MAM
Company:	BSP
Address:	Notts

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7

Phase Intergreens Matrix

	Starting Phase		
Terminating Phase		A	B
	A		24
	B	24	

Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

	To Stage		
		1	2
From Stage	1		24
	2	24	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B

Give-Way Lane Input Data

Junction: Clifton Hampden Bridge Signals
There are no Opposed Lanes in this Junction

Lane Input Data

Junction: Clifton Hampden Bridge Signals

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (High Street (North))	U	A	2	3	60.0	Geom	-	2.75	0.00	Y	Arm 4 Ahead	Inf
2/1 (High Street (South))	U	B	2	3	60.0	Geom	-	2.75	0.00	Y	Arm 3 Ahead	Inf
3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Lane Saturation Flows

Scenario 1: '2021 Base + Com AM' (FG1: '2021 Base + Com - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Bridge Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street (North))	2.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1890	1890
2/1 (High Street (South))	2.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1890	1890
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2021 Base + Com PM' (FG2: '2021 Base + Com - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Bridge Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street (North))	2.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1890	1890
2/1 (High Street (South))	2.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1890	1890
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2024 Base + Com AM' (FG3: '2024 Base + Com - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Bridge Signals								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (High Street (North))	2.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1890	1890
2/1 (High Street (South))	2.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1890	1890
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2024 Base + Com PM' (FG4: '2024 Base + Com - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Bridge Signals								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (High Street (North))	2.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1890	1890
2/1 (High Street (South))	2.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1890	1890
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2024 Base + Com + Dev AM' (FG5: '2024 Base + Com + Dev - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Bridge Signals								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (High Street (North))	2.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1890	1890
2/1 (High Street (South))	2.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1890	1890
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2024 Base + Com + Dev PM' (FG6: '2024 Base + Com + Dev - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Bridge Signals								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (High Street (North))	2.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1890	1890
2/1 (High Street (South))	2.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1890	1890
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 7: '2024 With HIF AM' (FG7: '2024 With HIF - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Bridge Signals								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (High Street (North))	2.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1890	1890
2/1 (High Street (South))	2.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1890	1890
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: '2024 With HIF PM' (FG8: '2024 With HIF - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Bridge Signals								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (High Street (North))	2.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1890	1890
2/1 (High Street (South))	2.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1890	1890
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 9: '2024 With HIF + dev AM' (FG9: '2024 With HIF + dev - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Bridge Signals								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (High Street (North))	2.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1890	1890
2/1 (High Street (South))	2.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1890	1890
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 10: '2024 With HIF + dev PM' (FG10: '2024 With HIF + dev - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Bridge Signals								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (High Street (North))	2.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1890	1890
2/1 (High Street (South))	2.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1890	1890
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 11: '2034 With HIF AM' (FG11: '2034 With HIF - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Bridge Signals								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (High Street (North))	2.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1890	1890
2/1 (High Street (South))	2.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1890	1890
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 12: '2034 With HIF PM' (FG12: '2034 With HIF - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Bridge Signals								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (High Street (North))	2.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1890	1890
2/1 (High Street (South))	2.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1890	1890
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 13: '2034 With HIF + dev AM' (FG13: '2034 With HIF + dev - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Bridge Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street (North))	2.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1890	1890
2/1 (High Street (South))	2.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1890	1890
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Scenario 14: '2034 With HIF + dev PM' (FG14: '2034 With HIF + dev - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Clifton Hampden Bridge Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (High Street (North))	2.75	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1890	1890
2/1 (High Street (South))	2.75	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1890	1890
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2021 Base + Com - AM Peak'	08:00	09:00	01:00	
2: '2021 Base + Com - PM Peak'	16:00	17:00	01:00	
3: '2024 Base + Com - AM Peak'	08:00	09:00	01:00	
4: '2024 Base + Com - PM Peak'	16:00	17:00	01:00	
5: '2024 Base + Com + Dev - AM Peak'	08:00	09:00	01:00	
6: '2024 Base + Com + Dev - PM Peak'	16:00	17:00	01:00	
7: '2024 With HIF - AM Peak'	08:00	09:00	01:00	
8: '2024 With HIF - PM Peak'	16:00	17:00	01:00	
9: '2024 With HIF + dev - AM Peak'	08:00	09:00	01:00	
10: '2024 With HIF + dev - PM Peak'	16:00	17:00	01:00	
11: '2034 With HIF - AM Peak'	08:00	09:00	01:00	
12: '2034 With HIF - PM Peak'	16:00	17:00	01:00	
13: '2034 With HIF + dev - AM Peak'	08:00	09:00	01:00	
14: '2034 With HIF + dev - PM Peak'	16:00	17:00	01:00	

Traffic Flows, Desired

FG1: '2021 Base + Com - AM Peak'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	198	198
	B	619	0	619
	Tot.	619	198	817

FG2: '2021 Base + Com - PM Peak'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	495	495
	B	242	0	242
	Tot.	242	495	737

FG3: '2024 Base + Com - AM Peak'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	207	207
	B	681	0	681
	Tot.	681	207	888

FG4: '2024 Base + Com - PM Peak'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	537	537
	B	253	0	253
	Tot.	253	537	790

FG5: '2024 Base + Com + Dev - AM Peak'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	209	209
	B	717	0	717
	Tot.	717	209	926

FG6: '2024 Base + Com + Dev - PM Peak'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	557	557
	B	254	0	254
	Tot.	254	557	811

FG7: '2024 With HIF - AM Peak'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	153	153
	B	244	0	244
	Tot.	244	153	397

FG8: '2024 With HIF - PM Peak'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	338	338
	B	102	0	102
	Tot.	102	338	440

FG9: '2024 With HIF + dev - AM Peak'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	154	154
	B	281	0	281
	Tot.	281	154	435

FG10: '2024 With HIF + dev - PM Peak'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	359	359
	B	103	0	103
	Tot.	103	359	462

FG11: '2034 With HIF - AM Peak'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	138	138
	B	306	0	306
	Tot.	306	138	444

FG12: '2034 With HIF - PM Peak'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	457	457
	B	126	0	126
	Tot.	126	457	583

FG13: '2034 With HIF + dev - AM Peak'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	140	140
	B	343	0	343
	Tot.	343	140	483

FG14: '2034 With HIF + dev - PM Peak'
Desired Flow :

		Destination		
		A	B	Tot.
Origin	A	0	478	478
	B	127	0	127
	Tot.	127	478	605

Stage Timings

Scenario 1: '2021 Base + Com AM' (FG1: '2021 Base + Com - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2
Duration	17	55
Change Point	0	41

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**70.2%**
Clifton Hampden Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**70.2%**
1/1	High Street (North) Ahead	U	N/A	N/A	A		1	17	-	198	1890	284	69.8%
2/1	High Street (South) Ahead	U	N/A	N/A	B		1	55	-	619	1890	882	70.2%
3/1		U	N/A	N/A	-		-	-	-	619	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	198	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	**0**	**0**	**0**	**7.0**	**2.3**	**0.0**	**9.3**	-	-	-	-
Clifton Hampden Bridge Signals	-	-	**0**	**0**	**0**	**7.0**	**2.3**	**0.0**	**9.3**	-	-	-	-
1/1	198	198	-	-	-	2.7	1.1	-	3.8	68.9	6.2	1.1	7.3
2/1	619	619	-	-	-	4.4	1.2	-	5.5	32.2	16.3	1.2	17.5
3/1	619	619	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	198	198	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 28.2 Total Delay for Signalled Lanes (pcuHr): 9.32 Cycle Time (s): 120
PRC Over All Lanes (%): 28.2 Total Delay Over All Lanes(pcuHr): 9.32

Stage Timings

Scenario 2: '2021 Base + Com PM' (FG2: '2021 Base + Com - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2
Duration	49	23
Change Point	0	73

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**64.0%**
Clifton Hampden Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**64.0%**
1/1	High Street (North) Ahead	U	N/A	N/A	A		1	49	-	495	1890	788	62.9%
2/1	High Street (South) Ahead	U	N/A	N/A	B		1	23	-	242	1890	378	64.0%
3/1		U	N/A	N/A	-		-	-	-	242	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	495	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	**0**	**0**	**0**	**6.8**	**1.7**	**0.0**	**8.5**	-	-	-	-
Clifton Hampden Bridge Signals	-	-	**0**	**0**	**0**	**6.8**	**1.7**	**0.0**	**8.5**	-	-	-	-
1/1	495	495	-	-	-	3.8	0.8	-	4.6	33.8	12.9	0.8	13.8
2/1	242	242	-	-	-	3.0	0.9	-	3.8	57.1	7.4	0.9	8.3
3/1	242	242	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	495	495	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 40.6 Total Delay for Signalled Lanes (pcuHr): 8.48 Cycle Time (s): 120
PRC Over All Lanes (%): 40.6 Total Delay Over All Lanes(pcuHr): 8.48

Stage Timings

Scenario 3: '2024 Base + Com AM' (FG3: '2024 Base + Com - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2
Duration	17	55
Change Point	0	41

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**77.2%**
Clifton Hampden Bridge Signals	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**77.2%**
1/1	High Street (North) Ahead	U	N/A	N/A	A		1	17	-	207	1890	284	73.0%
2/1	High Street (South) Ahead	U	N/A	N/A	B		1	55	-	681	1890	882	77.2%
3/1		U	N/A	N/A	-		-	-	-	681	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	207	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**7.8**	**3.0**	**0.0**	**10.8**	**-**	**-**	**-**	**-**
Clifton Hampden Bridge Signals	**-**	**-**	**0**	**0**	**0**	**7.8**	**3.0**	**0.0**	**10.8**	**-**	**-**	**-**	**-**
1/1	207	207	-	-	-	2.8	1.3	-	4.1	71.4	6.6	1.3	7.9
2/1	681	681	-	-	-	5.0	1.7	-	6.7	35.5	18.9	1.7	20.6
3/1	681	681	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	207	207	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 16.6 Total Delay for Signalled Lanes (pcuHr): 10.82 Cycle Time (s): 120
PRC Over All Lanes (%): 16.6 Total Delay Over All Lanes(pcuHr): 10.82

Stage Timings

Scenario 4: '2024 Base + Com PM' (FG4: '2024 Base + Com - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2
Duration	49	23
Change Point	0	73

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**68.2%**
Clifton Hampden Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**68.2%**
1/1	High Street (North) Ahead	U	N/A	N/A	A		1	49	-	537	1890	788	68.2%
2/1	High Street (South) Ahead	U	N/A	N/A	B		1	23	-	253	1890	378	66.9%
3/1		U	N/A	N/A	-		-	-	-	253	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	537	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	**0**	**0**	**0**	**7.4**	**2.1**	**0.0**	**9.4**	-	-	-	-
Clifton Hampden Bridge Signals	-	-	**0**	**0**	**0**	**7.4**	**2.1**	**0.0**	**9.4**	-	-	-	-
1/1	537	537	-	-	-	4.3	1.1	-	5.3	35.6	14.5	1.1	15.5
2/1	253	253	-	-	-	3.1	1.0	-	4.1	58.5	7.7	1.0	8.7
3/1	253	253	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	537	537	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 32.0 Total Delay for Signalled Lanes (pcuHr): 9.43 Cycle Time (s): 120
PRC Over All Lanes (%): 32.0 Total Delay Over All Lanes(pcuHr): 9.43

Stage Timings

Scenario 5: '2024 Base + Com + Dev AM' (FG5: '2024 Base + Com + Dev - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2
Duration	16	56
Change Point	0	40

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**79.9%**
Clifton Hampden Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**79.9%**
1/1	High Street (North) Ahead	U	N/A	N/A	A		1	16	-	209	1890	268	78.1%
2/1	High Street (South) Ahead	U	N/A	N/A	B		1	56	-	717	1890	898	79.9%
3/1		U	N/A	N/A	-		-	-	-	717	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	209	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	**0**	**0**	**0**	**8.2**	**3.6**	**0.0**	**11.8**	-	-	-	-
Clifton Hampden Bridge Signals	-	-	**0**	**0**	**0**	**8.2**	**3.6**	**0.0**	**11.8**	-	-	-	-
1/1	209	209	-	-	-	2.9	1.7	-	4.6	78.7	6.7	1.7	8.4
2/1	717	717	-	-	-	5.3	1.9	-	7.2	36.4	20.1	1.9	22.1
3/1	717	717	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	209	209	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 12.7 Total Delay for Signalled Lanes (pcuHr): 11.82 Cycle Time (s): 120
PRC Over All Lanes (%): 12.7 Total Delay Over All Lanes(pcuHr): 11.82

Stage Timings

Scenario 6: '2024 Base + Com + Dev PM' (FG6: '2024 Base + Com + Dev - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2
Duration	50	22
Change Point	0	74

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**70.1%**
Clifton Hampden Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**70.1%**
1/1	High Street (North) Ahead	U	N/A	N/A	A		1	50	-	557	1890	803	69.3%
2/1	High Street (South) Ahead	U	N/A	N/A	B		1	22	-	254	1890	362	70.1%
3/1		U	N/A	N/A	-		-	-	-	254	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	557	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	**0**	**0**	**0**	**7.5**	**2.3**	**0.0**	**9.8**	-	-	-	-
Clifton Hampden Bridge Signals	-	-	**0**	**0**	**0**	**7.5**	**2.3**	**0.0**	**9.8**	-	-	-	-
1/1	557	557	-	-	-	4.4	1.1	-	5.5	35.4	15.0	1.1	16.1
2/1	254	254	-	-	-	3.2	1.1	-	4.3	61.6	7.9	1.1	9.1
3/1	254	254	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	557	557	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 28.4 Total Delay for Signalled Lanes (pcuHr): 9.82 Cycle Time (s): 120
PRC Over All Lanes (%): 28.4 Total Delay Over All Lanes(pcuHr): 9.82

Stage Timings

Scenario 7: '2024 With HIF AM' (FG7: '2024 With HIF - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2
Duration	28	44
Change Point	0	52

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**34.4%**
Clifton Hampden Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**34.4%**
1/1	High Street (North) Ahead	U	N/A	N/A	A		1	28	-	153	1890	457	33.5%
2/1	High Street (South) Ahead	U	N/A	N/A	B		1	44	-	244	1890	709	34.4%
3/1		U	N/A	N/A	-		-	-	-	244	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	153	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	**0**	**0**	**0**	**3.4**	**0.5**	**0.0**	**3.9**	-	-	-	-
Clifton Hampden Bridge Signals	-	-	**0**	**0**	**0**	**3.4**	**0.5**	**0.0**	**3.9**	-	-	-	-
1/1	153	153	-	-	-	1.6	0.3	-	1.8	43.5	4.2	0.3	4.5
2/1	244	244	-	-	-	1.8	0.3	-	2.1	30.8	5.8	0.3	6.1
3/1	244	244	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	153	153	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 161.4 Total Delay for Signalled Lanes (pcuHr): 3.93 Cycle Time (s): 120
PRC Over All Lanes (%): 161.4 Total Delay Over All Lanes(pcuHr): 3.93

Stage Timings

Scenario 8: '2024 With HIF PM' (FG8: '2024 With HIF - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2
Duration	56	16
Change Point	0	80

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**38.1%**
Clifton Hampden Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**38.1%**
1/1	High Street (North) Ahead	U	N/A	N/A	A		1	56	-	338	1890	898	37.6%
2/1	High Street (South) Ahead	U	N/A	N/A	B		1	16	-	102	1890	268	38.1%
3/1		U	N/A	N/A	-		-	-	-	102	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	338	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	**0**	**0**	**0**	**3.2**	**0.6**	**0.0**	**3.8**	-	-	-	-
Clifton Hampden Bridge Signals	-	-	**0**	**0**	**0**	**3.2**	**0.6**	**0.0**	**3.8**	-	-	-	-
1/1	338	338	-	-	-	1.9	0.3	-	2.2	23.4	7.1	0.3	7.4
2/1	102	102	-	-	-	1.3	0.3	-	1.6	57.6	3.1	0.3	3.4
3/1	102	102	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	338	338	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 136.2 Total Delay for Signalled Lanes (pcuHr): 3.82 Cycle Time (s): 120
PRC Over All Lanes (%): 136.2 Total Delay Over All Lanes(pcuHr): 3.82

Stage Timings

Scenario 9: '2024 With HIF + dev AM' (FG9: '2024 With HIF + dev - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2
Duration	25	47
Change Point	0	49

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**37.6%**
Clifton Hampden Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**37.6%**
1/1	High Street (North) Ahead	U	N/A	N/A	A		1	25	-	154	1890	410	37.6%
2/1	High Street (South) Ahead	U	N/A	N/A	B		1	47	-	281	1890	756	37.2%
3/1		U	N/A	N/A	-		-	-	-	281	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	154	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	**0**	**0**	**0**	**3.7**	**0.6**	**0.0**	**4.3**	-	-	-	-
Clifton Hampden Bridge Signals	-	-	**0**	**0**	**0**	**3.7**	**0.6**	**0.0**	**4.3**	-	-	-	-
1/1	154	154	-	-	-	1.7	0.3	-	2.0	47.1	4.4	0.3	4.7
2/1	281	281	-	-	-	2.0	0.3	-	2.3	29.2	6.6	0.3	6.9
3/1	281	281	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	154	154	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 139.3 Total Delay for Signalled Lanes (pcuHr): 4.29 Cycle Time (s): 120
PRC Over All Lanes (%): 139.3 Total Delay Over All Lanes(pcuHr): 4.29

Stage Timings

Scenario 10: '2024 With HIF + dev PM' (FG10: '2024 With HIF + dev - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2
Duration	56	16
Change Point	0	80

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**40.0%**
Clifton Hampden Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**40.0%**
1/1	High Street (North) Ahead	U	N/A	N/A	A		1	56	-	359	1890	898	40.0%
2/1	High Street (South) Ahead	U	N/A	N/A	B		1	16	-	103	1890	268	38.5%
3/1		U	N/A	N/A	-		-	-	-	103	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	359	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	**0**	**0**	**0**	**3.4**	**0.6**	**0.0**	**4.0**	-	-	-	-
Clifton Hampden Bridge Signals	-	-	**0**	**0**	**0**	**3.4**	**0.6**	**0.0**	**4.0**	-	-	-	-
1/1	359	359	-	-	-	2.0	0.3	-	2.4	23.8	7.7	0.3	8.0
2/1	103	103	-	-	-	1.3	0.3	-	1.6	57.6	3.1	0.3	3.4
3/1	103	103	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	359	359	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 125.1 Total Delay for Signalled Lanes (pcuHr): 4.02 Cycle Time (s): 120
PRC Over All Lanes (%): 125.1 Total Delay Over All Lanes(pcuHr): 4.02

Stage Timings

Scenario 11: '2034 With HIF AM' (FG11: '2034 With HIF - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2
Duration	22	50
Change Point	0	46

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**38.1%**
Clifton Hampden Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**38.1%**
1/1	High Street (North) Ahead	U	N/A	N/A	A		1	22	-	138	1890	362	38.1%
2/1	High Street (South) Ahead	U	N/A	N/A	B		1	50	-	306	1890	803	38.1%
3/1		U	N/A	N/A	-		-	-	-	306	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	138	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	**0**	**0**	**0**	**3.6**	**0.6**	**0.0**	**4.2**	-	-	-	-
Clifton Hampden Bridge Signals	-	-	**0**	**0**	**0**	**3.6**	**0.6**	**0.0**	**4.2**	-	-	-	-
1/1	138	138	-	-	-	1.6	0.3	-	1.9	50.3	4.0	0.3	4.3
2/1	306	306	-	-	-	2.0	0.3	-	2.3	27.3	7.0	0.3	7.3
3/1	306	306	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	138	138	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 136.2 Total Delay for Signalled Lanes (pcuHr): 4.25 Cycle Time (s): 120
PRC Over All Lanes (%): 136.2 Total Delay Over All Lanes(pcuHr): 4.25

Stage Timings

Scenario 12: '2034 With HIF PM' (FG12: '2034 With HIF - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2
Duration	57	15
Change Point	0	81

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**50.0%**
Clifton Hampden Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**50.0%**
1/1	High Street (North) Ahead	U	N/A	N/A	A		1	57	-	457	1890	914	50.0%
2/1	High Street (South) Ahead	U	N/A	N/A	B		1	15	-	126	1890	252	50.0%
3/1		U	N/A	N/A	-		-	-	-	126	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	457	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	**0**	**0**	**0**	**4.4**	**1.0**	**0.0**	**5.4**	-	-	-	-
Clifton Hampden Bridge Signals	-	-	**0**	**0**	**0**	**4.4**	**1.0**	**0.0**	**5.4**	-	-	-	-
1/1	457	457	-	-	-	2.7	0.5	-	3.2	25.1	10.3	0.5	10.8
2/1	126	126	-	-	-	1.7	0.5	-	2.2	62.5	3.9	0.5	4.4
3/1	126	126	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	457	457	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 79.9 Total Delay for Signalled Lanes (pcuHr): 5.37 Cycle Time (s): 120
PRC Over All Lanes (%): 79.9 Total Delay Over All Lanes(pcuHr): 5.37

Stage Timings

Scenario 13: '2034 With HIF + dev AM' (FG13: '2034 With HIF + dev - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2
Duration	21	51
Change Point	0	45

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**41.9%**
Clifton Hampden Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**41.9%**
1/1	High Street (North) Ahead	U	N/A	N/A	A		1	21	-	140	1890	347	40.4%
2/1	High Street (South) Ahead	U	N/A	N/A	B		1	51	-	343	1890	819	41.9%
3/1		U	N/A	N/A	-		-	-	-	343	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	140	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	**0**	**0**	**0**	**3.9**	**0.7**	**0.0**	**4.6**	-	-	-	-
Clifton Hampden Bridge Signals	-	-	**0**	**0**	**0**	**3.9**	**0.7**	**0.0**	**4.6**	-	-	-	-
1/1	140	140	-	-	-	1.7	0.3	-	2.0	51.9	4.1	0.3	4.4
2/1	343	343	-	-	-	2.2	0.4	-	2.6	27.3	7.9	0.4	8.3
3/1	343	343	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	140	140	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 114.9 Total Delay for Signalled Lanes (pcuHr): 4.62 Cycle Time (s): 120
PRC Over All Lanes (%): 114.9 Total Delay Over All Lanes(pcuHr): 4.62

Stage Timings

Scenario 14: '2034 With HIF + dev PM' (FG14: '2034 With HIF + dev - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2
Duration	57	15
Change Point	0	81

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**52.3%**
Clifton Hampden Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**52.3%**
1/1	High Street (North) Ahead	U	N/A	N/A	A		1	57	-	478	1890	914	52.3%
2/1	High Street (South) Ahead	U	N/A	N/A	B		1	15	-	127	1890	252	50.4%
3/1		U	N/A	N/A	-		-	-	-	127	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	478	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	**0**	**0**	**0**	**4.6**	**1.1**	**0.0**	**5.6**	-	-	-	-
Clifton Hampden Bridge Signals	-	-	**0**	**0**	**0**	**4.6**	**1.1**	**0.0**	**5.6**	-	-	-	-
1/1	478	478	-	-	-	2.8	0.5	-	3.4	25.6	10.9	0.5	11.4
2/1	127	127	-	-	-	1.7	0.5	-	2.2	62.6	3.9	0.5	4.4
3/1	127	127	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	478	478	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 72.0 Total Delay for Signalled Lanes (pcuHr): 5.60 Cycle Time (s): 120
PRC Over All Lanes (%): 72.0 Total Delay Over All Lanes(pcuHr): 5.60

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: J10 Berinsfield roundabout j9 model.j9
Path: Z:\Projects\Projects 18\18-0656 Culham Science Centre\Developments at CSC, on-site work\CCDP Offices\TA October 2021\Capacity Assessments\Junction 10 Berinsfield roundabout
Report generation date: 11/19/2021 8:41:57 AM

»2021 base + com, AM
»2021 base + com, PM
»2024 base + com, AM
»2024 base + com, PM
»2024 base + com + dev, AM
»2024 base + com + dev, PM
»2024 With HIF, AM
»2024 With HIF, PM
»2024 With HIF + dev, AM
»2024 With HIF + dev, PM
»2034 With HIF, AM
»2034 With HIF, PM
»2034 With HIF + dev, AM
»2034 With HIF + dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2021 base + com							
Arm A	0.8	4.20	0.41	A	1.7	6.52	0.61	A
Arm B	0.7	7.01	0.38	A	0.8	8.69	0.43	A
Arm C	1.5	5.58	0.58	A	1.1	4.54	0.49	A
Arm D	0.9	9.40	0.46	A	0.7	7.46	0.40	A
	2024 base + com							
Arm A	0.8	4.40	0.44	A	2.0	7.29	0.65	A
Arm B	0.8	7.48	0.41	A	0.9	9.63	0.46	A
Arm C	1.8	6.25	0.62	A	1.2	4.82	0.52	A
Arm D	1.1	10.44	0.50	B	0.8	8.16	0.44	A
	2024 base + com + dev							
Arm A	0.8	4.41	0.44	A	2.0	7.40	0.65	A
Arm B	0.8	7.51	0.41	A	1.0	9.76	0.47	A
Arm C	1.9	6.44	0.64	A	1.2	4.83	0.52	A
Arm D	1.1	10.47	0.50	B	0.9	8.35	0.45	A
	2024 With HIF							
Arm A	0.6	3.42	0.34	A	1.2	4.72	0.52	A
Arm B	0.3	5.01	0.23	A	0.4	5.81	0.25	A
Arm C	1.1	4.26	0.50	A	0.7	3.56	0.40	A

Arm D	0.1	5.93	0.12	A	0.1	4.83	0.05	A
	2024 With HIF + dev							
Arm A	0.6	3.42	0.34	A	1.2	4.76	0.52	A
Arm B	0.3	5.02	0.23	A	0.4	5.86	0.25	A
Arm C	1.1	4.35	0.51	A	0.7	3.56	0.40	A
Arm D	0.1	5.94	0.12	A	0.1	4.90	0.06	A
	2034 With HIF							
Arm A	0.7	3.92	0.40	A	1.7	5.96	0.61	A
Arm B	0.4	5.66	0.27	A	0.6	7.19	0.34	A
Arm C	1.4	4.89	0.56	A	1.0	4.17	0.47	A
Arm D	0.5	8.35	0.31	A	0.2	5.59	0.12	A
	2034 With HIF + dev							
Arm A	0.7	3.92	0.40	A	1.7	6.02	0.61	A
Arm B	0.4	5.68	0.27	A	0.6	7.27	0.34	A
Arm C	1.4	5.00	0.57	A	1.0	4.17	0.47	A
Arm D	0.5	8.37	0.31	A	0.2	5.66	0.13	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	4/30/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	BSP-CONSULTING\tbowey
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021 base + com	AM	ONE HOUR	07:30	09:00	15
D2	2021 base + com	PM	ONE HOUR	16:30	18:00	15
D3	2024 base + com	AM	ONE HOUR	07:30	09:00	15
D4	2024 base + com	PM	ONE HOUR	16:30	18:00	15
D5	2024 base + com + dev	AM	ONE HOUR	07:30	09:00	15
D6	2024 base + com + dev	PM	ONE HOUR	16:30	18:00	15
D7	2024 With HIF	AM	ONE HOUR	07:30	09:00	15
D8	2024 With HIF	PM	ONE HOUR	16:30	18:00	15
D9	2024 With HIF + dev	AM	ONE HOUR	07:30	09:00	15
D10	2024 With HIF + dev	PM	ONE HOUR	16:30	18:00	15
D11	2034 With HIF	AM	ONE HOUR	07:30	09:00	15

D12	2034 With HIF	PM	ONE HOUR	16:30	18:00	15
D13	2034 With HIF + dev	AM	ONE HOUR	07:30	09:00	15
D14	2034 With HIF + dev	PM	ONE HOUR	16:30	18:00	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2021 base + com, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	5.98	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A4074 (north)	
B	Wimblestraw Road	
C	A4074 (south)	
D	A415	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	3.40	9.00	13.5	64.3	42.7	25.0	
B	3.30	8.00	6.6	22.1	42.7	52.0	
C	6.10	9.10	2.5	22.1	42.7	43.0	
D	3.70	6.30	2.9	21.1	42.7	38.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.680	1849
B	0.541	1331
C	0.673	1954
D	0.547	1291

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021 base + com	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	601	100.000
B		✓	318	100.000
C		✓	899	100.000
D		✓	324	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	5	54	436	106
	B	83	1	86	148
	C	705	59	0	135
	D	57	115	152	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.41	4.20	0.8	A
B	0.38	7.01	0.7	A
C	0.58	5.58	1.5	A
D	0.46	9.40	0.9	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	452	245	1683	0.269	451	0.4	3.210	A
B	239	524	1048	0.228	238	0.3	4.881	A
C	677	257	1781	0.380	674	0.7	3.569	A
D	244	640	942	0.259	242	0.4	5.650	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	540	293	1650	0.328	540	0.5	3.565	A
B	286	628	992	0.288	285	0.4	5.600	A
C	808	308	1747	0.463	807	0.9	4.211	A
D	291	766	873	0.334	291	0.5	6.796	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	662	359	1605	0.412	661	0.8	4.188	A
B	350	768	916	0.382	349	0.7	6.973	A
C	990	377	1700	0.582	988	1.5	5.539	A
D	357	937	779	0.458	355	0.9	9.310	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	662	360	1604	0.412	662	0.8	4.200	A
B	350	770	915	0.383	350	0.7	7.005	A
C	990	378	1700	0.582	990	1.5	5.578	A
D	357	939	778	0.459	357	0.9	9.399	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	540	295	1648	0.328	541	0.5	3.581	A
B	286	630	991	0.289	287	0.4	5.631	A
C	808	309	1746	0.463	810	1.0	4.244	A
D	291	769	871	0.334	293	0.6	6.867	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	452	247	1681	0.269	453	0.4	3.224	A
B	239	527	1046	0.229	240	0.3	4.914	A
C	677	259	1780	0.380	678	0.7	3.597	A
D	244	643	940	0.260	245	0.4	5.704	A

2021 base + com, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	6.28	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2021 base + com	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	868	100.000
B		✓	310	100.000
C		✓	763	100.000
D		✓	316	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	3	135	632	98
	B	84	0	84	142
	C	507	92	0	164
	D	25	126	165	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A	B	C	D

From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.61	6.52	1.7	A
B	0.43	8.69	0.8	A
C	0.49	4.54	1.1	A
D	0.40	7.46	0.7	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	653	287	1654	0.395	651	0.7	3.935	A
B	233	673	968	0.241	232	0.3	5.374	A
C	574	245	1789	0.321	572	0.5	3.249	A
D	238	514	1010	0.236	237	0.3	5.111	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	780	344	1615	0.483	779	1.0	4.728	A
B	279	806	896	0.311	278	0.5	6.407	A
C	686	293	1756	0.391	685	0.7	3.695	A
D	284	616	955	0.298	284	0.5	5.898	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	956	421	1563	0.611	953	1.7	6.461	A
B	341	986	798	0.428	340	0.8	8.616	A
C	840	359	1712	0.491	839	1.0	4.525	A
D	348	754	879	0.396	347	0.7	7.426	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	956	422	1562	0.612	956	1.7	6.522	A
B	341	989	797	0.428	341	0.8	8.690	A
C	840	360	1711	0.491	840	1.1	4.544	A
D	348	755	878	0.396	348	0.7	7.463	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	780	345	1614	0.483	783	1.0	4.780	A

B	279	810	893	0.312	280	0.5	6.467	A
C	686	295	1755	0.391	687	0.7	3.715	A
D	284	618	953	0.298	285	0.5	5.935	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	653	289	1653	0.395	655	0.7	3.972	A
B	233	677	965	0.242	234	0.4	5.419	A
C	574	247	1788	0.321	575	0.5	3.267	A
D	238	517	1009	0.236	238	0.3	5.146	A

2024 base + com, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	6.55	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 base + com	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	629	100.000
B		✓	333	100.000
C		✓	957	100.000
D		✓	341	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	6	56	456	111
	B	86	1	90	156
	C	737	62	0	158
	D	60	122	159	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A	B	C	D

From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.44	4.40	0.8	A
B	0.41	7.48	0.8	A
C	0.62	6.25	1.8	A
D	0.50	10.44	1.1	B

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	474	257	1674	0.283	472	0.4	3.289	A
B	251	549	1035	0.242	249	0.3	5.032	A
C	720	270	1772	0.407	717	0.7	3.743	A
D	257	669	926	0.277	255	0.4	5.890	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	565	309	1639	0.345	565	0.6	3.683	A
B	299	657	976	0.307	299	0.5	5.841	A
C	860	323	1736	0.496	859	1.1	4.508	A
D	307	801	854	0.359	306	0.6	7.217	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	693	377	1593	0.435	691	0.8	4.388	A
B	367	804	897	0.409	366	0.8	7.441	A
C	1054	395	1688	0.624	1051	1.8	6.189	A
D	375	979	756	0.497	374	1.1	10.309	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	693	379	1592	0.435	693	0.8	4.403	A
B	367	806	896	0.409	367	0.8	7.484	A
C	1054	396	1687	0.625	1054	1.8	6.249	A
D	375	982	754	0.498	375	1.1	10.443	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	565	311	1638	0.345	566	0.6	3.699	A

B	299	660	975	0.307	300	0.5	5.881	A
C	860	325	1735	0.496	863	1.1	4.557	A
D	307	805	851	0.360	308	0.6	7.316	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	474	260	1673	0.283	474	0.4	3.307	A
B	251	552	1033	0.243	251	0.4	5.068	A
C	720	272	1771	0.407	722	0.8	3.778	A
D	257	673	924	0.278	258	0.4	5.954	A

2024 base + com, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	6.91	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 base + com	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	908	100.000
B		✓	324	100.000
C		✓	798	100.000
D		✓	341	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	3	142	660	103
	B	87	0	87	150
	C	530	96	0	172
	D	27	133	181	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A	B	C	D

From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.65	7.29	2.0	A
B	0.46	9.63	0.9	A
C	0.52	4.82	1.2	A
D	0.44	8.16	0.8	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	684	307	1640	0.417	680	0.8	4.112	A
B	244	710	948	0.257	242	0.4	5.603	A
C	601	257	1781	0.337	599	0.6	3.344	A
D	257	537	998	0.257	255	0.4	5.321	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	816	368	1599	0.510	815	1.1	5.041	A
B	291	850	872	0.334	291	0.5	6.806	A
C	717	308	1747	0.411	717	0.8	3.841	A
D	307	643	940	0.326	306	0.5	6.241	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1000	450	1543	0.648	996	2.0	7.197	A
B	357	1039	770	0.464	355	0.9	9.520	A
C	879	376	1701	0.517	877	1.2	4.798	A
D	375	787	861	0.436	374	0.8	8.109	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1000	451	1542	0.648	1000	2.0	7.295	A
B	357	1043	768	0.465	357	0.9	9.630	A
C	879	378	1700	0.517	879	1.2	4.822	A
D	375	788	860	0.436	375	0.8	8.163	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	816	370	1598	0.511	820	1.2	5.113	A

B	291	855	869	0.335	293	0.6	6.889	A
C	717	310	1745	0.411	719	0.8	3.865	A
D	307	645	939	0.327	308	0.5	6.289	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	684	309	1639	0.417	685	0.8	4.158	A
B	244	715	945	0.258	245	0.4	5.660	A
C	601	259	1779	0.338	602	0.6	3.366	A
D	257	540	996	0.258	257	0.4	5.365	A

2024 base + com + dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	6.64	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 base + com + dev	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	629	100.000
B		✓	334	100.000
C		✓	973	100.000
D		✓	342	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	6	56	456	111
	B	86	1	90	157
	C	737	62	0	174
	D	60	122	160	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D

From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.44	4.41	0.8	A
B	0.41	7.51	0.8	A
C	0.64	6.44	1.9	A
D	0.50	10.47	1.1	B

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	474	258	1674	0.283	472	0.4	3.291	A
B	251	549	1034	0.243	250	0.4	5.040	A
C	733	270	1772	0.413	729	0.8	3.788	A
D	257	669	926	0.278	256	0.4	5.896	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	565	309	1639	0.345	565	0.6	3.685	A
B	300	658	976	0.308	300	0.5	5.853	A
C	875	324	1736	0.504	873	1.1	4.584	A
D	307	801	854	0.360	307	0.6	7.229	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	693	378	1592	0.435	691	0.8	4.391	A
B	368	805	896	0.410	367	0.8	7.465	A
C	1071	396	1687	0.635	1068	1.9	6.368	A
D	377	979	756	0.498	375	1.1	10.336	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	693	380	1591	0.435	693	0.8	4.407	A
B	368	807	895	0.411	368	0.8	7.508	A
C	1071	397	1686	0.635	1071	1.9	6.435	A
D	377	982	754	0.499	376	1.1	10.473	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	565	312	1637	0.345	566	0.6	3.704	A

B	300	661	974	0.308	301	0.5	5.894	A
C	875	326	1735	0.504	878	1.1	4.639	A
D	307	805	851	0.361	309	0.6	7.330	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	474	260	1672	0.283	474	0.4	3.309	A
B	251	553	1033	0.244	252	0.4	5.078	A
C	733	272	1770	0.414	734	0.8	3.827	A
D	257	673	924	0.279	258	0.4	5.961	A

2024 base + com + dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	7.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 base + com + dev	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	908	100.000
B		✓	324	100.000
C		✓	799	100.000
D		✓	351	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	3	142	660	103
	B	87	0	87	150
	C	530	96	0	173
	D	27	134	190	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A	B	C	D

From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.65	7.40	2.0	A
B	0.47	9.76	1.0	A
C	0.52	4.83	1.2	A
D	0.45	8.35	0.9	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	684	314	1635	0.418	680	0.8	4.134	A
B	244	716	944	0.258	242	0.4	5.632	A
C	602	257	1781	0.338	599	0.6	3.346	A
D	264	537	998	0.265	263	0.4	5.376	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	816	377	1593	0.512	815	1.1	5.080	A
B	291	858	868	0.336	291	0.5	6.854	A
C	718	308	1747	0.411	717	0.8	3.844	A
D	316	643	940	0.336	315	0.6	6.329	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1000	461	1536	0.651	996	2.0	7.294	A
B	357	1049	764	0.467	355	0.9	9.642	A
C	880	376	1701	0.517	878	1.2	4.804	A
D	386	787	861	0.449	385	0.9	8.293	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1000	462	1535	0.651	1000	2.0	7.397	A
B	357	1052	762	0.468	357	1.0	9.758	A
C	880	378	1700	0.518	880	1.2	4.829	A
D	386	788	860	0.449	386	0.9	8.353	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	816	379	1591	0.513	820	1.2	5.153	A

B	291	863	865	0.337	293	0.6	6.944	A
C	718	310	1745	0.412	720	0.8	3.869	A
D	316	645	939	0.336	317	0.6	6.384	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	684	317	1634	0.418	685	0.8	4.180	A
B	244	721	941	0.259	245	0.4	5.690	A
C	602	259	1779	0.338	602	0.6	3.368	A
D	264	540	996	0.265	265	0.4	5.419	A

2024 With HIF, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	4.16	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2024 With HIF	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	541	100.000
B		✓	209	100.000
C		✓	831	100.000
D		✓	79	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	6	56	456	23
	B	86	1	90	32
	C	737	62	0	32
	D	14	28	37	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A	B	C	D

From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.34	3.42	0.6	A
B	0.23	5.01	0.3	A
C	0.50	4.26	1.1	A
D	0.12	5.93	0.1	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	407	96	1784	0.228	406	0.3	2.871	A
B	157	392	1120	0.141	157	0.2	4.110	A
C	626	111	1879	0.333	623	0.5	3.148	A
D	59	669	926	0.064	59	0.1	4.570	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	486	115	1771	0.275	486	0.4	3.082	A
B	188	469	1078	0.174	188	0.2	4.447	A
C	747	133	1864	0.401	746	0.7	3.540	A
D	71	801	853	0.083	71	0.1	5.060	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	596	141	1753	0.340	595	0.6	3.416	A
B	230	574	1021	0.225	230	0.3	5.002	A
C	915	163	1844	0.496	914	1.1	4.249	A
D	87	981	755	0.115	87	0.1	5.922	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	596	141	1753	0.340	596	0.6	3.419	A
B	230	575	1021	0.225	230	0.3	5.008	A
C	915	163	1844	0.496	915	1.1	4.261	A
D	87	982	754	0.115	87	0.1	5.932	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	486	115	1771	0.275	487	0.4	3.085	A

B	188	470	1077	0.174	188	0.2	4.456	A
C	747	133	1864	0.401	748	0.7	3.555	A
D	71	803	852	0.083	71	0.1	5.073	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	407	97	1783	0.228	408	0.3	2.878	A
B	157	393	1119	0.141	158	0.2	4.120	A
C	626	112	1879	0.333	626	0.6	3.165	A
D	59	672	924	0.064	60	0.1	4.582	A

2024 With HIF, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	4.41	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2024 With HIF	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	829	100.000
B		✓	208	100.000
C		✓	666	100.000
D		✓	37	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	3	142	660	24
	B	87	0	87	34
	C	530	96	0	40
	D	3	14	20	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A	B	C	D

From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.52	4.72	1.2	A
B	0.25	5.81	0.4	A
C	0.40	3.56	0.7	A
D	0.05	4.83	0.1	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	624	98	1783	0.350	622	0.6	3.403	A
B	157	530	1045	0.150	156	0.2	4.451	A
C	501	111	1879	0.267	500	0.4	2.869	A
D	28	537	998	0.028	28	0.0	4.083	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	745	117	1770	0.421	744	0.8	3.859	A
B	187	635	988	0.189	187	0.3	4.940	A
C	599	133	1864	0.321	598	0.5	3.128	A
D	33	643	940	0.035	33	0.0	4.368	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	913	143	1752	0.521	911	1.2	4.702	A
B	229	777	911	0.251	229	0.4	5.796	A
C	733	163	1844	0.398	732	0.7	3.560	A
D	41	787	861	0.047	41	0.1	4.827	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	913	143	1752	0.521	913	1.2	4.719	A
B	229	778	911	0.252	229	0.4	5.809	A
C	733	163	1844	0.398	733	0.7	3.564	A
D	41	788	860	0.047	41	0.1	4.830	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	745	117	1770	0.421	747	0.8	3.877	A

B	187	637	987	0.189	187	0.3	4.956	A
C	599	133	1864	0.321	600	0.5	3.135	A
D	33	645	939	0.035	33	0.0	4.372	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	624	98	1782	0.350	625	0.6	3.422	A
B	157	533	1043	0.150	157	0.2	4.468	A
C	501	112	1879	0.267	502	0.4	2.879	A
D	28	540	996	0.028	28	0.0	4.090	A

2024 With HIF + dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	4.21	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2024 With HIF + dev	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	541	100.000
B		✓	210	100.000
C		✓	847	100.000
D		✓	80	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	6	56	456	23
	B	86	1	90	33
	C	737	62	0	48
	D	14	28	38	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A	B	C	D

From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.34	3.42	0.6	A
B	0.23	5.02	0.3	A
C	0.51	4.35	1.1	A
D	0.12	5.94	0.1	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	407	97	1783	0.228	406	0.3	2.872	A
B	158	392	1119	0.141	157	0.2	4.114	A
C	638	112	1879	0.339	635	0.6	3.180	A
D	60	669	926	0.065	60	0.1	4.574	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	486	116	1770	0.275	486	0.4	3.083	A
B	189	470	1077	0.175	189	0.2	4.454	A
C	761	134	1864	0.409	761	0.8	3.588	A
D	72	801	853	0.084	72	0.1	5.066	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	596	142	1753	0.340	595	0.6	3.419	A
B	231	575	1020	0.227	231	0.3	5.013	A
C	933	164	1843	0.506	931	1.1	4.333	A
D	88	981	755	0.117	88	0.1	5.932	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	596	142	1753	0.340	596	0.6	3.422	A
B	231	576	1020	0.227	231	0.3	5.019	A
C	933	164	1843	0.506	933	1.1	4.347	A
D	88	982	754	0.117	88	0.1	5.941	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	486	116	1770	0.275	487	0.4	3.089	A

B	189	471	1077	0.175	189	0.2	4.462	A
C	761	134	1863	0.409	763	0.8	3.604	A
D	72	803	852	0.084	72	0.1	5.077	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	407	97	1783	0.228	408	0.3	2.879	A
B	158	394	1118	0.141	158	0.2	4.127	A
C	638	112	1878	0.340	638	0.6	3.198	A
D	60	672	924	0.065	60	0.1	4.586	A

2024 With HIF + dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	4.44	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2024 With HIF + dev	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	829	100.000
B		✓	208	100.000
C		✓	666	100.000
D		✓	47	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	3	142	660	24
	B	87	0	87	34
	C	530	96	0	40
	D	3	15	29	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A	B	C	D

From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.52	4.76	1.2	A
B	0.25	5.86	0.4	A
C	0.40	3.56	0.7	A
D	0.06	4.90	0.1	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	624	105	1778	0.351	622	0.6	3.418	A
B	157	537	1041	0.150	156	0.2	4.469	A
C	501	111	1879	0.267	500	0.4	2.869	A
D	35	537	998	0.035	35	0.0	4.114	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	745	126	1764	0.423	744	0.8	3.882	A
B	187	643	984	0.190	187	0.3	4.967	A
C	599	133	1864	0.321	598	0.5	3.128	A
D	42	643	940	0.045	42	0.1	4.411	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	913	154	1744	0.523	911	1.2	4.744	A
B	229	787	906	0.253	229	0.4	5.842	A
C	733	163	1844	0.398	732	0.7	3.560	A
D	52	787	861	0.060	52	0.1	4.893	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	913	154	1744	0.523	913	1.2	4.761	A
B	229	788	905	0.253	229	0.4	5.855	A
C	733	163	1844	0.398	733	0.7	3.564	A
D	52	788	860	0.060	52	0.1	4.896	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	745	126	1763	0.423	747	0.8	3.901	A

B	187	645	983	0.190	187	0.3	4.983	A
C	599	133	1864	0.321	600	0.5	3.135	A
D	42	645	939	0.045	42	0.1	4.418	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	624	106	1777	0.351	625	0.6	3.438	A
B	157	540	1040	0.151	157	0.2	4.488	A
C	501	112	1879	0.267	502	0.4	2.876	A
D	35	540	996	0.036	35	0.0	4.122	A

2034 With HIF, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	5.03	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2034 With HIF	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	604	100.000
B		✓	232	100.000
C		✓	930	100.000
D		✓	196	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	6	63	511	24
	B	97	1	100	34
	C	826	69	0	35
	D	34	70	92	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A	B	C	D

From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.40	3.92	0.7	A
B	0.27	5.66	0.4	A
C	0.56	4.89	1.4	A
D	0.31	8.35	0.5	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	455	174	1731	0.263	453	0.4	3.094	A
B	175	475	1075	0.163	174	0.2	4.392	A
C	700	121	1872	0.374	698	0.7	3.365	A
D	148	749	882	0.167	147	0.2	5.380	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	543	208	1708	0.318	543	0.5	3.396	A
B	209	568	1024	0.204	208	0.3	4.853	A
C	836	145	1856	0.451	835	0.9	3.876	A
D	176	897	801	0.220	176	0.3	6.332	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	665	255	1676	0.397	664	0.7	3.910	A
B	255	696	955	0.267	255	0.4	5.651	A
C	1024	178	1834	0.558	1022	1.4	4.865	A
D	216	1098	691	0.312	215	0.5	8.291	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	665	255	1675	0.397	665	0.7	3.918	A
B	255	697	955	0.268	255	0.4	5.663	A
C	1024	178	1834	0.558	1024	1.4	4.889	A
D	216	1100	690	0.313	216	0.5	8.349	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	543	209	1707	0.318	544	0.5	3.406	A

B	209	570	1023	0.204	209	0.3	4.868	A
C	836	146	1856	0.451	838	0.9	3.900	A
D	176	900	799	0.220	177	0.3	6.372	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	455	175	1730	0.263	455	0.4	3.106	A
B	175	477	1073	0.163	175	0.2	4.410	A
C	700	122	1872	0.374	701	0.7	3.385	A
D	148	753	880	0.168	148	0.2	5.414	A

2034 With HIF, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	5.43	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2034 With HIF	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	947	100.000
B		✓	258	100.000
C		✓	774	100.000
D		✓	89	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	4	159	742	42
	B	98	0	98	62
	C	595	108	0	71
	D	7	35	47	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A	B	C	D

From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.61	5.96	1.7	A
B	0.34	7.19	0.6	A
C	0.47	4.17	1.0	A
D	0.12	5.59	0.2	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	713	142	1752	0.407	710	0.7	3.788	A
B	194	626	993	0.196	193	0.3	4.945	A
C	583	154	1850	0.315	581	0.5	3.114	A
D	67	604	961	0.070	67	0.1	4.426	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	851	171	1733	0.491	850	1.1	4.478	A
B	232	750	926	0.250	232	0.4	5.699	A
C	696	185	1829	0.380	695	0.7	3.490	A
D	80	723	896	0.089	80	0.1	4.851	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1043	209	1707	0.611	1040	1.7	5.915	A
B	284	917	836	0.340	283	0.6	7.159	A
C	852	226	1802	0.473	851	1.0	4.161	A
D	98	885	808	0.121	98	0.2	5.577	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1043	209	1707	0.611	1043	1.7	5.961	A
B	284	919	834	0.340	284	0.6	7.195	A
C	852	227	1801	0.473	852	1.0	4.172	A
D	98	886	807	0.121	98	0.2	5.586	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	851	171	1733	0.491	854	1.1	4.518	A

B	232	753	924	0.251	233	0.4	5.733	A
C	696	186	1829	0.380	697	0.7	3.504	A
D	80	725	895	0.089	80	0.1	4.862	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	713	143	1752	0.407	714	0.8	3.823	A
B	194	630	991	0.196	195	0.3	4.975	A
C	583	155	1849	0.315	583	0.5	3.129	A
D	67	607	960	0.070	67	0.1	4.437	A

2034 With HIF + dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	5.09	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2034 With HIF + dev	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	604	100.000
B		✓	233	100.000
C		✓	946	100.000
D		✓	197	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	6	63	511	24
	B	97	1	100	35
	C	826	69	0	51
	D	34	70	93	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A	B	C	D

From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.40	3.92	0.7	A
B	0.27	5.68	0.4	A
C	0.57	5.00	1.4	A
D	0.31	8.37	0.5	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	455	174	1730	0.263	453	0.4	3.096	A
B	175	475	1074	0.163	175	0.2	4.398	A
C	712	122	1872	0.381	710	0.7	3.401	A
D	148	749	882	0.168	147	0.2	5.385	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	543	209	1707	0.318	543	0.5	3.398	A
B	209	569	1024	0.205	209	0.3	4.861	A
C	850	146	1855	0.458	849	0.9	3.933	A
D	177	897	801	0.221	177	0.3	6.341	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	665	256	1675	0.397	664	0.7	3.913	A
B	257	697	955	0.269	256	0.4	5.665	A
C	1042	179	1833	0.568	1040	1.4	4.976	A
D	217	1098	691	0.314	216	0.5	8.322	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	665	257	1675	0.397	665	0.7	3.921	A
B	257	698	954	0.269	257	0.4	5.677	A
C	1042	179	1833	0.568	1042	1.4	5.003	A
D	217	1100	690	0.314	217	0.5	8.368	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	543	210	1706	0.318	544	0.5	3.408	A

B	209	571	1023	0.205	210	0.3	4.876	A
C	850	147	1855	0.458	852	0.9	3.957	A
D	177	900	799	0.222	178	0.3	6.379	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	455	176	1730	0.263	455	0.4	3.110	A
B	175	478	1073	0.163	176	0.2	4.415	A
C	712	123	1871	0.381	713	0.7	3.425	A
D	148	753	880	0.169	149	0.2	5.420	A

2034 With HIF + dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	5.47	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D14	2034 With HIF + dev	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	947	100.000
B		✓	258	100.000
C		✓	774	100.000
D		✓	98	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	4	159	742	42
	B	98	0	98	62
	C	595	108	0	71
	D	7	35	56	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A	B	C	D

From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.61	6.02	1.7	A
B	0.34	7.27	0.6	A
C	0.47	4.17	1.0	A
D	0.13	5.66	0.2	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	713	149	1748	0.408	710	0.8	3.805	A
B	194	633	989	0.196	193	0.3	4.968	A
C	583	154	1850	0.315	581	0.5	3.114	A
D	74	604	961	0.077	73	0.1	4.458	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	851	179	1728	0.493	850	1.1	4.506	A
B	232	758	922	0.252	232	0.4	5.733	A
C	696	185	1829	0.380	695	0.7	3.490	A
D	88	723	896	0.098	88	0.1	4.900	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1043	219	1700	0.613	1040	1.7	5.973	A
B	284	927	830	0.342	283	0.6	7.229	A
C	852	226	1802	0.473	851	1.0	4.161	A
D	108	885	808	0.134	108	0.2	5.656	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1043	219	1700	0.613	1043	1.7	6.022	A
B	284	929	829	0.343	284	0.6	7.265	A
C	852	227	1801	0.473	852	1.0	4.172	A
D	108	886	807	0.134	108	0.2	5.665	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	851	179	1727	0.493	854	1.1	4.549	A

B	232	761	920	0.252	233	0.4	5.770	A
C	696	186	1829	0.381	697	0.7	3.502	A
D	88	725	895	0.098	88	0.1	4.911	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	713	150	1747	0.408	714	0.8	3.840	A
B	194	637	987	0.197	195	0.3	5.000	A
C	583	155	1849	0.315	583	0.5	3.129	A
D	74	607	960	0.077	74	0.1	4.471	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: J2 Goldenballs roundabout j9 model.j9
Path: Z:\Projects\Projects 18\18-0656 Culham Science Centre\Developments at CSC, on-site work\CCDP Offices\TA October 2021\Capacity Assessments\Junction 2 Goldenballs roundabout
Report generation date: 11/19/2021 8:47:06 AM

»2021 base + com, AM
»2021 base + com, PM
»2024 base + com, AM
»2024 base + com, PM
»2024 base + com + dev, AM
»2024 base + com + dev, PM
»2024 with HIF, AM
»2024 with HIF, PM
»2024 with HIF + dev, AM
»2024 with HIF + dev, PM
»2034 with HIF, AM
»2034 with HIF, PM
»2034 with HIF + dev, AM
»2034 with HIF + dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2021 base + com							
Arm A	0.5	2.36	0.33	A	1.1	3.14	0.50	A
Arm B	1.0	9.34	0.47	A	2.3	20.55	0.69	C
Arm C	0.7	2.77	0.40	A	0.5	2.46	0.30	A
Arm D	2.0	10.42	0.65	B	0.9	5.72	0.45	A
	2024 base + com							
Arm A	0.6	2.51	0.37	A	1.2	3.36	0.52	A
Arm B	1.3	11.45	0.55	B	3.2	27.32	0.76	D
Arm C	0.8	3.02	0.43	A	0.5	2.55	0.32	A
Arm D	2.6	12.71	0.71	B	1.1	6.47	0.51	A
	2024 base + com + dev							
Arm A	0.7	2.58	0.39	A	1.2	3.37	0.53	A
Arm B	1.5	12.80	0.58	B	3.2	26.94	0.75	D
Arm C	0.9	3.13	0.44	A	0.5	2.55	0.32	A
Arm D	2.7	12.84	0.71	B	1.2	6.81	0.53	A
	2024 with HIF							
Arm A	0.8	2.84	0.42	A	1.6	4.09	0.60	A
Arm B	2.5	18.38	0.70	C	45.5	258.54	1.15	F
Arm C	0.9	3.40	0.46	A	0.6	2.91	0.35	A

Arm D	28.4	91.98	1.02	F	1.7	8.10	0.61	A
	2024 with HIF + dev							
Arm A	0.9	2.93	0.44	A	1.7	4.13	0.60	A
Arm B	3.1	22.13	0.75	C	45.8	259.86	1.15	F
Arm C	1.0	3.55	0.47	A	0.6	2.91	0.35	A
Arm D	29.1	93.57	1.02	F	1.9	8.71	0.64	A
	2034 with HIF							
Arm A	1.5	3.95	0.58	A	7.1	13.93	0.87	B
Arm B	175.0	956.07	1.56	F	543.5	3436.32	3.35	F
Arm C	1.7	5.34	0.60	A	0.8	3.47	0.42	A
Arm D	445.6	1307.04	1.63	F	56.3	141.42	1.07	F
	2034 with HIF + dev							
Arm A	1.7	4.13	0.60	A	7.1	13.77	0.87	B
Arm B	206.4	1116.37	1.66	F	545.4	3456.03	3.36	F
Arm C	1.7	5.50	0.61	A	0.8	3.48	0.42	A
Arm D	446.5	1306.86	1.63	F	71.0	172.24	1.10	F

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	4/30/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	BSP-CONSULTING\tbowey
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021 base + com	AM	ONE HOUR	07:30	09:00	15
D2	2021 base + com	PM	ONE HOUR	16:30	18:00	15
D3	2024 base + com	AM	ONE HOUR	07:30	09:00	15
D4	2024 base + com	PM	ONE HOUR	16:30	18:00	15
D5	2024 base + com + dev	AM	ONE HOUR	07:30	09:00	15
D6	2024 base + com + dev	PM	ONE HOUR	16:30	18:00	15
D7	2024 with HIF	AM	ONE HOUR	07:30	09:00	15
D8	2024 with HIF	PM	ONE HOUR	16:30	18:00	15
D9	2024 with HIF + dev	AM	ONE HOUR	07:30	09:00	15

D10	2024 with HIF + dev	PM	ONE HOUR	16:30	18:00	15
D11	2034 with HIF	AM	ONE HOUR	07:30	09:00	15
D12	2034 with HIF	PM	ONE HOUR	16:30	18:00	15
D13	2034 with HIF + dev	AM	ONE HOUR	07:30	09:00	15
D14	2034 with HIF + dev	PM	ONE HOUR	16:30	18:00	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2021 base + com, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	5.40	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A4074 (north)	
B	B4015	
C	A4074 (south)	
D	Oxford Road	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	7.80	9.70	10.9	31.2	45.6	28.0	
B	2.80	5.40	5.9	33.5	56.6	36.0	
C	8.00	9.80	48.9	21.4	45.6	40.0	
D	3.90	6.70	13.4	67.9	56.6	34.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.847	2800
B	0.481	1174
C	0.835	2820
D	0.586	1725

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021 base + com	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	760	100.000
B		✓	342	100.000
C		✓	876	100.000
D		✓	653	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	2	61	524	173
	B	92	1	56	193
	C	822	54	0	0
	D	402	245	5	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.33	2.36	0.5	A
B	0.47	9.34	1.0	A
C	0.40	2.77	0.7	A
D	0.65	10.42	2.0	B

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	572	229	2606	0.220	571	0.3	1.945	A
B	257	530	919	0.280	256	0.4	5.956	A

C	659	346	2531	0.261	658	0.4	2.111	A
D	492	729	1298	0.379	489	0.7	4.880	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	683	275	2567	0.266	683	0.4	2.101	A
B	307	633	869	0.354	307	0.6	7.033	A
C	788	415	2474	0.318	787	0.5	2.347	A
D	587	872	1214	0.484	586	1.0	6.288	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	837	335	2516	0.333	836	0.5	2.358	A
B	377	776	801	0.470	375	1.0	9.273	A
C	964	507	2397	0.402	964	0.7	2.761	A
D	719	1068	1099	0.654	715	2.0	10.195	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	837	337	2515	0.333	837	0.5	2.359	A
B	377	776	800	0.470	377	1.0	9.341	A
C	964	509	2396	0.403	964	0.7	2.766	A
D	719	1069	1099	0.654	719	2.0	10.417	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	683	277	2566	0.266	684	0.4	2.104	A
B	307	634	869	0.354	309	0.6	7.094	A
C	788	417	2472	0.319	788	0.5	2.352	A
D	587	874	1213	0.484	591	1.0	6.410	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	572	231	2604	0.220	573	0.3	1.949	A
B	257	531	918	0.280	258	0.4	6.006	A
C	659	348	2529	0.261	660	0.4	2.120	A
D	492	732	1296	0.379	493	0.7	4.940	A

2021 base + com, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	5.99	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2021 base + com	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1126	100.000
B		✓	383	100.000
C		✓	630	100.000
D		✓	513	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	3	87	802	234
	B	94	1	58	230
	C	597	31	0	2
	D	225	269	19	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.50	3.14	1.1	A
B	0.69	20.55	2.3	C
C	0.30	2.46	0.5	A
D	0.45	5.72	0.9	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	848	240	2597	0.326	846	0.5	2.258	A
B	288	794	792	0.364	286	0.6	7.793	A
C	474	421	2469	0.192	473	0.3	1.983	A
D	386	545	1406	0.275	385	0.4	3.871	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1012	287	2557	0.396	1012	0.7	2.561	A
B	344	950	717	0.481	343	1.0	10.553	B
C	566	504	2400	0.236	566	0.3	2.159	A
D	461	652	1343	0.343	461	0.6	4.485	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1240	352	2502	0.495	1238	1.1	3.131	A
B	422	1164	614	0.687	417	2.3	19.591	C
C	694	614	2308	0.301	693	0.5	2.453	A
D	565	798	1258	0.449	564	0.9	5.694	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1240	352	2501	0.496	1240	1.1	3.137	A
B	422	1165	613	0.688	421	2.3	20.546	C
C	694	619	2304	0.301	694	0.5	2.458	A
D	565	799	1257	0.449	565	0.9	5.722	A

17:30 - 17:45

	Total Demand	Circulating flow	Capacity		Throughput	End queue		Unsignalised

Arm	(PCU/hr)	(PCU/hr)	(PCU/hr)	RFC	(PCU/hr)	(PCU)	Delay (s)	level of service
A	1012	288	2556	0.396	1014	0.7	2.570	A
B	344	952	716	0.481	349	1.0	10.965	B
C	566	510	2395	0.237	567	0.3	2.166	A
D	461	654	1342	0.344	462	0.6	4.512	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	848	241	2596	0.327	848	0.5	2.269	A
B	288	797	790	0.365	290	0.6	7.941	A
C	474	425	2466	0.192	475	0.3	1.990	A
D	386	547	1404	0.275	387	0.4	3.894	A

2024 base + com, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	6.36	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 base + com	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	839	100.000
B		✓	376	100.000
C		✓	914	100.000
D		✓	691	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	2	64	547	226
	B	96	1	59	220
	C	858	56	0	0
	D	426	258	6	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.37	2.51	0.6	A
B	0.55	11.45	1.3	B
C	0.43	3.02	0.8	A
D	0.71	12.71	2.6	B

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	632	241	2596	0.243	630	0.4	2.014	A
B	283	587	891	0.318	281	0.5	6.469	A
C	688	409	2479	0.278	686	0.4	2.207	A
D	520	760	1279	0.407	517	0.7	5.176	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	754	289	2555	0.295	754	0.5	2.198	A
B	338	703	836	0.404	337	0.7	7.925	A
C	822	490	2411	0.341	821	0.6	2.490	A
D	621	910	1192	0.521	619	1.2	6.897	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	924	352	2501	0.369	923	0.6	2.507	A
B	414	860	760	0.545	412	1.3	11.303	B
C	1006	599	2320	0.434	1005	0.8	3.008	A
D	761	1114	1072	0.709	755	2.6	12.272	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	924	354	2500	0.370	924	0.6	2.512	A
B	414	861	760	0.545	414	1.3	11.446	B
C	1006	601	2319	0.434	1006	0.8	3.017	A
D	761	1115	1072	0.710	761	2.6	12.705	B

08:30 - 08:45

	Total Demand	Circulating flow	Capacity		Throughput	End queue		Unsignalised

Arm	(PCU/hr)	(PCU/hr)	(PCU/hr)	RFC	(PCU/hr)	(PCU)	Delay (s)	level of service
A	754	292	2553	0.295	755	0.5	2.203	A
B	338	704	835	0.405	340	0.8	8.034	A
C	822	493	2409	0.341	823	0.6	2.497	A
D	621	912	1190	0.522	627	1.2	7.093	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	632	243	2594	0.244	632	0.4	2.018	A
B	283	589	890	0.318	284	0.5	6.540	A
C	688	412	2476	0.278	689	0.4	2.215	A
D	520	763	1278	0.407	522	0.8	5.252	A

2024 base + com, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	7.23	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 base + com	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1182	100.000
B		✓	402	100.000
C		✓	658	100.000
D		✓	567	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	3	91	838	250
	B	98	1	61	242
	C	624	32	0	2
	D	257	290	20	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.52	3.36	1.2	A
B	0.76	27.32	3.2	D
C	0.32	2.55	0.5	A
D	0.51	6.47	1.1	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	890	257	2582	0.345	888	0.6	2.334	A
B	303	834	772	0.392	300	0.7	8.331	A
C	495	444	2449	0.202	494	0.3	2.024	A
D	427	569	1392	0.307	425	0.5	4.088	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1063	308	2539	0.419	1062	0.8	2.679	A
B	361	998	694	0.521	360	1.2	11.785	B
C	592	532	2376	0.249	591	0.4	2.218	A
D	510	681	1326	0.384	509	0.7	4.841	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1301	377	2481	0.525	1300	1.2	3.348	A
B	443	1222	586	0.755	435	3.1	25.078	D
C	724	647	2280	0.318	724	0.5	2.545	A
D	624	832	1237	0.504	623	1.1	6.422	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1301	378	2480	0.525	1301	1.2	3.359	A
B	443	1223	585	0.756	442	3.2	27.324	D
C	724	653	2275	0.318	724	0.5	2.553	A
D	624	834	1236	0.505	624	1.1	6.471	A

17:30 - 17:45

	Total Demand	Circulating flow	Capacity		Throughput	End queue		Unsignalised

Arm	(PCU/hr)	(PCU/hr)	(PCU/hr)	RFC	(PCU/hr)	(PCU)	Delay (s)	level of service
A	1063	309	2538	0.419	1064	0.8	2.691	A
B	361	1000	692	0.522	369	1.2	12.536	B
C	592	541	2369	0.250	592	0.4	2.229	A
D	510	684	1324	0.385	511	0.7	4.883	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	890	259	2581	0.345	891	0.6	2.343	A
B	303	837	771	0.393	305	0.7	8.528	A
C	495	449	2445	0.203	496	0.3	2.032	A
D	427	572	1390	0.307	428	0.5	4.119	A

2024 base + com + dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	6.62	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 base + com + dev	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	877	100.000
B		✓	391	100.000
C		✓	914	100.000
D		✓	694	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	2	64	547	264
	B	96	1	59	235
	C	858	56	0	0
	D	428	259	6	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.39	2.58	0.7	A
B	0.58	12.80	1.5	B
C	0.44	3.13	0.9	A
D	0.71	12.84	2.7	B

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	660	242	2595	0.254	659	0.4	2.044	A
B	294	616	878	0.335	292	0.5	6.742	A
C	688	449	2446	0.281	686	0.4	2.249	A
D	522	760	1279	0.408	519	0.8	5.194	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	788	290	2555	0.309	788	0.5	2.241	A
B	352	737	819	0.429	350	0.8	8.425	A
C	822	537	2372	0.346	821	0.6	2.552	A
D	624	910	1192	0.523	622	1.2	6.929	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	966	353	2501	0.386	965	0.7	2.577	A
B	430	902	740	0.582	428	1.5	12.584	B
C	1006	657	2272	0.443	1005	0.9	3.123	A
D	764	1114	1073	0.712	758	2.6	12.387	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	966	356	2499	0.386	966	0.7	2.582	A
B	430	903	739	0.582	430	1.5	12.802	B
C	1006	659	2270	0.443	1006	0.9	3.133	A
D	764	1115	1072	0.713	764	2.7	12.842	B

08:30 - 08:45

	Total Demand	Circulating flow	Capacity		Throughput	End queue		Unsignalised

Arm	(PCU/hr)	(PCU/hr)	(PCU/hr)	RFC	(PCU/hr)	(PCU)	Delay (s)	level of service
A	788	293	2552	0.309	789	0.5	2.247	A
B	352	738	819	0.429	354	0.8	8.570	A
C	822	541	2369	0.347	823	0.6	2.565	A
D	624	912	1190	0.524	630	1.2	7.134	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	660	244	2593	0.255	661	0.4	2.050	A
B	294	618	877	0.336	295	0.6	6.826	A
C	688	452	2443	0.282	689	0.4	2.257	A
D	522	764	1278	0.409	524	0.8	5.271	A

2024 base + com + dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	7.24	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 base + com + dev	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1180	100.000
B		✓	401	100.000
C		✓	658	100.000
D		✓	597	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	91	838	251
	B	98	0	61	242
	C	624	32	0	2
	D	279	298	20	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.53	3.37	1.2	A
B	0.75	26.94	3.2	D
C	0.32	2.55	0.5	A
D	0.53	6.81	1.2	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	888	262	2578	0.345	886	0.6	2.338	A
B	302	833	773	0.390	299	0.7	8.307	A
C	495	442	2451	0.202	494	0.3	2.022	A
D	449	566	1393	0.323	447	0.5	4.176	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1061	314	2534	0.419	1060	0.8	2.685	A
B	360	996	695	0.519	359	1.2	11.725	B
C	592	530	2378	0.249	591	0.4	2.215	A
D	537	677	1328	0.404	536	0.7	4.992	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1299	384	2474	0.525	1298	1.2	3.361	A
B	442	1219	587	0.752	434	3.0	24.779	C
C	724	644	2283	0.317	724	0.5	2.540	A
D	657	828	1240	0.530	655	1.2	6.752	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1299	385	2473	0.525	1299	1.2	3.371	A
B	442	1221	586	0.753	441	3.2	26.938	D
C	724	650	2278	0.318	724	0.5	2.549	A
D	657	830	1239	0.531	657	1.2	6.810	A

17:30 - 17:45

	Total Demand	Circulating flow	Capacity		Throughput	End queue		Unsignalised

Arm	(PCU/hr)	(PCU/hr)	(PCU/hr)	RFC	(PCU/hr)	(PCU)	Delay (s)	level of service
A	1061	316	2532	0.419	1062	0.8	2.696	A
B	360	999	693	0.520	368	1.2	12.457	B
C	592	538	2371	0.249	592	0.4	2.226	A
D	537	680	1326	0.405	539	0.8	5.038	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	888	264	2576	0.345	889	0.6	2.349	A
B	302	836	772	0.391	304	0.7	8.500	A
C	495	447	2447	0.202	496	0.3	2.029	A
D	449	568	1392	0.323	450	0.5	4.209	A

2024 with HIF, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	32.03	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2024 with HIF	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	920	100.000
B		✓	455	100.000
C		✓	914	100.000
D		✓	988	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	2	64	547	307
	B	96	1	59	299
	C	858	56	0	0
	D	609	369	8	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.42	2.84	0.8	A
B	0.70	18.38	2.5	C
C	0.46	3.40	0.9	A
D	1.02	91.98	28.4	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	693	326	2524	0.274	691	0.4	2.158	A
B	343	650	861	0.398	340	0.7	7.557	A
C	688	529	2379	0.289	686	0.4	2.338	A
D	744	760	1280	0.581	738	1.5	7.231	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	827	390	2470	0.335	827	0.6	2.409	A
B	409	778	800	0.512	407	1.1	10.055	B
C	822	634	2291	0.359	821	0.6	2.692	A
D	888	910	1192	0.745	882	3.1	12.523	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1013	455	2414	0.420	1012	0.8	2.823	A
B	501	952	716	0.700	496	2.4	17.600	C
C	1006	773	2175	0.463	1005	0.9	3.383	A
D	1088	1113	1073	1.014	1024	19.1	52.073	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1013	466	2405	0.421	1013	0.8	2.843	A
B	501	953	715	0.700	501	2.5	18.385	C
C	1006	778	2171	0.464	1006	0.9	3.399	A
D	1088	1115	1072	1.015	1051	28.4	91.980	F

08:30 - 08:45

	Total Demand	Circulating flow	Capacity		Throughput	End queue		Unsignalised

Arm	(PCU/hr)	(PCU/hr)	(PCU/hr)	RFC	(PCU/hr)	(PCU)	Delay (s)	level of service
A	827	430	2435	0.340	828	0.6	2.466	A
B	409	780	798	0.512	414	1.2	10.445	B
C	822	641	2286	0.360	823	0.6	2.709	A
D	888	913	1190	0.746	988	3.5	28.212	D

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	693	331	2519	0.275	693	0.4	2.170	A
B	343	653	860	0.398	344	0.7	7.708	A
C	688	534	2375	0.290	689	0.5	2.349	A
D	744	764	1278	0.582	751	1.6	7.633	A

2024 with HIF, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	47.20	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2024 with HIF	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1318	100.000
B		✓	534	100.000
C		✓	659	100.000
D		✓	687	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	3	91	838	386
	B	98	1	61	374
	C	624	32	0	3
	D	312	351	24	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.60	4.09	1.6	A
B	1.15	258.54	45.5	F
C	0.35	2.91	0.6	A
D	0.61	8.10	1.7	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	992	306	2541	0.391	989	0.7	2.548	A
B	402	939	722	0.557	397	1.3	11.987	B
C	496	643	2283	0.217	495	0.3	2.213	A
D	517	568	1392	0.372	515	0.6	4.502	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1185	366	2490	0.476	1184	1.0	3.029	A
B	480	1123	633	0.758	473	3.1	23.713	C
C	592	768	2179	0.272	592	0.4	2.495	A
D	618	680	1327	0.465	616	0.9	5.566	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1451	447	2421	0.599	1449	1.6	4.062	A
B	588	1375	512	1.148	498	25.6	124.232	F
C	726	869	2095	0.346	725	0.6	2.888	A
D	756	817	1246	0.607	754	1.7	7.991	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1451	449	2420	0.600	1451	1.6	4.088	A
B	588	1377	511	1.150	508	45.5	258.539	F
C	726	879	2087	0.348	726	0.6	2.908	A
D	756	820	1245	0.608	756	1.7	8.105	A

17:30 - 17:45

	Total Demand	Circulating flow	Capacity		Throughput	End queue		Unsignalised

Arm	(PCU/hr)	(PCU/hr)	(PCU/hr)	RFC	(PCU/hr)	(PCU)	Delay (s)	level of service
A	1185	369	2488	0.476	1187	1.0	3.050	A
B	480	1127	631	0.760	617	11.4	173.599	F
C	592	897	2072	0.286	593	0.4	2.680	A
D	618	707	1311	0.471	620	1.0	5.761	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	992	308	2539	0.391	993	0.7	2.565	A
B	402	943	720	0.558	442	1.4	16.226	C
C	496	685	2249	0.221	497	0.3	2.260	A
D	517	579	1386	0.373	519	0.7	4.573	A

2024 with HIF + dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	32.73	D

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2024 with HIF + dev	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	959	100.000
B		✓	470	100.000
C		✓	914	100.000
D		✓	990	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	2	64	547	346
	B	96	1	59	314
	C	858	56	0	0
	D	611	369	8	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.44	2.93	0.9	A
B	0.75	22.13	3.1	C
C	0.47	3.55	1.0	A
D	1.02	93.57	29.1	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	722	326	2524	0.286	720	0.4	2.193	A
B	354	680	847	0.418	351	0.8	7.934	A
C	688	570	2345	0.293	686	0.5	2.386	A
D	745	760	1280	0.582	739	1.5	7.251	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	862	390	2470	0.349	862	0.6	2.462	A
B	423	813	783	0.540	421	1.3	10.878	B
C	822	682	2251	0.365	821	0.6	2.768	A
D	890	910	1192	0.747	884	3.1	12.588	B

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1056	455	2414	0.437	1055	0.9	2.912	A
B	517	995	695	0.744	511	2.9	20.747	C
C	1006	831	2126	0.473	1005	1.0	3.526	A
D	1090	1113	1073	1.016	1025	19.4	52.628	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1056	465	2406	0.439	1056	0.9	2.932	A
B	517	996	695	0.745	517	3.1	22.135	C
C	1006	837	2121	0.474	1006	1.0	3.550	A
D	1090	1115	1072	1.017	1051	29.1	93.565	F

08:30 - 08:45

	Total Demand	Circulating flow	Capacity		Throughput	End queue		Unsignalised

Arm	(PCU/hr)	(PCU/hr)	(PCU/hr)	RFC	(PCU/hr)	(PCU)	Delay (s)	level of service
A	862	431	2435	0.354	863	0.6	2.520	A
B	423	816	781	0.541	429	1.3	11.464	B
C	822	691	2244	0.366	823	0.6	2.791	A
D	890	914	1190	0.748	992	3.5	29.176	D

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	722	331	2519	0.287	723	0.4	2.206	A
B	354	682	846	0.418	356	0.8	8.119	A
C	688	575	2340	0.294	689	0.5	2.400	A
D	745	764	1277	0.583	753	1.6	7.659	A

2024 with HIF + dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	47.18	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2024 with HIF + dev	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1319	100.000
B		✓	534	100.000
C		✓	659	100.000
D		✓	718	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	3	91	838	387
	B	98	1	61	374
	C	624	32	0	3
	D	334	360	24	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.60	4.13	1.7	A
B	1.15	259.86	45.8	F
C	0.35	2.91	0.6	A
D	0.64	8.71	1.9	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	993	312	2535	0.392	990	0.7	2.559	A
B	402	940	722	0.557	397	1.3	12.002	B
C	496	644	2283	0.217	495	0.3	2.214	A
D	541	568	1392	0.388	538	0.7	4.621	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1186	374	2483	0.478	1185	1.0	3.047	A
B	480	1124	633	0.759	473	3.1	23.766	C
C	592	769	2178	0.272	592	0.4	2.496	A
D	645	680	1327	0.487	644	1.0	5.789	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1452	457	2413	0.602	1450	1.6	4.102	A
B	588	1376	512	1.149	497	25.8	124.740	F
C	726	869	2095	0.346	725	0.6	2.889	A
D	791	817	1246	0.634	787	1.9	8.566	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1452	459	2411	0.602	1452	1.7	4.129	A
B	588	1378	511	1.152	508	45.8	259.856	F
C	726	879	2086	0.348	726	0.6	2.909	A
D	791	820	1245	0.635	790	1.9	8.711	A

17:30 - 17:45

	Total Demand	Circulating flow	Capacity		Throughput	End queue		Unsignalised

Arm	(PCU/hr)	(PCU/hr)	(PCU/hr)	RFC	(PCU/hr)	(PCU)	Delay (s)	level of service
A	1186	377	2481	0.478	1188	1.0	3.069	A
B	480	1128	631	0.761	616	11.7	175.199	F
C	592	897	2071	0.286	593	0.4	2.678	A
D	645	707	1311	0.492	649	1.1	6.010	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	993	315	2533	0.392	994	0.7	2.576	A
B	402	944	720	0.559	443	1.4	16.405	C
C	496	686	2247	0.221	497	0.3	2.264	A
D	541	579	1386	0.390	542	0.7	4.700	A

2034 with HIF, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	591.44	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2034 with HIF	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1280	100.000
B		✓	752	100.000
C		✓	1026	100.000
D		✓	1508	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	2	72	614	592
	B	108	1	66	577
	C	963	63	0	0
	D	931	563	12	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.58	3.95	1.5	A
B	1.56	956.07	175.0	F
C	0.60	5.34	1.7	A
D	1.63	1307.04	445.6	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	964	468	2403	0.401	961	0.7	2.739	A
B	566	917	733	0.773	553	3.4	20.689	C
C	772	951	2026	0.381	770	0.7	3.145	A
D	1135	851	1226	0.926	1098	9.4	25.926	D

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1151	488	2387	0.482	1150	1.0	3.197	A
B	676	1095	647	1.045	618	17.9	81.165	F
C	922	1099	1903	0.485	921	1.0	4.025	A
D	1356	1012	1132	1.198	1125	67.1	136.659	F

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1409	459	2411	0.585	1407	1.5	3.938	A
B	828	1338	530	1.562	529	92.5	390.486	F
C	1130	1137	1871	0.604	1127	1.7	5.304	A
D	1660	1206	1018	1.630	1018	227.7	528.568	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1409	459	2411	0.585	1409	1.5	3.953	A
B	828	1339	529	1.564	529	167.2	810.541	F
C	1130	1138	1870	0.604	1130	1.7	5.345	A
D	1660	1208	1017	1.633	1017	388.5	1029.681	F

08:30 - 08:45

	Total Demand	Circulating	Capacity		Throughput	End queue		Unsignalised

Arm	(PCU/hr)	flow (PCU/hr)	(PCU/hr)	RFC	(PCU/hr)	(PCU)	Delay (s)	level of service
A	1151	489	2386	0.482	1153	1.0	3.216	A
B	676	1098	645	1.048	645	175.0	956.065	F
C	922	1125	1882	0.490	925	1.1	4.148	A
D	1356	1020	1127	1.203	1127	445.6	1307.044	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	964	510	2368	0.407	965	0.8	2.826	A
B	566	922	730	0.775	726	135.1	770.208	F
C	772	1111	1893	0.408	774	0.8	3.544	A
D	1135	880	1209	0.939	1206	427.9	1303.634	F

2034 with HIF, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	692.45	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2034 with HIF	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1748	100.000
B		✓	858	100.000
C		✓	743	100.000
D		✓	1191	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	4	102	942	700
	B	111	1	68	678
	C	701	36	0	6
	D	541	608	42	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.87	13.93	7.1	B
B	3.35	3436.32	543.5	F
C	0.42	3.47	0.8	A
D	1.07	141.42	56.3	F

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1316	512	2366	0.556	1311	1.4	3.732	A
B	646	1265	565	1.143	542	26.0	106.006	F
C	559	1027	1963	0.285	558	0.4	2.813	A
D	897	627	1358	0.660	888	2.1	8.296	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1571	612	2282	0.689	1567	2.4	5.510	A
B	771	1513	446	1.731	445	107.5	690.770	F
C	668	1041	1951	0.342	667	0.6	3.082	A
D	1071	724	1301	0.823	1060	4.7	15.807	C

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1925	693	2213	0.870	1908	6.7	12.347	B
B	945	1838	289	3.267	289	271.4	2340.006	F
C	818	1034	1957	0.418	817	0.8	3.473	A
D	1311	853	1225	1.070	1197	33.1	69.430	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1925	705	2203	0.874	1923	7.1	13.933	B
B	945	1853	282	3.351	282	437.1	2938.726	F
C	818	1034	1957	0.418	818	0.8	3.474	A
D	1311	853	1225	1.070	1219	56.3	141.425	F

17:30 - 17:45

	Total Demand	Circulating	Capacity		Throughput	End queue		Unsignalised

Arm	(PCU/hr)	flow (PCU/hr)	(PCU/hr)	RFC	(PCU/hr)	(PCU)	Delay (s)	level of service
A	1571	724	2186	0.719	1588	2.9	6.803	A
B	771	1540	433	1.783	433	521.8	3298.048	F
C	668	1038	1954	0.342	669	0.6	3.085	A
D	1071	723	1301	0.823	1267	7.2	93.712	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1316	528	2353	0.559	1322	1.4	3.863	A
B	646	1277	559	1.155	559	543.5	3436.321	F
C	559	1047	1946	0.287	560	0.4	2.859	A
D	897	631	1355	0.662	917	2.2	9.420	A

2034 with HIF + dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	614.89	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2034 with HIF + dev	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1318	100.000
B		✓	767	100.000
C		✓	1026	100.000
D		✓	1511	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	2	72	614	630
	B	108	1	66	592
	C	963	63	0	0
	D	933	564	12	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.60	4.13	1.7	A
B	1.66	1116.37	206.4	F
C	0.61	5.50	1.7	A
D	1.63	1306.86	446.5	F

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	992	469	2403	0.413	989	0.8	2.795	A
B	577	945	719	0.803	562	3.9	23.301	C
C	772	989	1995	0.387	770	0.7	3.226	A
D	1138	851	1226	0.928	1099	9.5	26.165	D

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1185	488	2386	0.497	1184	1.1	3.290	A
B	690	1129	630	1.094	611	23.6	101.906	F
C	922	1127	1879	0.491	921	1.1	4.126	A
D	1358	1010	1134	1.198	1126	67.5	137.227	F

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1451	460	2410	0.602	1449	1.6	4.110	A
B	844	1379	510	1.655	510	107.3	476.624	F
C	1130	1162	1851	0.610	1127	1.7	5.453	A
D	1664	1202	1021	1.630	1021	228.2	528.876	F

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1451	460	2410	0.602	1451	1.7	4.128	A
B	844	1381	509	1.659	509	191.1	945.802	F
C	1130	1162	1850	0.611	1130	1.7	5.496	A
D	1664	1204	1019	1.632	1019	389.3	1029.528	F

08:30 - 08:45

	Total Demand	Circulating	Capacity		Throughput	End queue		Unsignalised

Arm	(PCU/hr)	flow (PCU/hr)	(PCU/hr)	RFC	(PCU/hr)	(PCU)	Delay (s)	level of service
A	1185	490	2385	0.497	1187	1.1	3.313	A
B	690	1133	629	1.097	629	206.4	1116.373	F
C	922	1145	1864	0.495	925	1.1	4.225	A
D	1358	1016	1130	1.202	1130	446.5	1306.858	F

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	992	511	2367	0.419	993	0.8	2.884	A
B	577	950	717	0.806	713	172.5	957.536	F
C	772	1129	1878	0.411	774	0.8	3.590	A
D	1138	876	1211	0.939	1208	428.7	1303.644	F

2034 with HIF + dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	701.16	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D14	2034 with HIF + dev	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1749	100.000
B		✓	859	100.000
C		✓	743	100.000
D		✓	1221	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	4	102	942	701
	B	111	1	68	679
	C	701	36	0	6
	D	562	617	42	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.87	13.77	7.1	B
B	3.36	3456.03	545.4	F
C	0.42	3.48	0.8	A
D	1.10	172.24	71.0	F

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1317	519	2360	0.558	1311	1.4	3.755	A
B	647	1266	565	1.145	542	26.2	106.786	F
C	559	1028	1963	0.285	558	0.4	2.814	A
D	919	627	1358	0.677	910	2.2	8.685	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1572	619	2276	0.691	1568	2.4	5.564	A
B	772	1514	445	1.734	445	108.1	695.597	F
C	668	1042	1951	0.342	667	0.6	3.083	A
D	1098	724	1301	0.844	1085	5.3	17.438	C

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1926	690	2215	0.869	1909	6.6	12.290	B
B	946	1839	289	3.274	289	272.3	2350.529	F
C	818	1035	1956	0.418	817	0.8	3.476	A
D	1344	853	1225	1.097	1204	40.3	80.513	F

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1926	699	2208	0.872	1924	7.1	13.767	B
B	946	1854	282	3.357	282	438.3	2948.543	F
C	818	1035	1956	0.418	818	0.8	3.477	A
D	1344	853	1225	1.097	1222	71.0	172.235	F

17:30 - 17:45

	Total Demand	Circulating	Capacity		Throughput	End queue		Unsignalised

Arm	(PCU/hr)	flow (PCU/hr)	(PCU/hr)	RFC	(PCU/hr)	(PCU)	Delay (s)	level of service
A	1572	724	2186	0.719	1589	2.9	6.809	A
B	772	1540	433	1.785	433	523.2	3312.595	F
C	668	1039	1953	0.342	669	0.6	3.084	A
D	1098	723	1301	0.844	1281	25.1	138.828	F

17:45 - 18:00

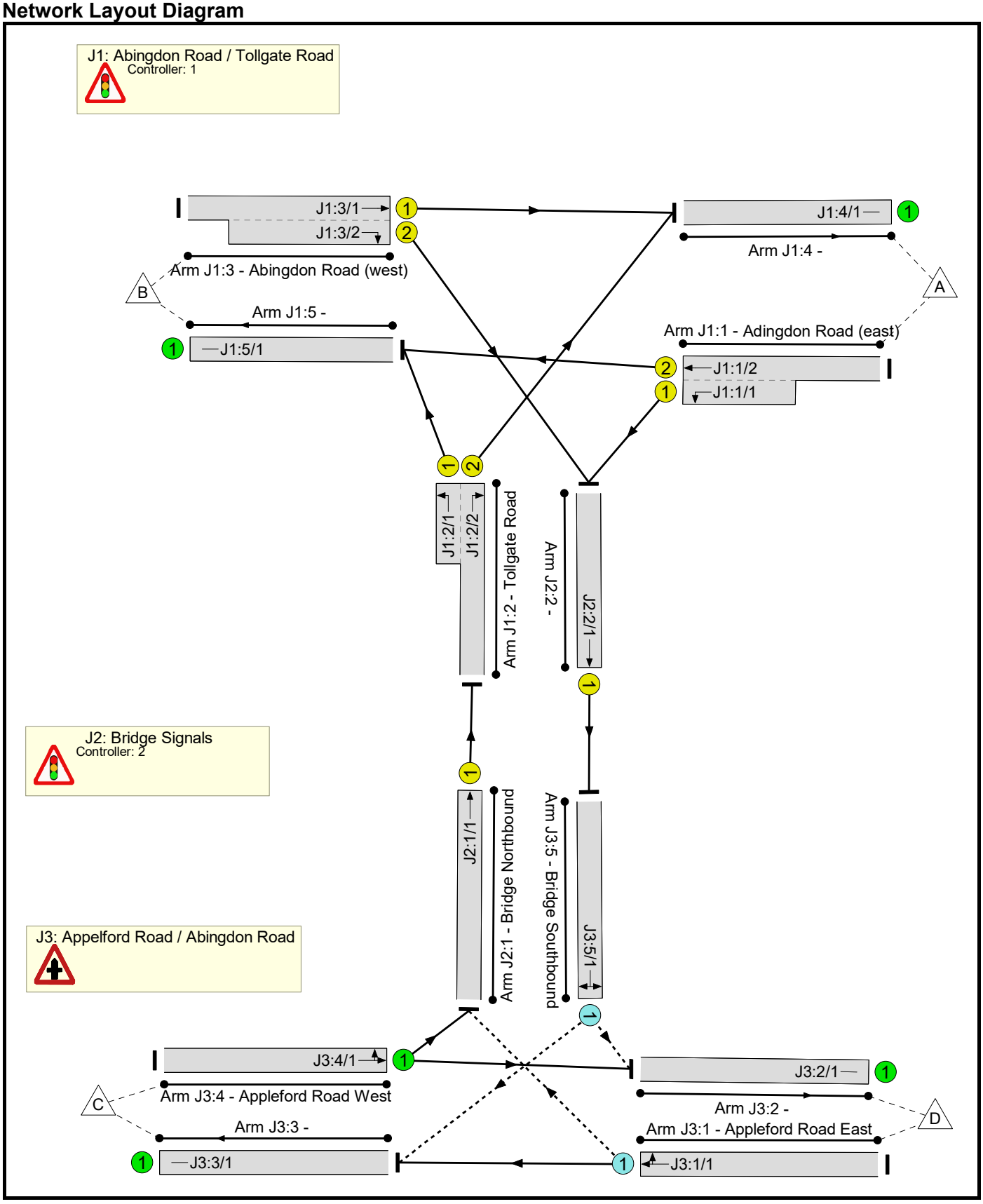
Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1317	573	2315	0.569	1322	1.5	4.015	A
B	647	1280	558	1.159	558	545.4	3456.033	F
C	559	1047	1947	0.287	560	0.4	2.856	A
D	919	631	1355	0.678	1010	2.4	14.640	B

LinSig V1 style report

User and Project Details

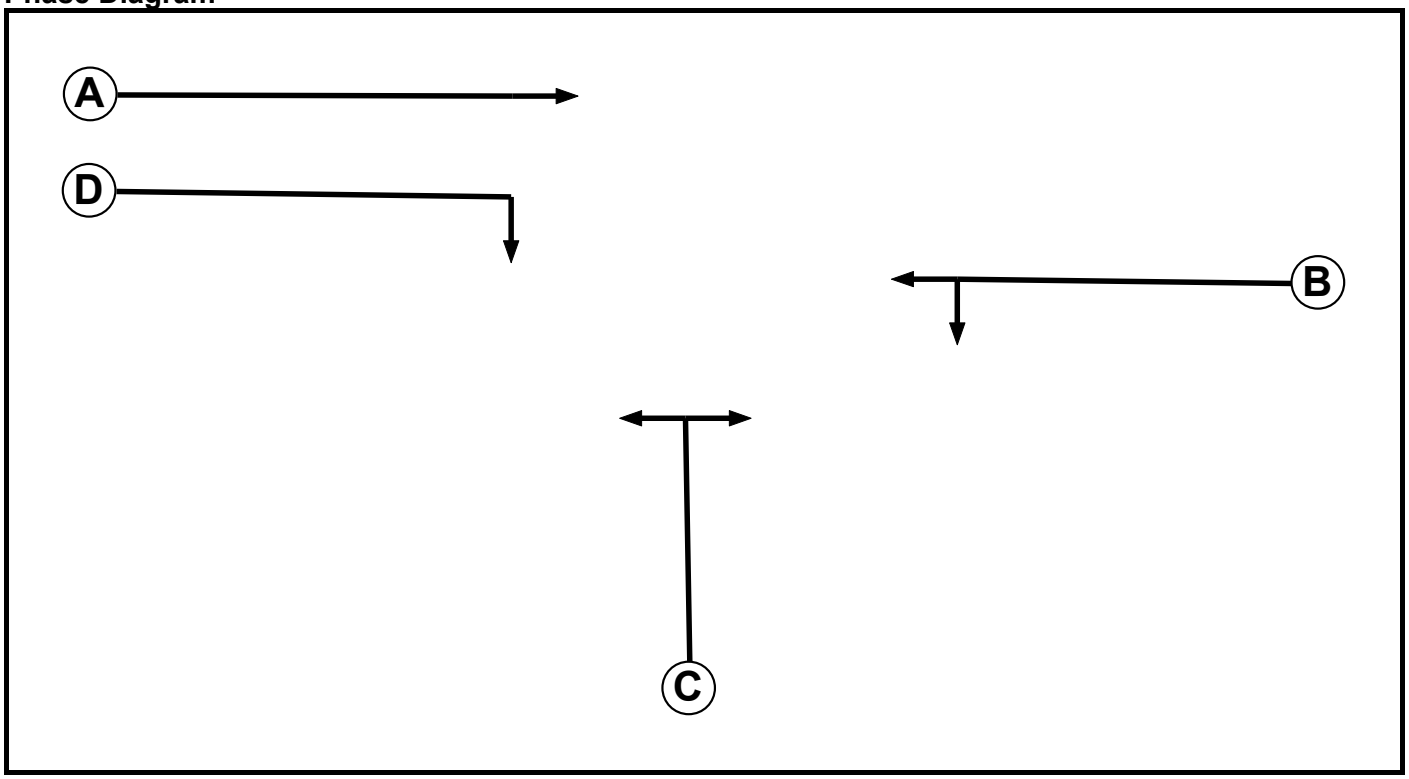
Project:	**Abingdon Road / Tollgate Road Signals**
Title:	
Location:	Oxfordshire
Client:	UKAEA
Additional detail:	
File name:	Combined Tollgate Junction Signals.lsg3x
Author:	MAM
Company:	BSP
Address:	Notts

Network Layout Diagram



C1

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7

Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D
A		-	5	-
B	-		6	7
C	7	6		7
D	-	6	7	

Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

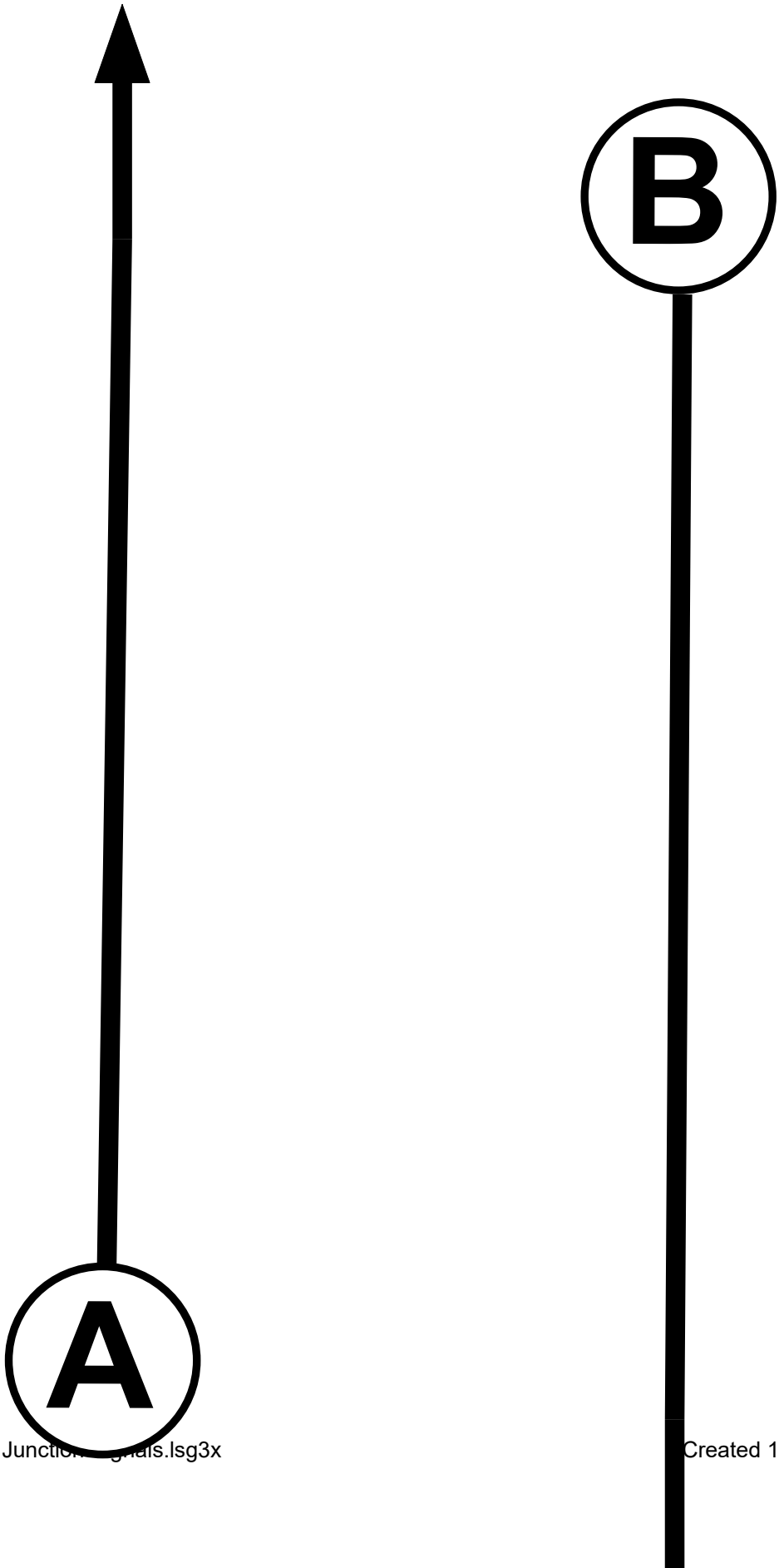
Prohibited Stage Change

	To Stage			
From Stage		1	2	3
	1		7	6
	2	6		7
	3	7	7	

Phases in Stage

Stage No.	Phases in Stage
1	A B
2	A D
3	C

C2
Phase Diagram


B
A

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		56	56

Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B
A		30
B	30	

Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage \ To Stage	1	2
1		30
2	30	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	B

Give-Way Lane Input Data

Junction: J1: Abingdon Road / Tollgate Road

There are no Opposed Lanes in this Junction

Junction: J2: Bridge Signals

There are no Opposed Lanes in this Junction

Junction: J3: Appelford Road / Abingdon Road

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
J3:1/1 (Appleford Road East)	J2:1/1 (Right)	1439	0	J3:4/1	1.09	All	-	-	-	-	-
J3:5/1 (Bridge Southbound)	J3:2/1 (Left)	1439	0	J3:4/1	1.09	To J3:2/1 (Ahead)	-	-	-	-	-
	J3:3/1 (Right)			J3:4/1	1.09	To J3:2/1 (Ahead)					
				J3:1/1	1.09	All					

Lane Input Data

Junction: J1: Abingdon Road / Tollgate Road

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J1:1/1 (Adingdon Road (east))	U	B	2	3	7.0	User	1500	-	-	-	-	-
J1:1/2 (Adingdon Road (east))	U	B	2	3	60.0	User	1250	-	-	-	-	-
J1:2/1 (Tollgate Road)	U	C	2	3	5.0	User	1250	-	-	-	-	-
J1:2/2 (Tollgate Road)	U	C	2	3	73.4	User	1400	-	-	-	-	-
J1:3/1 (Abingdon Road (west))	U	A	2	3	60.0	User	1899	-	-	-	-	-
J1:3/2 (Abingdon Road (west))	U	D	2	3	15.0	User	1886	-	-	-	-	-
J1:4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:5/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Junction: J2: Bridge Signals

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J2:1/1 (Bridge Northbound)	U	A	2	3	48.7	User	1815	-	-	-	-	-
J2:2/1	U	B	2	3	73.4	User	1815	-	-	-	-	-

Junction: J3: Appelford Road / Abingdon Road

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J3:1/1 (Appleford Road East)	O		2	3	60.0	User	1800	-	-	-	-	-
J3:2/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J3:3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J3:4/1 (Appleford Road West)	U		2	3	60.0	User	1800	-	-	-	-	-
J3:5/1 (Bridge Southbound)	O		2	3	48.7	Geom	-	3.50	0.00	Y	Arm J3:2 Left	12.00
											Arm J3:3 Right	12.00

Lane Saturation Flows

Scenario 1: '2021 Base + Com AM' (FG1: '2021 Base + Com - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: J1: Abingdon Road / Tollgate Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Adingdon Road (east) Lane 1)	This lane uses a directly entered Saturation Flow						1500	1500
J1:1/2 (Adingdon Road (east) Lane 2)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/1 (Tollgate Road Lane 1)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/2 (Tollgate Road Lane 2)	This lane uses a directly entered Saturation Flow						1400	1400
J1:3/1 (Abingdon Road (west) Lane 1)	This lane uses a directly entered Saturation Flow						1899	1899
J1:3/2 (Abingdon Road (west) Lane 2)	This lane uses a directly entered Saturation Flow						1886	1886
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: Bridge Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Bridge Northbound Lane 1)	This lane uses a directly entered Saturation Flow						1815	1815
J2:2/1	This lane uses a directly entered Saturation Flow						1815	1815

Junction: J3: Appelford Road / Abingdon Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J3:1/1 (Appleford Road East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:2/1	Infinite Saturation Flow						Inf	Inf
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:4/1 (Appleford Road West Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:5/1 (Bridge Southbound)	3.50	0.00	Y	Arm J3:2 Left	12.00	34.9 %	1747	1747
				Arm J3:3 Right	12.00	65.1 %		

Scenario 2: '2021 Base + Com PM' (FG2: '2021 Base + Com - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: J1: Abingdon Road / Tollgate Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Adingdon Road (east) Lane 1)	This lane uses a directly entered Saturation Flow						1500	1500
J1:1/2 (Adingdon Road (east) Lane 2)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/1 (Tollgate Road Lane 1)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/2 (Tollgate Road Lane 2)	This lane uses a directly entered Saturation Flow						1400	1400
J1:3/1 (Abingdon Road (west) Lane 1)	This lane uses a directly entered Saturation Flow						1899	1899
J1:3/2 (Abingdon Road (west) Lane 2)	This lane uses a directly entered Saturation Flow						1886	1886
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: Bridge Signals								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Bridge Northbound Lane 1)	This lane uses a directly entered Saturation Flow						1815	1815
J2:2/1	This lane uses a directly entered Saturation Flow						1815	1815

Junction: J3: Appelford Road / Abingdon Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Appleford Road East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:2/1	Infinite Saturation Flow						Inf	Inf
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:4/1 (Appleford Road West Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:5/1 (Bridge Southbound)	3.50	0.00	Y	Arm J3:2 Left	12.00	40.9 %	1747	1747
				Arm J3:3 Right	12.00	59.1 %		

Scenario 3: '2024 Base + Com AM' (FG3: '2024 Base + Com - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: J1: Abingdon Road / Tollgate Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Adingdon Road (east) Lane 1)	This lane uses a directly entered Saturation Flow						1500	1500
J1:1/2 (Adingdon Road (east) Lane 2)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/1 (Tollgate Road Lane 1)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/2 (Tollgate Road Lane 2)	This lane uses a directly entered Saturation Flow						1400	1400
J1:3/1 (Abingdon Road (west) Lane 1)	This lane uses a directly entered Saturation Flow						1899	1899
J1:3/2 (Abingdon Road (west) Lane 2)	This lane uses a directly entered Saturation Flow						1886	1886
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: Bridge Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Bridge Northbound Lane 1)	This lane uses a directly entered Saturation Flow						1815	1815
J2:2/1	This lane uses a directly entered Saturation Flow						1815	1815

Junction: J3: Appelford Road / Abingdon Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Appleford Road East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:2/1	Infinite Saturation Flow						Inf	Inf
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:4/1 (Appleford Road West Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:5/1 (Bridge Southbound)	3.50	0.00	Y	Arm J3:2 Left	12.00	34.9 %	1747	1747
				Arm J3:3 Right	12.00	65.1 %		

Scenario 4: '2024 Base + Com PM' (FG4: '2024 Base + Com - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: J1: Abingdon Road / Tollgate Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Adingdon Road (east) Lane 1)	This lane uses a directly entered Saturation Flow						1500	1500
J1:1/2 (Adingdon Road (east) Lane 2)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/1 (Tollgate Road Lane 1)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/2 (Tollgate Road Lane 2)	This lane uses a directly entered Saturation Flow						1400	1400
J1:3/1 (Abingdon Road (west) Lane 1)	This lane uses a directly entered Saturation Flow						1899	1899
J1:3/2 (Abingdon Road (west) Lane 2)	This lane uses a directly entered Saturation Flow						1886	1886
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: Bridge Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Bridge Northbound Lane 1)	This lane uses a directly entered Saturation Flow						1815	1815
J2:2/1	This lane uses a directly entered Saturation Flow						1815	1815

Junction: J3: Appelford Road / Abingdon Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Appleford Road East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:2/1	Infinite Saturation Flow						Inf	Inf
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:4/1 (Appleford Road West Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:5/1 (Bridge Southbound)	3.50	0.00	Y	Arm J3:2 Left	12.00	41.0 %	1747	1747
				Arm J3:3 Right	12.00	59.0 %		

Scenario 5: '2024 With Dev AM' (FG5: '2024 Base + Com + Dev - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: J1: Abingdon Road / Tollgate Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Adingdon Road (east) Lane 1)	This lane uses a directly entered Saturation Flow						1500	1500
J1:1/2 (Adingdon Road (east) Lane 2)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/1 (Tollgate Road Lane 1)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/2 (Tollgate Road Lane 2)	This lane uses a directly entered Saturation Flow						1400	1400
J1:3/1 (Abingdon Road (west) Lane 1)	This lane uses a directly entered Saturation Flow						1899	1899
J1:3/2 (Abingdon Road (west) Lane 2)	This lane uses a directly entered Saturation Flow						1886	1886
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: Bridge Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Bridge Northbound Lane 1)	This lane uses a directly entered Saturation Flow						1815	1815
J2:2/1	This lane uses a directly entered Saturation Flow						1815	1815

Junction: J3: Appelford Road / Abingdon Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Appleford Road East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:2/1	Infinite Saturation Flow						Inf	Inf
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:4/1 (Appleford Road West Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:5/1 (Bridge Southbound)	3.50	0.00	Y	Arm J3:2 Left	12.00	34.8 %	1747	1747
				Arm J3:3 Right	12.00	65.2 %		

Scenario 6: '2024 With Dev PM' (FG6: '2024 Base + Com + Dev - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: J1: Abingdon Road / Tollgate Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Adingdon Road (east) Lane 1)	This lane uses a directly entered Saturation Flow						1500	1500
J1:1/2 (Adingdon Road (east) Lane 2)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/1 (Tollgate Road Lane 1)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/2 (Tollgate Road Lane 2)	This lane uses a directly entered Saturation Flow						1400	1400
J1:3/1 (Abingdon Road (west) Lane 1)	This lane uses a directly entered Saturation Flow						1899	1899
J1:3/2 (Abingdon Road (west) Lane 2)	This lane uses a directly entered Saturation Flow						1886	1886
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: Bridge Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Bridge Northbound Lane 1)	This lane uses a directly entered Saturation Flow						1815	1815
J2:2/1	This lane uses a directly entered Saturation Flow						1815	1815

Junction: J3: Appelford Road / Abingdon Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Appleford Road East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:2/1	Infinite Saturation Flow						Inf	Inf
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:4/1 (Appleford Road West Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:5/1 (Bridge Southbound)	3.50	0.00	Y	Arm J3:2 Left	12.00	39.5 %	1747	1747
				Arm J3:3 Right	12.00	60.5 %		

Scenario 7: '2024 With HIF AM' (FG7: '2024 With HIF - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: J1: Abingdon Road / Tollgate Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Adingdon Road (east) Lane 1)	This lane uses a directly entered Saturation Flow						1500	1500
J1:1/2 (Adingdon Road (east) Lane 2)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/1 (Tollgate Road Lane 1)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/2 (Tollgate Road Lane 2)	This lane uses a directly entered Saturation Flow						1400	1400
J1:3/1 (Abingdon Road (west) Lane 1)	This lane uses a directly entered Saturation Flow						1899	1899
J1:3/2 (Abingdon Road (west) Lane 2)	This lane uses a directly entered Saturation Flow						1886	1886
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: Bridge Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Bridge Northbound Lane 1)	This lane uses a directly entered Saturation Flow						1815	1815
J2:2/1	This lane uses a directly entered Saturation Flow						1815	1815

Junction: J3: Appelford Road / Abingdon Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Appleford Road East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:2/1	Infinite Saturation Flow						Inf	Inf
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:4/1 (Appleford Road West Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:5/1 (Bridge Southbound)	3.50	0.00	Y	Arm J3:2 Left	12.00	13.2 %	1747	1747
				Arm J3:3 Right	12.00	86.8 %		

Scenario 8: '2024 With HIF PM' (FG8: '2024 With HIF - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: J1: Abingdon Road / Tollgate Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Adingdon Road (east) Lane 1)	This lane uses a directly entered Saturation Flow						1500	1500
J1:1/2 (Adingdon Road (east) Lane 2)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/1 (Tollgate Road Lane 1)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/2 (Tollgate Road Lane 2)	This lane uses a directly entered Saturation Flow						1400	1400
J1:3/1 (Abingdon Road (west) Lane 1)	This lane uses a directly entered Saturation Flow						1899	1899
J1:3/2 (Abingdon Road (west) Lane 2)	This lane uses a directly entered Saturation Flow						1886	1886
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: Bridge Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Bridge Northbound Lane 1)	This lane uses a directly entered Saturation Flow						1815	1815
J2:2/1	This lane uses a directly entered Saturation Flow						1815	1815

Junction: J3: Appelford Road / Abingdon Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J3:1/1 (Appleford Road East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:2/1	Infinite Saturation Flow						Inf	Inf
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:4/1 (Appleford Road West Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:5/1 (Bridge Southbound)	3.50	0.00	Y	Arm J3:2 Left	12.00	19.6 %	1747	1747
				Arm J3:3 Right	12.00	80.4 %		

Scenario 9: '2024 With HIF + Dev AM' (FG9: '2024 With HIF + Dev - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: J1: Abingdon Road / Tollgate Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Adingdon Road (east) Lane 1)	This lane uses a directly entered Saturation Flow						1500	1500
J1:1/2 (Adingdon Road (east) Lane 2)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/1 (Tollgate Road Lane 1)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/2 (Tollgate Road Lane 2)	This lane uses a directly entered Saturation Flow						1400	1400
J1:3/1 (Abingdon Road (west) Lane 1)	This lane uses a directly entered Saturation Flow						1899	1899
J1:3/2 (Abingdon Road (west) Lane 2)	This lane uses a directly entered Saturation Flow						1886	1886
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: Bridge Signals								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Bridge Northbound Lane 1)	This lane uses a directly entered Saturation Flow						1815	1815
J2:2/1	This lane uses a directly entered Saturation Flow						1815	1815

Junction: J3: Appelford Road / Abingdon Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Appleford Road East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:2/1	Infinite Saturation Flow						Inf	Inf
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:4/1 (Appleford Road West Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:5/1 (Bridge Southbound)	3.50	0.00	Y	Arm J3:2 Left	12.00	13.0 %	1747	1747
				Arm J3:3 Right	12.00	87.0 %		

Scenario 10: '2024 With HIF + Dev PM' (FG10: '2024 With HIF + Dev - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: J1: Abingdon Road / Tollgate Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Adingdon Road (east) Lane 1)	This lane uses a directly entered Saturation Flow						1500	1500
J1:1/2 (Adingdon Road (east) Lane 2)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/1 (Tollgate Road Lane 1)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/2 (Tollgate Road Lane 2)	This lane uses a directly entered Saturation Flow						1400	1400
J1:3/1 (Abingdon Road (west) Lane 1)	This lane uses a directly entered Saturation Flow						1899	1899
J1:3/2 (Abingdon Road (west) Lane 2)	This lane uses a directly entered Saturation Flow						1886	1886
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: Bridge Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Bridge Northbound Lane 1)	This lane uses a directly entered Saturation Flow						1815	1815
J2:2/1	This lane uses a directly entered Saturation Flow						1815	1815

Junction: J3: Appelford Road / Abingdon Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Appleford Road East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:2/1	Infinite Saturation Flow						Inf	Inf
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:4/1 (Appleford Road West Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:5/1 (Bridge Southbound)	3.50	0.00	Y	Arm J3:2 Left	12.00	16.3 %	1747	1747
				Arm J3:3 Right	12.00	83.7 %		

Scenario 11: '2034 With HIF AM' (FG11: '2034 With HIF - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: J1: Abingdon Road / Tollgate Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Adingdon Road (east) Lane 1)	This lane uses a directly entered Saturation Flow						1500	1500
J1:1/2 (Adingdon Road (east) Lane 2)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/1 (Tollgate Road Lane 1)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/2 (Tollgate Road Lane 2)	This lane uses a directly entered Saturation Flow						1400	1400
J1:3/1 (Abingdon Road (west) Lane 1)	This lane uses a directly entered Saturation Flow						1899	1899
J1:3/2 (Abingdon Road (west) Lane 2)	This lane uses a directly entered Saturation Flow						1886	1886
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: Bridge Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Bridge Northbound Lane 1)	This lane uses a directly entered Saturation Flow						1815	1815
J2:2/1	This lane uses a directly entered Saturation Flow						1815	1815

Junction: J3: Appelford Road / Abingdon Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Appleford Road East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:2/1	Infinite Saturation Flow						Inf	Inf
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:4/1 (Appleford Road West Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:5/1 (Bridge Southbound)	3.50	0.00	Y	Arm J3:2 Left	12.00	12.9 %	1747	1747
				Arm J3:3 Right	12.00	87.1 %		

Scenario 12: '2034 With HIF PM' (FG12: '2034 With HIF - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: J1: Abingdon Road / Tollgate Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Adingdon Road (east) Lane 1)	This lane uses a directly entered Saturation Flow						1500	1500
J1:1/2 (Adingdon Road (east) Lane 2)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/1 (Tollgate Road Lane 1)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/2 (Tollgate Road Lane 2)	This lane uses a directly entered Saturation Flow						1400	1400
J1:3/1 (Abingdon Road (west) Lane 1)	This lane uses a directly entered Saturation Flow						1899	1899
J1:3/2 (Abingdon Road (west) Lane 2)	This lane uses a directly entered Saturation Flow						1886	1886
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: Bridge Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Bridge Northbound Lane 1)	This lane uses a directly entered Saturation Flow						1815	1815
J2:2/1	This lane uses a directly entered Saturation Flow						1815	1815

Junction: J3: Appelford Road / Abingdon Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Appleford Road East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:2/1	Infinite Saturation Flow						Inf	Inf
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:4/1 (Appleford Road West Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:5/1 (Bridge Southbound)	3.50	0.00	Y	Arm J3:2 Left	12.00	20.3 %	1747	1747
				Arm J3:3 Right	12.00	79.7 %		

Scenario 13: '2034 With HIF + Dev AM' (FG13: '2034 With HIF + Dev - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: J1: Abingdon Road / Tollgate Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Adingdon Road (east) Lane 1)	This lane uses a directly entered Saturation Flow						1500	1500
J1:1/2 (Adingdon Road (east) Lane 2)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/1 (Tollgate Road Lane 1)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/2 (Tollgate Road Lane 2)	This lane uses a directly entered Saturation Flow						1400	1400
J1:3/1 (Abingdon Road (west) Lane 1)	This lane uses a directly entered Saturation Flow						1899	1899
J1:3/2 (Abingdon Road (west) Lane 2)	This lane uses a directly entered Saturation Flow						1886	1886
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: Bridge Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Bridge Northbound Lane 1)	This lane uses a directly entered Saturation Flow						1815	1815
J2:2/1	This lane uses a directly entered Saturation Flow						1815	1815

Junction: J3: Appelford Road / Abingdon Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (Appleford Road East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:2/1	Infinite Saturation Flow						Inf	Inf
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:4/1 (Appleford Road West Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:5/1 (Bridge Southbound)	3.50	0.00	Y	Arm J3:2 Left	12.00	12.7 %	1747	1747
				Arm J3:3 Right	12.00	87.3 %		

Scenario 14: '2034 With HIF + Dev PM' (FG14: '2034 With HIF + Dev - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: J1: Abingdon Road / Tollgate Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Adingdon Road (east) Lane 1)	This lane uses a directly entered Saturation Flow						1500	1500
J1:1/2 (Adingdon Road (east) Lane 2)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/1 (Tollgate Road Lane 1)	This lane uses a directly entered Saturation Flow						1250	1250
J1:2/2 (Tollgate Road Lane 2)	This lane uses a directly entered Saturation Flow						1400	1400
J1:3/1 (Abingdon Road (west) Lane 1)	This lane uses a directly entered Saturation Flow						1899	1899
J1:3/2 (Abingdon Road (west) Lane 2)	This lane uses a directly entered Saturation Flow						1886	1886
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: Bridge Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Bridge Northbound Lane 1)	This lane uses a directly entered Saturation Flow						1815	1815
J2:2/1	This lane uses a directly entered Saturation Flow						1815	1815

Junction: J3: Appelford Road / Abingdon Road								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J3:1/1 (Appleford Road East Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:2/1	Infinite Saturation Flow						Inf	Inf
J3:3/1	Infinite Saturation Flow						Inf	Inf
J3:4/1 (Appleford Road West Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
J3:5/1 (Bridge Southbound)	3.50	0.00	Y	Arm J3:2 Left	12.00	17.4 %	1747	1747
				Arm J3:3 Right	12.00	82.6 %		

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2021 Base + Com - AM Peak'	08:00	09:00	01:00	
2: '2021 Base + Com - PM Peak'	17:00	18:00	01:00	
3: '2024 Base + Com - AM Peak'	08:00	09:00	01:00	
4: '2024 Base + Com - PM Peak'	17:00	18:00	01:00	
5: '2024 Base + Com + Dev - AM Peak'	08:00	09:00	01:00	
6: '2024 Base + Com + Dev - PM Peak'	17:00	18:00	01:00	
7: '2024 With HIF - AM Peak'	08:00	09:00	01:00	
8: '2024 With HIF - PM Peak'	17:00	18:00	01:00	
9: '2024 With HIF + Dev - AM Peak'	08:00	09:00	01:00	
10: '2024 With HIF + Dev - PM Peak'	17:00	18:00	01:00	
11: '2034 With HIF - AM Peak'	08:00	09:00	01:00	
12: '2034 With HIF - PM Peak'	17:00	18:00	01:00	
13: '2034 With HIF + Dev - AM Peak'	08:00	09:00	01:00	
14: '2034 With HIF + Dev - PM Peak'	17:00	18:00	01:00	

Traffic Flows, Desired

FG1: '2021 Base + Com - AM Peak'

Desired Flow :

Origin	Destination				
	A	B	C	D	Tot.
A	0	352	134	72	558
B	524	0	99	53	676
C	287	123	0	143	553
D	83	36	114	0	233
Tot.	894	511	347	268	2020

FG2: '2021 Base + Com - PM Peak'

Desired Flow :

Origin	Destination				
	A	B	C	D	Tot.
A	0	425	176	122	723
B	222	0	107	74	403
C	130	173	0	308	611
D	26	34	150	0	210
Tot.	378	632	433	504	1947

FG3: '2024 Base + Com - AM Peak'

Desired Flow :

Origin	Destination				
	A	B	C	D	Tot.
A	0	377	149	80	606
B	614	0	106	57	777
C	327	140	0	159	626
D	106	46	148	0	300
Tot.	1047	563	403	296	2309

FG4: '2024 Base + Com - PM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	476	202	140	818
	B	232	0	119	83	434
	C	138	182	0	350	670
	D	32	42	169	0	243
	Tot.	402	700	490	573	2165

FG5: '2024 Base + Com + Dev - AM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	380	151	80	611
	B	676	0	106	57	839
	C	365	140	0	159	664
	D	106	46	148	0	300
	Tot.	1147	566	405	296	2414

FG6: '2024 Base + Com + Dev - PM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	511	223	140	874
	B	234	0	119	83	436
	C	139	182	0	350	671
	D	32	42	169	0	243
	Tot.	405	735	511	573	2224

FG7: '2024 With HIF - AM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	450	64	10	524
	B	768	0	28	4	800
	C	65	90	0	490	645
	D	7	10	338	0	355
	Tot.	840	550	430	504	2324

FG8: '2024 With HIF - PM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	513	41	10	564
	B	386	0	41	10	437
	C	36	54	0	340	430
	D	1	2	378	0	381
	Tot.	423	569	460	360	1812

FG9: '2024 With HIF + Dev - AM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	454	66	10	530
	B	830	0	28	4	862
	C	103	90	0	490	683
	D	7	10	338	0	355
	Tot.	940	554	432	504	2430

FG10: '2024 With HIF + Dev - PM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	548	62	10	620
	B	388	0	41	10	439
	C	37	54	0	340	431
	D	1	2	378	0	381
	Tot.	426	604	481	360	1871

FG11: '2034 With HIF - AM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	470	64	10	544
	B	901	0	37	5	943
	C	143	197	0	418	758
	D	36	54	448	0	538
	Tot.	1080	721	549	433	2783

FG12: '2034 With HIF - PM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	589	40	10	639
	B	590	0	58	15	663
	C	69	104	0	433	606
	D	12	17	597	0	626
	Tot.	671	710	695	458	2534

FG13: '2034 With HIF + Dev - AM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	474	66	10	550
	B	963	0	37	5	1005
	C	181	197	0	418	796
	D	36	54	448	0	538
	Tot.	1180	725	551	433	2889

FG14: '2034 With HIF + Dev - PM Peak'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	624	61	10	695
	B	592	0	58	15	665
	C	70	104	0	433	607
	D	12	17	597	0	626
	Tot.	674	745	716	458	2593

Stage Timings

Scenario 1: '2021 Base + Com AM' (FG1: '2021 Base + Com - AM Peak', Plan 1: 'Network Control Plan 1')
C1

Stage	1	2	3
Duration	45	8	37
Change Point	0	52	67

C2

Stage	1	2
Duration	38	56
Change Point	62	130

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**115.1%**
J1: Abingdon Road / Tollgate Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**99.4%**
1/2+1/1	Adingdon Road (east) Ahead Left	U	N/A	N/A	C1:B		1	46	-	558	1250:1500	431+252	81.6 : 81.6%
2/2+2/1	Tollgate Road Right Left	U	N/A	N/A	C1:C		1	37	-	529	1400:1250	375+161	85.7 : 85.7%
3/1+3/2	Abingdon Road (west) Ahead Right	U	N/A	N/A	C1:A C1:D		1	60:8	-	676	1899:1886	923+153	56.7 : 99.4%
4/1		U	N/A	N/A	-		-	-	-	894	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	511	Inf	Inf	0.0%
J2: Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**115.1%**
1/1	Bridge Northbound Ahead	U	N/A	N/A	C2:A		1	38	-	529	1815	460	115.1%
2/1	Ahead	U	N/A	N/A	C2:B		1	56	-	358	1815	672	53.3%
J3: Appelford Road / Abingdon Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**32.4%**
1/1	Appleford Road East Right Ahead	O	N/A	N/A	-		-	-	-	233	1800	1133	20.6%
2/1		U	N/A	N/A	-		-	-	-	268	Inf	Inf	0.0%
3/1		U	N/A	N/A	-		-	-	-	347	Inf	Inf	0.0%
4/1	Appleford Road West Left Ahead	U	N/A	N/A	-		-	-	-	553	1800	1800	30.7%
5/1	Bridge Southbound Left Right	O	N/A	N/A	-		-	-	-	358	1747	1105	32.4%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**477**	**0**	**0**	**28.3**	**45.1**	**0.0**	**73.4**	**-**	**-**	**-**	**-**
J1: Abingdon Road / Tollgate Road	**-**	**-**	**0**	**0**	**0**	**12.3**	**5.8**	**0.0**	**18.1**	**-**	**-**	**-**	**-**
1/2+1/1	558	558	-	-	-	3.8	2.1	-	6.0	38.5	10.2	2.1	12.3
2/2+2/1	460	460	-	-	-	4.0	2.8	-	6.8	53.6	10.7	2.8	13.5
3/1+3/2	676	676	-	-	-	4.4	0.8	-	5.3	28.0	10.0	0.8	10.9
4/1	845	845	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	490	490	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Bridge Signals	**-**	**-**	**0**	**0**	**0**	**16.0**	**38.7**	**0.0**	**54.7**	**-**	**-**	**-**	**-**
1/1	529	460	-	-	-	12.2	38.1	-	50.4	342.7	25.6	38.1	63.7
2/1	358	358	-	-	-	3.8	0.6	-	4.4	43.8	11.9	0.6	12.5
J3: Appelford Road / Abingdon Road	**-**	**-**	**477**	**0**	**0**	**0.0**	**0.6**	**0.0**	**0.6**	**-**	**-**	**-**	**-**
1/1	233	233	119	0	0	0.0	0.1	-	0.1	2.0	0.0	0.1	0.1
2/1	268	268	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	347	347	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	553	553	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
5/1	358	358	358	0	0	0.0	0.2	-	0.2	2.4	0.0	0.2	0.2

C1	PRC for Signalled Lanes (%):	-10.4	Total Delay for Signalled Lanes (pcuHr):	18.06
C2	PRC for Signalled Lanes (%):	-27.9	Total Delay for Signalled Lanes (pcuHr):	54.70
	PRC Over All Lanes (%):	-27.9	Total Delay Over All Lanes(pcuHr):	73.35

Cycle Time (s): 111
Cycle Time (s): 154

Stage Timings

Scenario 2: '2021 Base + Com PM' (FG2: '2021 Base + Com - PM Peak', Plan 1: 'Network Control Plan 1')

C1

Stage	1	2	3
Duration	54	12	24
Change Point	0	61	80

C2

Stage	1	2
Duration	38	56
Change Point	0	68

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**88.0%**
J1: Abingdon Road / Tollgate Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**88.0%**
1/2+1/1	Adingdon Road (east) Ahead Left	U	N/A	N/A	C1:B		1	55	-	723	1250:1500	483+339	88.0 : 88.0%
2/2+2/1	Tollgate Road Right Left	U	N/A	N/A	C1:C		1	24	-	363	1400:1250	178+236	87.6 : 87.6%
3/1+3/2	Abingdon Road (west) Ahead Right	U	N/A	N/A	C1:A C1:D		1	73:12	-	403	1899:1886	271+221	81.9 : 81.9%
4/1		U	N/A	N/A	-		-	-	-	378	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	632	Inf	Inf	0.0%
J2: Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**79.0%**
1/1	Bridge Northbound Ahead	U	N/A	N/A	C2:A		1	38	-	363	1815	460	79.0%
2/1	Ahead	U	N/A	N/A	C2:B		1	56	-	479	1815	672	71.3%
J3: Appelford Road / Abingdon Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**50.1%**
1/1	Appleford Road East Right Ahead	O	N/A	N/A	-		-	-	-	210	1800	1305	16.1%
2/1		U	N/A	N/A	-		-	-	-	504	Inf	Inf	0.0%
3/1		U	N/A	N/A	-		-	-	-	433	Inf	Inf	0.0%
4/1	Appleford Road West Left Ahead	U	N/A	N/A	-		-	-	-	611	1800	1800	33.9%
5/1	Bridge Southbound Left Right	O	N/A	N/A	-		-	-	-	479	1747	955	50.1%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**539**	**0**	**0**	**21.8**	**12.6**	**0.0**	**34.4**	**-**	**-**	**-**	**-**
J1: Abingdon Road / Tollgate Road	**-**	**-**	**0**	**0**	**0**	**10.9**	**8.7**	**0.0**	**19.6**	**-**	**-**	**-**	**-**
1/2+1/1	723	723	-	-	-	4.1	3.4	-	7.5	37.4	13.8	3.4	17.2
2/2+2/1	363	363	-	-	-	4.0	3.2	-	7.1	70.5	6.7	3.2	9.9
3/1+3/2	403	403	-	-	-	2.8	2.2	-	5.0	44.7	5.4	2.2	7.6
4/1	378	378	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	632	632	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Bridge Signals	**-**	**-**	**0**	**0**	**0**	**10.9**	**3.0**	**0.0**	**14.0**	**-**	**-**	**-**	**-**
1/1	363	363	-	-	-	5.4	1.8	-	7.2	71.6	14.4	1.8	16.2
2/1	479	479	-	-	-	5.5	1.2	-	6.7	50.7	17.4	1.2	18.7
J3: Appelford Road / Abingdon Road	**-**	**-**	**539**	**0**	**0**	**0.0**	**0.9**	**0.0**	**0.9**	**-**	**-**	**-**	**-**
1/1	210	210	60	0	0	0.0	0.1	-	0.1	1.6	0.0	0.1	0.1
2/1	504	504	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	433	433	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	611	611	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
5/1	479	479	479	0	0	0.0	0.5	-	0.5	3.8	0.0	0.5	0.5

C1	PRC for Signalled Lanes (%): 2.3	Total Delay for Signalled Lanes (pcuHr): 19.62	Cycle Time (s): 111
C2	PRC for Signalled Lanes (%): 14.0	Total Delay for Signalled Lanes (pcuHr): 13.97	Cycle Time (s): 154
	PRC Over All Lanes (%): 2.3	Total Delay Over All Lanes(pcuHr): 34.44	

Stage Timings

Scenario 3: '2024 Base + Com AM' (FG3: '2024 Base + Com - AM Peak', Plan 1: 'Network Control Plan 1')

C1

Stage	1	2	3
Duration	45	9	36
Change Point	0	52	68

C2

Stage	1	2
Duration	38	56
Change Point	43	111

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**134.7%**
J1: Abingdon Road / Tollgate Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**95.9%**
1/2+1/1	Adingdon Road (east) Ahead Left	U	N/A	N/A	C1:B		1	46	-	606	1250:1500	429+261	87.9 : 87.9%
2/2+2/1	Tollgate Road Right Left	U	N/A	N/A	C1:C		1	36	-	619	1400:1250	367+157	87.7 : 87.7%
3/1+3/2	Abingdon Road (west) Ahead Right	U	N/A	N/A	C1:A C1:D		1	61:9	-	777	1899:1886	945+170	64.9 : 95.9%
4/1		U	N/A	N/A	-		-	-	-	1047	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	563	Inf	Inf	0.0%
J2: Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**134.7%**
1/1	Bridge Northbound Ahead	U	N/A	N/A	C2:A		1	38	-	619	1815	460	134.7%
2/1	Ahead	U	N/A	N/A	C2:B		1	56	-	392	1815	672	58.4%
J3: Appelford Road / Abingdon Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**38.0%**
1/1	Appleford Road East Right Ahead	O	N/A	N/A	-		-	-	-	300	1800	1060	28.3%
2/1		U	N/A	N/A	-		-	-	-	296	Inf	Inf	0.0%
3/1		U	N/A	N/A	-		-	-	-	403	Inf	Inf	0.0%
4/1	Appleford Road West Left Ahead	U	N/A	N/A	-		-	-	-	626	1800	1800	34.8%
5/1	Bridge Southbound Left Right	O	N/A	N/A	-		-	-	-	392	1747	1032	38.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**544**	**0**	**0**	**37.1**	**90.8**	**0.0**	**127.9**	**-**	**-**	**-**	**-**
J1: Abingdon Road / Tollgate Road	**-**	**-**	**0**	**0**	**0**	**13.5**	**7.7**	**0.0**	**21.2**	**-**	**-**	**-**	**-**
1/2+1/1	606	606	-	-	-	4.3	3.4	-	7.7	45.7	12.2	3.4	15.6
2/2+2/1	460	460	-	-	-	4.2	3.2	-	7.4	58.0	10.9	3.2	14.1
3/1+3/2	777	777	-	-	-	5.0	1.1	-	6.1	28.5	12.3	1.1	13.4
4/1	936	936	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	515	515	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Bridge Signals	**-**	**-**	**0**	**0**	**0**	**23.6**	**82.3**	**0.0**	**105.9**	**-**	**-**	**-**	**-**
1/1	619	460	-	-	-	19.4	81.6	-	100.9	587.0	33.3	81.6	114.9
2/1	392	392	-	-	-	4.2	0.7	-	4.9	45.4	13.4	0.7	14.1
J3: Appelford Road / Abingdon Road	**-**	**-**	**544**	**0**	**0**	**0.0**	**0.8**	**0.0**	**0.8**	**-**	**-**	**-**	**-**
1/1	300	300	152	0	0	0.0	0.2	-	0.2	2.4	0.0	0.2	0.2
2/1	296	296	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	403	403	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	626	626	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
5/1	392	392	392	0	0	0.0	0.3	-	0.3	2.8	0.0	0.3	0.3

C1	PRC for Signalled Lanes (%):	-6.6	Total Delay for Signalled Lanes (pcuHr):	21.24	Cycle Time (s): 111
C2	PRC for Signalled Lanes (%):	-49.6	Total Delay for Signalled Lanes (pcuHr):	105.88	Cycle Time (s): 154
	PRC Over All Lanes (%):	-49.6	Total Delay Over All Lanes(pcuHr):	127.88	

Stage Timings

Scenario 4: '2024 Base + Com PM' (FG4: '2024 Base + Com - PM Peak', Plan 1: 'Network Control Plan 1')

C1

Stage	1	2	3
Duration	55	12	23
Change Point	0	62	81

C2

Stage	1	2
Duration	38	56
Change Point	0	68

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**97.7%**
J1: Abingdon Road / Tollgate Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**97.7%**
1/2+1/1	Adingdon Road (east) Ahead Left	U	N/A	N/A	C1:B		1	56	-	818	1250:1500	488+350	97.6 : 97.6%
2/2+2/1	Tollgate Road Right Left	U	N/A	N/A	C1:C		1	23	-	394	1400:1250	174+229	97.7 : 97.7%
3/1+3/2	Abingdon Road (west) Ahead Right	U	N/A	N/A	C1:A C1:D		1	74:12	-	434	1899:1886	254+221	91.5 : 91.5%
4/1		U	N/A	N/A	-		-	-	-	402	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	700	Inf	Inf	0.0%
J2: Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**85.7%**
1/1	Bridge Northbound Ahead	U	N/A	N/A	C2:A		1	38	-	394	1815	460	85.7%
2/1	Ahead	U	N/A	N/A	C2:B		1	56	-	544	1815	672	81.0%
J3: Appelford Road / Abingdon Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**61.6%**
1/1	Appleford Road East Right Ahead	O	N/A	N/A	-		-	-	-	243	1800	1225	19.8%
2/1		U	N/A	N/A	-		-	-	-	573	Inf	Inf	0.0%
3/1		U	N/A	N/A	-		-	-	-	490	Inf	Inf	0.0%
4/1	Appleford Road West Left Ahead	U	N/A	N/A	-		-	-	-	670	1800	1800	37.2%
5/1	Bridge Southbound Left Right	O	N/A	N/A	-		-	-	-	544	1747	883	61.6%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**618**	**0**	**0**	**25.3**	**28.5**	**0.0**	**53.7**	**-**	**-**	**-**	**-**
J1: Abingdon Road / Tollgate Road	**-**	**-**	**0**	**0**	**0**	**12.7**	**22.4**	**0.0**	**35.1**	**-**	**-**	**-**	**-**
1/2+1/1	818	818	-	-	-	5.0	10.1	-	15.2	66.7	19.1	10.1	29.2
2/2+2/1	394	394	-	-	-	4.5	7.9	-	12.4	113.0	8.1	7.9	16.0
3/1+3/2	434	434	-	-	-	3.1	4.4	-	7.5	62.6	6.1	4.4	10.5
4/1	402	402	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	700	700	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Bridge Signals	**-**	**-**	**0**	**0**	**0**	**12.6**	**4.8**	**0.0**	**17.4**	**-**	**-**	**-**	**-**
1/1	394	394	-	-	-	6.0	2.8	-	8.8	80.1	16.0	2.8	18.7
2/1	544	544	-	-	-	6.6	2.1	-	8.7	57.3	20.9	2.1	22.9
J3: Appelford Road / Abingdon Road	**-**	**-**	**618**	**0**	**0**	**0.0**	**1.2**	**0.0**	**1.2**	**-**	**-**	**-**	**-**
1/1	243	243	74	0	0	0.0	0.1	-	0.1	1.8	0.0	0.1	0.1
2/1	573	573	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	490	490	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	670	670	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
5/1	544	544	544	0	0	0.0	0.8	-	0.8	5.3	0.0	0.8	0.8

C1	PRC for Signalled Lanes (%):	-8.5	Total Delay for Signalled Lanes (pcuHr):	35.07
C2	PRC for Signalled Lanes (%):	5.0	Total Delay for Signalled Lanes (pcuHr):	17.42
	PRC Over All Lanes (%):	-8.5	Total Delay Over All Lanes(pcuHr):	53.71

Cycle Time (s): 111
Cycle Time (s): 154

Stage Timings

Scenario 5: '2024 With Dev AM' (FG5: '2024 Base + Com + Dev - AM Peak', Plan 1: 'Network Control Plan 1')

C1

Stage	1	2	3
Duration	45	9	36
Change Point	0	52	68

C2

Stage	1	2
Duration	38	56
Change Point	37	105

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**142.9%**
J1: Abingdon Road / Tollgate Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**95.9%**
1/2+1/1	Adingdon Road (east) Ahead Left	U	N/A	N/A	C1:B		1	46	-	611	1250:1500	429+261	88.6 : 88.6%
2/2+2/1	Tollgate Road Right Left	U	N/A	N/A	C1:C		1	36	-	657	1400:1250	372+147	88.6 : 88.6%
3/1+3/2	Abingdon Road (west) Ahead Right	U	N/A	N/A	C1:A C1:D		1	61:9	-	839	1899:1886	955+170	70.8 : 95.9%
4/1		U	N/A	N/A	-		-	-	-	1147	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	566	Inf	Inf	0.0%
J2: Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**142.9%**
1/1	Bridge Northbound Ahead	U	N/A	N/A	C2:A		1	38	-	657	1815	460	142.9%
2/1	Ahead	U	N/A	N/A	C2:B		1	56	-	394	1815	672	58.6%
J3: Appelford Road / Abingdon Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**38.2%**
1/1	Appleford Road East Right Ahead	O	N/A	N/A	-		-	-	-	300	1800	1018	29.5%
2/1		U	N/A	N/A	-		-	-	-	296	Inf	Inf	0.0%
3/1		U	N/A	N/A	-		-	-	-	405	Inf	Inf	0.0%
4/1	Appleford Road West Left Ahead	U	N/A	N/A	-		-	-	-	664	1800	1800	36.9%
5/1	Bridge Southbound Left Right	O	N/A	N/A	-		-	-	-	394	1747	1031	38.2%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**546**	**0**	**0**	**40.9**	**110.3**	**0.0**	**151.2**	**-**	**-**	**-**	**-**
J1: Abingdon Road / Tollgate Road	**-**	**-**	**0**	**0**	**0**	**14.0**	**8.5**	**0.0**	**22.5**	**-**	**-**	**-**	**-**
1/2+1/1	611	611	-	-	-	4.4	3.6	-	8.0	46.8	12.4	3.6	15.9
2/2+2/1	460	460	-	-	-	4.2	3.5	-	7.7	60.0	11.2	3.5	14.6
3/1+3/2	839	839	-	-	-	5.4	1.5	-	6.9	29.5	14.3	1.5	15.7
4/1	1006	1006	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	510	510	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Bridge Signals	**-**	**-**	**0**	**0**	**0**	**26.9**	**101.0**	**0.0**	**127.9**	**-**	**-**	**-**	**-**
1/1	657	460	-	-	-	22.6	100.3	-	122.9	673.5	36.6	100.3	136.9
2/1	394	394	-	-	-	4.3	0.7	-	5.0	45.5	13.5	0.7	14.2
J3: Appelford Road / Abingdon Road	**-**	**-**	**546**	**0**	**0**	**0.0**	**0.8**	**0.0**	**0.8**	**-**	**-**	**-**	**-**
1/1	300	300	152	0	0	0.0	0.2	-	0.2	2.5	0.0	0.2	0.2
2/1	296	296	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	405	405	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	664	664	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
5/1	394	394	394	0	0	0.0	0.3	-	0.3	2.8	0.0	0.3	0.3

C1	PRC for Signalled Lanes (%):	-6.6	Total Delay for Signalled Lanes (pcuHr):	22.50	Cycle Time (s): 111
C2	PRC for Signalled Lanes (%):	-58.8	Total Delay for Signalled Lanes (pcuHr):	127.89	Cycle Time (s): 154
	PRC Over All Lanes (%):	-58.8	Total Delay Over All Lanes(pcuHr):	151.20	

Stage Timings

Scenario 6: '2024 With Dev PM' (FG6: '2024 Base + Com + Dev - PM Peak', Plan 1: 'Network Control Plan 1')

C1

Stage	1	2	3
Duration	57	11	22
Change Point	0	64	82

C2

Stage	1	2
Duration	38	56
Change Point	99	13

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**101.6%**
J1: Abingdon Road / Tollgate Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**101.6%**
1/2+1/1	Adingdon Road (east) Ahead Left	U	N/A	N/A	C1:B		1	58	-	874	1250:1500	503+357	101.6 : 101.6%
2/2+2/1	Tollgate Road Right Left	U	N/A	N/A	C1:C		1	22	-	395	1400:1250	170+222	100.7 : 100.7%
3/1+3/2	Abingdon Road (west) Ahead Right	U	N/A	N/A	C1:A C1:D		1	75:11	-	436	1899:1886	236+204	99.1 : 99.1%
4/1		U	N/A	N/A	-		-	-	-	405	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	735	Inf	Inf	0.0%
J2: Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**85.9%**
1/1	Bridge Northbound Ahead	U	N/A	N/A	C2:A		1	38	-	395	1815	460	85.9%
2/1	Ahead	U	N/A	N/A	C2:B		1	56	-	565	1815	672	83.2%
J3: Appelford Road / Abingdon Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**63.6%**
1/1	Appleford Road East Right Ahead	O	N/A	N/A	-		-	-	-	243	1800	1224	19.8%
2/1		U	N/A	N/A	-		-	-	-	573	Inf	Inf	0.0%
3/1		U	N/A	N/A	-		-	-	-	511	Inf	Inf	0.0%
4/1	Appleford Road West Left Ahead	U	N/A	N/A	-		-	-	-	671	1800	1800	37.3%
5/1	Bridge Southbound Left Right	O	N/A	N/A	-		-	-	-	565	1747	880	63.6%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**633**	**0**	**0**	**26.7**	**45.2**	**0.0**	**71.9**	**-**	**-**	**-**	**-**
J1: Abingdon Road / Tollgate Road	**-**	**-**	**0**	**0**	**0**	**13.8**	**38.8**	**0.0**	**52.5**	**-**	**-**	**-**	**-**
1/2+1/1	874	860	-	-	-	5.9	18.6	-	24.6	101.2	23.9	18.6	42.5
2/2+2/1	395	392	-	-	-	4.7	10.7	-	15.3	139.6	8.4	10.7	19.0
3/1+3/2	436	436	-	-	-	3.2	9.5	-	12.7	104.5	6.2	9.5	15.6
4/1	404	404	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	725	725	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Bridge Signals	**-**	**-**	**0**	**0**	**0**	**12.9**	**5.2**	**0.0**	**18.1**	**-**	**-**	**-**	**-**
1/1	395	395	-	-	-	6.0	2.8	-	8.8	80.5	16.0	2.8	18.8
2/1	559	559	-	-	-	6.9	2.4	-	9.2	59.5	21.7	2.4	24.1
J3: Appelford Road / Abingdon Road	**-**	**-**	**633**	**0**	**0**	**0.0**	**1.3**	**0.0**	**1.3**	**-**	**-**	**-**	**-**
1/1	243	243	74	0	0	0.0	0.1	-	0.1	1.8	0.0	0.1	0.1
2/1	571	571	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	507	507	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	671	671	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
5/1	559	559	559	0	0	0.0	0.9	-	0.9	5.6	0.0	0.9	0.9

C1	PRC for Signalled Lanes (%):	-12.9	Total Delay for Signalled Lanes (pcuHr):	52.54
C2	PRC for Signalled Lanes (%):	4.7	Total Delay for Signalled Lanes (pcuHr):	18.08
	PRC Over All Lanes (%):	-12.9	Total Delay Over All Lanes(pcuHr):	71.90

Cycle Time (s): 111
Cycle Time (s): 154

Stage Timings

Scenario 7: '2024 With HIF AM' (FG7: '2024 With HIF - AM Peak', Plan 1: 'Network Control Plan 1')

C1

Stage	1	2	3
Duration	69	7	14
Change Point	0	76	90

C2

Stage	1	2
Duration	38	56
Change Point	0	68

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**61.5%**
J1: Abingdon Road / Tollgate Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**61.5%**
1/2+1/1	Adingdon Road (east) Ahead Left	U	N/A	N/A	C1:B		1	70	-	524	1250:1500	732+120	61.5 : 61.5%
2/2+2/1	Tollgate Road Right Left	U	N/A	N/A	C1:C		1	14	-	172	1400:1250	122+169	59.2 : 59.2%
3/1+3/2	Abingdon Road (west) Ahead Right	U	N/A	N/A	C1:A C1:D		1	83:7	-	800	1899:1886	1406+59	54.6 : 54.6%
4/1		U	N/A	N/A	-		-	-	-	840	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	550	Inf	Inf	0.0%
J2: Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**37.4%**
1/1	Bridge Northbound Ahead	U	N/A	N/A	C2:A		1	38	-	172	1815	460	37.4%
2/1	Ahead	U	N/A	N/A	C2:B		1	56	-	106	1815	672	15.8%
J3: Appelford Road / Abingdon Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**35.8%**
1/1	Appleford Road East Right Ahead	O	N/A	N/A	-		-	-	-	355	1800	1683	21.1%
2/1		U	N/A	N/A	-		-	-	-	504	Inf	Inf	0.0%
3/1		U	N/A	N/A	-		-	-	-	430	Inf	Inf	0.0%
4/1	Appleford Road West Left Ahead	U	N/A	N/A	-		-	-	-	645	1800	1800	35.8%
5/1	Bridge Southbound Left Right	O	N/A	N/A	-		-	-	-	106	1747	549	19.3%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**123**	**0**	**0**	**8.5**	**3.0**	**0.0**	**11.6**	**-**	**-**	**-**	**-**
J1: Abingdon Road / Tollgate Road	**-**	**-**	**0**	**0**	**0**	**5.3**	**2.1**	**0.0**	**7.4**	**-**	**-**	**-**	**-**
1/2+1/1	524	524	-	-	-	1.6	0.8	-	2.4	16.2	8.0	0.8	8.8
2/2+2/1	172	172	-	-	-	2.1	0.7	-	2.8	59.6	2.9	0.7	3.6
3/1+3/2	800	800	-	-	-	1.6	0.6	-	2.2	9.9	9.6	0.6	10.2
4/1	840	840	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	550	550	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Bridge Signals	**-**	**-**	**0**	**0**	**0**	**3.2**	**0.4**	**0.0**	**3.6**	**-**	**-**	**-**	**-**
1/1	172	172	-	-	-	2.3	0.3	-	2.6	53.7	6.1	0.3	6.4
2/1	106	106	-	-	-	1.0	0.1	-	1.0	35.6	3.0	0.1	3.1
J3: Appelford Road / Abingdon Road	**-**	**-**	**123**	**0**	**0**	**0.0**	**0.5**	**0.0**	**0.5**	**-**	**-**	**-**	**-**
1/1	355	355	17	0	0	0.0	0.1	-	0.1	1.4	0.0	0.1	0.1
2/1	504	504	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	430	430	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	645	645	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
5/1	106	106	106	0	0	0.0	0.1	-	0.1	4.1	0.0	0.1	0.1

C1 PRC for Signalled Lanes (%): 46.4 Total Delay for Signalled Lanes (pcuHr): 7.42 Cycle Time (s): 111
C2 PRC for Signalled Lanes (%): 140.5 Total Delay for Signalled Lanes (pcuHr): 3.61 Cycle Time (s): 154
PRC Over All Lanes (%): 46.4 Total Delay Over All Lanes(pcuHr): 11.56

Stage Timings

Scenario 8: '2024 With HIF PM' (FG8: '2024 With HIF - PM Peak', Plan 1: 'Network Control Plan 1')

C1

Stage	1	2	3
Duration	76	7	7
Change Point	0	83	97

C2

Stage	1	2
Duration	38	56
Change Point	153	67

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**62.2%**
J1: Abingdon Road / Tollgate Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**62.2%**
1/2+1/1	Adingdon Road (east) Ahead Left	U	N/A	N/A	C1:B		1	77	-	564	1250:1500	830+83	61.8 : 61.8%
2/2+2/1	Tollgate Road Right Left	U	N/A	N/A	C1:C		1	7	-	93	1400:1250	62+90	59.5 : 62.2%
3/1+3/2	Abingdon Road (west) Ahead Right	U	N/A	N/A	C1:A C1:D		1	90:7	-	437	1899:1886	1438+136	26.8 : 37.5%
4/1		U	N/A	N/A	-		-	-	-	423	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	569	Inf	Inf	0.0%
J2: Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**20.2%**
1/1	Bridge Northbound Ahead	U	N/A	N/A	C2:A		1	38	-	93	1815	460	20.2%
2/1	Ahead	U	N/A	N/A	C2:B		1	56	-	102	1815	672	15.2%
J3: Appelford Road / Abingdon Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**23.9%**
1/1	Appleford Road East Right Ahead	O	N/A	N/A	-		-	-	-	381	1800	1788	21.3%
2/1		U	N/A	N/A	-		-	-	-	360	Inf	Inf	0.0%
3/1		U	N/A	N/A	-		-	-	-	460	Inf	Inf	0.0%
4/1	Appleford Road West Left Ahead	U	N/A	N/A	-		-	-	-	430	1800	1800	23.9%
5/1	Bridge Southbound Left Right	O	N/A	N/A	-		-	-	-	102	1747	707	14.4%

LinSig V1 style report

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**105**	**0**	**0**	**5.6**	**2.4**	**0.0**	**7.9**	**-**	**-**	**-**	**-**
J1: Abingdon Road / Tollgate Road	**-**	**-**	**0**	**0**	**0**	**3.5**	**1.8**	**0.0**	**5.2**	**-**	**-**	**-**	**-**
1/2+1/1	564	564	-	-	-	1.3	0.8	-	2.1	13.2	8.1	0.8	8.9
2/2+2/1	93	93	-	-	-	1.3	0.8	-	2.0	79.3	1.7	0.8	2.4
3/1+3/2	437	437	-	-	-	0.9	0.2	-	1.1	9.3	2.7	0.2	2.9
4/1	423	423	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	569	569	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Bridge Signals	**-**	**-**	**0**	**0**	**0**	**2.1**	**0.2**	**0.0**	**2.3**	**-**	**-**	**-**	**-**
1/1	93	93	-	-	-	1.2	0.1	-	1.3	50.2	3.1	0.1	3.3
2/1	102	102	-	-	-	0.9	0.1	-	1.0	35.5	2.9	0.1	3.0
J3: Appelford Road / Abingdon Road	**-**	**-**	**105**	**0**	**0**	**0.0**	**0.4**	**0.0**	**0.4**	**-**	**-**	**-**	**-**
1/1	381	381	3	0	0	0.0	0.1	-	0.1	1.3	0.0	0.1	0.1
2/1	360	360	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	460	460	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	430	430	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
5/1	102	102	102	0	0	0.0	0.1	-	0.1	3.0	0.0	0.1	0.1

C1	PRC for Signalled Lanes (%):	44.8	Total Delay for Signalled Lanes (pcuHr):	5.24
C2	PRC for Signalled Lanes (%):	344.8	Total Delay for Signalled Lanes (pcuHr):	2.30
	PRC Over All Lanes (%):	44.8	Total Delay Over All Lanes(pcuHr):	7.92

Cycle Time (s): 111
Cycle Time (s): 154

Stage Timings

Scenario 9: '2024 With HIF + Dev AM' (FG9: '2024 With HIF + Dev - AM Peak', Plan 1: 'Network Control Plan 1')

C1

Stage	1	2	3
Duration	68	7	15
Change Point	0	75	89

C2

Stage	1	2
Duration	38	56
Change Point	0	68

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**63.0%**
J1: Abingdon Road / Tollgate Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**63.0%**
1/2+1/1	Adingdon Road (east) Ahead Left	U	N/A	N/A	C1:B		1	69	-	530	1250:1500	721+121	63.0 : 63.0%
2/2+2/1	Tollgate Road Right Left	U	N/A	N/A	C1:C		1	15	-	210	1400:1250	181+164	60.8 : 60.8%
3/1+3/2	Abingdon Road (west) Ahead Right	U	N/A	N/A	C1:A C1:D		1	82:7	-	862	1899:1886	1392+54	59.6 : 59.6%
4/1		U	N/A	N/A	-		-	-	-	940	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	554	Inf	Inf	0.0%
J2: Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**45.7%**
1/1	Bridge Northbound Ahead	U	N/A	N/A	C2:A		1	38	-	210	1815	460	45.7%
2/1	Ahead	U	N/A	N/A	C2:B		1	56	-	108	1815	672	16.1%
J3: Appelford Road / Abingdon Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**37.9%**
1/1	Appleford Road East Right Ahead	O	N/A	N/A	-		-	-	-	355	1800	1672	21.2%
2/1		U	N/A	N/A	-		-	-	-	504	Inf	Inf	0.0%
3/1		U	N/A	N/A	-		-	-	-	432	Inf	Inf	0.0%
4/1	Appleford Road West Left Ahead	U	N/A	N/A	-		-	-	-	683	1800	1800	37.9%
5/1	Bridge Southbound Left Right	O	N/A	N/A	-		-	-	-	108	1747	548	19.7%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**125**	**0**	**0**	**9.9**	**3.4**	**0.0**	**13.4**	**-**	**-**	**-**	**-**
J1: Abingdon Road / Tollgate Road	**-**	**-**	**0**	**0**	**0**	**6.1**	**2.3**	**0.0**	**8.5**	**-**	**-**	**-**	**-**
1/2+1/1	530	530	-	-	-	1.7	0.8	-	2.5	17.1	8.3	0.8	9.2
2/2+2/1	210	210	-	-	-	2.6	0.8	-	3.3	57.3	3.1	0.8	3.9
3/1+3/2	862	862	-	-	-	1.9	0.7	-	2.6	10.9	11.3	0.7	12.0
4/1	940	940	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	554	554	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Bridge Signals	**-**	**-**	**0**	**0**	**0**	**3.8**	**0.5**	**0.0**	**4.3**	**-**	**-**	**-**	**-**
1/1	210	210	-	-	-	2.8	0.4	-	3.3	55.7	7.6	0.4	8.0
2/1	108	108	-	-	-	1.0	0.1	-	1.1	35.7	3.1	0.1	3.2
J3: Appelford Road / Abingdon Road	**-**	**-**	**125**	**0**	**0**	**0.0**	**0.6**	**0.0**	**0.6**	**-**	**-**	**-**	**-**
1/1	355	355	17	0	0	0.0	0.1	-	0.1	1.4	0.0	0.1	0.1
2/1	504	504	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	432	432	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	683	683	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
5/1	108	108	108	0	0	0.0	0.1	-	0.1	4.1	0.0	0.1	0.1

C1	PRC for Signalled Lanes (%):	43.0	Total Delay for Signalled Lanes (pcuHr):	8.48
C2	PRC for Signalled Lanes (%):	97.0	Total Delay for Signalled Lanes (pcuHr):	4.32
	PRC Over All Lanes (%):	43.0	Total Delay Over All Lanes(pcuHr):	13.36

Cycle Time (s): 111
Cycle Time (s): 154

Stage Timings

Scenario 10: '2024 With HIF + Dev PM' (FG10: '2024 With HIF + Dev - PM Peak', Plan 1: 'Network Control Plan 1')

C1

Stage	1	2	3
Duration	76	7	7
Change Point	0	83	97

C2

Stage	1	2
Duration	37	57
Change Point	153	66

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**67.2%**
J1: Abingdon Road / Tollgate Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**67.2%**
1/2+1/1	Adingdon Road (east) Ahead Left	U	N/A	N/A	C1:B		1	77	-	620	1250:1500	816+107	67.2 : 67.2%
2/2+2/1	Tollgate Road Right Left	U	N/A	N/A	C1:C		1	7	-	94	1400:1250	68+90	55.6 : 62.2%
3/1+3/2	Abingdon Road (west) Ahead Right	U	N/A	N/A	C1:A C1:D		1	90:7	-	439	1899:1886	1438+136	27.0 : 37.5%
4/1		U	N/A	N/A	-		-	-	-	426	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	604	Inf	Inf	0.0%
J2: Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**21.0%**
1/1	Bridge Northbound Ahead	U	N/A	N/A	C2:A		1	37	-	94	1815	448	21.0%
2/1	Ahead	U	N/A	N/A	C2:B		1	57	-	123	1815	684	18.0%
J3: Appelford Road / Abingdon Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**23.9%**
1/1	Appleford Road East Right Ahead	O	N/A	N/A	-		-	-	-	381	1800	1788	21.3%
2/1		U	N/A	N/A	-		-	-	-	360	Inf	Inf	0.0%
3/1		U	N/A	N/A	-		-	-	-	481	Inf	Inf	0.0%
4/1	Appleford Road West Left Ahead	U	N/A	N/A	-		-	-	-	431	1800	1800	23.9%
5/1	Bridge Southbound Left Right	O	N/A	N/A	-		-	-	-	123	1747	697	17.6%

LinSig V1 style report

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**126**	**0**	**0**	**6.0**	**2.6**	**0.0**	**8.5**	**-**	**-**	**-**	**-**
J1: Abingdon Road / Tollgate Road	**-**	**-**	**0**	**0**	**0**	**3.7**	**1.9**	**0.0**	**5.6**	**-**	**-**	**-**	**-**
1/2+1/1	620	620	-	-	-	1.4	1.0	-	2.5	14.3	9.2	1.0	10.3
2/2+2/1	94	94	-	-	-	1.3	0.7	-	2.0	77.0	1.7	0.7	2.4
3/1+3/2	439	439	-	-	-	0.9	0.2	-	1.1	9.3	2.7	0.2	2.9
4/1	426	426	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	604	604	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Bridge Signals	**-**	**-**	**0**	**0**	**0**	**2.3**	**0.2**	**0.0**	**2.5**	**-**	**-**	**-**	**-**
1/1	94	94	-	-	-	1.2	0.1	-	1.3	51.2	3.2	0.1	3.3
2/1	123	123	-	-	-	1.1	0.1	-	1.2	35.3	3.5	0.1	3.6
J3: Appelford Road / Abingdon Road	**-**	**-**	**126**	**0**	**0**	**0.0**	**0.4**	**0.0**	**0.4**	**-**	**-**	**-**	**-**
1/1	381	381	3	0	0	0.0	0.1	-	0.1	1.3	0.0	0.1	0.1
2/1	360	360	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	481	481	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	431	431	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
5/1	123	123	123	0	0	0.0	0.1	-	0.1	3.1	0.0	0.1	0.1

C1	PRC for Signalled Lanes (%):	34.0	Total Delay for Signalled Lanes (pcuHr):	5.61
C2	PRC for Signalled Lanes (%):	328.8	Total Delay for Signalled Lanes (pcuHr):	2.54
	PRC Over All Lanes (%):	34.0	Total Delay Over All Lanes(pcuHr):	8.55

Cycle Time (s): 111
Cycle Time (s): 154

Stage Timings

Scenario 11: '2034 With HIF AM' (FG11: '2034 With HIF - AM Peak', Plan 1: 'Network Control Plan 1')

C1

Stage	1	2	3
Duration	52	7	31
Change Point	0	59	73

C2

Stage	1	2
Duration	38	56
Change Point	0	68

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**93.6%**
J1: Abingdon Road / Tollgate Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**87.8%**
1/2+1/1	Adingdon Road (east) Ahead Left	U	N/A	N/A	C1:B		1	53	-	544	1250:1500	566+89	83.1 : 83.1%
2/2+2/1	Tollgate Road Right Left	U	N/A	N/A	C1:C		1	31	-	430	1400:1250	204+286	87.8 : 87.8%
3/1+3/2	Abingdon Road (west) Ahead Right	U	N/A	N/A	C1:A C1:D		1	66:7	-	943	1899:1886	1124+52	80.2 : 80.2%
4/1		U	N/A	N/A	-		-	-	-	1080	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	721	Inf	Inf	0.0%
J2: Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**93.6%**
1/1	Bridge Northbound Ahead	U	N/A	N/A	C2:A		1	38	-	430	1815	460	93.6%
2/1	Ahead	U	N/A	N/A	C2:B		1	56	-	116	1815	672	17.3%
J3: Appelford Road / Abingdon Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**42.1%**
1/1	Appleford Road East Right Ahead	O	N/A	N/A	-		-	-	-	538	1800	1359	39.6%
2/1		U	N/A	N/A	-		-	-	-	433	Inf	Inf	0.0%
3/1		U	N/A	N/A	-		-	-	-	549	Inf	Inf	0.0%
4/1	Appleford Road West Left Ahead	U	N/A	N/A	-		-	-	-	758	1800	1800	42.1%
5/1	Bridge Southbound Left Right	O	N/A	N/A	-		-	-	-	116	1747	430	27.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**206**	**0**	**0**	**20.2**	**13.9**	**0.0**	**34.0**	**-**	**-**	**-**	**-**
J1: Abingdon Road / Tollgate Road	**-**	**-**	**0**	**0**	**0**	**12.4**	**7.6**	**0.0**	**20.0**	**-**	**-**	**-**	**-**
1/2+1/1	544	544	-	-	-	3.5	2.4	-	5.9	38.8	13.1	2.4	15.5
2/2+2/1	430	430	-	-	-	4.2	3.2	-	7.4	61.9	8.7	3.2	12.0
3/1+3/2	943	943	-	-	-	4.7	2.0	-	6.7	25.6	21.3	2.0	23.3
4/1	1080	1080	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	721	721	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Bridge Signals	**-**	**-**	**0**	**0**	**0**	**7.8**	**5.4**	**0.0**	**13.2**	**-**	**-**	**-**	**-**
1/1	430	430	-	-	-	6.7	5.3	-	12.1	100.9	17.9	5.3	23.3
2/1	116	116	-	-	-	1.1	0.1	-	1.2	35.9	3.3	0.1	3.4
J3: Appelford Road / Abingdon Road	**-**	**-**	**206**	**0**	**0**	**0.0**	**0.9**	**0.0**	**0.9**	**-**	**-**	**-**	**-**
1/1	538	538	90	0	0	0.0	0.3	-	0.3	2.2	0.0	0.3	0.3
2/1	433	433	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	549	549	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	758	758	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
5/1	116	116	116	0	0	0.0	0.2	-	0.2	5.7	0.0	0.2	0.2

C1	PRC for Signalled Lanes (%):	2.6	Total Delay for Signalled Lanes (pcuHr):	19.96	Cycle Time (s): 111
C2	PRC for Signalled Lanes (%):	-3.9	Total Delay for Signalled Lanes (pcuHr):	13.21	Cycle Time (s): 154
	PRC Over All Lanes (%):	-3.9	Total Delay Over All Lanes(pcuHr):	34.05	

Stage Timings

Scenario 12: '2034 With HIF PM' (FG12: '2034 With HIF - PM Peak', Plan 1: 'Network Control Plan 1')

C1

Stage	1	2	3
Duration	70	7	13
Change Point	0	77	91

C2

Stage	1	2
Duration	38	56
Change Point	0	68

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**76.7%**
J1: Abingdon Road / Tollgate Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**76.7%**
1/2+1/1	Adingdon Road (east) Ahead Left	U	N/A	N/A	C1:B		1	71	-	639	1250:1500	774+66	76.1 : 76.1%
2/2+2/1	Tollgate Road Right Left	U	N/A	N/A	C1:C		1	13	-	202	1400:1250	106+158	76.7 : 76.7%
3/1+3/2	Abingdon Road (west) Ahead Right	U	N/A	N/A	C1:A C1:D		1	84:7	-	663	1899:1886	1354+136	43.6 : 53.7%
4/1		U	N/A	N/A	-		-	-	-	671	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	710	Inf	Inf	0.0%
J2: Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**43.9%**
1/1	Bridge Northbound Ahead	U	N/A	N/A	C2:A		1	38	-	202	1815	460	43.9%
2/1	Ahead	U	N/A	N/A	C2:B		1	56	-	123	1815	672	18.3%
J3: Appelford Road / Abingdon Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**37.0%**
1/1	Appleford Road East Right Ahead	O	N/A	N/A	-		-	-	-	626	1800	1697	36.9%
2/1		U	N/A	N/A	-		-	-	-	458	Inf	Inf	0.0%
3/1		U	N/A	N/A	-		-	-	-	695	Inf	Inf	0.0%
4/1	Appleford Road West Left Ahead	U	N/A	N/A	-		-	-	-	606	1800	1800	33.7%
5/1	Bridge Southbound Left Right	O	N/A	N/A	-		-	-	-	123	1747	332	37.0%

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Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**152**	**0**	**0**	**10.4**	**4.9**	**0.0**	**15.3**	**-**	**-**	**-**	**-**
J1: Abingdon Road / Tollgate Road	**-**	**-**	**0**	**0**	**0**	**6.6**	**3.5**	**0.0**	**10.1**	**-**	**-**	**-**	**-**
1/2+1/1	639	639	-	-	-	2.3	1.6	-	3.8	21.6	12.7	1.6	14.3
2/2+2/1	202	202	-	-	-	2.6	1.6	-	4.2	74.1	3.6	1.6	5.2
3/1+3/2	663	663	-	-	-	1.7	0.4	-	2.1	11.6	6.1	0.4	6.5
4/1	671	671	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	710	710	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Bridge Signals	**-**	**-**	**0**	**0**	**0**	**3.8**	**0.5**	**0.0**	**4.3**	**-**	**-**	**-**	**-**
1/1	202	202	-	-	-	2.7	0.4	-	3.1	55.3	7.2	0.4	7.6
2/1	123	123	-	-	-	1.1	0.1	-	1.2	36.1	3.6	0.1	3.7
J3: Appelford Road / Abingdon Road	**-**	**-**	**152**	**0**	**0**	**0.0**	**0.8**	**0.0**	**0.8**	**-**	**-**	**-**	**-**
1/1	626	626	29	0	0	0.0	0.3	-	0.3	1.7	0.0	0.3	0.3
2/1	458	458	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	695	695	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	606	606	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
5/1	123	123	123	0	0	0.0	0.3	-	0.3	8.6	0.0	0.3	0.3

C1	PRC for Signalled Lanes (%):	17.3	Total Delay for Signalled Lanes (pcuHr):	10.13
C2	PRC for Signalled Lanes (%):	104.8	Total Delay for Signalled Lanes (pcuHr):	4.33
	PRC Over All Lanes (%):	17.3	Total Delay Over All Lanes(pcuHr):	15.30

Cycle Time (s): 111
Cycle Time (s): 154

Stage Timings

Scenario 13: '2034 With HIF + Dev AM' (FG13: '2034 With HIF + Dev - AM Peak', Plan 1: 'Network Control Plan 1')

C1

Stage	1	2	3
Duration	53	7	30
Change Point	0	60	74

C2

Stage	1	2
Duration	38	56
Change Point	80	148

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**101.8%**
J1: Abingdon Road / Tollgate Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**91.2%**
1/2+1/1	Adingdon Road (east) Ahead Left	U	N/A	N/A	C1:B		1	54	-	550	1250:1500	575+92	82.5 : 82.5%
2/2+2/1	Tollgate Road Right Left	U	N/A	N/A	C1:C		1	30	-	468	1400:1250	234+270	91.2 : 91.2%
3/1+3/2	Abingdon Road (west) Ahead Right	U	N/A	N/A	C1:A C1:D		1	67:7	-	1005	1899:1886	1142+50	84.3 : 84.3%
4/1		U	N/A	N/A	-		-	-	-	1180	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	725	Inf	Inf	0.0%
J2: Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**101.8%**
1/1	Bridge Northbound Ahead	U	N/A	N/A	C2:A		1	38	-	468	1815	460	101.8%
2/1	Ahead	U	N/A	N/A	C2:B		1	56	-	118	1815	672	17.6%
J3: Appelford Road / Abingdon Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**44.2%**
1/1	Appleford Road East Right Ahead	O	N/A	N/A	-		-	-	-	538	1800	1324	40.6%
2/1		U	N/A	N/A	-		-	-	-	433	Inf	Inf	0.0%
3/1		U	N/A	N/A	-		-	-	-	551	Inf	Inf	0.0%
4/1	Appleford Road West Left Ahead	U	N/A	N/A	-		-	-	-	796	1800	1800	44.2%
5/1	Bridge Southbound Left Right	O	N/A	N/A	-		-	-	-	118	1747	429	27.5%

LinSig V1 style report

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**208**	**0**	**0**	**22.1**	**23.4**	**0.0**	**45.4**	**-**	**-**	**-**	**-**
J1: Abingdon Road / Tollgate Road	**-**	**-**	**0**	**0**	**0**	**13.1**	**9.2**	**0.0**	**22.3**	**-**	**-**	**-**	**-**
1/2+1/1	550	550	-	-	-	3.4	2.3	-	5.7	37.3	13.1	2.3	15.4
2/2+2/1	460	460	-	-	-	4.6	4.3	-	8.9	69.9	9.1	4.3	13.4
3/1+3/2	1005	1005	-	-	-	5.1	2.6	-	7.7	27.6	23.7	2.6	26.3
4/1	1176	1176	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	721	721	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Bridge Signals	**-**	**-**	**0**	**0**	**0**	**9.0**	**13.2**	**0.0**	**22.2**	**-**	**-**	**-**	**-**
1/1	468	460	-	-	-	7.9	13.1	-	21.0	161.5	20.4	13.1	33.5
2/1	118	118	-	-	-	1.1	0.1	-	1.2	35.9	3.4	0.1	3.5
J3: Appelford Road / Abingdon Road	**-**	**-**	**208**	**0**	**0**	**0.0**	**0.9**	**0.0**	**0.9**	**-**	**-**	**-**	**-**
1/1	538	538	90	0	0	0.0	0.3	-	0.3	2.3	0.0	0.3	0.3
2/1	433	433	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	551	551	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	796	796	-	-	-	0.0	0.4	-	0.4	1.8	0.0	0.4	0.4
5/1	118	118	118	0	0	0.0	0.2	-	0.2	5.8	0.0	0.2	0.2

C1	PRC for Signalled Lanes (%):	-1.4	Total Delay for Signalled Lanes (pcuHr):	22.33
C2	PRC for Signalled Lanes (%):	-13.1	Total Delay for Signalled Lanes (pcuHr):	22.17
	PRC Over All Lanes (%):	-13.1	Total Delay Over All Lanes(pcuHr):	45.42

Cycle Time (s): 111
Cycle Time (s): 154

Stage Timings

Scenario 14: '2034 With HIF + Dev PM' (FG14: '2034 With HIF + Dev - PM Peak', Plan 1: 'Network Control Plan 1')

C1

Stage	1	2	3
Duration	70	7	13
Change Point	0	77	91

C2

Stage	1	2
Duration	38	56
Change Point	0	68

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**81.9%**
J1: Abingdon Road / Tollgate Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**81.9%**
1/2+1/1	Adingdon Road (east) Ahead Left	U	N/A	N/A	C1:B		1	71	-	695	1250:1500	762+87	81.9 : 81.9%
2/2+2/1	Tollgate Road Right Left	U	N/A	N/A	C1:C		1	13	-	203	1400:1250	107+158	76.7 : 76.7%
3/1+3/2	Abingdon Road (west) Ahead Right	U	N/A	N/A	C1:A C1:D		1	84:7	-	665	1899:1886	1354+136	43.7 : 53.7%
4/1		U	N/A	N/A	-		-	-	-	674	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	745	Inf	Inf	0.0%
J2: Bridge Signals	-	-	**N/A**	-	-		-	-	-	-	-	-	**44.2%**
1/1	Bridge Northbound Ahead	U	N/A	N/A	C2:A		1	38	-	203	1815	460	44.2%
2/1	Ahead	U	N/A	N/A	C2:B		1	56	-	144	1815	672	21.4%
J3: Appelford Road / Abingdon Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**44.4%**
1/1	Appleford Road East Right Ahead	O	N/A	N/A	-		-	-	-	626	1800	1697	36.9%
2/1		U	N/A	N/A	-		-	-	-	458	Inf	Inf	0.0%
3/1		U	N/A	N/A	-		-	-	-	716	Inf	Inf	0.0%
4/1	Appleford Road West Left Ahead	U	N/A	N/A	-		-	-	-	607	1800	1800	33.7%
5/1	Bridge Southbound Left Right	O	N/A	N/A	-		-	-	-	144	1747	324	44.4%

LinSig V1 style report

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**173**	**0**	**0**	**11.0**	**5.6**	**0.0**	**16.7**	**-**	**-**	**-**	**-**
J1: Abingdon Road / Tollgate Road	**-**	**-**	**0**	**0**	**0**	**7.0**	**4.2**	**0.0**	**11.1**	**-**	**-**	**-**	**-**
1/2+1/1	695	695	-	-	-	2.6	2.2	-	4.8	25.0	14.8	2.2	17.0
2/2+2/1	203	203	-	-	-	2.6	1.6	-	4.2	74.0	3.6	1.6	5.2
3/1+3/2	665	665	-	-	-	1.7	0.4	-	2.1	11.6	6.1	0.4	6.5
4/1	674	674	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	745	745	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Bridge Signals	**-**	**-**	**0**	**0**	**0**	**4.1**	**0.5**	**0.0**	**4.6**	**-**	**-**	**-**	**-**
1/1	203	203	-	-	-	2.7	0.4	-	3.1	55.3	7.3	0.4	7.7
2/1	144	144	-	-	-	1.3	0.1	-	1.5	36.6	4.2	0.1	4.3
J3: Appelford Road / Abingdon Road	**-**	**-**	**173**	**0**	**0**	**0.0**	**0.9**	**0.0**	**0.9**	**-**	**-**	**-**	**-**
1/1	626	626	29	0	0	0.0	0.3	-	0.3	1.7	0.0	0.3	0.3
2/1	458	458	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/1	716	716	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	607	607	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
5/1	144	144	144	0	0	0.0	0.4	-	0.4	9.9	0.0	0.4	0.4

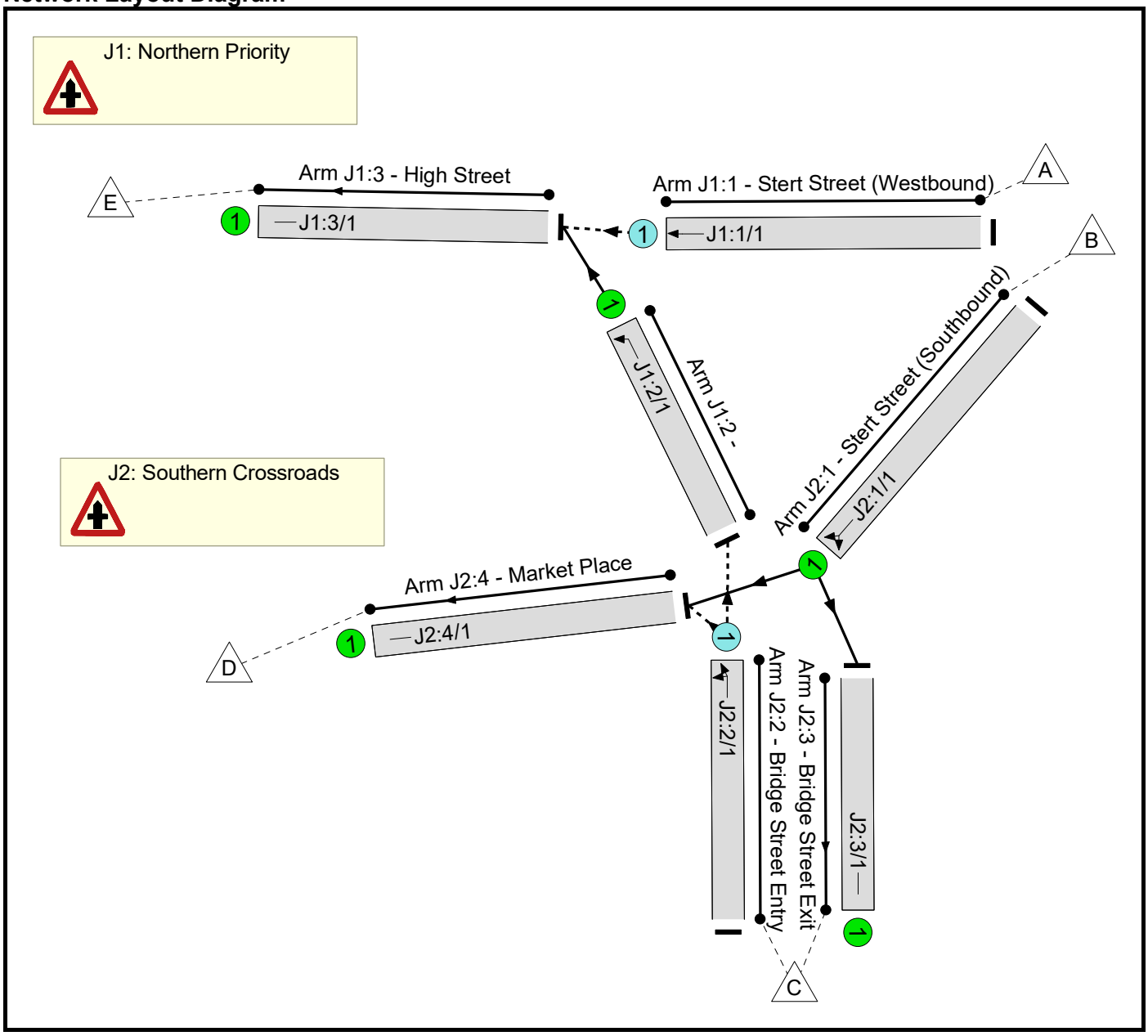
C1	PRC for Signalled Lanes (%): 9.9	Total Delay for Signalled Lanes (pcuHr): 11.14	Cycle Time (s): 111
C2	PRC for Signalled Lanes (%): 103.8	Total Delay for Signalled Lanes (pcuHr): 4.58	Cycle Time (s): 154
	PRC Over All Lanes (%): 9.9	Total Delay Over All Lanes(pcuHr): 16.67	

LinSig V1 style report

User and Project Details

Project:	**Bridge Street / Stert Street / Market Place / High Street Network**
Title:	
Location:	Abingdon
Client:	UKAEA
Additional detail:	
File name:	Bridge Street Network.lsg3x
Author:	MAM
Company:	BSP
Address:	Notts

Network Layout Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min

Phase Intergreens Matrix

Terminating Phase	Starting Phase
	This View cannot be shown as there are currently no Phases defined.

Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage	To Stage
	This View cannot be shown as there are currently no Stages defined.

Phases in Stage

Stage No.	Phases in Stage

Give-Way Lane Input Data

Junction: J1: Northern Priority

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
J1:1/1 (Stert Street (Westbound))	J1:3/1 (Ahead)	1439	0	J1:2/1	1.09	All	-	-	-	-	-

Junction: J2: Southern Crossroads

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
J2:2/1 (Bridge Street Entry)	J1:2/1 (Ahead)	1439	0	J2:1/1	1.09	To J2:4/1 (Ahead)	-	-	-	-	-
	J2:4/1 (Left)	1439	0	J2:1/1	1.09	To J2:4/1 (Ahead)					

Lane Input Data

Junction: J1: Northern Priority

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J1:1/1 (Stert Street (Westbound))	O		2	3	60.0	Geom	-	3.63	0.00	Y	Arm J1:3 Ahead	Inf
J1:2/1	U		2	3	60.0	Geom	-	5.00	0.00	Y	Arm J1:3 Left	34.00
J1:3/1 (High Street)	U		2	3	60.0	Inf	-	-	-	-	-	-

Junction: J2: Southern Crossroads

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J2:1/1 (Stert Street (Southbound))	U		2	3	60.0	Geom	-	2.80	0.00	Y	Arm J2:3 Ahead	Inf
											Arm J2:4 Ahead	18.00
J2:2/1 (Bridge Street Entry)	O		2	3	60.0	Geom	-	3.50	0.00	Y	Arm J1:2 Ahead	Inf
											Arm J2:4 Left	3.00
J2:3/1 (Bridge Street Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:4/1 (Market Place)	U		2	3	60.0	Inf	-	-	-	-	-	-

Lane Saturation Flows

Scenario 1: '2017 Survey - AM' (FG1: '2017 Survey - AM', Plan 1: 'Network Control Plan 1')

Junction: J1: Northern Priority

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Stert Street (Westbound))	3.63	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1978	1978
J1:2/1	5.00	0.00	Y	Arm J1:3 Left	34.00	100.0 %	2026	2026
J1:3/1 (High Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Southern Crossroads								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Stert Street (Southbound))	2.80	0.00	Y	Arm J2:3 Ahead	Inf	94.8 %	1887	1887
				Arm J2:4 Ahead	18.00	5.2 %		
J2:2/1 (Bridge Street Entry)	3.50	0.00	Y	Arm J1:2 Ahead	Inf	97.0 %	1936	1936
				Arm J2:4 Left	3.00	3.0 %		
J2:3/1 (Bridge Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Market Place Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2017 Survey - PM' (FG2: '2017 Survey - PM', Plan 1: 'Network Control Plan 1')

Junction: J1: Northern Priority								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Stert Street (Westbound))	3.63	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1978	1978
J1:2/1	5.00	0.00	Y	Arm J1:3 Left	34.00	100.0 %	2026	2026
J1:3/1 (High Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Southern Crossroads								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Stert Street (Southbound))	2.80	0.00	Y	Arm J2:3 Ahead	Inf	90.4 %	1880	1880
				Arm J2:4 Ahead	18.00	9.6 %		
J2:2/1 (Bridge Street Entry)	3.50	0.00	Y	Arm J1:2 Ahead	Inf	95.9 %	1926	1926
				Arm J2:4 Left	3.00	4.1 %		
J2:3/1 (Bridge Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Market Place Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2021 Base + Com - AM' (FG3: '2021 Base + Com - AM', Plan 1: 'Network Control Plan 1')

Junction: J1: Northern Priority								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Stert Street (Westbound))	3.63	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1978	1978
J1:2/1	5.00	0.00	Y	Arm J1:3 Left	34.00	100.0 %	2026	2026
J1:3/1 (High Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Southern Crossroads								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Stert Street (Southbound))	2.80	0.00	Y	Arm J2:3 Ahead	Inf	94.9 %	1887	1887
				Arm J2:4 Ahead	18.00	5.1 %		
J2:2/1 (Bridge Street Entry)	3.50	0.00	Y	Arm J1:2 Ahead	Inf	97.1 %	1937	1937
				Arm J2:4 Left	3.00	2.9 %		
J2:3/1 (Bridge Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Market Place Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2021 Base +Com - PM' (FG4: '2021 Base + Com - PM', Plan 1: 'Network Control Plan 1')

Junction: J1: Northern Priority								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Stert Street (Westbound))	3.63	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1978	1978
J1:2/1	5.00	0.00	Y	Arm J1:3 Left	34.00	100.0 %	2026	2026
J1:3/1 (High Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Southern Crossroads								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Stert Street (Southbound))	2.80	0.00	Y	Arm J2:3 Ahead	Inf	90.5 %	1880	1880
				Arm J2:4 Ahead	18.00	9.5 %		
J2:2/1 (Bridge Street Entry)	3.50	0.00	Y	Arm J1:2 Ahead	Inf	95.9 %	1926	1926
				Arm J2:4 Left	3.00	4.1 %		
J2:3/1 (Bridge Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Market Place Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2024 Base + Com - AM' (FG5: '2024 Base + Com - AM', Plan 1: 'Network Control Plan 1')

Junction: J1: Northern Priority								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Stert Street (Westbound))	3.63	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1978	1978
J1:2/1	5.00	0.00	Y	Arm J1:3 Left	34.00	100.0 %	2026	2026
J1:3/1 (High Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Southern Crossroads								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Stert Street (Southbound))	2.80	0.00	Y	Arm J2:3 Ahead	Inf	95.3 %	1888	1888
				Arm J2:4 Ahead	18.00	4.7 %		
J2:2/1 (Bridge Street Entry)	3.50	0.00	Y	Arm J1:2 Ahead	Inf	97.1 %	1937	1937
				Arm J2:4 Left	3.00	2.9 %		
J2:3/1 (Bridge Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Market Place Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2024 Base +Com - PM' (FG6: '2024 Base + Com - PM', Plan 1: 'Network Control Plan 1')

Junction: J1: Northern Priority								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Stert Street (Westbound))	3.63	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1978	1978
J1:2/1	5.00	0.00	Y	Arm J1:3 Left	34.00	100.0 %	2026	2026
J1:3/1 (High Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Southern Crossroads								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Stert Street (Southbound))	2.80	0.00	Y	Arm J2:3 Ahead	Inf	90.6 %	1880	1880
				Arm J2:4 Ahead	18.00	9.4 %		
J2:2/1 (Bridge Street Entry)	3.50	0.00	Y	Arm J1:2 Ahead	Inf	96.1 %	1927	1927
				Arm J2:4 Left	3.00	3.9 %		
J2:3/1 (Bridge Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Market Place Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 7: '2024 With Dev - AM' (FG7: '2024 With Dev - AM', Plan 1: 'Network Control Plan 1')

Junction: J1: Northern Priority								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Stert Street (Westbound))	3.63	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1978	1978
J1:2/1	5.00	0.00	Y	Arm J1:3 Left	34.00	100.0 %	2026	2026
J1:3/1 (High Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Southern Crossroads								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Stert Street (Southbound))	2.80	0.00	Y	Arm J2:3 Ahead	Inf	95.6 %	1888	1888
				Arm J2:4 Ahead	18.00	4.4 %		
J2:2/1 (Bridge Street Entry)	3.50	0.00	Y	Arm J1:2 Ahead	Inf	97.1 %	1937	1937
				Arm J2:4 Left	3.00	2.9 %		
J2:3/1 (Bridge Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Market Place Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 8: '2024 With Dev - PM' (FG8: '2024 With Dev - PM', Plan 1: 'Network Control Plan 1')

Junction: J1: Northern Priority								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Stert Street (Westbound))	3.63	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1978	1978
J1:2/1	5.00	0.00	Y	Arm J1:3 Left	34.00	100.0 %	2026	2026
J1:3/1 (High Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Southern Crossroads								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Stert Street (Southbound))	2.80	0.00	Y	Arm J2:3 Ahead	Inf	90.6 %	1880	1880
				Arm J2:4 Ahead	18.00	9.4 %		
J2:2/1 (Bridge Street Entry)	3.50	0.00	Y	Arm J1:2 Ahead	Inf	96.1 %	1928	1928
				Arm J2:4 Left	3.00	3.9 %		
J2:3/1 (Bridge Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Market Place Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 9: '2024 With HIF - AM' (FG9: '2024 With HIF - AM', Plan 1: 'Network Control Plan 1')

Junction: J1: Northern Priority								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Stert Street (Westbound))	3.63	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1978	1978
J1:2/1	5.00	0.00	Y	Arm J1:3 Left	34.00	100.0 %	2026	2026
J1:3/1 (High Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Southern Crossroads

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Stert Street (Southbound))	2.80	0.00	Y	Arm J2:3 Ahead	Inf	95.4 %	1888	1888
				Arm J2:4 Ahead	18.00	4.6 %		
J2:2/1 (Bridge Street Entry)	3.50	0.00	Y	Arm J1:2 Ahead	Inf	96.8 %	1934	1934
				Arm J2:4 Left	3.00	3.2 %		
J2:3/1 (Bridge Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Market Place Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 10: '2024 With HIF - PM' (FG10: '2024 With HIF - PM', Plan 1: 'Network Control Plan 1')

Junction: J1: Northern Priority

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Stert Street (Westbound))	3.63	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1978	1978
J1:2/1	5.00	0.00	Y	Arm J1:3 Left	34.00	100.0 %	2026	2026
J1:3/1 (High Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Southern Crossroads

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Stert Street (Southbound))	2.80	0.00	Y	Arm J2:3 Ahead	Inf	90.7 %	1880	1880
				Arm J2:4 Ahead	18.00	9.3 %		
J2:2/1 (Bridge Street Entry)	3.50	0.00	Y	Arm J1:2 Ahead	Inf	95.8 %	1924	1924
				Arm J2:4 Left	3.00	4.2 %		
J2:3/1 (Bridge Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Market Place Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 11: '2024 With HIF + Dev - AM' (FG11: '2024 With HIF + Dev - AM', Plan 1: 'Network Control Plan 1')

Junction: J1: Northern Priority

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Stert Street (Westbound))	3.63	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1978	1978
J1:2/1	5.00	0.00	Y	Arm J1:3 Left	34.00	100.0 %	2026	2026
J1:3/1 (High Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Southern Crossroads								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Stert Street (Southbound))	2.80	0.00	Y	Arm J2:3 Ahead	Inf	95.7 %	1888	1888
				Arm J2:4 Ahead	18.00	4.3 %		
J2:2/1 (Bridge Street Entry)	3.50	0.00	Y	Arm J1:2 Ahead	Inf	96.9 %	1935	1935
				Arm J2:4 Left	3.00	3.1 %		
J2:3/1 (Bridge Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Market Place Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 12: '2024 With HIF + Dev - PM' (FG12: '2024 With HIF + Dev - PM', Plan 1: 'Network Control Plan 1')

Junction: J1: Northern Priority								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Stert Street (Westbound))	3.63	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1978	1978
J1:2/1	5.00	0.00	Y	Arm J1:3 Left	34.00	100.0 %	2026	2026
J1:3/1 (High Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Southern Crossroads								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Stert Street (Southbound))	2.80	0.00	Y	Arm J2:3 Ahead	Inf	90.7 %	1880	1880
				Arm J2:4 Ahead	18.00	9.3 %		
J2:2/1 (Bridge Street Entry)	3.50	0.00	Y	Arm J1:2 Ahead	Inf	95.8 %	1925	1925
				Arm J2:4 Left	3.00	4.2 %		
J2:3/1 (Bridge Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Market Place Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 13: '2034 With HIF - AM' (FG13: '2034 With HIF - AM', Plan 1: 'Network Control Plan 1')

Junction: J1: Northern Priority								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Stert Street (Westbound))	3.63	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1978	1978
J1:2/1	5.00	0.00	Y	Arm J1:3 Left	34.00	100.0 %	2026	2026
J1:3/1 (High Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Southern Crossroads								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Stert Street (Southbound))	2.80	0.00	Y	Arm J2:3 Ahead	Inf	95.9 %	1888	1888
				Arm J2:4 Ahead	18.00	4.1 %		
J2:2/1 (Bridge Street Entry)	3.50	0.00	Y	Arm J1:2 Ahead	Inf	97.1 %	1937	1937
				Arm J2:4 Left	3.00	2.9 %		
J2:3/1 (Bridge Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Market Place Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 14: '2034 With HIF - PM' (FG14: '2034 With HIF - PM', Plan 1: 'Network Control Plan 1')

Junction: J1: Northern Priority								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Stert Street (Westbound))	3.63	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1978	1978
J1:2/1	5.00	0.00	Y	Arm J1:3 Left	34.00	100.0 %	2026	2026
J1:3/1 (High Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Southern Crossroads								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Stert Street (Southbound))	2.80	0.00	Y	Arm J2:3 Ahead	Inf	92.9 %	1884	1884
				Arm J2:4 Ahead	18.00	7.1 %		
J2:2/1 (Bridge Street Entry)	3.50	0.00	Y	Arm J1:2 Ahead	Inf	96.3 %	1930	1930
				Arm J2:4 Left	3.00	3.7 %		
J2:3/1 (Bridge Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Market Place Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 15: '2034 With HIF + Dev - AM' (FG15: '2034 With HIF + Dev - AM', Plan 1: 'Network Control Plan 1')

Junction: J1: Northern Priority								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Stert Street (Westbound))	3.63	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1978	1978
J1:2/1	5.00	0.00	Y	Arm J1:3 Left	34.00	100.0 %	2026	2026
J1:3/1 (High Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Southern Crossroads								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Stert Street (Southbound))	2.80	0.00	Y	Arm J2:3 Ahead	Inf	96.1 %	1889	1889
				Arm J2:4 Ahead	18.00	3.9 %		
J2:2/1 (Bridge Street Entry)	3.50	0.00	Y	Arm J1:2 Ahead	Inf	97.1 %	1937	1937
				Arm J2:4 Left	3.00	2.9 %		
J2:3/1 (Bridge Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Market Place Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 16: '2034 With HIF + Dev - PM' (FG16: '2034 With HIF + Dev - PM', Plan 1: 'Network Control Plan 1')

Junction: J1: Northern Priority								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Stert Street (Westbound))	3.63	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1978	1978
J1:2/1	5.00	0.00	Y	Arm J1:3 Left	34.00	100.0 %	2026	2026
J1:3/1 (High Street Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Southern Crossroads								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Stert Street (Southbound))	2.80	0.00	Y	Arm J2:3 Ahead	Inf	92.9 %	1884	1884
				Arm J2:4 Ahead	18.00	7.1 %		
J2:2/1 (Bridge Street Entry)	3.50	0.00	Y	Arm J1:2 Ahead	Inf	96.4 %	1930	1930
				Arm J2:4 Left	3.00	3.6 %		
J2:3/1 (Bridge Street Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:4/1 (Market Place Lane 1)	Infinite Saturation Flow						Inf	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2017 Survey - AM'	08:00	09:00	01:00	
2: '2017 Survey - PM'	17:00	18:00	01:00	
3: '2021 Base + Com - AM'	08:00	09:00	01:00	
4: '2021 Base + Com - PM'	17:00	18:00	01:00	
5: '2024 Base + Com - AM'	08:00	09:00	01:00	
6: '2024 Base + Com - PM'	17:00	18:00	01:00	
7: '2024 With Dev - AM'	08:00	09:00	01:00	
8: '2024 With Dev - PM'	17:00	18:00	01:00	
9: '2024 With HIF - AM'	08:00	09:00	01:00	
10: '2024 With HIF - PM'	17:00	18:00	01:00	
11: '2024 With HIF + Dev - AM'	08:00	09:00	01:00	
12: '2024 With HIF + Dev - PM'	17:00	18:00	01:00	
13: '2034 With HIF - AM'	08:00	09:00	01:00	
14: '2034 With HIF - PM'	17:00	18:00	01:00	
15: '2034 With HIF + Dev - AM'	08:00	09:00	01:00	
16: '2034 With HIF + Dev - PM'	17:00	18:00	01:00	

Traffic Flows, Desired

FG1: '2017 Survey - AM'

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	146	146
	B	0	0	705	39	0	744
	C	0	0	0	20	649	669
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	705	59	795	1559

FG2: '2017 Survey - PM'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	194	194
	B	0	0	536	57	0	593
	C	0	0	0	27	634	661
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	536	84	828	1448

FG3: '2021 Base + Com - AM'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	157	157
	B	0	0	780	42	0	822
	C	0	0	0	21	703	724
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	780	63	860	1703

FG4: '2021 Base + Com - PM'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	208	208
	B	0	0	581	61	0	642
	C	0	0	0	29	683	712
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	581	90	891	1562

FG5: '2024 Base + Com - AM'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	166	166
	B	0	0	896	44	0	940
	C	0	0	0	23	759	782
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	896	67	925	1888

FG6: '2024 Base + Com - PM'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	220	220
	B	0	0	629	65	0	694
	C	0	0	0	31	761	792
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	629	96	981	1706

FG7: '2024 With Dev - AM'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	166	166
	B	0	0	958	44	0	1002
	C	0	0	0	23	762	785
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	958	67	928	1953

FG8: '2024 With Dev - PM'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	220	220
	B	0	0	630	65	0	695
	C	0	0	0	32	795	827
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	630	97	1015	1742

FG9: '2024 With HIF - AM'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	166	166
	B	0	0	915	44	0	959
	C	0	0	0	23	705	728
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	915	67	871	1853

FG10: '2024 With HIF - PM'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	220	220
	B	0	0	631	65	0	696
	C	0	0	0	31	704	735
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	631	96	924	1651

FG11: '2024 With HIF + Dev - AM'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	166	166
	B	0	0	977	44	0	1021
	C	0	0	0	23	708	731
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	977	67	874	1918

FG12: '2024 With HIF + Dev - PM'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	220	220
	B	0	0	632	65	0	697
	C	0	0	0	32	738	770
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	632	97	958	1687

FG13: '2034 With HIF - AM'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	180	180
	B	0	0	1111	48	0	1159
	C	0	0	0	24	801	825
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	1111	72	981	2164

FG14: '2034 With HIF - PM'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	240	240
	B	0	0	915	70	0	985
	C	0	0	0	33	868	901
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	915	103	1108	2126

FG15: '2034 With HIF + Dev - AM'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	180	180
	B	0	0	1173	48	0	1221
	C	0	0	0	24	805	829
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	1173	72	985	2230

FG16: '2034 With HIF + Dev - PM'
Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	0	0	0	240	240
	B	0	0	917	70	0	987
	C	0	0	0	34	903	937
	D	0	0	0	0	0	0
	E	0	0	0	0	0	0
	Tot.	0	0	917	104	1143	2164

Stage Timings

Scenario 1: '2017 Survey - AM' (FG1: '2017 Survey - AM', Plan 1: 'Network Control Plan 1')

Stage
Duration
Change Point

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**47.9%**
J1: Northern Priority	-	-	**N/A**	-	-		-	-	-	-	-	-	**32.0%**
1/1	Stert Street (Westbound) Ahead	O	N/A	N/A	-		-	-	-	146	1978	732	20.0%
2/1	Left	U	N/A	N/A	-		-	-	-	649	2026	2026	32.0%
3/1	High Street	U	N/A	N/A	-		-	-	-	795	Inf	Inf	0.0%
J2: Southern Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**47.9%**
1/1	Stert Street (Southbound) Ahead Ahead2	U	N/A	N/A	-		-	-	-	744	1887	1887	39.4%
2/1	Bridge Street Entry Ahead Left	O	N/A	N/A	-		-	-	-	669	1936	1396	47.9%
3/1	Bridge Street Exit	U	N/A	N/A	-		-	-	-	705	Inf	Inf	0.0%
4/1	Market Place	U	N/A	N/A	-		-	-	-	59	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**815**	**0**	**0**	**0.0**	**1.1**	**0.0**	**1.1**	**-**	**-**	**-**	**-**
J1: Northern Priority	**-**	**-**	**146**	**0**	**0**	**0.0**	**0.4**	**0.0**	**0.4**	**-**	**-**	**-**	**-**
1/1	146	146	146	0	0	0.0	0.1	-	0.1	3.1	0.0	0.1	0.1
2/1	649	649	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
3/1	795	795	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Southern Crossroads	**-**	**-**	**669**	**0**	**0**	**0.0**	**0.8**	**0.0**	**0.8**	**-**	**-**	**-**	**-**
1/1	744	744	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
2/1	669	669	669	0	0	0.0	0.5	-	0.5	2.5	0.0	0.5	0.5
3/1	705	705	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	59	59	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 0.0 Total Delay for Signalled Lanes (pcuHr): 0.00 Cycle Time (s): 60
PRC Over All Lanes (%): 87.9 Total Delay Over All Lanes(pcuHr): 1.14

Stage Timings

Scenario 2: '2017 Survey - PM' (FG2: '2017 Survey - PM', Plan 1: 'Network Control Plan 1')

Stage	Duration	Change Point

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**48.0%**
J1: Northern Priority	-	-	**N/A**	-	-		-	-	-	-	-	-	**31.3%**
1/1	Stert Street (Westbound) Ahead	O	N/A	N/A	-		-	-	-	194	1978	748	25.9%
2/1	Left	U	N/A	N/A	-		-	-	-	634	2026	2026	31.3%
3/1	High Street	U	N/A	N/A	-		-	-	-	828	Inf	Inf	0.0%
J2: Southern Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**48.0%**
1/1	Stert Street (Southbound) Ahead Ahead2	U	N/A	N/A	-		-	-	-	593	1880	1880	31.5%
2/1	Bridge Street Entry Ahead Left	O	N/A	N/A	-		-	-	-	661	1926	1377	48.0%
3/1	Bridge Street Exit	U	N/A	N/A	-		-	-	-	536	Inf	Inf	0.0%
4/1	Market Place	U	N/A	N/A	-		-	-	-	84	Inf	Inf	0.0%

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Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**855**	**0**	**0**	**0.0**	**1.1**	**0.0**	**1.1**	**-**	**-**	**-**	**-**
J1: Northern Priority	**-**	**-**	**194**	**0**	**0**	**0.0**	**0.4**	**0.0**	**0.4**	**-**	**-**	**-**	**-**
1/1	194	194	194	0	0	0.0	0.2	-	0.2	3.2	0.0	0.2	0.2
2/1	634	634	-	-	-	0.0	0.2	-	0.2	1.3	0.0	0.2	0.2
3/1	828	828	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Southern Crossroads	**-**	**-**	**661**	**0**	**0**	**0.0**	**0.7**	**0.0**	**0.7**	**-**	**-**	**-**	**-**
1/1	593	593	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
2/1	661	661	661	0	0	0.0	0.5	-	0.5	2.5	0.0	0.5	0.5
3/1	536	536	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	84	84	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 0.0 Total Delay for Signalled Lanes (pcuHr): 0.00 Cycle Time (s): 60
PRC Over All Lanes (%): 87.5 Total Delay Over All Lanes(pcuHr): 1.09

Stage Timings

Scenario 3: '2021 Base + Com - AM' (FG3: '2021 Base + Com - AM', Plan 1: 'Network Control Plan 1')

Stage
Duration
Change Point

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**52.0%**
J1: Northern Priority	-	-	**N/A**	-	-		-	-	-	-	-	-	**34.7%**
1/1	Stert Street (Westbound) Ahead	O	N/A	N/A	-		-	-	-	157	1978	673	23.3%
2/1	Left	U	N/A	N/A	-		-	-	-	703	2026	2026	34.7%
3/1	High Street	U	N/A	N/A	-		-	-	-	860	Inf	Inf	0.0%
J2: Southern Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**52.0%**
1/1	Stert Street (Southbound) Ahead Ahead2	U	N/A	N/A	-		-	-	-	822	1887	1887	43.6%
2/1	Bridge Street Entry Ahead Left	O	N/A	N/A	-		-	-	-	724	1937	1393	52.0%
3/1	Bridge Street Exit	U	N/A	N/A	-		-	-	-	780	Inf	Inf	0.0%
4/1	Market Place	U	N/A	N/A	-		-	-	-	63	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**881**	**0**	**0**	**0.0**	**1.3**	**0.0**	**1.3**	**-**	**-**	**-**	**-**
J1: Northern Priority	**-**	**-**	**157**	**0**	**0**	**0.0**	**0.4**	**0.0**	**0.4**	**-**	**-**	**-**	**-**
1/1	157	157	157	0	0	0.0	0.2	-	0.2	3.5	0.0	0.2	0.2
2/1	703	703	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
3/1	860	860	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Southern Crossroads	**-**	**-**	**724**	**0**	**0**	**0.0**	**0.9**	**0.0**	**0.9**	**-**	**-**	**-**	**-**
1/1	822	822	-	-	-	0.0	0.4	-	0.4	1.7	0.0	0.4	0.4
2/1	724	724	724	0	0	0.0	0.5	-	0.5	2.7	0.0	0.5	0.5
3/1	780	780	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	63	63	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 0.0 Total Delay for Signalled Lanes (pcuHr): 0.00 Cycle Time (s): 60
PRC Over All Lanes (%): 73.2 Total Delay Over All Lanes(pcuHr): 1.34

Stage Timings

Scenario 4: '2021 Base +Com - PM' (FG4: '2021 Base + Com - PM', Plan 1: 'Network Control Plan 1')

Stage
Duration
Change Point

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**51.9%**
J1: Northern Priority	-	-	**N/A**	-	-		-	-	-	-	-	-	**33.7%**
1/1	Stert Street (Westbound) Ahead	O	N/A	N/A	-		-	-	-	208	1978	694	30.0%
2/1	Left	U	N/A	N/A	-		-	-	-	683	2026	2026	33.7%
3/1	High Street	U	N/A	N/A	-		-	-	-	891	Inf	Inf	0.0%
J2: Southern Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**51.9%**
1/1	Stert Street (Southbound) Ahead Ahead2	U	N/A	N/A	-		-	-	-	642	1880	1880	34.1%
2/1	Bridge Street Entry Ahead Left	O	N/A	N/A	-		-	-	-	712	1926	1372	51.9%
3/1	Bridge Street Exit	U	N/A	N/A	-		-	-	-	581	Inf	Inf	0.0%
4/1	Market Place	U	N/A	N/A	-		-	-	-	90	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**920**	**0**	**0**	**0.0**	**1.3**	**0.0**	**1.3**	**-**	**-**	**-**	**-**
J1: Northern Priority	**-**	**-**	**208**	**0**	**0**	**0.0**	**0.5**	**0.0**	**0.5**	**-**	**-**	**-**	**-**
1/1	208	208	208	0	0	0.0	0.2	-	0.2	3.7	0.0	0.2	0.2
2/1	683	683	-	-	-	0.0	0.3	-	0.3	1.3	0.0	0.3	0.3
3/1	891	891	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Southern Crossroads	**-**	**-**	**712**	**0**	**0**	**0.0**	**0.8**	**0.0**	**0.8**	**-**	**-**	**-**	**-**
1/1	642	642	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
2/1	712	712	712	0	0	0.0	0.5	-	0.5	2.7	0.0	0.5	0.5
3/1	581	581	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	90	90	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 0.0 Total Delay for Signalled Lanes (pcuHr): 0.00 Cycle Time (s): 60
PRC Over All Lanes (%): 73.5 Total Delay Over All Lanes(pcuHr): 1.27

Stage Timings

Scenario 5: '2024 Base + Com - AM' (FG5: '2024 Base + Com - AM', Plan 1: 'Network Control Plan 1')

Stage
Duration
Change Point

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**56.2%**
J1: Northern Priority	-	-	**N/A**	-	-		-	-	-	-	-	-	**37.5%**
1/1	Stert Street (Westbound) Ahead	O	N/A	N/A	-		-	-	-	166	1978	612	27.1%
2/1	Left	U	N/A	N/A	-		-	-	-	759	2026	2026	37.5%
3/1	High Street	U	N/A	N/A	-		-	-	-	925	Inf	Inf	0.0%
J2: Southern Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**56.2%**
1/1	Stert Street (Southbound) Ahead Ahead2	U	N/A	N/A	-		-	-	-	940	1888	1888	49.8%
2/1	Bridge Street Entry Ahead Left	O	N/A	N/A	-		-	-	-	782	1937	1391	56.2%
3/1	Bridge Street Exit	U	N/A	N/A	-		-	-	-	896	Inf	Inf	0.0%
4/1	Market Place	U	N/A	N/A	-		-	-	-	67	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**948**	**0**	**0**	**0.0**	**1.6**	**0.0**	**1.6**	**-**	**-**	**-**	**-**
J1: Northern Priority	**-**	**-**	**166**	**0**	**0**	**0.0**	**0.5**	**0.0**	**0.5**	**-**	**-**	**-**	**-**
1/1	166	166	166	0	0	0.0	0.2	-	0.2	4.0	0.0	0.2	0.2
2/1	759	759	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
3/1	925	925	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Southern Crossroads	**-**	**-**	**782**	**0**	**0**	**0.0**	**1.1**	**0.0**	**1.1**	**-**	**-**	**-**	**-**
1/1	940	940	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
2/1	782	782	782	0	0	0.0	0.6	-	0.6	2.9	0.0	0.6	0.6
3/1	896	896	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	67	67	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 0.0 Total Delay for Signalled Lanes (pcuHr): 0.00 Cycle Time (s): 60
PRC Over All Lanes (%): 60.1 Total Delay Over All Lanes(pcuHr): 1.62

Stage Timings

Scenario 6: '2024 Base +Com - PM' (FG6: '2024 Base + Com - PM', Plan 1: 'Network Control Plan 1')

Stage
Duration
Change Point

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**57.9%**
J1: Northern Priority	-	-	**N/A**	-	-		-	-	-	-	-	-	**37.6%**
1/1	Stert Street (Westbound) Ahead	O	N/A	N/A	-		-	-	-	220	1978	609	36.1%
2/1	Left	U	N/A	N/A	-		-	-	-	761	2026	2026	37.6%
3/1	High Street	U	N/A	N/A	-		-	-	-	981	Inf	Inf	0.0%
J2: Southern Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**57.9%**
1/1	Stert Street (Southbound) Ahead Ahead2	U	N/A	N/A	-		-	-	-	694	1880	1880	36.9%
2/1	Bridge Street Entry Ahead Left	O	N/A	N/A	-		-	-	-	792	1927	1368	57.9%
3/1	Bridge Street Exit	U	N/A	N/A	-		-	-	-	629	Inf	Inf	0.0%
4/1	Market Place	U	N/A	N/A	-		-	-	-	96	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**1012**	**0**	**0**	**0.0**	**1.6**	**0.0**	**1.6**	**-**	**-**	**-**	**-**
J1: Northern Priority	**-**	**-**	**220**	**0**	**0**	**0.0**	**0.6**	**0.0**	**0.6**	**-**	**-**	**-**	**-**
1/1	220	220	220	0	0	0.0	0.3	-	0.3	4.6	0.0	0.3	0.3
2/1	761	761	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
3/1	981	981	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Southern Crossroads	**-**	**-**	**792**	**0**	**0**	**0.0**	**1.0**	**0.0**	**1.0**	**-**	**-**	**-**	**-**
1/1	694	694	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
2/1	792	792	792	0	0	0.0	0.7	-	0.7	3.1	0.0	0.7	0.7
3/1	629	629	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	96	96	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 0.0 Total Delay for Signalled Lanes (pcuHr): 0.00 Cycle Time (s): 60
PRC Over All Lanes (%): 55.5 Total Delay Over All Lanes(pcuHr): 1.56

Stage Timings

Scenario 7: '2024 With Dev - AM' (FG7: '2024 With Dev - AM', Plan 1: 'Network Control Plan 1')

Stage	Duration	Change Point

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**56.4%**
J1: Northern Priority	-	-	**N/A**	-	-		-	-	-	-	-	-	**37.6%**
1/1	Stert Street (Westbound) Ahead	O	N/A	N/A	-		-	-	-	166	1978	608	27.3%
2/1	Left	U	N/A	N/A	-		-	-	-	762	2026	2026	37.6%
3/1	High Street	U	N/A	N/A	-		-	-	-	928	Inf	Inf	0.0%
J2: Southern Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**56.4%**
1/1	Stert Street (Southbound) Ahead Ahead2	U	N/A	N/A	-		-	-	-	1002	1888	1888	53.1%
2/1	Bridge Street Entry Ahead Left	O	N/A	N/A	-		-	-	-	785	1937	1391	56.4%
3/1	Bridge Street Exit	U	N/A	N/A	-		-	-	-	958	Inf	Inf	0.0%
4/1	Market Place	U	N/A	N/A	-		-	-	-	67	Inf	Inf	0.0%

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Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**951**	**0**	**0**	**0.0**	**1.7**	**0.0**	**1.7**	**-**	**-**	**-**	**-**
J1: Northern Priority	**-**	**-**	**166**	**0**	**0**	**0.0**	**0.5**	**0.0**	**0.5**	**-**	**-**	**-**	**-**
1/1	166	166	166	0	0	0.0	0.2	-	0.2	4.1	0.0	0.2	0.2
2/1	762	762	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
3/1	928	928	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Southern Crossroads	**-**	**-**	**785**	**0**	**0**	**0.0**	**1.2**	**0.0**	**1.2**	**-**	**-**	**-**	**-**
1/1	1002	1002	-	-	-	0.0	0.6	-	0.6	2.0	0.0	0.6	0.6
2/1	785	785	785	0	0	0.0	0.6	-	0.6	3.0	0.0	0.6	0.6
3/1	958	958	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	67	67	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 0.0 Total Delay for Signalled Lanes (pcuHr): 0.00 Cycle Time (s): 60
PRC Over All Lanes (%): 59.5 Total Delay Over All Lanes(pcuHr): 1.70

Stage Timings

Scenario 8: '2024 With Dev - PM' (FG8: '2024 With Dev - PM', Plan 1: 'Network Control Plan 1')

Stage	Duration	Change Point

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**60.5%**
J1: Northern Priority	-	-	**N/A**	-	-		-	-	-	-	-	-	**39.2%**
1/1	Stert Street (Westbound) Ahead	O	N/A	N/A	-		-	-	-	220	1978	572	38.4%
2/1	Left	U	N/A	N/A	-		-	-	-	795	2026	2026	39.2%
3/1	High Street	U	N/A	N/A	-		-	-	-	1015	Inf	Inf	0.0%
J2: Southern Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**60.5%**
1/1	Stert Street (Southbound) Ahead Ahead2	U	N/A	N/A	-		-	-	-	695	1880	1880	37.0%
2/1	Bridge Street Entry Ahead Left	O	N/A	N/A	-		-	-	-	827	1928	1368	60.5%
3/1	Bridge Street Exit	U	N/A	N/A	-		-	-	-	630	Inf	Inf	0.0%
4/1	Market Place	U	N/A	N/A	-		-	-	-	97	Inf	Inf	0.0%

LinSig V1 style report

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**1047**	**0**	**0**	**0.0**	**1.7**	**0.0**	**1.7**	**-**	**-**	**-**	**-**
J1: Northern Priority	**-**	**-**	**220**	**0**	**0**	**0.0**	**0.6**	**0.0**	**0.6**	**-**	**-**	**-**	**-**
1/1	220	220	220	0	0	0.0	0.3	-	0.3	5.1	0.0	0.3	0.3
2/1	795	795	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
3/1	1015	1015	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Southern Crossroads	**-**	**-**	**827**	**0**	**0**	**0.0**	**1.1**	**0.0**	**1.1**	**-**	**-**	**-**	**-**
1/1	695	695	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
2/1	827	827	827	0	0	0.0	0.8	-	0.8	3.3	0.0	0.8	0.8
3/1	630	630	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	97	97	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 0.0 Total Delay for Signalled Lanes (pcuHr): 0.00 Cycle Time (s): 60
PRC Over All Lanes (%): 48.9 Total Delay Over All Lanes(pcuHr): 1.69

Stage Timings

Scenario 9: '2024 With HIF - AM' (FG9: '2024 With HIF - AM', Plan 1: 'Network Control Plan 1')

Stage
Duration
Change Point

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**52.3%**
J1: Northern Priority	-	-	**N/A**	-	-		-	-	-	-	-	-	**34.8%**
1/1	Stert Street (Westbound) Ahead	O	N/A	N/A	-		-	-	-	166	1978	670	24.8%
2/1	Left	U	N/A	N/A	-		-	-	-	705	2026	2026	34.8%
3/1	High Street	U	N/A	N/A	-		-	-	-	871	Inf	Inf	0.0%
J2: Southern Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**52.3%**
1/1	Stert Street (Southbound) Ahead Ahead2	U	N/A	N/A	-		-	-	-	959	1888	1888	50.8%
2/1	Bridge Street Entry Ahead Left	O	N/A	N/A	-		-	-	-	728	1934	1391	52.3%
3/1	Bridge Street Exit	U	N/A	N/A	-		-	-	-	915	Inf	Inf	0.0%
4/1	Market Place	U	N/A	N/A	-		-	-	-	67	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**894**	**0**	**0**	**0.0**	**1.5**	**0.0**	**1.5**	**-**	**-**	**-**	**-**
J1: Northern Priority	**-**	**-**	**166**	**0**	**0**	**0.0**	**0.4**	**0.0**	**0.4**	**-**	**-**	**-**	**-**
1/1	166	166	166	0	0	0.0	0.2	-	0.2	3.6	0.0	0.2	0.2
2/1	705	705	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
3/1	871	871	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Southern Crossroads	**-**	**-**	**728**	**0**	**0**	**0.0**	**1.1**	**0.0**	**1.1**	**-**	**-**	**-**	**-**
1/1	959	959	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
2/1	728	728	728	0	0	0.0	0.5	-	0.5	2.7	0.0	0.5	0.5
3/1	915	915	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	67	67	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 0.0 Total Delay for Signalled Lanes (pcuHr): 0.00 Cycle Time (s): 60
PRC Over All Lanes (%): 72.0 Total Delay Over All Lanes(pcuHr): 1.49

Stage Timings

Scenario 10: '2024 With HIF - PM' (FG10: '2024 With HIF - PM', Plan 1: 'Network Control Plan 1')

Stage
Duration
Change Point

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**53.7%**
J1: Northern Priority	-	-	**N/A**	-	-		-	-	-	-	-	-	**34.7%**
1/1	Stert Street (Westbound) Ahead	O	N/A	N/A	-		-	-	-	220	1978	672	32.8%
2/1	Left	U	N/A	N/A	-		-	-	-	704	2026	2026	34.7%
3/1	High Street	U	N/A	N/A	-		-	-	-	924	Inf	Inf	0.0%
J2: Southern Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**53.7%**
1/1	Stert Street (Southbound) Ahead Ahead2	U	N/A	N/A	-		-	-	-	696	1880	1880	37.0%
2/1	Bridge Street Entry Ahead Left	O	N/A	N/A	-		-	-	-	735	1924	1368	53.7%
3/1	Bridge Street Exit	U	N/A	N/A	-		-	-	-	631	Inf	Inf	0.0%
4/1	Market Place	U	N/A	N/A	-		-	-	-	96	Inf	Inf	0.0%

LinSig V1 style report

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**955**	**0**	**0**	**0.0**	**1.4**	**0.0**	**1.4**	**-**	**-**	**-**	**-**
J1: Northern Priority	**-**	**-**	**220**	**0**	**0**	**0.0**	**0.5**	**0.0**	**0.5**	**-**	**-**	**-**	**-**
1/1	220	220	220	0	0	0.0	0.2	-	0.2	4.0	0.0	0.2	0.2
2/1	704	704	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
3/1	924	924	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Southern Crossroads	**-**	**-**	**735**	**0**	**0**	**0.0**	**0.9**	**0.0**	**0.9**	**-**	**-**	**-**	**-**
1/1	696	696	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
2/1	735	735	735	0	0	0.0	0.6	-	0.6	2.8	0.0	0.6	0.6
3/1	631	631	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	96	96	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 0.0 Total Delay for Signalled Lanes (pcuHr): 0.00 Cycle Time (s): 60
PRC Over All Lanes (%): 67.5 Total Delay Over All Lanes(pcuHr): 1.38

Stage Timings

Scenario 11: '2024 With HIF + Dev - AM' (FG11: '2024 With HIF + Dev - AM', Plan 1: 'Network Control Plan 1')

Stage
Duration
Change Point

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**54.1%**
J1: Northern Priority	-	-	**N/A**	-	-		-	-	-	-	-	-	**34.9%**
1/1	Stert Street (Westbound) Ahead	O	N/A	N/A	-		-	-	-	166	1978	667	24.9%
2/1	Left	U	N/A	N/A	-		-	-	-	708	2026	2026	34.9%
3/1	High Street	U	N/A	N/A	-		-	-	-	874	Inf	Inf	0.0%
J2: Southern Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**54.1%**
1/1	Stert Street (Southbound) Ahead Ahead2	U	N/A	N/A	-		-	-	-	1021	1888	1888	54.1%
2/1	Bridge Street Entry Ahead Left	O	N/A	N/A	-		-	-	-	731	1935	1391	52.6%
3/1	Bridge Street Exit	U	N/A	N/A	-		-	-	-	977	Inf	Inf	0.0%
4/1	Market Place	U	N/A	N/A	-		-	-	-	67	Inf	Inf	0.0%

LinSig V1 style report

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**897**	**0**	**0**	**0.0**	**1.6**	**0.0**	**1.6**	**-**	**-**	**-**	**-**
J1: Northern Priority	**-**	**-**	**166**	**0**	**0**	**0.0**	**0.4**	**0.0**	**0.4**	**-**	**-**	**-**	**-**
1/1	166	166	166	0	0	0.0	0.2	-	0.2	3.6	0.0	0.2	0.2
2/1	708	708	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
3/1	874	874	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Southern Crossroads	**-**	**-**	**731**	**0**	**0**	**0.0**	**1.1**	**0.0**	**1.1**	**-**	**-**	**-**	**-**
1/1	1021	1021	-	-	-	0.0	0.6	-	0.6	2.1	0.0	0.6	0.6
2/1	731	731	731	0	0	0.0	0.6	-	0.6	2.7	0.0	0.6	0.6
3/1	977	977	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	67	67	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 0.0 Total Delay for Signalled Lanes (pcuHr): 0.00 Cycle Time (s): 60
PRC Over All Lanes (%): 66.4 Total Delay Over All Lanes(pcuHr): 1.57

Stage Timings

Scenario 12: '2024 With HIF + Dev - PM' (FG12: '2024 With HIF + Dev - PM', Plan 1: 'Network Control Plan 1')

Stage
Duration
Change Point

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**56.3%**
J1: Northern Priority	-	-	**N/A**	-	-		-	-	-	-	-	-	**36.4%**
1/1	Stert Street (Westbound) Ahead	O	N/A	N/A	-		-	-	-	220	1978	634	34.7%
2/1	Left	U	N/A	N/A	-		-	-	-	738	2026	2026	36.4%
3/1	High Street	U	N/A	N/A	-		-	-	-	958	Inf	Inf	0.0%
J2: Southern Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**56.3%**
1/1	Stert Street (Southbound) Ahead Ahead2	U	N/A	N/A	-		-	-	-	697	1880	1880	37.1%
2/1	Bridge Street Entry Ahead Left	O	N/A	N/A	-		-	-	-	770	1925	1368	56.3%
3/1	Bridge Street Exit	U	N/A	N/A	-		-	-	-	632	Inf	Inf	0.0%
4/1	Market Place	U	N/A	N/A	-		-	-	-	97	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**990**	**0**	**0**	**0.0**	**1.5**	**0.0**	**1.5**	**-**	**-**	**-**	**-**
J1: Northern Priority	**-**	**-**	**220**	**0**	**0**	**0.0**	**0.6**	**0.0**	**0.6**	**-**	**-**	**-**	**-**
1/1	220	220	220	0	0	0.0	0.3	-	0.3	4.3	0.0	0.3	0.3
2/1	738	738	-	-	-	0.0	0.3	-	0.3	1.4	0.0	0.3	0.3
3/1	958	958	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Southern Crossroads	**-**	**-**	**770**	**0**	**0**	**0.0**	**0.9**	**0.0**	**0.9**	**-**	**-**	**-**	**-**
1/1	697	697	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
2/1	770	770	770	0	0	0.0	0.6	-	0.6	3.0	0.0	0.6	0.6
3/1	632	632	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	97	97	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 0.0 Total Delay for Signalled Lanes (pcuHr): 0.00 Cycle Time (s): 60
PRC Over All Lanes (%): 59.9 Total Delay Over All Lanes(pcuHr): 1.49

Stage Timings

Scenario 13: '2034 With HIF - AM' (FG13: '2034 With HIF - AM', Plan 1: 'Network Control Plan 1')

Stage
Duration
Change Point

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**61.4%**
J1: Northern Priority	-	-	**N/A**	-	-		-	-	-	-	-	-	**39.5%**
1/1	Stert Street (Westbound) Ahead	O	N/A	N/A	-		-	-	-	180	1978	566	31.8%
2/1	Left	U	N/A	N/A	-		-	-	-	801	2026	2026	39.5%
3/1	High Street	U	N/A	N/A	-		-	-	-	981	Inf	Inf	0.0%
J2: Southern Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**61.4%**
1/1	Stert Street (Southbound) Ahead Ahead2	U	N/A	N/A	-		-	-	-	1159	1888	1888	61.4%
2/1	Bridge Street Entry Ahead Left	O	N/A	N/A	-		-	-	-	825	1937	1387	59.5%
3/1	Bridge Street Exit	U	N/A	N/A	-		-	-	-	1111	Inf	Inf	0.0%
4/1	Market Place	U	N/A	N/A	-		-	-	-	72	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**1005**	**0**	**0**	**0.0**	**2.1**	**0.0**	**2.1**	**-**	**-**	**-**	**-**
J1: Northern Priority	**-**	**-**	**180**	**0**	**0**	**0.0**	**0.6**	**0.0**	**0.6**	**-**	**-**	**-**	**-**
1/1	180	180	180	0	0	0.0	0.2	-	0.2	4.7	0.0	0.2	0.2
2/1	801	801	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
3/1	981	981	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Southern Crossroads	**-**	**-**	**825**	**0**	**0**	**0.0**	**1.5**	**0.0**	**1.5**	**-**	**-**	**-**	**-**
1/1	1159	1159	-	-	-	0.0	0.8	-	0.8	2.5	0.0	0.8	0.8
2/1	825	825	825	0	0	0.0	0.7	-	0.7	3.2	0.0	0.7	0.7
3/1	1111	1111	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	72	72	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 0.0 Total Delay for Signalled Lanes (pcuHr): 0.00 Cycle Time (s): 60
PRC Over All Lanes (%): 46.6 Total Delay Over All Lanes(pcuHr): 2.09

Stage Timings

Scenario 14: '2034 With HIF - PM' (FG14: '2034 With HIF - PM', Plan 1: 'Network Control Plan 1')

Stage	Duration	Change Point

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**66.1%**
J1: Northern Priority	-	-	**N/A**	-	-		-	-	-	-	-	-	**48.7%**
1/1	Stert Street (Westbound) Ahead	O	N/A	N/A	-		-	-	-	240	1978	493	48.7%
2/1	Left	U	N/A	N/A	-		-	-	-	868	2026	2026	42.8%
3/1	High Street	U	N/A	N/A	-		-	-	-	1108	Inf	Inf	0.0%
J2: Southern Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**66.1%**
1/1	Stert Street (Southbound) Ahead Ahead2	U	N/A	N/A	-		-	-	-	985	1884	1884	52.3%
2/1	Bridge Street Entry Ahead Left	O	N/A	N/A	-		-	-	-	901	1930	1363	66.1%
3/1	Bridge Street Exit	U	N/A	N/A	-		-	-	-	915	Inf	Inf	0.0%
4/1	Market Place	U	N/A	N/A	-		-	-	-	103	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**1141**	**0**	**0**	**0.0**	**2.4**	**0.0**	**2.4**	**-**	**-**	**-**	**-**
J1: Northern Priority	**-**	**-**	**240**	**0**	**0**	**0.0**	**0.8**	**0.0**	**0.8**	**-**	**-**	**-**	**-**
1/1	240	240	240	0	0	0.0	0.5	-	0.5	7.1	0.0	0.5	0.5
2/1	868	868	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
3/1	1108	1108	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Southern Crossroads	**-**	**-**	**901**	**0**	**0**	**0.0**	**1.5**	**0.0**	**1.5**	**-**	**-**	**-**	**-**
1/1	985	985	-	-	-	0.0	0.5	-	0.5	2.0	0.0	0.5	0.5
2/1	901	901	901	0	0	0.0	1.0	-	1.0	3.9	0.0	1.0	1.0
3/1	915	915	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	103	103	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 0.0 Total Delay for Signalled Lanes (pcuHr): 0.00 Cycle Time (s): 60
PRC Over All Lanes (%): 36.1 Total Delay Over All Lanes(pcuHr): 2.37

Stage Timings

Scenario 15: '2034 With HIF + Dev - AM' (FG15: '2034 With HIF + Dev - AM', Plan 1: 'Network Control Plan 1')

Stage
Duration
Change Point

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**64.6%**
J1: Northern Priority	-	-	**N/A**	-	-		-	-	-	-	-	-	**39.7%**
1/1	Stert Street (Westbound) Ahead	O	N/A	N/A	-		-	-	-	180	1978	561	32.1%
2/1	Left	U	N/A	N/A	-		-	-	-	805	2026	2026	39.7%
3/1	High Street	U	N/A	N/A	-		-	-	-	985	Inf	Inf	0.0%
J2: Southern Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**64.6%**
1/1	Stert Street (Southbound) Ahead Ahead2	U	N/A	N/A	-		-	-	-	1221	1889	1889	64.6%
2/1	Bridge Street Entry Ahead Left	O	N/A	N/A	-		-	-	-	829	1937	1387	59.8%
3/1	Bridge Street Exit	U	N/A	N/A	-		-	-	-	1173	Inf	Inf	0.0%
4/1	Market Place	U	N/A	N/A	-		-	-	-	72	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**1009**	**0**	**0**	**0.0**	**2.2**	**0.0**	**2.2**	**-**	**-**	**-**	**-**
J1: Northern Priority	**-**	**-**	**180**	**0**	**0**	**0.0**	**0.6**	**0.0**	**0.6**	**-**	**-**	**-**	**-**
1/1	180	180	180	0	0	0.0	0.2	-	0.2	4.7	0.0	0.2	0.2
2/1	805	805	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
3/1	985	985	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Southern Crossroads	**-**	**-**	**829**	**0**	**0**	**0.0**	**1.7**	**0.0**	**1.7**	**-**	**-**	**-**	**-**
1/1	1221	1221	-	-	-	0.0	0.9	-	0.9	2.7	0.0	0.9	0.9
2/1	829	829	829	0	0	0.0	0.7	-	0.7	3.2	0.0	0.7	0.7
3/1	1173	1173	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	72	72	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 0.0 Total Delay for Signalled Lanes (pcuHr): 0.00 Cycle Time (s): 60
PRC Over All Lanes (%): 39.2 Total Delay Over All Lanes(pcuHr): 2.22

Stage Timings

Scenario 16: '2034 With HIF + Dev - PM' (FG16: '2034 With HIF + Dev - PM', Plan 1: 'Network Control Plan 1')

Stage
Duration
Change Point

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	**N/A**	-	-		-	-	-	-	-	-	**68.8%**
J1: Northern Priority	-	-	**N/A**	-	-		-	-	-	-	-	-	**52.8%**
1/1	Stert Street (Westbound) Ahead	O	N/A	N/A	-		-	-	-	240	1978	455	52.8%
2/1	Left	U	N/A	N/A	-		-	-	-	903	2026	2026	44.6%
3/1	High Street	U	N/A	N/A	-		-	-	-	1143	Inf	Inf	0.0%
J2: Southern Crossroads	-	-	**N/A**	-	-		-	-	-	-	-	-	**68.8%**
1/1	Stert Street (Southbound) Ahead Ahead2	U	N/A	N/A	-		-	-	-	987	1884	1884	52.4%
2/1	Bridge Street Entry Ahead Left	O	N/A	N/A	-		-	-	-	937	1930	1363	68.8%
3/1	Bridge Street Exit	U	N/A	N/A	-		-	-	-	917	Inf	Inf	0.0%
4/1	Market Place	U	N/A	N/A	-		-	-	-	104	Inf	Inf	0.0%

LinSig V1 style report

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**1177**	**0**	**0**	**0.0**	**2.6**	**0.0**	**2.6**	**-**	**-**	**-**	**-**
J1: Northern Priority	**-**	**-**	**240**	**0**	**0**	**0.0**	**1.0**	**0.0**	**1.0**	**-**	**-**	**-**	**-**
1/1	240	240	240	0	0	0.0	0.6	-	0.6	8.3	0.0	0.6	0.6
2/1	903	903	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
3/1	1143	1143	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Southern Crossroads	**-**	**-**	**937**	**0**	**0**	**0.0**	**1.6**	**0.0**	**1.6**	**-**	**-**	**-**	**-**
1/1	987	987	-	-	-	0.0	0.5	-	0.5	2.0	0.0	0.5	0.5
2/1	937	937	937	0	0	0.0	1.1	-	1.1	4.2	0.0	1.1	1.1
3/1	917	917	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	104	104	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

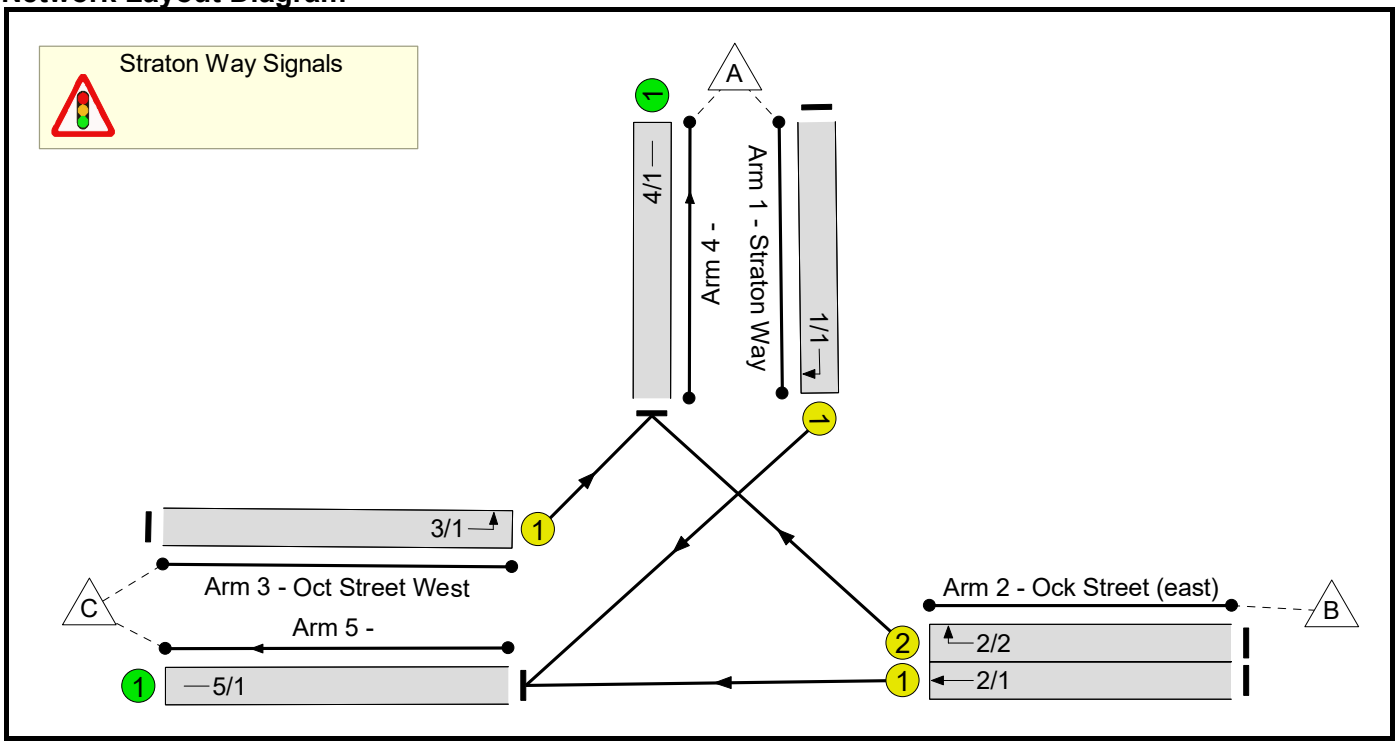
C1 PRC for Signalled Lanes (%): 0.0 Total Delay for Signalled Lanes (pcuHr): 0.00 Cycle Time (s): 60
PRC Over All Lanes (%): 30.9 Total Delay Over All Lanes(pcuHr): 2.60

LinSig V1 style report

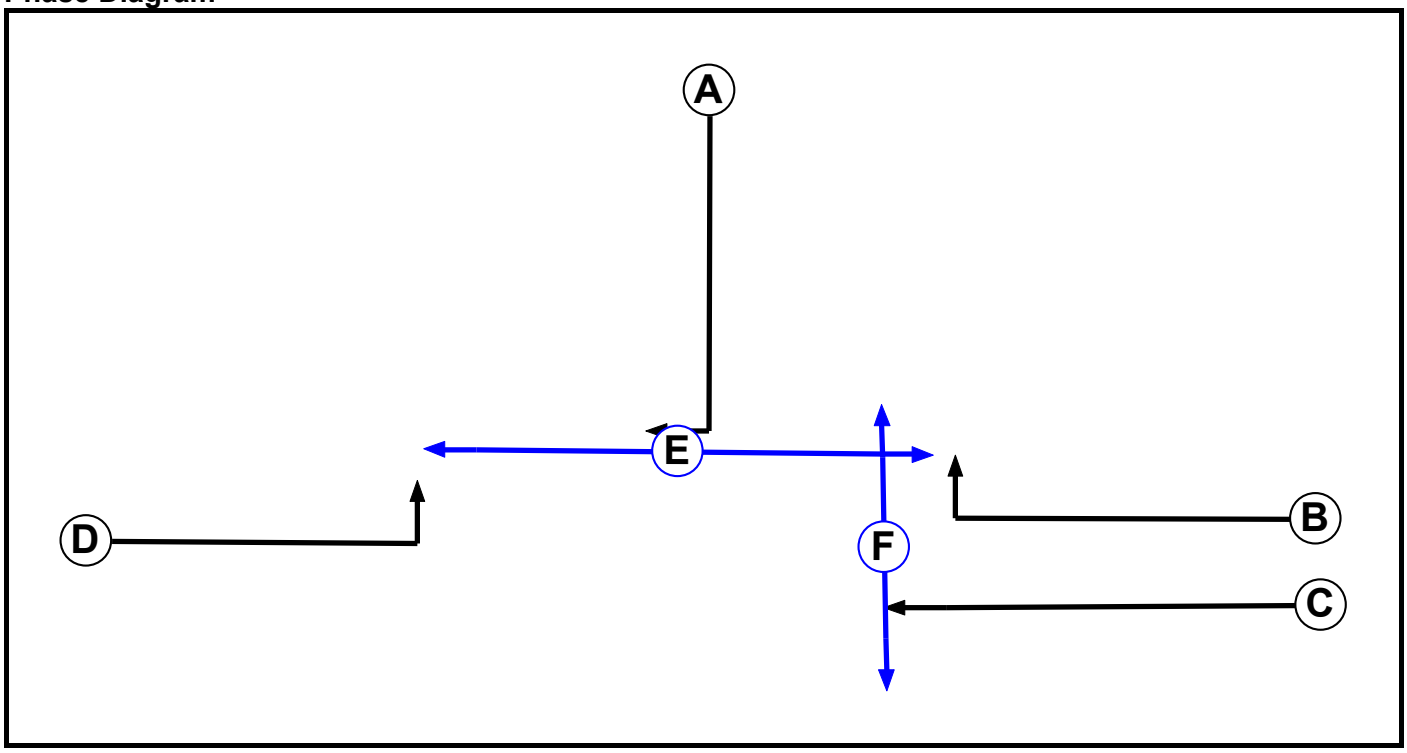
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	Straton Way Signals.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Pedestrian		5	5
F	Pedestrian		5	5

Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F
A		5	6	-	5	-
B	5		-	6	8	5
C	5	-		-	-	5
D	-	5	-		6	-
E	11	11	-	11		-
F	-	6	6	-	-	

Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage \ To Stage	1	2	3	4
1		6	6	6
2	5		5	6
3	6	6		8
4	11	11	11	

Phases in Stage

Stage No.	Phases in Stage
1	A D F
2	C D
3	B C
4	C E

Give-Way Lane Input Data

Junction: Straton Way Signals
There are no Opposed Lanes in this Junction

Lane Input Data

Junction: Straton Way Signals

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Straton Way)	U	A	2	3	60.0	Geom	-	4.10	0.00	Y	Arm 5 Right	12.50
2/1 (Ock Street (east))	U	C	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 5 Ahead	Inf
2/2 (Ock Street (east))	U	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 4 Right	10.00
3/1 (Oct Street West)	U	D	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 4 Left	15.00
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Lane Saturation Flows

Scenario 1: '2021 Base + Com AM' (FG1: '2021 Base + Com - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: Straton Way Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Straton Way)	4.10	0.00	Y	Arm 5 Right	12.50	100.0 %	1808	1808
2/1 (Ock Street (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/2 (Ock Street (east))	3.50	0.00	Y	Arm 4 Right	10.00	100.0 %	1709	1709
3/1 (Oct Street West)	4.00	0.00	Y	Arm 4 Left	15.00	100.0 %	1832	1832
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2021 Base + Com PM' (FG2: '2021 Base + Com - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Straton Way Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Straton Way)	4.10	0.00	Y	Arm 5 Right	12.50	100.0 %	1808	1808
2/1 (Ock Street (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/2 (Ock Street (east))	3.50	0.00	Y	Arm 4 Right	10.00	100.0 %	1709	1709
3/1 (Oct Street West)	4.00	0.00	Y	Arm 4 Left	15.00	100.0 %	1832	1832
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2024 Base + Com AM' (FG3: '2024 Base + Com - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: Straton Way Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Straton Way)	4.10	0.00	Y	Arm 5 Right	12.50	100.0 %	1808	1808
2/1 (Ock Street (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/2 (Ock Street (east))	3.50	0.00	Y	Arm 4 Right	10.00	100.0 %	1709	1709
3/1 (Oct Street West)	4.00	0.00	Y	Arm 4 Left	15.00	100.0 %	1832	1832
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2024 Base + Com PM' (FG4: '2024 Base + Com - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Straton Way Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Straton Way)	4.10	0.00	Y	Arm 5 Right	12.50	100.0 %	1808	1808
2/1 (Ock Street (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/2 (Ock Street (east))	3.50	0.00	Y	Arm 4 Right	10.00	100.0 %	1709	1709
3/1 (Oct Street West)	4.00	0.00	Y	Arm 4 Left	15.00	100.0 %	1832	1832
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2024 Base + Com + Dev AM' (FG5: '2024 Base + Com + Dev - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: Straton Way Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Straton Way)	4.10	0.00	Y	Arm 5 Right	12.50	100.0 %	1808	1808
2/1 (Ock Street (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/2 (Ock Street (east))	3.50	0.00	Y	Arm 4 Right	10.00	100.0 %	1709	1709
3/1 (Oct Street West)	4.00	0.00	Y	Arm 4 Left	15.00	100.0 %	1832	1832
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2024 Base + Com + Dev PM' (FG6: '2024 Base + Com + Dev - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Straton Way Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Straton Way)	4.10	0.00	Y	Arm 5 Right	12.50	100.0 %	1808	1808
2/1 (Ock Street (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/2 (Ock Street (east))	3.50	0.00	Y	Arm 4 Right	10.00	100.0 %	1709	1709
3/1 (Oct Street West)	4.00	0.00	Y	Arm 4 Left	15.00	100.0 %	1832	1832
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf

Scenario 7: '2024 With HIF AM' (FG7: '2024 With HIF - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: Straton Way Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Straton Way)	4.10	0.00	Y	Arm 5 Right	12.50	100.0 %	1808	1808
2/1 (Ock Street (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/2 (Ock Street (east))	3.50	0.00	Y	Arm 4 Right	10.00	100.0 %	1709	1709
3/1 (Oct Street West)	4.00	0.00	Y	Arm 4 Left	15.00	100.0 %	1832	1832
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: '2024 With HIF PM' (FG8: '2024 With HIF - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Straton Way Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Straton Way)	4.10	0.00	Y	Arm 5 Right	12.50	100.0 %	1808	1808
2/1 (Ock Street (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/2 (Ock Street (east))	3.50	0.00	Y	Arm 4 Right	10.00	100.0 %	1709	1709
3/1 (Oct Street West)	4.00	0.00	Y	Arm 4 Left	15.00	100.0 %	1832	1832
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf

Scenario 9: '2024 With HIF + Dev AM' (FG9: '2024 With HIF + Dev - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: Straton Way Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Straton Way)	4.10	0.00	Y	Arm 5 Right	12.50	100.0 %	1808	1808
2/1 (Ock Street (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/2 (Ock Street (east))	3.50	0.00	Y	Arm 4 Right	10.00	100.0 %	1709	1709
3/1 (Oct Street West)	4.00	0.00	Y	Arm 4 Left	15.00	100.0 %	1832	1832
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf

Scenario 10: '2024 With HIF + Dev PM' (FG10: '2024 With HIF + Dev - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Straton Way Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Straton Way)	4.10	0.00	Y	Arm 5 Right	12.50	100.0 %	1808	1808
2/1 (Ock Street (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/2 (Ock Street (east))	3.50	0.00	Y	Arm 4 Right	10.00	100.0 %	1709	1709
3/1 (Oct Street West)	4.00	0.00	Y	Arm 4 Left	15.00	100.0 %	1832	1832
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf

Scenario 11: '2034 With HIF AM' (FG11: '2034 With HIF - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: Straton Way Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Straton Way)	4.10	0.00	Y	Arm 5 Right	12.50	100.0 %	1808	1808
2/1 (Ock Street (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/2 (Ock Street (east))	3.50	0.00	Y	Arm 4 Right	10.00	100.0 %	1709	1709
3/1 (Oct Street West)	4.00	0.00	Y	Arm 4 Left	15.00	100.0 %	1832	1832
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf

Scenario 12: '2034 With HIF PM' (FG12: '2034 With HIF - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Straton Way Signals

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Straton Way)	4.10	0.00	Y	Arm 5 Right	12.50	100.0 %	1808	1808
2/1 (Ock Street (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/2 (Ock Street (east))	3.50	0.00	Y	Arm 4 Right	10.00	100.0 %	1709	1709
3/1 (Oct Street West)	4.00	0.00	Y	Arm 4 Left	15.00	100.0 %	1832	1832
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf

Scenario 13: '2034 With HIF + Dev AM' (FG13: '2034 With HIF + Dev - AM Peak', Plan 1: 'Network Control Plan 1')

Junction: Straton Way Signals								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Straton Way)	4.10	0.00	Y	Arm 5 Right	12.50	100.0 %	1808	1808
2/1 (Ock Street (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/2 (Ock Street (east))	3.50	0.00	Y	Arm 4 Right	10.00	100.0 %	1709	1709
3/1 (Oct Street West)	4.00	0.00	Y	Arm 4 Left	15.00	100.0 %	1832	1832
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf

Scenario 14: '2034 With HIF + Dev PM' (FG14: '2034 With HIF + Dev - PM Peak', Plan 1: 'Network Control Plan 1')

Junction: Straton Way Signals								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Straton Way)	4.10	0.00	Y	Arm 5 Right	12.50	100.0 %	1808	1808
2/1 (Ock Street (east))	3.50	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1965	1965
2/2 (Ock Street (east))	3.50	0.00	Y	Arm 4 Right	10.00	100.0 %	1709	1709
3/1 (Oct Street West)	4.00	0.00	Y	Arm 4 Left	15.00	100.0 %	1832	1832
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2021 Base + Com - AM Peak'	08:00	09:00	01:00	
2: '2021 Base + Com - PM Peak'	17:00	18:00	01:00	
3: '2024 Base + Com - AM Peak'	08:00	09:00	01:00	
4: '2024 Base + Com - PM Peak'	17:00	18:00	01:00	
5: '2024 Base + Com + Dev - AM Peak'	08:00	09:00	01:00	
6: '2024 Base + Com + Dev - PM Peak'	17:00	18:00	01:00	
7: '2024 With HIF - AM Peak'	08:00	09:00	01:00	
8: '2024 With HIF - PM Peak'	17:00	18:00	01:00	
9: '2024 With HIF + Dev - AM Peak'	08:00	09:00	01:00	
10: '2024 With HIF + Dev - PM Peak'	17:00	18:00	01:00	
11: '2034 With HIF - AM Peak'	08:00	09:00	01:00	
12: '2034 With HIF - PM Peak'	17:00	18:00	01:00	
13: '2034 With HIF + Dev - AM Peak'	08:00	09:00	01:00	
14: '2034 With HIF + Dev - PM Peak'	17:00	18:00	01:00	

Traffic Flows, Desired

FG1: '2021 Base + Com - AM Peak'

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	232	232
	B	575	0	257	832
	C	399	0	0	399
	Tot.	974	0	489	1463

FG2: '2021 Base + Com - PM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	355	355
	B	551	0	305	856
	C	436	0	0	436
	Tot.	987	0	660	1647

FG3: '2024 Base + Com - AM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	246	246
	B	627	0	275	902
	C	429	0	0	429
	Tot.	1056	0	521	1577

FG4: '2024 Base + Com - PM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	376	376
	B	611	0	334	945
	C	464	0	0	464
	Tot.	1075	0	710	1785

FG5: '2024 Base + Com + Dev - AM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	246	246
	B	636	0	276	912
	C	433	0	0	433
	Tot.	1069	0	522	1591

FG6: '2024 Base + Com + Dev - PM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	376	376
	B	634	0	345	979
	C	464	0	0	464
	Tot.	1098	0	721	1819

FG7: '2024 With HIF - AM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	246	246
	B	590	0	258	848
	C	430	0	0	430
	Tot.	1020	0	504	1524

FG8: '2024 With HIF - PM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	376	376
	B	572	0	316	888
	C	464	0	0	464
	Tot.	1036	0	692	1728

FG9: '2024 With HIF + Dev - AM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	246	246
	B	599	0	259	858
	C	434	0	0	434
	Tot.	1033	0	505	1538

FG10: '2024 With HIF + Dev - PM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	376	376
	B	595	0	327	922
	C	464	0	0	464
	Tot.	1059	0	703	1762

FG11: '2034 With HIF - AM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	267	267
	B	642	0	280	922
	C	468	0	0	468
	Tot.	1110	0	547	1657

FG12: '2034 With HIF - PM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	410	410
	B	624	0	345	969
	C	506	0	0	506
	Tot.	1130	0	755	1885

FG13: '2034 With HIF + Dev - AM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	267	267
	B	650	0	281	931
	C	471	0	0	471
	Tot.	1121	0	548	1669

FG14: '2034 With HIF + Dev - PM Peak'
Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	0	410	410
	B	647	0	356	1003
	C	507	0	0	507
	Tot.	1154	0	766	1920

Stage Timings

Scenario 1: '2021 Base + Com AM' (FG1: '2021 Base + Com - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4
Duration	30	0	55	5
Change Point	0	41	47	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**72.1%**
Straton Way Signals	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**72.1%**
1/1	Straton Way Right	U	N/A	N/A	A		1	30	-	232	1808	467	49.7%
2/1	Ock Street (east) Ahead	U	N/A	N/A	C		1	73	-	257	1965	1212	21.2%
2/2	Ock Street (east) Right	U	N/A	N/A	B		1	55	-	575	1709	798	72.1%
3/1	Oct Street West Left	U	N/A	N/A	D		1	36	-	399	1832	565	70.6%
4/1		U	N/A	N/A	-		-	-	-	974	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	489	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**11.3**	**3.1**	**0.0**	**14.4**	**-**	**-**	**-**	**-**
Straton Way Signals	**-**	**-**	**0**	**0**	**0**	**11.3**	**3.1**	**0.0**	**14.4**	**-**	**-**	**-**	**-**
1/1	232	232	-	-	-	2.4	0.5	-	2.9	45.5	6.6	0.5	7.1
2/1	257	257	-	-	-	0.7	0.1	-	0.9	12.0	3.7	0.1	3.8
2/2	575	575	-	-	-	4.1	1.3	-	5.4	33.7	15.3	1.3	16.6
3/1	399	399	-	-	-	4.1	1.2	-	5.3	47.4	11.7	1.2	12.9
4/1	974	974	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	489	489	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 24.8 Total Delay for Signalled Lanes (pcuHr): 14.43 Cycle Time (s): 120
PRC Over All Lanes (%): 24.8 Total Delay Over All Lanes(pcuHr): 14.43

Stage Timings

Scenario 2: '2021 Base + Com PM' (FG2: '2021 Base + Com - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4
Duration	33	0	52	5
Change Point	0	44	50	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**73.0%**
Straton Way Signals	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**73.0%**
1/1	Straton Way Right	U	N/A	N/A	A		1	33	-	355	1808	512	69.3%
2/1	Ock Street (east) Ahead	U	N/A	N/A	C		1	70	-	305	1965	1163	26.2%
2/2	Ock Street (east) Right	U	N/A	N/A	B		1	52	-	551	1709	755	73.0%
3/1	Oct Street West Left	U	N/A	N/A	D		1	39	-	436	1832	611	71.4%
4/1		U	N/A	N/A	-		-	-	-	987	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	660	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**13.2**	**3.9**	**0.0**	**17.1**	**-**	**-**	**-**	**-**
Straton Way Signals	**-**	**-**	**0**	**0**	**0**	**13.2**	**3.9**	**0.0**	**17.1**	**-**	**-**	**-**	**-**
1/1	355	355	-	-	-	3.8	1.1	-	4.9	49.6	10.6	1.1	11.7
2/1	305	305	-	-	-	1.0	0.2	-	1.2	13.9	4.9	0.2	5.1
2/2	551	551	-	-	-	4.2	1.3	-	5.6	36.3	15.0	1.3	16.3
3/1	436	436	-	-	-	4.2	1.2	-	5.5	45.2	12.6	1.2	13.8
4/1	987	987	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	660	660	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 23.3 Total Delay for Signalled Lanes (pcuHr): 17.10 Cycle Time (s): 120
PRC Over All Lanes (%): 23.3 Total Delay Over All Lanes(pcuHr): 17.10

Stage Timings

Scenario 3: '2024 Base + Com AM' (FG3: '2024 Base + Com - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4
Duration	29	0	56	5
Change Point	0	40	46	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**78.1%**
Straton Way Signals	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**78.1%**
1/1	Straton Way Right	U	N/A	N/A	A		1	29	-	246	1808	452	54.4%
2/1	Ock Street (east) Ahead	U	N/A	N/A	C		1	74	-	275	1965	1228	22.4%
2/2	Ock Street (east) Right	U	N/A	N/A	B		1	56	-	627	1709	812	77.2%
3/1	Oct Street West Left	U	N/A	N/A	D		1	35	-	429	1832	550	78.1%
4/1		U	N/A	N/A	-		-	-	-	1056	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	521	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**12.5**	**4.1**	**0.0**	**16.7**	**-**	**-**	**-**	**-**
Straton Way Signals	**-**	**-**	**0**	**0**	**0**	**12.5**	**4.1**	**0.0**	**16.7**	**-**	**-**	**-**	**-**
1/1	246	246	-	-	-	2.7	0.6	-	3.3	47.8	7.1	0.6	7.7
2/1	275	275	-	-	-	0.7	0.1	-	0.9	11.7	4.0	0.1	4.1
2/2	627	627	-	-	-	4.5	1.7	-	6.2	35.7	17.2	1.7	18.9
3/1	429	429	-	-	-	4.6	1.7	-	6.3	52.9	13.0	1.7	14.7
4/1	1056	1056	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	521	521	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 15.3 Total Delay for Signalled Lanes (pcuHr): 16.68 Cycle Time (s): 120
PRC Over All Lanes (%): 15.3 Total Delay Over All Lanes(pcuHr): 16.68

Stage Timings

Scenario 4: '2024 Base + Com PM' (FG4: '2024 Base + Com - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4
Duration	32	0	53	5
Change Point	0	43	49	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**79.4%**
Straton Way Signals	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**79.4%**
1/1	Straton Way Right	U	N/A	N/A	A		1	32	-	376	1808	497	75.6%
2/1	Ock Street (east) Ahead	U	N/A	N/A	C		1	71	-	334	1965	1179	28.3%
2/2	Ock Street (east) Right	U	N/A	N/A	B		1	53	-	611	1709	769	79.4%
3/1	Oct Street West Left	U	N/A	N/A	D		1	38	-	464	1832	595	77.9%
4/1		U	N/A	N/A	-		-	-	-	1075	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	710	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**14.7**	**5.3**	**0.0**	**20.1**	**-**	**-**	**-**	**-**
Straton Way Signals	**-**	**-**	**0**	**0**	**0**	**14.7**	**5.3**	**0.0**	**20.1**	**-**	**-**	**-**	**-**
1/1	376	376	-	-	-	4.2	1.5	-	5.7	54.3	11.4	1.5	12.9
2/1	334	334	-	-	-	1.1	0.2	-	1.3	13.7	5.3	0.2	5.5
2/2	611	611	-	-	-	4.8	1.9	-	6.7	39.4	17.3	1.9	19.2
3/1	464	464	-	-	-	4.7	1.7	-	6.4	50.0	13.9	1.7	15.6
4/1	1075	1075	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	710	710	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 13.3 Total Delay for Signalled Lanes (pcuHr): 20.07 Cycle Time (s): 120
PRC Over All Lanes (%): 13.3 Total Delay Over All Lanes(pcuHr): 20.07

Stage Timings

Scenario 5: '2024 Base + Com + Dev AM' (FG5: '2024 Base + Com + Dev - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4
Duration	29	0	56	5
Change Point	0	40	46	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**78.8%**
Straton Way Signals	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**78.8%**
1/1	Straton Way Right	U	N/A	N/A	A		1	29	-	246	1808	452	54.4%
2/1	Ock Street (east) Ahead	U	N/A	N/A	C		1	74	-	276	1965	1228	22.5%
2/2	Ock Street (east) Right	U	N/A	N/A	B		1	56	-	636	1709	812	78.3%
3/1	Oct Street West Left	U	N/A	N/A	D		1	35	-	433	1832	550	78.8%
4/1		U	N/A	N/A	-		-	-	-	1069	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	522	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**12.7**	**4.3**	**0.0**	**17.0**	**-**	**-**	**-**	**-**
Straton Way Signals	**-**	**-**	**0**	**0**	**0**	**12.7**	**4.3**	**0.0**	**17.0**	**-**	**-**	**-**	**-**
1/1	246	246	-	-	-	2.7	0.6	-	3.3	47.8	7.1	0.6	7.7
2/1	276	276	-	-	-	0.8	0.1	-	0.9	11.7	4.0	0.1	4.1
2/2	636	636	-	-	-	4.7	1.8	-	6.4	36.4	17.7	1.8	19.4
3/1	433	433	-	-	-	4.6	1.8	-	6.4	53.5	13.1	1.8	14.9
4/1	1069	1069	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	522	522	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 14.2 Total Delay for Signalled Lanes (pcuHr): 17.02 Cycle Time (s): 120
PRC Over All Lanes (%): 14.2 Total Delay Over All Lanes(pcuHr): 17.02

Stage Timings

Scenario 6: '2024 Base + Com + Dev PM' (FG6: '2024 Base + Com + Dev - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4
Duration	31	0	54	5
Change Point	0	42	48	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**80.9%**
Straton Way Signals	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**80.9%**
1/1	Straton Way Right	U	N/A	N/A	A		1	31	-	376	1808	482	78.0%
2/1	Ock Street (east) Ahead	U	N/A	N/A	C		1	72	-	345	1965	1195	28.9%
2/2	Ock Street (east) Right	U	N/A	N/A	B		1	54	-	634	1709	783	80.9%
3/1	Oct Street West Left	U	N/A	N/A	D		1	37	-	464	1832	580	80.0%
4/1		U	N/A	N/A	-		-	-	-	1098	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	721	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**15.1**	**5.9**	**0.0**	**21.0**	**-**	**-**	**-**	**-**
Straton Way Signals	**-**	**-**	**0**	**0**	**0**	**15.1**	**5.9**	**0.0**	**21.0**	**-**	**-**	**-**	**-**
1/1	376	376	-	-	-	4.3	1.7	-	6.0	57.2	11.6	1.7	13.3
2/1	345	345	-	-	-	1.1	0.2	-	1.3	13.3	5.5	0.2	5.7
2/2	634	634	-	-	-	4.9	2.1	-	7.0	39.7	18.1	2.1	20.2
3/1	464	464	-	-	-	4.8	1.9	-	6.8	52.5	14.0	1.9	16.0
4/1	1098	1098	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	721	721	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 11.2 Total Delay for Signalled Lanes (pcuHr): 21.01 Cycle Time (s): 120
PRC Over All Lanes (%): 11.2 Total Delay Over All Lanes(pcuHr): 21.01

Stage Timings

Scenario 7: '2024 With HIF AM' (FG7: '2024 With HIF - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4
Duration	31	0	54	5
Change Point	0	42	48	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**75.3%**
Straton Way Signals	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**75.3%**
1/1	Straton Way Right	U	N/A	N/A	A		1	31	-	246	1808	482	51.0%
2/1	Ock Street (east) Ahead	U	N/A	N/A	C		1	72	-	258	1965	1195	21.6%
2/2	Ock Street (east) Right	U	N/A	N/A	B		1	54	-	590	1709	783	75.3%
3/1	Oct Street West Left	U	N/A	N/A	D		1	37	-	430	1832	580	74.1%
4/1		U	N/A	N/A	-		-	-	-	1020	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	504	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**12.1**	**3.6**	**0.0**	**15.7**	**-**	**-**	**-**	**-**
Straton Way Signals	**-**	**-**	**0**	**0**	**0**	**12.1**	**3.6**	**0.0**	**15.7**	**-**	**-**	**-**	**-**
1/1	246	246	-	-	-	2.6	0.5	-	3.1	44.9	6.9	0.5	7.4
2/1	258	258	-	-	-	0.8	0.1	-	0.9	12.5	3.9	0.1	4.0
2/2	590	590	-	-	-	4.4	1.5	-	5.9	36.1	16.2	1.5	17.7
3/1	430	430	-	-	-	4.4	1.4	-	5.8	48.4	12.8	1.4	14.2
4/1	1020	1020	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	504	504	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 19.5 Total Delay for Signalled Lanes (pcuHr): 15.66 Cycle Time (s): 120
PRC Over All Lanes (%): 19.5 Total Delay Over All Lanes(pcuHr): 15.66

Stage Timings

Scenario 8: '2024 With HIF PM' (FG8: '2024 With HIF - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4
Duration	33	0	52	5
Change Point	0	44	50	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**76.0%**
Straton Way Signals	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**76.0%**
1/1	Straton Way Right	U	N/A	N/A	A		1	33	-	376	1808	512	73.4%
2/1	Ock Street (east) Ahead	U	N/A	N/A	C		1	70	-	316	1965	1163	27.2%
2/2	Ock Street (east) Right	U	N/A	N/A	B		1	52	-	572	1709	755	75.8%
3/1	Oct Street West Left	U	N/A	N/A	D		1	39	-	464	1832	611	76.0%
4/1		U	N/A	N/A	-		-	-	-	1036	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	692	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**14.2**	**4.6**	**0.0**	**18.8**	**-**	**-**	**-**	**-**
Straton Way Signals	**-**	**-**	**0**	**0**	**0**	**14.2**	**4.6**	**0.0**	**18.8**	**-**	**-**	**-**	**-**
1/1	376	376	-	-	-	4.1	1.4	-	5.4	51.9	11.3	1.4	12.6
2/1	316	316	-	-	-	1.0	0.2	-	1.2	14.1	5.1	0.2	5.3
2/2	572	572	-	-	-	4.5	1.5	-	6.0	37.8	15.9	1.5	17.4
3/1	464	464	-	-	-	4.6	1.5	-	6.2	47.7	13.8	1.5	15.3
4/1	1036	1036	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	692	692	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 18.4 Total Delay for Signalled Lanes (pcuHr): 18.81 Cycle Time (s): 120
PRC Over All Lanes (%): 18.4 Total Delay Over All Lanes(pcuHr): 18.81

Stage Timings

Scenario 9: '2024 With HIF + Dev AM' (FG9: '2024 With HIF + Dev - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4
Duration	31	0	54	5
Change Point	0	42	48	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**76.5%**
Straton Way Signals	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**76.5%**
1/1	Straton Way Right	U	N/A	N/A	A		1	31	-	246	1808	482	51.0%
2/1	Ock Street (east) Ahead	U	N/A	N/A	C		1	72	-	259	1965	1195	21.7%
2/2	Ock Street (east) Right	U	N/A	N/A	B		1	54	-	599	1709	783	76.5%
3/1	Oct Street West Left	U	N/A	N/A	D		1	37	-	434	1832	580	74.8%
4/1		U	N/A	N/A	-		-	-	-	1033	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	505	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**12.3**	**3.7**	**0.0**	**16.0**	**-**	**-**	**-**	**-**
Straton Way Signals	**-**	**-**	**0**	**0**	**0**	**12.3**	**3.7**	**0.0**	**16.0**	**-**	**-**	**-**	**-**
1/1	246	246	-	-	-	2.6	0.5	-	3.1	44.9	6.9	0.5	7.4
2/1	259	259	-	-	-	0.8	0.1	-	0.9	12.5	3.9	0.1	4.0
2/2	599	599	-	-	-	4.5	1.6	-	6.1	36.7	16.6	1.6	18.2
3/1	434	434	-	-	-	4.4	1.5	-	5.9	48.8	12.9	1.5	14.4
4/1	1033	1033	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	505	505	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 17.7 Total Delay for Signalled Lanes (pcuHr): 15.96 Cycle Time (s): 120
PRC Over All Lanes (%): 17.7 Total Delay Over All Lanes(pcuHr): 15.96

Stage Timings

Scenario 10: '2024 With HIF + Dev PM' (FG10: '2024 With HIF + Dev - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4
Duration	32	0	53	5
Change Point	0	43	49	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**77.9%**
Straton Way Signals	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**77.9%**
1/1	Straton Way Right	U	N/A	N/A	A		1	32	-	376	1808	497	75.6%
2/1	Ock Street (east) Ahead	U	N/A	N/A	C		1	71	-	327	1965	1179	27.7%
2/2	Ock Street (east) Right	U	N/A	N/A	B		1	53	-	595	1709	769	77.4%
3/1	Oct Street West Left	U	N/A	N/A	D		1	38	-	464	1832	595	77.9%
4/1		U	N/A	N/A	-		-	-	-	1059	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	703	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**14.5**	**5.1**	**0.0**	**19.6**	**-**	**-**	**-**	**-**
Straton Way Signals	**-**	**-**	**0**	**0**	**0**	**14.5**	**5.1**	**0.0**	**19.6**	**-**	**-**	**-**	**-**
1/1	376	376	-	-	-	4.2	1.5	-	5.7	54.3	11.4	1.5	12.9
2/1	327	327	-	-	-	1.0	0.2	-	1.2	13.6	5.2	0.2	5.4
2/2	595	595	-	-	-	4.6	1.7	-	6.3	38.0	16.7	1.7	18.4
3/1	464	464	-	-	-	4.7	1.7	-	6.4	50.0	13.9	1.7	15.6
4/1	1059	1059	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	703	703	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 15.5 Total Delay for Signalled Lanes (pcuHr): 19.63 Cycle Time (s): 120
PRC Over All Lanes (%): 15.5 Total Delay Over All Lanes(pcuHr): 19.63

Stage Timings

Scenario 11: '2034 With HIF AM' (FG11: '2034 With HIF - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4
Duration	31	0	54	5
Change Point	0	42	48	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**82.0%**
Straton Way Signals	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**82.0%**
1/1	Straton Way Right	U	N/A	N/A	A		1	31	-	267	1808	482	55.4%
2/1	Ock Street (east) Ahead	U	N/A	N/A	C		1	72	-	280	1965	1195	23.4%
2/2	Ock Street (east) Right	U	N/A	N/A	B		1	54	-	642	1709	783	82.0%
3/1	Oct Street West Left	U	N/A	N/A	D		1	37	-	468	1832	580	80.7%
4/1		U	N/A	N/A	-		-	-	-	1110	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	547	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**13.6**	**5.0**	**0.0**	**18.6**	**-**	**-**	**-**	**-**
Straton Way Signals	**-**	**-**	**0**	**0**	**0**	**13.6**	**5.0**	**0.0**	**18.6**	**-**	**-**	**-**	**-**
1/1	267	267	-	-	-	2.8	0.6	-	3.4	46.2	7.6	0.6	8.3
2/1	280	280	-	-	-	0.8	0.2	-	1.0	12.7	4.2	0.2	4.4
2/2	642	642	-	-	-	5.0	2.2	-	7.2	40.6	18.5	2.2	20.7
3/1	468	468	-	-	-	4.9	2.0	-	6.9	53.1	14.3	2.0	16.3
4/1	1110	1110	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	547	547	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 9.8 Total Delay for Signalled Lanes (pcuHr): 18.55 Cycle Time (s): 120
PRC Over All Lanes (%): 9.8 Total Delay Over All Lanes(pcuHr): 18.55

Stage Timings

Scenario 12: '2034 With HIF PM' (FG12: '2034 With HIF - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4
Duration	33	0	52	5
Change Point	0	44	50	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**82.9%**
Straton Way Signals	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**82.9%**
1/1	Straton Way Right	U	N/A	N/A	A		1	33	-	410	1808	512	80.0%
2/1	Ock Street (east) Ahead	U	N/A	N/A	C		1	70	-	345	1965	1163	29.7%
2/2	Ock Street (east) Right	U	N/A	N/A	B		1	52	-	624	1709	755	82.7%
3/1	Oct Street West Left	U	N/A	N/A	D		1	39	-	506	1832	611	82.9%
4/1		U	N/A	N/A	-		-	-	-	1130	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	755	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**16.0**	**6.8**	**0.0**	**22.7**	**-**	**-**	**-**	**-**
Straton Way Signals	**-**	**-**	**0**	**0**	**0**	**16.0**	**6.8**	**0.0**	**22.7**	**-**	**-**	**-**	**-**
1/1	410	410	-	-	-	4.5	1.9	-	6.5	56.8	12.6	1.9	14.6
2/1	345	345	-	-	-	1.2	0.2	-	1.4	14.3	5.7	0.2	5.9
2/2	624	624	-	-	-	5.1	2.3	-	7.4	42.8	18.2	2.3	20.5
3/1	506	506	-	-	-	5.2	2.3	-	7.5	53.3	15.5	2.3	17.8
4/1	1130	1130	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	755	755	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 8.6 Total Delay for Signalled Lanes (pcuHr): 22.75 Cycle Time (s): 120
PRC Over All Lanes (%): 8.6 Total Delay Over All Lanes(pcuHr): 22.75

Stage Timings

Scenario 13: '2034 With HIF + Dev AM' (FG13: '2034 With HIF + Dev - AM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4
Duration	31	0	54	5
Change Point	0	42	48	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.0%**
Straton Way Signals	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**83.0%**
1/1	Straton Way Right	U	N/A	N/A	A		1	31	-	267	1808	482	55.4%
2/1	Ock Street (east) Ahead	U	N/A	N/A	C		1	72	-	281	1965	1195	23.5%
2/2	Ock Street (east) Right	U	N/A	N/A	B		1	54	-	650	1709	783	83.0%
3/1	Oct Street West Left	U	N/A	N/A	D		1	37	-	471	1832	580	81.2%
4/1		U	N/A	N/A	-		-	-	-	1121	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	548	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**13.7**	**5.2**	**0.0**	**18.9**	**-**	**-**	**-**	**-**
Straton Way Signals	**-**	**-**	**0**	**0**	**0**	**13.7**	**5.2**	**0.0**	**18.9**	**-**	**-**	**-**	**-**
1/1	267	267	-	-	-	2.8	0.6	-	3.4	46.2	7.6	0.6	8.3
2/1	281	281	-	-	-	0.8	0.2	-	1.0	12.7	4.2	0.2	4.4
2/2	650	650	-	-	-	5.1	2.4	-	7.5	41.5	18.8	2.4	21.1
3/1	471	471	-	-	-	4.9	2.1	-	7.0	53.6	14.4	2.1	16.5
4/1	1121	1121	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	548	548	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 8.5 Total Delay for Signalled Lanes (pcuHr): 18.92 Cycle Time (s): 120
PRC Over All Lanes (%): 8.5 Total Delay Over All Lanes(pcuHr): 18.92

Stage Timings

Scenario 14: '2034 With HIF + Dev PM' (FG14: '2034 With HIF + Dev - PM Peak', Plan 1: 'Network Control Plan 1')

Stage	1	2	3	4
Duration	32	0	53	5
Change Point	0	43	49	107

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**85.2%**
Straton Way Signals	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**85.2%**
1/1	Straton Way Right	U	N/A	N/A	A		1	32	-	410	1808	497	82.5%
2/1	Ock Street (east) Ahead	U	N/A	N/A	C		1	71	-	356	1965	1179	30.2%
2/2	Ock Street (east) Right	U	N/A	N/A	B		1	53	-	647	1709	769	84.1%
3/1	Oct Street West Left	U	N/A	N/A	D		1	38	-	507	1832	595	85.2%
4/1		U	N/A	N/A	-		-	-	-	1154	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	766	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**16.4**	**7.7**	**0.0**	**24.1**	**-**	**-**	**-**	**-**
Straton Way Signals	**-**	**-**	**0**	**0**	**0**	**16.4**	**7.7**	**0.0**	**24.1**	**-**	**-**	**-**	**-**
1/1	410	410	-	-	-	4.6	2.2	-	6.9	60.4	12.8	2.2	15.0
2/1	356	356	-	-	-	1.2	0.2	-	1.4	13.9	5.7	0.2	6.0
2/2	647	647	-	-	-	5.2	2.5	-	7.8	43.4	19.1	2.5	21.6
3/1	507	507	-	-	-	5.3	2.7	-	8.0	57.0	15.6	2.7	18.3
4/1	1154	1154	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	766	766	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 5.7 Total Delay for Signalled Lanes (pcuHr): 24.08 Cycle Time (s): 120
PRC Over All Lanes (%): 5.7 Total Delay Over All Lanes(pcuHr): 24.08

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: Double Mini - AM Adjusted.j9
Path: Z:\Projects\Projects 18\18-0656 Culham Science Centre\Developments at CSC, on-site work\CCDP Offices\TA October 2021\Capacity Assessments\Junction 7 Marcham Road Double Mini
Report generation date: 11/23/2021 10:27:37 AM

»2021 Survey, AM
»2021 Base + Com, AM
»2024 Base + Com, AM
»2024 Base + Com + Dev, AM
»2024 With HIF, AM
»2024 With HIF + dev, AM
»2034 With HIF, AM
»2034 With HIF + Dev, AM

Summary of junction performance

	AM			
	Queue (PCU)	Delay (s)	RFC	LOS
	[Lane Simulation] - 2021 Survey			
Junction 1 - Arm 1	23.3	118.46		F
Junction 1 - Arm 2	7.0	43.77		E
Junction 1 - Arm 3	0.6	2.42		A
Junction 2 - Arm 1	1.0	16.02		C
Junction 2 - Arm 2	0.8	3.18		A
Junction 2 - Arm 3	10.0	38.12		E
	[Lane Simulation] - 2021 Base + Com			
Junction 1 - Arm 1	22.9	123.87		F
Junction 1 - Arm 2	6.5	41.54		E
Junction 1 - Arm 3	0.6	2.43		A
Junction 2 - Arm 1	1.0	15.96		C
Junction 2 - Arm 2	0.8	3.19		A
Junction 2 - Arm 3	10.3	40.52		E
	[Lane Simulation] - 2024 Base + Com			
Junction 1 - Arm 1	47.2	252.59		F
Junction 1 - Arm 2	10.3	60.02		F
Junction 1 - Arm 3	0.7	2.44		A
Junction 2 - Arm 1	26.2	204.97		F
Junction 2 - Arm 2	0.8	3.16		A
Junction 2 - Arm 3	39.5	133.01		F
	[Lane Simulation] - 2024 Base + Com + Dev			
Junction 1 - Arm 1	44.4	244.89		F
Junction 1 - Arm 2	10.7	60.57		F
Junction 1 - Arm 3	0.7	2.43		A
Junction 2 - Arm 1	25.8	205.87		F
Junction 2 - Arm 2	0.8	3.15		A
Junction 2 - Arm 3	37.3	125.80		F
	[Lane Simulation] - 2024 With HIF			
Junction 1 - Arm 1	35.9	189.39		F
Junction 1 - Arm 2	10.0	59.33		F
Junction 1 - Arm 3	0.7	2.42		A
Junction 2 - Arm 1	26.0	203.09		F

Junction 2 - Arm 2	0.8	3.16		A
Junction 2 - Arm 3	37.8	126.30		F
	[Lane Simulation] - 2024 With HIF + dev			
Junction 1 - Arm 1	36.9	192.04		F
Junction 1 - Arm 2	10.3	59.18		F
Junction 1 - Arm 3	0.7	2.45		A
Junction 2 - Arm 1	26.4	211.12		F
Junction 2 - Arm 2	0.8	3.15		A
Junction 2 - Arm 3	41.1	135.37		F
	[Lane Simulation] - 2034 With HIF			
Junction 1 - Arm 1	70.6	436.65		F
Junction 1 - Arm 2	19.6	100.99		F
Junction 1 - Arm 3	0.7	2.43		A
Junction 2 - Arm 1	44.5	415.92		F
Junction 2 - Arm 2	0.8	3.17		A
Junction 2 - Arm 3	80.3	286.42		F
	[Lane Simulation] - 2034 With HIF + Dev			
Junction 1 - Arm 1	69.6	423.89		F
Junction 1 - Arm 2	21.3	107.48		F
Junction 1 - Arm 3	0.7	2.46		A
Junction 2 - Arm 1	45.5	425.25		F
Junction 2 - Arm 2	0.8	3.18		A
Junction 2 - Arm 3	80.3	294.81		F

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Arm and junction delays are averages for all movements, including movements with zero delay.

File summary

File Description

Title	
Location	
Site number	
Date	11/12/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	BSP-CONSULTING\mmurphy
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75				0.85	36.00	20.00

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	100000	100000	-1	3	1	60	✓			460023659	286	28.94

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically

D1	2021 Survey	AM	ONE HOUR	07:45	09:15	15	✓
D2	2021 Base + Com	AM	ONE HOUR	07:45	09:15	15	✓
D3	2024 Base + Com	AM	ONE HOUR	07:45	09:15	15	✓
D4	2024 Base + Com + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D5	2024 With HIF	AM	ONE HOUR	07:45	09:15	15	✓
D6	2024 With HIF + dev	AM	ONE HOUR	07:45	09:15	15	✓
D7	2034 With HIF	AM	ONE HOUR	07:45	09:15	15	✓
D8	2034 With HIF + Dev	AM	ONE HOUR	07:45	09:15	15	✓

Analysis Set Details

ID	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	100.000	100.000

2021 Survey, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Mini-roundabout	Junction 2	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 89% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Southern mini	Mini-roundabout		1, 2, 3	51.70	F
2	Northern mini	Mini-roundabout		1, 2, 3	20.55	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Name	Description
1	1	Ock Street	
	2	Drayton Road	
	3	Northern Mini Link	
2	1	Spring Road	
	2	Southern Mini Link	
	3	Marcham Road	

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1	1	5.11	5.11	6.20	45.0	13.42	9.80	0.0	✓
	2	3.87	3.87	7.34	4.2	10.28	6.60	0.0	✓
	3	10.00	10.00	10.00	0.0	9.90	5.70	0.0	✓
2	1	3.11	3.11	4.42	1.7	11.98	5.90	0.0	
	2	7.83	7.83	7.83	0.0	11.91	9.40	0.0	
	3	3.70	3.70	5.49	45.0	15.16	10.80	0.0	

Pelican/Puffin Crossings

Junction	Arm	Space between crossing and junc. entry (Signalised) (PCU)	Vehicles queueing on exit (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
1	1	6.00	3.00	3.00	2.90	1.00	6.00	11.00	7.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
1	1	0.599	1339
	2	0.549	1171
	3	0.745	1712
	1	0.609	915

2	2	0.775	1390
	3	0.680	1228

The slope and intercept shown above include any corrections and adjustments.

Arm Capacity Adjustments

Junction	Arm	Type	Reason	Percentage capacity adjustment (%)
1	1	Percentage		115.00
2	3	Percentage		180.00

Lane Simulation: Arm options

Junction	Arm	Lane capacity source	Traffic considering secondary lanes (%)
1	1	Evenly split	10.00
	2	Evenly split	10.00
	3	Evenly split	10.00
2	1	Evenly split	10.00
	2	Evenly split	10.00
	3	Evenly split	10.00

Lanes

Junction	Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1	1	Entry	1	1	2	✓	3.00		0	99999	
				2	1, 3	✓	3.00		0	99999	
			2	1	(2)	✓	7.00				
				2	(1, 3)	✓	7.00				
			3	1	((1, 2, 3))		Infinity				
		Exit	1	1		✓	3.00				
			2	1			Infinity				
	2	Entry	1	1	1, 2, 3		Infinity		0	99999	
		Exit	1	1			Infinity				
	3	Entry	1	2	1, 2, 3	✓	1.00		0	99999	
		Exit	1	1		✓	1.00				
2	1	Entry	1	1	1, 2, 3		Infinity		0	99999	
		Exit	1	1			Infinity				
	2	Entry	1	2	1, 2, 3	✓	1.00		0	99999	
		Exit	1	1		✓	1.00				
	3	Entry	1	1	1	✓	5.00		0	99999	
				2	2, 3	✓	5.00		0	99999	
			2	1	(1, 2, 3)		Infinity				
		Exit	1	1			Infinity				

Entry Lane slope and intercept

Junction	Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1	1	Entry	1	1	0.300	669
				2	0.300	669
	2	Entry	1	1	0.549	1171
	3	Entry	1	2	0.745	1712
2	1	Entry	1	1	0.609	915
	2	Entry	1	2	0.775	1390
	3	Entry	1	1	0.340	614
				2	0.340	614

Summary of Entry Lane allowed movements

Junction	Arm	Lane Level	Lane	Destination arm		
				1	2	3
1	1	1	1		✓	
			2	✓		✓
		2	1		✓	
			2	✓		✓
		3	1	✓	✓	✓
	2	1	1			

				✓	✓	✓
	3	1	2	✓	✓	✓

Summary of Entry Lane allowed movements

Junction	Arm	Lane Level	Lane	Destination arm		
				1	2	3
2	1	1	1	✓	✓	✓
	2	1	2	✓	✓	✓
	3	1	1	✓		
			2		✓	✓
		2	1	✓	✓	✓

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 Survey	AM	ONE HOUR	07:45	09:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	2	Simple (vertical queueing)	Normal	0	100.00	
2	2	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	551	100.000
	2		ONE HOUR	✓	498	100.000
	3	✓				
2	1		ONE HOUR	✓	180	100.000
	2	✓				
	3		ONE HOUR	✓	823	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1	[ONEHOUR]	25.00
	2		
	3		
2	1		
	2		
	3		

Origin-Destination Data

Demand (PCU/hr)

Junction 1

		To		
		1	2	3
From	1	0	185	366
	2	79	0	419
	3	377	479	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	22	158
	2	173	0	612
	3	170	649	4

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	118.46	23.3	F	507	761
	2	43.77	7.0	E	458	688
	3	2.42	0.6	A	614	921
2	1	16.02	1.0	C	166	249
	2	3.18	0.8	A	721	1082
	3	38.12	10.0	E	756	1134

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	418	104	279	18.82	417	413	279	0.0	1.6	13.978	B
	2	375	94	226		374	374	421	0.0	1.1	9.280	A
	3	501	125	58		500	499	592	0.0	0.4	2.382	A
2	1	136	34	487		135	137	266	0.0	0.3	8.641	A
	2	591	148	122		591	586	500	0.0	0.6	3.047	A
	3	619	155	134		620	617	580	0.0	1.5	8.651	A

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	497	124	340	22.47	490	484	331	1.6	3.7	22.848	C
	2	449	112	275		454	445	500	1.1	1.8	14.460	B
	3	601	150	70		601	596	713	0.4	0.5	2.405	A
2	1	164	41	584		163	160	313	0.3	0.6	10.261	B
	2	715	179	147		715	696	601	0.6	0.7	3.113	A

	3	745	186	159		739	734	702	1.5	3.0	12.557	B

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	600	150	410	27.53	571	566	399	3.7	13.7	62.025	F
	2	548	137	321		540	524	604	1.8	6.4	33.139	D
	3	725	181	85		724	716	832	0.5	0.6	2.419	A
2	1	200	50	709		201	196	370	0.6	0.9	15.216	C
	2	833	208	182		833	811	728	0.7	0.8	3.160	A
	3	903	226	186		894	883	829	3.0	9.0	28.957	D

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	615	154	417	27.53	569	570	412	13.7	23.3	118.464	F
	2	553	138	338		552	549	609	6.4	7.0	43.766	E
	3	739	185	89		739	740	839	0.6	0.5	2.423	A
2	1	199	50	719		197	198	370	0.9	1.0	16.023	C
	2	840	210	175		839	839	741	0.8	0.8	3.185	A
	3	911	228	185		904	906	829	9.0	10.0	38.120	E

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	496	124	335	22.47	542	557	343	23.3	9.0	92.397	F
	2	450	112	292		448	465	514	7.0	2.6	23.665	C
	3	606	152	72		606	632	739	0.5	0.4	2.410	A
2	1	160	40	586		160	164	316	1.0	0.6	11.912	B
	2	740	185	144		741	768	602	0.8	0.6	3.095	A
	3	735	184	162		739	771	722	10.0	2.8	19.343	C

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	418	104	286	18.82	427	450	283	9.0	1.8	26.247	D
	2	375	94	233		380	384	430	2.6	0.9	10.772	B
	3	512	128	58		511	517	605	0.4	0.3	2.384	A
2	1	137	34	496		137	138	263	0.6	0.3	9.038	A
	2	610	152	123		609	629	510	0.6	0.6	3.073	A
	3	623	156	136		623	629	596	2.8	1.6	9.551	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:45 - 08:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	141		674	0.209	142	139	0.0	0.2	7.696	A
				2	1, 3	276		674	0.409	275	274	0.0	1.0	12.883	B
			2	1	(2)	141	18.82			141	140	0.0	0.0	0.794	A
				2	(1, 3)	277	18.82			276	278	0.0	0.3	3.747	A
			3	1	((1, 2, 3))	418				418	420	0.0	0.0	0.025	A
		Exit	1	1		279	18.82			279	279	0.0	0.0	0.599	A
			2	1		279				279	279	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	375		1047	0.358	374	374	0.0	1.1	9.280	A
		Exit	1	1		421				421	418	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	501		1669	0.300	500	499	0.0	0.4	2.382	A
		Exit	1	1		592				592	589	0.0	0.2	1.136	A

2	1	Entry	1	1	1, 2, 3	136		619	0.219	135	137	0.0	0.3	8.641	A
		Exit	1	1		266				266	261	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	591		1296	0.457	591	586	0.0	0.6	3.047	A
		Exit	1	1		500				500	501	0.0	0.1	0.644	A
	3	Entry	1	1	1	132		1024	0.129	133	130	0.0	0.1	4.535	A
				2	2, 3	488		1024	0.477	487	488	0.0	1.2	8.826	A
			2	1	(1, 2, 3)	619				620	623	0.0	0.1	0.709	A
		Exit	1	1		580				580	578	0.0	0.0	0.000	A

08:00 - 08:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	161		653	0.247	161	162	0.2	0.4	7.826	A
				2	1, 3	330		653	0.505	330	322	1.0	1.6	17.121	C
			2	1	(2)	161	22.47			161	163	0.0	0.1	0.930	A
				2	(1, 3)	334	22.47			330	324	0.3	1.3	10.939	B
			3	1	((1, 2, 3))	497				495	491	0.0	0.3	1.096	A
		Exit	1	1		331	22.47			331	333	0.0	0.0	0.606	A
			2	1		331				331	333	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	449		1020	0.440	454	445	1.1	1.8	14.460	B
		Exit	1	1		500				500	496	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	601		1660	0.362	601	596	0.4	0.5	2.405	A
		Exit	1	1		713				713	696	0.2	0.3	1.394	A
2	1	Entry	1	1	1, 2, 3	164		560	0.293	163	160	0.3	0.6	10.261	B
		Exit	1	1		313				313	305	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	715		1276	0.560	715	696	0.6	0.7	3.113	A
		Exit	1	1		601				601	598	0.1	0.1	0.750	A
	3	Entry	1	1	1	154		1008	0.153	154	151	0.1	0.2	4.716	A
				2	2, 3	587		1008	0.582	584	582	1.2	2.0	11.308	B
			2	1	(1, 2, 3)	745				741	737	0.1	0.8	2.576	A
		Exit	1	1		702				702	687	0.0	0.0	0.000	A

08:15 - 08:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	193		628	0.308	193	197	0.4	0.6	9.009	A
				2	1, 3	380		628	0.604	378	369	1.6	2.7	23.129	C
			2	1	(2)	194	27.53			193	198	0.1	0.1	1.406	A
				2	(1, 3)	385	27.53			380	373	1.3	4.5	32.581	D
			3	1	((1, 2, 3))	600				578	584	0.3	5.7	20.597	C
		Exit	1	1		399	27.53			399	397	0.0	0.1	0.755	A
			2	1		399				399	397	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	548		995	0.550	540	524	1.8	6.4	33.139	D
		Exit	1	1		604				604	598	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	725		1648	0.440	724	716	0.5	0.6	2.419	A
		Exit	1	1		832				832	811	0.3	0.3	1.618	A
2	1	Entry	1	1	1, 2, 3	200		484	0.414	201	196	0.6	0.9	15.216	C
		Exit	1	1		370				370	362	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	833		1249	0.667	833	811	0.7	0.8	3.160	A
		Exit	1	1		729				728	717	0.1	0.2	0.871	A
	3	Entry	1	1	1	184		992	0.186	184	184	0.2	0.3	5.187	A
				2	2, 3	709		992	0.715	709	698	2.0	3.5	16.529	C
			2	1	(1, 2, 3)	903				893	889	0.8	5.2	14.684	B
		Exit	1	1		829				829	811	0.0	0.0	0.000	A

08:30 - 08:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	192		626	0.307	192	192	0.6	0.5	9.740	A
				2	1, 3	377		626	0.602	377	378	2.7	2.8	25.492	D
			2	1	(2)	192	27.53			192	192	0.1	0.1	1.904	A
				2	(1, 3)	378	27.53			377	378	4.5	5.3	47.018	E
			3	1	((1, 2, 3))	615				570	573	5.7	14.6	65.891	F
			1	1		412	27.53			412	412	0.1	0.1	0.771	A

		Exit	2	1		412				412	412	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	553		986	0.561	552	549	6.4	7.0	43.766	E
		Exit	1	1		609				609	608	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	739		1645	0.449	739	740	0.6	0.5	2.423	A
		Exit	1	1		839				839	839	0.3	0.4	1.672	A
2	1	Entry	1	1	1, 2, 3	199		477	0.416	197	198	0.9	1.0	16.023	C
		Exit	1	1		370				370	371	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	840		1254	0.670	839	839	0.8	0.8	3.185	A
		Exit	1	1		741				741	741	0.2	0.2	0.892	A
	3	Entry	1	1	1	185		992	0.187	185	186	0.3	0.3	5.272	A
				2	2, 3	719		992	0.724	719	720	3.5	3.6	17.644	C
			2	1	(1, 2, 3)	911				904	907	5.2	6.1	23.030	C
		Exit	1	1		829				829	832	0.0	0.0	0.000	A

08:45 - 09:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	177		654	0.271	179	181	0.5	0.4	9.128	A
				2	1, 3	361		654	0.552	363	375	2.8	1.9	21.380	C
			2	1	(2)	177	22.47			177	181	0.1	0.1	1.519	A
				2	(1, 3)	351	22.47			361	372	5.3	2.3	34.393	D
			3	1	((1, 2, 3))	496				528	541	14.6	4.3	53.839	F
		Exit	1	1		343	22.47			343	356	0.1	0.1	0.690	A
			2	1		343				343	356	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	450		1011	0.445	448	465	7.0	2.6	23.665	C
		Exit	1	1		514				514	533	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	606		1658	0.365	606	632	0.5	0.4	2.410	A
		Exit	1	1		739				739	766	0.4	0.3	1.484	A
2	1	Entry	1	1	1, 2, 3	160		559	0.286	160	164	1.0	0.6	11.912	B
		Exit	1	1		316				316	327	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	740		1278	0.579	741	768	0.8	0.6	3.095	A
		Exit	1	1		602				602	630	0.2	0.1	0.797	A
	3	Entry	1	1	1	152		1006	0.151	153	157	0.3	0.2	4.818	A
				2	2, 3	586		1006	0.583	586	614	3.6	2.0	13.287	B
			2	1	(1, 2, 3)	735				738	764	6.1	0.7	7.986	A
		Exit	1	1		722				722	746	0.0	0.0	0.000	A

09:00 - 09:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	144		671	0.214	144	147	0.4	0.3	7.478	A
				2	1, 3	283		671	0.422	283	303	1.9	1.1	15.281	C
			2	1	(2)	144	18.82			144	147	0.1	0.0	0.979	A
				2	(1, 3)	280	18.82			283	299	2.3	0.3	11.141	B
			3	1	((1, 2, 3))	418				424	438	4.3	0.1	7.493	A
		Exit	1	1		283	18.82			283	289	0.1	0.0	0.525	A
			2	1		283				283	289	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	375		1043	0.359	380	384	2.6	0.9	10.772	B
		Exit	1	1		430				430	435	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	512		1669	0.307	511	517	0.4	0.3	2.384	A
		Exit	1	1		606				605	628	0.3	0.2	1.247	A
2	1	Entry	1	1	1, 2, 3	137		614	0.223	137	138	0.6	0.3	9.038	A
		Exit	1	1		263				263	269	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	610		1295	0.471	609	629	0.6	0.6	3.073	A
		Exit	1	1		510				510	516	0.1	0.1	0.654	A
	3	Entry	1	1	1	127		1022	0.124	127	128	0.2	0.2	4.589	A
				2	2, 3	497		1022	0.486	496	501	2.0	1.3	9.456	A
			2	1	(1, 2, 3)	623				624	626	0.7	0.1	1.143	A
		Exit	1	1		596				596	612	0.0	0.0	0.000	A

2021 Base + Com, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Mini-roundabout	Junction 2	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 89% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Southern mini	Mini-roundabout		1, 2, 3	52.60	F
2	Northern mini	Mini-roundabout		1, 2, 3	21.74	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2021 Base + Com	AM	ONE HOUR	07:45	09:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	2	Simple (vertical queueing)	Normal	0	100.00	
2	2	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	551	100.000
	2		ONE HOUR	✓	498	100.000
	3	✓				
2	1		ONE HOUR	✓	180	100.000
	2	✓				
	3		ONE HOUR	✓	823	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1	[ONEHOUR]	25.00
	2		
	3		
2	1		
	2		
	3		

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	185	366
	2	79	0	419
	3	377	479	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	22	158
	2	173	0	612
	3	170	649	4

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	123.87	22.9	F	506	759
	2	41.54	6.5	E	453	680
	3	2.43	0.6	A	619	928
2	1	15.96	1.0	C	167	250
	2	3.19	0.8	A	716	1075
	3	40.52	10.3	E	759	1138

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	406	101	280	18.82	405	407	282	0.0	1.8	14.249	B
	2	379	95	222		379	370	415	0.0	1.1	9.168	A
	3	501	125	61		501	498	589	0.0	0.4	2.363	A
	1	134	33	489		133	136	260	0.0	0.3	8.790	A

2	2	587	147	121		587	579	501	0.0	0.5	3.070	A
	3	618	155	130		619	614	578	0.0	1.4	8.496	A

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	501	125	340	22.47	500	486	340	1.8	3.4	21.564	C
	2	453	113	271		453	444	508	1.1	2.0	14.634	B
	3	606	151	73		607	602	711	0.4	0.4	2.387	A
2	1	163	41	598		163	159	307	0.3	0.6	10.578	B
	2	707	177	148		706	692	612	0.5	0.7	3.104	A
	3	749	187	156		749	739	698	1.4	2.9	12.643	B

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	616	154	412	27.53	577	568	414	3.4	14.2	61.005	F
	2	543	136	336		541	533	608	2.0	5.5	31.755	D
	3	739	185	88		739	718	835	0.4	0.6	2.424	A
2	1	203	51	718		200	194	371	0.6	1.0	14.719	B
	2	832	208	178		833	817	739	0.7	0.8	3.136	A
	3	918	229	184		905	883	827	2.9	9.6	29.656	D

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	599	150	417	27.53	579	574	415	14.2	22.9	123.871	F
	2	537	134	343		543	540	616	5.5	6.5	41.535	E
	3	748	187	84		748	742	839	0.6	0.5	2.435	A
2	1	204	51	727		205	199	374	1.0	0.9	15.962	C
	2	842	210	184		842	837	748	0.8	0.8	3.192	A
	3	915	229	185		916	908	841	9.6	10.3	40.525	E

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	498	124	347	22.47	530	556	340	22.9	8.3	84.483	F
	2	438	109	313		446	465	523	6.5	2.2	23.701	C
	3	616	154	70		617	626	730	0.5	0.4	2.405	A
2	1	161	40	601		162	163	310	0.9	0.4	12.375	B
	2	733	183	146		733	765	617	0.8	0.6	3.101	A
	3	742	186	157		755	770	723	10.3	3.0	21.706	C

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	414	103	283	18.82	425	443	277	8.3	1.9	27.171	D
	2	369	92	244		370	378	421	2.2	1.2	10.882	B
	3	502	125	59		500	515	598	0.4	0.4	2.409	A
2	1	136	34	489		136	137	257	0.4	0.3	8.963	A
	2	598	149	124		599	619	501	0.6	0.5	3.051	A
	3	612	153	132		614	628	591	3.0	1.5	9.729	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:45 - 08:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service

1	1	Entry	1	1	2	135		673	0.201	134	137	0.0	0.4	7.238	A
				2	1, 3	271		673	0.403	271	271	0.0	1.1	13.011	B
			2	1	(2)	136	18.82			135	138	0.0	0.0	0.736	A
				2	(1, 3)	270	18.82			271	275	0.0	0.3	4.142	A
			3	1	((1, 2, 3))	406				406	415	0.0	0.0	0.117	A
		Exit	1	1		282	18.82			282	278	0.0	0.0	0.576	A
			2	1		282				282	278	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	379		1050	0.362	379	370	0.0	1.1	9.168	A
		Exit	1	1		415				415	416	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	501		1667	0.301	501	498	0.0	0.4	2.363	A
		Exit	1	1		589				589	582	0.0	0.2	1.166	A
2	1	Entry	1	1	1, 2, 3	134		618	0.216	133	136	0.0	0.3	8.790	A
		Exit	1	1		260				260	256	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	587		1296	0.453	587	579	0.0	0.5	3.070	A
		Exit	1	1		501				501	500	0.0	0.1	0.617	A
	3	Entry	1	1	1	130		1026	0.126	130	127	0.0	0.1	4.459	A
				2	2, 3	489		1026	0.476	489	487	0.0	1.2	8.651	A
			2	1	(1, 2, 3)	618				618	619	0.0	0.1	0.706	A
		Exit	1	1		578				578	574	0.0	0.0	0.000	A

08:00 - 08:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	168		653	0.257	168	166	0.4	0.3	7.802	A
				2	1, 3	331		653	0.508	332	320	1.1	1.6	16.639	C
			2	1	(2)	167	22.47			168	166	0.0	0.0	0.917	A
				2	(1, 3)	333	22.47			331	322	0.3	1.1	9.859	A
			3	1	((1, 2, 3))	501				500	492	0.0	0.3	0.927	A
		Exit	1	1		340	22.47			340	336	0.0	0.1	0.603	A
			2	1		340				340	336	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	453		1022	0.443	453	444	1.1	2.0	14.634	B
		Exit	1	1		508				508	502	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	606		1658	0.365	607	602	0.4	0.4	2.387	A
		Exit	1	1		712				711	693	0.2	0.3	1.369	A
2	1	Entry	1	1	1, 2, 3	163		552	0.295	163	159	0.3	0.6	10.578	B
		Exit	1	1		307				307	302	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	707		1276	0.554	706	692	0.5	0.7	3.104	A
		Exit	1	1		613				612	604	0.1	0.2	0.756	A
	3	Entry	1	1	1	152		1010	0.150	151	152	0.1	0.2	4.713	A
				2	2, 3	596		1010	0.590	598	587	1.2	1.9	11.382	B
			2	1	(1, 2, 3)	749				748	742	0.1	0.7	2.606	A
		Exit	1	1		698				698	684	0.0	0.0	0.000	A

08:15 - 08:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	195		628	0.311	196	197	0.3	0.5	9.305	A
				2	1, 3	382		628	0.609	381	370	1.6	2.6	22.694	C
			2	1	(2)	194	27.53			195	198	0.0	0.1	1.681	A
				2	(1, 3)	387	27.53			382	374	1.1	4.4	31.731	D
			3	1	((1, 2, 3))	616				580	585	0.3	6.7	20.070	C
		Exit	1	1		414	27.53			414	402	0.1	0.1	0.748	A
			2	1		414				414	402	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	543		987	0.550	541	533	2.0	5.5	31.755	D
		Exit	1	1		608				608	600	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	739		1646	0.449	739	718	0.4	0.6	2.424	A
		Exit	1	1		834				835	816	0.3	0.3	1.574	A
2	1	Entry	1	1	1, 2, 3	203		478	0.424	200	194	0.6	1.0	14.719	B
		Exit	1	1		371				371	361	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	832		1252	0.665	833	817	0.7	0.8	3.136	A
		Exit	1	1		740				739	721	0.2	0.2	0.877	A
	3	Entry	1	1	1	186		993	0.188	187	182	0.2	0.3	5.162	A
				2	2, 3	721		993	0.726	718	701	1.9	3.5	16.315	C
			2	1	(1, 2, 3)	918				907	890	0.7	5.8	15.538	C
		Exit	1	1		827				827	811	0.0	0.0	0.000	A

08:30 - 08:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	200		626	0.320	199	194	0.5	0.7	9.622	A
				2	1, 3	380		626	0.607	380	380	2.6	2.8	25.132	D
			2	1	(2)	201	27.53			200	195	0.1	0.2	1.953	A
				2	(1, 3)	382	27.53			380	380	4.4	5.2	47.168	E
			3	1	((1, 2, 3))	599				582	579	6.7	14.1	71.647	F
		Exit	1	1		415	27.53			415	411	0.1	0.1	0.768	A
			2	1		415				415	411	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	537		983	0.547	543	540	5.5	6.5	41.535	E
		Exit	1	1		616				616	609	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	748		1649	0.453	748	742	0.6	0.5	2.435	A
		Exit	1	1		839				839	835	0.3	0.4	1.676	A
2	1	Entry	1	1	1, 2, 3	204		473	0.431	205	199	1.0	0.9	15.962	C
		Exit	1	1		374				374	373	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	842		1247	0.675	842	837	0.8	0.8	3.192	A
		Exit	1	1		748				748	741	0.2	0.2	0.912	A
	3	Entry	1	1	1	190		992	0.191	189	186	0.3	0.3	5.339	A
				2	2, 3	724		992	0.730	727	721	3.5	3.5	18.010	C
			2	1	(1, 2, 3)	915				914	908	5.8	6.4	25.091	D
		Exit	1	1		841				841	829	0.0	0.0	0.000	A

08:45 - 09:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	174		650	0.268	176	183	0.7	0.4	9.230	A
				2	1, 3	353		650	0.543	354	373	2.8	2.0	21.339	C
			2	1	(2)	174	22.47			174	182	0.2	0.0	1.679	A
				2	(1, 3)	346	22.47			353	370	5.2	2.1	33.506	D
			3	1	((1, 2, 3))	498				520	539	14.1	3.7	46.598	E
		Exit	1	1		340	22.47			340	350	0.1	0.1	0.683	A
			2	1		340				340	350	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	438		1000	0.438	446	465	6.5	2.2	23.701	C
		Exit	1	1		523				523	533	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	616		1660	0.371	617	626	0.5	0.4	2.405	A
		Exit	1	1		730				730	764	0.4	0.3	1.489	A
2	1	Entry	1	1	1, 2, 3	161		549	0.293	162	163	0.9	0.4	12.375	B
		Exit	1	1		310				310	327	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	733		1277	0.574	733	765	0.8	0.6	3.101	A
		Exit	1	1		617				617	626	0.2	0.2	0.790	A
	3	Entry	1	1	1	154		1010	0.152	153	159	0.3	0.2	4.975	A
				2	2, 3	598		1010	0.592	601	611	3.5	2.0	13.434	B
			2	1	(1, 2, 3)	742				752	763	6.4	0.8	10.246	B
		Exit	1	1		723				723	745	0.0	0.0	0.000	A

09:00 - 09:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	138		673	0.205	138	143	0.4	0.3	8.034	A
				2	1, 3	284		673	0.423	286	300	2.0	1.0	15.409	C
			2	1	(2)	138	18.82			138	143	0.0	0.0	0.928	A
				2	(1, 3)	282	18.82			284	296	2.1	0.4	11.121	B
			3	1	((1, 2, 3))	414				420	432	3.7	0.2	7.925	A
		Exit	1	1		277	18.82			277	285	0.1	0.0	0.575	A
			2	1		277				277	285	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	369		1037	0.355	370	378	2.2	1.2	10.882	B
		Exit	1	1		421				421	433	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	502		1668	0.301	500	515	0.4	0.4	2.409	A
		Exit	1	1		597				598	619	0.3	0.1	1.219	A
2	1	Entry	1	1	1, 2, 3	136		617	0.221	136	137	0.4	0.3	8.963	A
		Exit	1	1		257				257	264	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	598		1294	0.462	599	619	0.6	0.5	3.051	A
		Exit	1	1		501				501	513	0.2	0.1	0.668	A

	3	Entry	1	1	1	125		1025	0.122	125	128	0.2	0.2	4.466	A
				2	2, 3	487		1025	0.476	489	500	2.0	1.2	9.471	A
			2	1	(1, 2, 3)	612				613	624	0.8	0.1	1.332	A
		Exit	1	1		591				591	607	0.0	0.0	0.000	A

2024 Base + Com, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Mini-roundabout	Junction 2	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 81% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Southern mini	Mini-roundabout		1, 2, 3	90.23	F
2	Northern mini	Mini-roundabout		1, 2, 3	94.57	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024 Base + Com	AM	ONE HOUR	07:45	09:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	2	Simple (vertical queueing)	Normal	0	100.00	
2	2	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	586	100.000
	2		ONE HOUR	✓	528	100.000
	3	✓				
2	1		ONE HOUR	✓	386	100.000
	2	✓				
	3		ONE HOUR	✓	875	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1	[ONEHOUR]	25.00
	2		
	3		
2	1		
	2		
	3		

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	196	390
	2	84	0	444
	3	403	507	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	219	167
	2	183	0	651
	3	180	691	4

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	252.59	47.2	F	539	808
	2	60.02	10.3	F	489	733
	3	2.44	0.7	A	828	1242
2	1	204.97	26.2	F	354	530
	2	3.16	0.8	A	764	1146
	3	133.01	39.5	F	801	1202

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	441	110	381	18.82	441	436	365	0.0	2.3	16.773	C
	2	407	102	230		409	397	529	0.0	1.2	10.460	B
	3	681	170	65		681	672	637	0.0	0.5	2.391	A
	1	292	73	517		295	290	277	0.0	1.4	17.114	C

2	2	637	159	132		637	620	681	0.0	0.6	3.079	A
	3	659	165	141		653	652	628	0.0	2.4	11.018	B

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	524	131	457	22.47	519	512	432	2.3	5.6	32.742	D
	2	480	120	282		481	468	628	1.2	2.7	18.109	C
	3	812	203	77		813	796	752	0.5	0.6	2.400	A
2	1	343	86	621		338	336	326	1.4	3.3	29.590	D
	2	752	188	150		753	733	810	0.6	0.7	3.134	A
	3	783	196	164		784	770	739	2.4	5.4	21.791	C

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	646	161	515	27.53	556	559	501	5.6	26.8	107.749	F
	2	582	146	326		572	556	703	2.7	8.9	43.709	E
	3	925	231	90		925	914	850	0.6	0.6	2.413	A
2	1	425	106	718		379	375	374	3.3	15.9	99.024	F
	2	853	213	170		853	836	927	0.7	0.8	3.124	A
	3	966	242	187		905	891	836	5.4	24.1	64.527	F

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	638	160	522	27.53	551	560	511	26.8	47.2	243.497	F
	2	585	146	326		576	575	705	8.9	10.3	60.021	F
	3	939	235	94		939	932	850	0.6	0.7	2.441	A
2	1	426	107	716		388	383	376	15.9	26.2	204.972	F
	2	853	213	170		852	854	933	0.8	0.8	3.155	A
	3	959	240	189		902	900	834	24.1	39.5	133.014	F

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	536	134	493	22.47	581	581	473	47.2	35.2	252.589	F
	2	478	119	353		484	502	685	10.3	3.5	37.123	E
	3	890	223	77		890	903	797	0.7	0.7	2.424	A
2	1	349	87	678		383	384	347	26.2	17.7	201.489	F
	2	802	200	169		802	814	893	0.8	0.7	3.164	A
	3	782	195	173		852	865	797	39.5	19.8	118.691	F

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	446	112	405	18.82	515	548	379	35.2	9.4	114.681	F
	2	400	100	286		405	403	574	3.5	1.5	15.967	C
	3	719	180	64		720	771	688	0.7	0.5	2.384	A
2	1	286	71	543		319	346	288	17.7	3.4	77.295	F
	2	688	172	143		689	711	720	0.7	0.6	3.144	A
	3	660	165	147		683	725	685	19.8	3.1	35.857	E

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:45 - 08:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service

1	1	Entry	1	1	2	147		639	0.230	148	147	0.0	0.3	7.922	A
				2	1, 3	293		639	0.459	293	288	0.0	1.3	14.681	B
			2	1	(2)	146	18.82			147	148	0.0	0.0	0.842	A
				2	(1, 3)	294	18.82			293	294	0.0	0.6	5.698	A
			3	1	((1, 2, 3))	441				441	445	0.0	0.1	0.189	A
		Exit	1	1		365	18.82			365	363	0.0	0.1	0.605	A
			2	1		365				365	363	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	407		1045	0.390	409	397	0.0	1.2	10.460	B
		Exit	1	1		529				529	520	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	681		1663	0.409	681	672	0.0	0.5	2.391	A
		Exit	1	1		637				637	620	0.0	0.2	1.231	A
2	1	Entry	1	1	1, 2, 3	292		600	0.486	295	290	0.0	1.4	17.114	C
		Exit	1	1		277				277	271	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	637		1288	0.494	637	620	0.0	0.6	3.079	A
		Exit	1	1		680				681	675	0.0	0.1	0.821	A
	3	Entry	1	1	1	136		1019	0.133	136	137	0.0	0.2	4.561	A
				2	2, 3	522		1019	0.512	517	515	0.0	1.8	10.696	B
			2	1	(1, 2, 3)	659				658	660	0.0	0.4	1.573	A
		Exit	1	1		628				628	615	0.0	0.0	0.000	A

08:00 - 08:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	171		612	0.279	171	173	0.3	0.4	8.737	A
				2	1, 3	349		612	0.569	348	339	1.3	2.1	19.960	C
			2	1	(2)	171	22.47			171	173	0.0	0.1	1.073	A
				2	(1, 3)	351	22.47			349	342	0.6	2.0	17.541	C
			3	1	((1, 2, 3))	524				522	522	0.1	0.9	4.122	A
		Exit	1	1		432	22.47			432	425	0.1	0.1	0.624	A
			2	1		432				432	425	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	480		1016	0.472	481	468	1.2	2.7	18.109	C
		Exit	1	1		628				628	619	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	812		1655	0.491	813	796	0.5	0.6	2.400	A
		Exit	1	1		752				752	732	0.2	0.3	1.458	A
2	1	Entry	1	1	1, 2, 3	343		537	0.638	338	336	1.4	3.3	29.590	D
		Exit	1	1		326				326	321	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	752		1274	0.590	753	733	0.6	0.7	3.134	A
		Exit	1	1		809				810	795	0.1	0.2	0.936	A
	3	Entry	1	1	1	162		1005	0.162	163	160	0.2	0.2	4.946	A
				2	2, 3	620		1005	0.617	621	610	1.8	2.8	15.371	C
			2	1	(1, 2, 3)	783				782	774	0.4	2.4	8.514	A
		Exit	1	1		739				739	722	0.0	0.0	0.000	A

08:15 - 08:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	189		593	0.318	188	191	0.4	0.6	10.104	B
				2	1, 3	368		593	0.622	368	368	2.1	2.9	25.883	D
			2	1	(2)	189	27.53			189	191	0.1	0.2	1.786	A
				2	(1, 3)	374	27.53			368	371	2.0	6.1	45.522	E
			3	1	((1, 2, 3))	646				564	579	0.9	17.1	54.332	F
		Exit	1	1		501	27.53			501	495	0.1	0.1	0.779	A
			2	1		501				501	495	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	582		992	0.587	572	556	2.7	8.9	43.709	E
		Exit	1	1		703				703	699	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	925		1645	0.562	925	914	0.6	0.6	2.413	A
		Exit	1	1		850				850	835	0.3	0.4	1.607	A
2	1	Entry	1	1	1, 2, 3	425		478	0.889	379	375	3.3	15.9	99.024	F
		Exit	1	1		374				374	367	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	853		1258	0.678	853	836	0.7	0.8	3.124	A
		Exit	1	1		927				927	915	0.2	0.3	1.058	A
	3	Entry	1	1	1	188		991	0.190	187	183	0.2	0.3	5.375	A
				2	2, 3	720		991	0.727	718	708	2.8	4.7	21.052	C
			2	1	(1, 2, 3)	966				909	899	2.4	19.1	46.500	E
		Exit	1	1		836				836	820	0.0	0.0	0.000	A

08:30 - 08:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	183		590	0.310	183	189	0.6	0.6	10.895	B
				2	1, 3	366		590	0.621	367	371	2.9	2.9	28.042	D
			2	1	(2)	184	27.53			183	189	0.2	0.2	2.652	A
				2	(1, 3)	367	27.53			366	371	6.1	6.7	62.414	F
			3	1	((1, 2, 3))	638				550	562	17.1	36.9	179.042	F
		Exit	1	1		511	27.53			511	505	0.1	0.1	0.788	A
			2	1		511				511	505	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	585		992	0.589	576	575	8.9	10.3	60.021	F
		Exit	1	1		705				705	708	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	939		1642	0.572	939	932	0.6	0.7	2.441	A
		Exit	1	1		850				850	854	0.4	0.4	1.664	A
2	1	Entry	1	1	1, 2, 3	426		480	0.889	388	383	15.9	26.2	204.972	F
		Exit	1	1		376				376	371	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	853		1258	0.678	852	854	0.8	0.8	3.155	A
		Exit	1	1		934				933	931	0.3	0.3	1.106	A
	3	Entry	1	1	1	187		990	0.189	187	183	0.3	0.3	5.553	A
				2	2, 3	715		990	0.723	716	717	4.7	4.8	23.781	C
			2	1	(1, 2, 3)	959				902	900	19.1	34.4	112.828	F
		Exit	1	1		834				834	836	0.0	0.0	0.000	A

08:45 - 09:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	191		600	0.318	192	192	0.6	0.6	10.661	B
				2	1, 3	389		600	0.648	390	389	2.9	2.8	26.115	D
			2	1	(2)	191	22.47			191	192	0.2	0.2	2.490	A
				2	(1, 3)	384	22.47			389	388	6.7	5.7	57.529	F
			3	1	((1, 2, 3))	536				575	577	36.9	25.9	193.776	F
		Exit	1	1		473	22.47			473	479	0.1	0.1	0.721	A
			2	1		473				473	479	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	478		977	0.489	484	502	10.3	3.5	37.123	E
		Exit	1	1		685				685	695	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	890		1655	0.538	890	903	0.7	0.7	2.424	A
		Exit	1	1		797				797	812	0.4	0.3	1.604	A
2	1	Entry	1	1	1, 2, 3	349		502	0.695	383	384	26.2	17.7	201.489	F
		Exit	1	1		347				347	354	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	802		1259	0.637	802	814	0.8	0.7	3.164	A
		Exit	1	1		893				893	904	0.3	0.2	1.068	A
	3	Entry	1	1	1	174		999	0.174	174	177	0.3	0.2	5.263	A
				2	2, 3	673		999	0.674	678	688	4.8	3.6	22.088	C
			2	1	(1, 2, 3)	782				848	860	34.4	15.9	100.321	F
		Exit	1	1		797				797	806	0.0	0.0	0.000	A

09:00 - 09:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	169		630	0.268	169	177	0.6	0.4	9.724	A
				2	1, 3	343		630	0.544	346	371	2.8	1.8	21.630	C
			2	1	(2)	168	18.82			169	176	0.2	0.1	2.192	A
				2	(1, 3)	328	18.82			343	367	5.7	2.1	37.879	E
			3	1	((1, 2, 3))	446				496	528	25.9	5.1	75.681	F
		Exit	1	1		379	18.82			379	403	0.1	0.1	0.620	A
			2	1		379				379	403	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	400		1014	0.394	405	403	3.5	1.5	15.967	C
		Exit	1	1		574				574	609	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	719		1664	0.432	720	771	0.7	0.5	2.384	A
		Exit	1	1		687				688	711	0.3	0.2	1.441	A
2	1	Entry	1	1	1, 2, 3	286		585	0.488	319	346	17.7	3.4	77.295	F
		Exit	1	1		288				288	302	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	688		1279	0.538	689	711	0.7	0.6	3.144	A
		Exit	1	1		720				720	770	0.2	0.1	0.921	A

	3	Entry	1	1	1	140		1015	0.138	140	148	0.2	0.2	4.882	A
				2	2, 3	539		1015	0.531	543	577	3.6	1.9	15.295	C
			2	1	(1, 2, 3)	660				679	718	15.9	1.0	23.272	C
		Exit	1	1		685				685	710	0.0	0.0	0.000	A

2024 Base + Com + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Mini-roundabout	Junction 2	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 81% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Southern mini	Mini-roundabout		1, 2, 3	87.76	F
2	Northern mini	Mini-roundabout		1, 2, 3	92.01	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024 Base + Com + Dev	AM	ONE HOUR	07:45	09:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	2	Simple (vertical queueing)	Normal	0	100.00	
2	2	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	587	100.000
	2		ONE HOUR	✓	528	100.000
	3	✓				
2	1		ONE HOUR	✓	386	100.000
	2	✓				
	3		ONE HOUR	✓	876	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1	[ONEHOUR]	25.00
	2		
	3		
2	1		
	2		
	3		

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	196	391
	2	84	0	444
	3	404	507	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	219	167
	2	183	0	651
	3	180	692	4

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	244.89	44.4	F	535	802
	2	60.57	10.7	F	485	728
	3	2.43	0.7	A	830	1244
2	1	205.87	25.8	F	352	528
	2	3.15	0.8	A	757	1135
	3	125.80	37.3	F	806	1209

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	443	111	380	18.82	440	436	368	0.0	2.3	16.187	C
	2	398	100	245		400	394	528	0.0	1.2	10.641	B
	3	683	171	64		684	676	628	0.0	0.5	2.386	A
	1	288	72	521		288	285	277	0.0	1.3	16.735	C

2	2	629	157	128		629	618	681	0.0	0.5	3.063	A
	3	655	164	139		659	653	618	0.0	1.6	10.736	B

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	527	132	455	22.47	522	512	441	2.3	5.4	30.513	D
	2	473	118	282		473	468	629	1.2	2.6	17.541	C
	3	818	205	77		819	798	744	0.5	0.6	2.412	A
2	1	347	87	626		346	337	326	1.3	3.7	32.725	D
	2	741	185	152		741	732	820	0.5	0.7	3.113	A
	3	794	199	164		788	770	728	1.6	5.9	20.928	C

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	633	158	511	27.53	568	566	499	5.4	24.1	102.752	F
	2	572	143	339		558	552	705	2.6	7.9	38.983	E
	3	922	231	88		922	914	844	0.6	0.6	2.425	A
2	1	424	106	713		382	373	366	3.7	15.6	102.855	F
	2	838	210	169		839	833	926	0.7	0.7	3.119	A
	3	966	242	185		894	889	823	5.9	24.1	65.006	F

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	638	160	519	27.53	561	563	521	24.1	44.4	226.066	F
	2	598	150	319		590	577	706	7.9	10.7	60.569	F
	3	940	235	99		941	935	864	0.6	0.7	2.413	A
2	1	422	105	721		389	385	380	15.6	25.8	205.868	F
	2	862	215	173		862	856	937	0.7	0.8	3.150	A
	3	967	242	188		914	909	847	24.1	37.3	125.800	F

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	527	132	501	22.47	570	575	468	44.4	33.9	244.888	F
	2	464	116	347		476	499	686	10.7	3.3	36.841	E
	3	892	223	77		892	901	783	0.7	0.7	2.417	A
2	1	341	85	678		388	382	350	25.8	16.7	199.372	F
	2	785	196	172		785	810	894	0.8	0.8	3.150	A
	3	797	199	175		853	869	782	37.3	17.9	104.195	F

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	440	110	401	18.82	505	541	387	33.9	10.0	109.858	F
	2	406	101	314		406	407	559	3.3	1.5	15.441	C
	3	721	180	67		722	765	688	0.7	0.5	2.408	A
2	1	289	72	538		327	346	294	16.7	3.8	79.925	F
	2	687	172	142		687	710	723	0.8	0.6	3.131	A
	3	656	164	155		677	717	675	17.9	3.4	34.453	D

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:45 - 08:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service

1	1	Entry	1	1	2	148		639	0.232	148	146	0.0	0.3	7.813	A
				2	1, 3	294		639	0.460	292	290	0.0	1.4	14.326	B
			2	1	(2)	148	18.82			148	147	0.0	0.0	0.777	A
				2	(1, 3)	294	18.82			294	296	0.0	0.6	5.302	A
			3	1	((1, 2, 3))	443				443	445	0.0	0.0	0.167	A
		Exit	1	1		368	18.82			368	364	0.0	0.1	0.556	A
			2	1		368				368	364	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	398		1037	0.384	400	394	0.0	1.2	10.641	B
		Exit	1	1		528				528	520	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	683		1664	0.411	684	676	0.0	0.5	2.386	A
		Exit	1	1		628				628	620	0.0	0.2	1.228	A
2	1	Entry	1	1	1, 2, 3	288		598	0.481	288	285	0.0	1.3	16.735	C
		Exit	1	1		277				277	275	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	629		1291	0.487	629	618	0.0	0.5	3.063	A
		Exit	1	1		681				681	677	0.0	0.1	0.809	A
	3	Entry	1	1	1	139		1020	0.136	138	136	0.0	0.2	4.459	A
				2	2, 3	517		1020	0.507	521	518	0.0	1.3	10.667	B
			2	1	(1, 2, 3)	655				656	659	0.0	0.1	1.356	A
		Exit	1	1		618				618	605	0.0	0.0	0.000	A

08:00 - 08:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	173		613	0.282	174	172	0.3	0.4	8.808	A
				2	1, 3	348		613	0.567	347	340	1.4	2.2	19.695	C
			2	1	(2)	173	22.47			173	172	0.0	0.0	1.113	A
				2	(1, 3)	352	22.47			348	343	0.6	2.1	16.816	C
			3	1	((1, 2, 3))	527				524	522	0.0	0.7	2.522	A
		Exit	1	1		441	22.47			441	430	0.1	0.1	0.672	A
			2	1		441				441	430	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	473		1016	0.466	473	468	1.2	2.6	17.541	C
		Exit	1	1		629				629	614	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	818		1655	0.495	819	798	0.5	0.6	2.412	A
		Exit	1	1		743				744	733	0.2	0.3	1.449	A
2	1	Entry	1	1	1, 2, 3	347		534	0.649	346	337	1.3	3.7	32.725	D
		Exit	1	1		326				326	318	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	741		1272	0.582	741	732	0.5	0.7	3.113	A
		Exit	1	1		820				820	800	0.1	0.2	0.961	A
	3	Entry	1	1	1	161		1005	0.161	162	159	0.2	0.2	4.916	A
				2	2, 3	627		1005	0.624	626	611	1.3	3.0	15.154	C
			2	1	(1, 2, 3)	794				788	777	0.1	2.7	7.774	A
		Exit	1	1		728				728	720	0.0	0.0	0.000	A

08:15 - 08:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	193		594	0.325	194	195	0.4	0.5	10.000	B
				2	1, 3	375		594	0.632	374	371	2.2	2.9	25.443	D
			2	1	(2)	193	27.53			193	196	0.0	0.1	1.778	A
				2	(1, 3)	383	27.53			375	373	2.1	5.9	44.039	E
			3	1	((1, 2, 3))	633				575	585	0.7	14.7	50.916	F
		Exit	1	1		499	27.53			499	492	0.1	0.1	0.769	A
			2	1		499				499	492	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	572		985	0.580	558	552	2.6	7.9	38.983	E
		Exit	1	1		705				705	703	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	922		1647	0.560	922	914	0.6	0.6	2.425	A
		Exit	1	1		844				844	836	0.3	0.4	1.607	A
2	1	Entry	1	1	1, 2, 3	424		481	0.881	382	373	3.7	15.6	102.855	F
		Exit	1	1		366				366	362	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	838		1259	0.666	839	833	0.7	0.7	3.119	A
		Exit	1	1		927				926	913	0.2	0.3	1.072	A
	3	Entry	1	1	1	182		992	0.184	181	182	0.2	0.4	5.185	A
				2	2, 3	714		992	0.720	713	707	3.0	4.5	21.388	C
			2	1	(1, 2, 3)	966				897	896	2.7	19.3	46.728	E
		Exit	1	1		823				823	819	0.0	0.0	0.000	A

08:30 - 08:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	187		591	0.316	188	187	0.5	0.6	10.853	B
				2	1, 3	373		591	0.631	373	376	2.9	2.9	27.553	D
			2	1	(2)	188	27.53			187	187	0.1	0.2	2.352	A
				2	(1, 3)	376	27.53			373	376	5.9	6.7	60.269	F
			3	1	((1, 2, 3))	638				564	566	14.7	34.1	163.139	F
		Exit	1	1		521	27.53			521	513	0.1	0.2	0.791	A
			2	1		521				521	513	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	598		996	0.601	590	577	7.9	10.7	60.569	F
		Exit	1	1		706				706	702	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	940		1638	0.574	941	935	0.6	0.7	2.413	A
		Exit	1	1		864				864	859	0.4	0.4	1.669	A
2	1	Entry	1	1	1, 2, 3	422		476	0.886	389	385	15.6	25.8	205.868	F
		Exit	1	1		380				380	376	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	862		1256	0.686	862	856	0.7	0.8	3.150	A
		Exit	1	1		937				937	934	0.3	0.3	1.076	A
	3	Entry	1	1	1	192		991	0.194	192	190	0.4	0.3	5.444	A
				2	2, 3	721		991	0.728	721	720	4.5	4.8	23.348	C
			2	1	(1, 2, 3)	967				913	910	19.3	32.3	106.148	F
		Exit	1	1		847				847	840	0.0	0.0	0.000	A

08:45 - 09:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	182		597	0.304	185	187	0.6	0.5	10.568	B
				2	1, 3	382		597	0.640	385	388	2.9	2.6	26.051	D
			2	1	(2)	182	22.47			182	187	0.2	0.1	2.254	A
				2	(1, 3)	375	22.47			382	387	6.7	5.2	56.287	F
			3	1	((1, 2, 3))	527				557	568	34.1	25.4	186.796	F
		Exit	1	1		468	22.47			468	481	0.2	0.1	0.665	A
			2	1		468				468	481	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	464		981	0.474	476	499	10.7	3.3	36.841	E
		Exit	1	1		686				686	687	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	892		1654	0.539	892	901	0.7	0.7	2.417	A
		Exit	1	1		784				783	807	0.4	0.3	1.590	A
2	1	Entry	1	1	1, 2, 3	341		503	0.679	388	382	25.8	16.7	199.372	F
		Exit	1	1		350				350	357	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	785		1257	0.625	785	810	0.8	0.8	3.150	A
		Exit	1	1		894				894	904	0.3	0.3	1.055	A
	3	Entry	1	1	1	177		998	0.177	175	176	0.3	0.3	5.408	A
				2	2, 3	676		998	0.677	678	692	4.8	3.8	21.658	C
			2	1	(1, 2, 3)	797				853	865	32.3	13.7	86.086	F
		Exit	1	1		782				782	799	0.0	0.0	0.000	A

09:00 - 09:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	155		632	0.246	157	175	0.5	0.5	9.799	A
				2	1, 3	344		632	0.545	348	366	2.6	1.8	21.118	C
			2	1	(2)	155	18.82			155	175	0.1	0.0	2.110	A
				2	(1, 3)	335	18.82			344	363	5.2	2.1	35.168	E
			3	1	((1, 2, 3))	440				490	525	25.4	5.6	73.143	F
		Exit	1	1		388	18.82			387	402	0.1	0.0	0.571	A
			2	1		387				387	402	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	406		999	0.406	406	407	3.3	1.5	15.441	C
		Exit	1	1		559				559	603	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	721		1662	0.434	722	765	0.7	0.5	2.408	A
		Exit	1	1		687				688	710	0.3	0.2	1.407	A
2	1	Entry	1	1	1, 2, 3	289		588	0.491	327	346	16.7	3.8	79.925	F
		Exit	1	1		294				294	302	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	687		1280	0.537	687	710	0.8	0.6	3.131	A
		Exit	1	1		723				723	764	0.3	0.2	0.927	A

	3	Entry	1	1	1	139		1011	0.137	139	145	0.3	0.1	4.758	A
				2	2, 3	534		1011	0.529	538	572	3.8	1.9	15.369	C
			2	1	(1, 2, 3)	656				673	709	13.7	1.3	21.717	C
		Exit	1	1		675				675	707	0.0	0.0	0.000	A

2024 With HIF, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Mini-roundabout	Junction 2	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 81% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Southern mini	Mini-roundabout		1, 2, 3	70.60	F
2	Northern mini	Mini-roundabout		1, 2, 3	92.30	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 With HIF	AM	ONE HOUR	07:45	09:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	2	Simple (vertical queueing)	Normal	0	100.00	
2	2	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	569	100.000
	2		ONE HOUR	✓	528	100.000
	3	✓				
2	1		ONE HOUR	✓	386	100.000
	2	✓				
	3		ONE HOUR	✓	876	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1	[ONEHOUR]	25.00
	2		
	3		
2	1		
	2		
	3		

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	196	373
	2	84	0	444
	3	404	507	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	219	167
	2	183	0	634
	3	180	692	4

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	189.39	35.9	F	520	781
	2	59.33	10.0	F	487	730
	3	2.42	0.7	A	826	1239
2	1	203.09	26.0	F	354	532
	2	3.16	0.8	A	745	1118
	3	126.30	37.8	F	799	1199

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	425	106	378	18.82	426	421	365	0.0	2.1	15.454	C
	2	397	99	227		395	394	526	0.0	1.2	9.925	A
	3	680	170	63		680	672	612	0.0	0.5	2.400	A
	1	289	72	520		287	288	275	0.0	1.7	17.090	C

2	2	611	153	129		612	600	680	0.0	0.6	3.079	A
	3	661	165	137		658	649	603	0.0	2.2	11.089	B

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	514	128	454	22.47	511	502	435	2.1	4.7	27.844	D
	2	481	120	269		477	468	633	1.2	2.6	16.325	C
	3	815	204	74		815	802	736	0.5	0.6	2.379	A
2	1	351	88	616		354	342	319	1.7	3.4	32.894	D
	2	733	183	155		732	719	815	0.6	0.7	3.123	A
	3	774	193	161		773	771	725	2.2	5.3	21.539	C

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	629	157	513	27.53	560	559	500	4.7	21.6	90.083	F
	2	589	147	314		571	557	706	2.6	7.9	37.516	E
	3	926	231	87		926	906	851	0.6	0.6	2.421	A
2	1	423	106	716		378	375	369	3.4	15.3	98.426	F
	2	851	213	166		851	830	928	0.7	0.8	3.134	A
	3	963	241	186		899	882	831	5.3	24.6	66.884	F

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	622	155	523	27.53	568	565	510	21.6	35.9	189.394	F
	2	579	145	331		580	572	719	7.9	10.0	59.326	F
	3	938	234	95		938	932	856	0.6	0.7	2.422	A
2	1	425	106	725		382	381	380	15.3	26.0	203.089	F
	2	856	214	170		855	849	937	0.8	0.8	3.165	A
	3	968	242	192		913	910	834	24.6	37.8	126.305	F

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	514	128	498	22.47	564	567	470	35.9	21.4	177.889	F
	2	479	120	316		484	503	689	10.0	3.6	36.924	E
	3	891	223	76		892	908	781	0.7	0.6	2.408	A
2	1	347	87	677		389	386	352	26.0	15.9	191.295	F
	2	779	195	175		778	803	891	0.8	0.7	3.145	A
	3	779	195	177		851	873	777	37.8	16.2	105.295	F

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	419	105	399	18.82	459	493	371	21.4	4.3	65.639	F
	2	394	99	242		397	403	551	3.6	1.3	14.433	B
	3	709	177	62		708	755	642	0.6	0.5	2.362	A
2	1	291	73	532		316	339	280	15.9	3.3	68.884	F
	2	643	161	140		643	670	708	0.7	0.6	3.117	A
	3	653	163	144		667	704	638	16.2	2.7	28.440	D

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:45 - 08:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service

1	1	Entry	1	1	2	147		639	0.230	147	148	0.0	0.4	7.936	A
				2	1, 3	278		639	0.435	279	273	0.0	1.2	14.154	B
			2	1	(2)	147	18.82			147	149	0.0	0.0	0.826	A
				2	(1, 3)	278	18.82			278	278	0.0	0.5	4.656	A
			3	1	((1, 2, 3))	425				426	429	0.0	0.0	0.105	A
		Exit	1	1		365	18.82			365	361	0.0	0.0	0.572	A
			2	1		365				365	361	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	397		1047	0.379	395	394	0.0	1.2	9.925	A
		Exit	1	1		526				526	523	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	680		1665	0.409	680	672	0.0	0.5	2.400	A
		Exit	1	1		611				612	602	0.0	0.2	1.209	A
2	1	Entry	1	1	1, 2, 3	289		599	0.484	287	288	0.0	1.7	17.090	C
		Exit	1	1		275				275	270	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	611		1290	0.474	612	600	0.0	0.6	3.079	A
		Exit	1	1		679				680	673	0.0	0.1	0.825	A
	3	Entry	1	1	1	137		1021	0.134	138	135	0.0	0.2	4.515	A
				2	2, 3	523		1021	0.512	520	514	0.0	1.7	10.781	B
			2	1	(1, 2, 3)	661				661	656	0.0	0.4	1.579	A
		Exit	1	1		603				603	593	0.0	0.0	0.000	A

08:00 - 08:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	178		613	0.290	178	176	0.4	0.5	8.696	A
				2	1, 3	333		613	0.543	333	327	1.2	1.8	18.771	C
			2	1	(2)	178	22.47			178	176	0.0	0.1	1.068	A
				2	(1, 3)	335	22.47			333	329	0.5	1.7	14.285	B
			3	1	((1, 2, 3))	514				513	511	0.0	0.6	2.575	A
		Exit	1	1		435	22.47			435	429	0.0	0.1	0.622	A
			2	1		435				435	429	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	481		1024	0.470	477	468	1.2	2.6	16.325	C
		Exit	1	1		633				633	622	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	815		1657	0.492	815	802	0.5	0.6	2.379	A
		Exit	1	1		736				736	719	0.2	0.3	1.409	A
2	1	Entry	1	1	1, 2, 3	351		540	0.651	354	342	1.7	3.4	32.894	D
		Exit	1	1		319				319	320	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	733		1270	0.577	732	719	0.6	0.7	3.123	A
		Exit	1	1		815				815	803	0.1	0.2	0.929	A
	3	Entry	1	1	1	157		1007	0.156	157	160	0.2	0.2	4.784	A
				2	2, 3	616		1007	0.612	616	610	1.7	2.8	15.166	C
			2	1	(1, 2, 3)	774				773	775	0.4	2.3	8.442	A
		Exit	1	1		725				725	709	0.0	0.0	0.000	A

08:15 - 08:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	192		593	0.323	193	198	0.5	0.5	10.125	B
				2	1, 3	368		593	0.620	367	362	1.8	2.8	25.591	D
			2	1	(2)	192	27.53			192	198	0.1	0.1	1.781	A
				2	(1, 3)	375	27.53			368	366	1.7	5.5	41.968	E
			3	1	((1, 2, 3))	629				567	579	0.6	12.6	40.251	E
		Exit	1	1		500	27.53			500	491	0.1	0.1	0.801	A
			2	1		500				500	491	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	589		999	0.590	571	557	2.6	7.9	37.516	E
		Exit	1	1		706				706	701	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	926		1647	0.562	926	906	0.6	0.6	2.421	A
		Exit	1	1		851				851	830	0.3	0.3	1.617	A
2	1	Entry	1	1	1, 2, 3	423		479	0.882	378	375	3.4	15.3	98.426	F
		Exit	1	1		369				369	369	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	851		1261	0.674	851	830	0.7	0.8	3.134	A
		Exit	1	1		928				928	907	0.2	0.3	1.063	A
	3	Entry	1	1	1	183		991	0.185	183	184	0.2	0.3	5.402	A
				2	2, 3	719		991	0.725	716	698	2.8	4.7	21.346	C
			2	1	(1, 2, 3)	963				902	891	2.3	19.6	48.708	E
		Exit	1	1		831				831	810	0.0	0.0	0.000	A

08:30 - 08:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	195		590	0.331	196	195	0.5	0.6	10.646	B
				2	1, 3	372		590	0.631	372	370	2.8	3.0	27.661	D
			2	1	(2)	194	27.53			195	195	0.1	0.1	2.373	A
				2	(1, 3)	373	27.53			372	371	5.5	6.2	58.955	F
			3	1	((1, 2, 3))	622				567	569	12.6	26.0	127.503	F
		Exit	1	1		510	27.53			510	507	0.1	0.1	0.819	A
			2	1		510				510	507	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	579		990	0.585	580	572	7.9	10.0	59.326	F
		Exit	1	1		719				719	713	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	938		1641	0.571	938	932	0.6	0.7	2.422	A
		Exit	1	1		857				856	849	0.3	0.4	1.659	A
2	1	Entry	1	1	1, 2, 3	425		474	0.897	382	381	15.3	26.0	203.089	F
		Exit	1	1		380				380	379	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	856		1258	0.680	855	849	0.8	0.8	3.165	A
		Exit	1	1		938				937	934	0.3	0.3	1.092	A
	3	Entry	1	1	1	190		988	0.192	189	188	0.3	0.3	5.493	A
				2	2, 3	724		988	0.733	725	722	4.7	4.8	23.559	C
			2	1	(1, 2, 3)	968				914	911	19.6	32.6	106.449	F
		Exit	1	1		834				834	827	0.0	0.0	0.000	A

08:45 - 09:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	191		598	0.320	192	191	0.6	0.6	10.815	B
				2	1, 3	371		598	0.620	372	376	3.0	2.5	25.576	D
			2	1	(2)	191	22.47			191	191	0.1	0.2	2.566	A
				2	(1, 3)	362	22.47			371	374	6.2	4.5	52.206	F
			3	1	((1, 2, 3))	514				553	558	26.0	13.6	123.767	F
		Exit	1	1		470	22.47			470	479	0.1	0.1	0.694	A
			2	1		470				470	479	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	479		998	0.481	484	503	10.0	3.6	36.924	E
		Exit	1	1		689				689	698	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	891		1655	0.538	892	908	0.7	0.6	2.408	A
		Exit	1	1		780				781	801	0.4	0.3	1.585	A
2	1	Entry	1	1	1, 2, 3	347		503	0.689	389	386	26.0	15.9	191.295	F
		Exit	1	1		352				352	359	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	779		1254	0.621	778	803	0.8	0.7	3.145	A
		Exit	1	1		890				891	908	0.3	0.2	1.050	A
	3	Entry	1	1	1	174		997	0.175	175	180	0.3	0.2	5.268	A
				2	2, 3	672		997	0.674	677	693	4.8	3.7	21.681	C
			2	1	(1, 2, 3)	779				846	868	32.6	12.2	87.202	F
		Exit	1	1		777				777	796	0.0	0.0	0.000	A

09:00 - 09:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	152		632	0.240	152	163	0.6	0.3	9.059	A
				2	1, 3	302		632	0.478	307	330	2.5	1.4	19.670	C
			2	1	(2)	151	18.82			152	162	0.2	0.0	1.536	A
				2	(1, 3)	294	18.82			302	325	4.5	1.1	26.191	D
			3	1	((1, 2, 3))	419				445	473	13.6	1.5	35.661	E
		Exit	1	1		371	18.82			371	392	0.1	0.1	0.554	A
			2	1		371				371	392	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	394		1038	0.379	397	403	3.6	1.3	14.433	B
		Exit	1	1		551				551	587	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	709		1666	0.425	708	755	0.6	0.5	2.362	A
		Exit	1	1		642				642	672	0.3	0.3	1.355	A
2	1	Entry	1	1	1, 2, 3	291		592	0.491	316	339	15.9	3.3	68.884	F
		Exit	1	1		280				280	291	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	643		1282	0.502	643	670	0.7	0.6	3.117	A
		Exit	1	1		708				708	753	0.2	0.1	0.878	A

	3	Entry	1	1	1	136		1017	0.134	135	140	0.2	0.3	4.751	A
				2	2, 3	529		1017	0.520	532	563	3.7	1.6	14.029	B
			2	1	(1, 2, 3)	653				664	695	12.2	0.8	16.840	C
		Exit	1	1		638				638	669	0.0	0.0	0.000	A

2024 With HIF + dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Mini-roundabout	Junction 2	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 81% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Southern mini	Mini-roundabout		1, 2, 3	71.45	F
2	Northern mini	Mini-roundabout		1, 2, 3	97.71	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 With HIF + dev	AM	ONE HOUR	07:45	09:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	2	Simple (vertical queueing)	Normal	0	100.00	
2	2	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	570	100.000
	2		ONE HOUR	✓	528	100.000
	3	✓				
2	1		ONE HOUR	✓	386	100.000
	2	✓				
	3		ONE HOUR	✓	878	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1	[ONEHOUR]	25.00
	2		
	3		
2	1		
	2		
	3		

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	196	374
	2	84	0	444
	3	405	507	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	219	167
	2	183	0	634
	3	180	694	4

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	192.04	36.9	F	524	786
	2	59.18	10.3	F	486	728
	3	2.45	0.7	A	830	1245
2	1	211.12	26.4	F	352	529
	2	3.15	0.8	A	744	1116
	3	135.37	41.1	F	806	1209

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	431	108	381	18.82	429	423	370	0.0	2.0	15.688	C
	2	401	100	222		399	395	531	0.0	1.3	10.316	B
	3	687	172	63		687	676	614	0.0	0.5	2.389	A
	1	289	72	527		289	287	273	0.0	1.5	17.330	C

2	2	610	153	129		610	604	687	0.0	0.6	3.072	A
	3	664	166	135		664	652	604	0.0	2.2	11.351	B

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	509	127	456	22.47	504	500	441	2.0	5.2	29.818	D
	2	480	120	273		482	471	626	1.3	2.4	17.149	C
	3	819	205	77		820	804	738	0.5	0.5	2.407	A
2	1	345	86	627		339	336	326	1.5	4.0	33.709	D
	2	736	184	150		735	719	817	0.6	0.7	3.116	A
	3	787	197	166		787	775	718	2.2	5.4	21.070	C

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	632	158	516	27.53	563	561	511	5.2	21.6	90.685	F
	2	581	145	310		572	562	714	2.4	8.2	41.620	E
	3	933	233	94		932	911	843	0.5	0.7	2.426	A
2	1	418	104	722		378	376	379	4.0	14.8	99.365	F
	2	843	211	170		843	833	930	0.7	0.8	3.130	A
	3	973	243	192		909	887	821	5.4	25.0	67.551	F

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	625	156	520	27.53	564	565	505	21.6	36.9	192.043	F
	2	582	146	341		577	576	713	8.2	10.3	59.179	F
	3	932	233	93		932	929	855	0.7	0.7	2.448	A
2	1	429	107	717		387	382	380	14.8	26.4	203.967	F
	2	856	214	169		856	854	934	0.8	0.8	3.149	A
	3	972	243	191		905	904	835	25.0	41.1	135.365	F

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	515	129	494	22.47	573	576	471	36.9	21.0	174.925	F
	2	474	118	333		477	501	687	10.3	3.8	38.251	E
	3	887	222	77		888	909	779	0.7	0.6	2.409	A
2	1	347	87	677		381	380	343	26.4	18.9	211.122	F
	2	780	195	170		780	802	887	0.8	0.7	3.145	A
	3	786	197	174		846	872	776	41.1	20.3	119.229	F

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	433	108	399	18.82	468	499	383	21.0	3.8	60.919	F
	2	395	99	252		397	406	559	3.8	1.3	14.938	B
	3	720	180	64		719	775	643	0.6	0.5	2.394	A
2	1	286	72	540		321	351	281	18.9	3.8	85.185	F
	2	639	160	141		639	673	720	0.7	0.6	3.102	A
	3	657	164	142		678	725	638	20.3	3.0	35.722	E

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:45 - 08:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service

1	1	Entry	1	1	2	150		639	0.235	150	148	0.0	0.3	7.893	A
				2	1, 3	279		639	0.438	279	275	0.0	1.2	14.314	B
			2	1	(2)	150	18.82			150	149	0.0	0.0	0.812	A
				2	(1, 3)	280	18.82			279	280	0.0	0.4	4.862	A
			3	1	((1, 2, 3))	431				430	431	0.0	0.0	0.094	A
		Exit	1	1		370	18.82			370	363	0.0	0.1	0.576	A
			2	1		370				370	363	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	401		1050	0.382	399	395	0.0	1.3	10.316	B
		Exit	1	1		531				531	523	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	687		1665	0.413	687	676	0.0	0.5	2.389	A
		Exit	1	1		615				614	607	0.0	0.2	1.205	A
2	1	Entry	1	1	1, 2, 3	289		595	0.486	289	287	0.0	1.5	17.330	C
		Exit	1	1		273				273	269	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	610		1290	0.473	610	604	0.0	0.6	3.072	A
		Exit	1	1		687				687	676	0.0	0.2	0.824	A
	3	Entry	1	1	1	137		1023	0.134	137	135	0.0	0.2	4.619	A
				2	2, 3	528		1023	0.516	527	517	0.0	1.7	10.881	B
			2	1	(1, 2, 3)	664				665	659	0.0	0.3	1.734	A
		Exit	1	1		604				604	597	0.0	0.0	0.000	A

08:00 - 08:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	171		613	0.278	171	174	0.3	0.4	8.808	A
				2	1, 3	333		613	0.544	333	326	1.2	2.0	19.326	C
			2	1	(2)	170	22.47			171	174	0.0	0.0	1.162	A
				2	(1, 3)	336	22.47			333	329	0.4	1.9	15.510	C
			3	1	((1, 2, 3))	509				507	509	0.0	0.9	3.108	A
		Exit	1	1		441	22.47			441	432	0.1	0.1	0.629	A
			2	1		441				441	432	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	480		1021	0.471	482	471	1.3	2.4	17.149	C
		Exit	1	1		626				626	621	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	819		1654	0.495	820	804	0.5	0.5	2.407	A
		Exit	1	1		739				738	721	0.2	0.3	1.421	A
2	1	Entry	1	1	1, 2, 3	345		534	0.647	339	336	1.5	4.0	33.709	D
		Exit	1	1		326				326	321	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	736		1274	0.577	735	719	0.6	0.7	3.116	A
		Exit	1	1		816				817	802	0.2	0.2	0.954	A
	3	Entry	1	1	1	160		1004	0.159	160	160	0.2	0.3	4.829	A
				2	2, 3	626		1004	0.624	627	615	1.7	2.9	15.159	C
			2	1	(1, 2, 3)	787				786	780	0.3	2.3	7.952	A
		Exit	1	1		718				718	707	0.0	0.0	0.000	A

08:15 - 08:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	198		592	0.334	198	199	0.4	0.6	10.056	B
				2	1, 3	366		592	0.618	365	362	2.0	2.8	25.585	D
			2	1	(2)	198	27.53			198	200	0.0	0.1	1.881	A
				2	(1, 3)	375	27.53			366	365	1.9	5.6	41.889	E
			3	1	((1, 2, 3))	632				572	580	0.9	12.5	40.763	E
		Exit	1	1		511	27.53			511	497	0.1	0.1	0.780	A
			2	1		511				511	497	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	581		1001	0.581	572	562	2.4	8.2	41.620	E
		Exit	1	1		714				714	704	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	933		1642	0.569	932	911	0.5	0.7	2.426	A
		Exit	1	1		843				843	833	0.3	0.4	1.611	A
2	1	Entry	1	1	1, 2, 3	418		476	0.879	378	376	4.0	14.8	99.365	F
		Exit	1	1		379				379	373	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	843		1258	0.670	843	833	0.7	0.8	3.130	A
		Exit	1	1		931				930	911	0.2	0.3	1.067	A
	3	Entry	1	1	1	187		988	0.189	187	184	0.3	0.3	5.264	A
				2	2, 3	724		988	0.733	722	703	2.9	4.7	21.545	C
			2	1	(1, 2, 3)	973				911	895	2.3	20.1	49.160	E
		Exit	1	1		821				821	812	0.0	0.0	0.000	A

08:30 - 08:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	194		591	0.328	194	194	0.6	0.6	10.641	B
				2	1, 3	371		591	0.628	371	371	2.8	3.0	27.641	D
			2	1	(2)	193	27.53			194	194	0.1	0.1	2.519	A
				2	(1, 3)	372	27.53			371	372	5.6	6.4	59.025	F
			3	1	((1, 2, 3))	625				565	569	12.5	26.8	130.437	F
		Exit	1	1		505	27.53			505	504	0.1	0.2	0.810	A
			2	1		505				505	504	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	582		984	0.592	577	576	8.2	10.3	59.179	F
		Exit	1	1		713				713	712	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	932		1642	0.567	932	929	0.7	0.7	2.448	A
		Exit	1	1		855				855	854	0.4	0.4	1.656	A
2	1	Entry	1	1	1, 2, 3	429		479	0.896	387	382	14.8	26.4	203.967	F
		Exit	1	1		380				380	379	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	856		1259	0.680	856	854	0.8	0.8	3.149	A
		Exit	1	1		934				934	929	0.3	0.3	1.098	A
	3	Entry	1	1	1	189		989	0.191	189	187	0.3	0.3	5.604	A
				2	2, 3	718		989	0.727	717	717	4.7	4.9	23.773	C
			2	1	(1, 2, 3)	972				907	905	20.1	35.9	115.319	F
		Exit	1	1		835				835	831	0.0	0.0	0.000	A

08:45 - 09:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	193		600	0.323	194	195	0.6	0.5	10.761	B
				2	1, 3	378		600	0.631	379	381	3.0	2.6	25.430	D
			2	1	(2)	194	22.47			193	195	0.1	0.2	2.560	A
				2	(1, 3)	372	22.47			378	379	6.4	4.5	51.679	F
			3	1	((1, 2, 3))	515				566	567	26.8	13.2	121.346	F
		Exit	1	1		471	22.47			471	483	0.2	0.1	0.646	A
			2	1		471				471	483	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	474		988	0.479	477	501	10.3	3.8	38.251	E
		Exit	1	1		687				687	703	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	887		1654	0.536	888	909	0.7	0.6	2.409	A
		Exit	1	1		779				779	801	0.4	0.3	1.572	A
2	1	Entry	1	1	1, 2, 3	347		503	0.689	381	380	26.4	18.9	211.122	F
		Exit	1	1		343				343	353	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	780		1258	0.620	780	802	0.8	0.7	3.145	A
		Exit	1	1		887				887	910	0.3	0.2	1.057	A
	3	Entry	1	1	1	169		999	0.169	169	174	0.3	0.3	5.366	A
				2	2, 3	675		999	0.676	677	698	4.9	4.0	22.078	C
			2	1	(1, 2, 3)	786				844	869	35.9	16.1	100.755	F
		Exit	1	1		776				776	791	0.0	0.0	0.000	A

09:00 - 09:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	158		632	0.250	160	167	0.5	0.4	9.291	A
				2	1, 3	305		632	0.483	309	332	2.6	1.4	19.566	C
			2	1	(2)	157	18.82			158	166	0.2	0.0	1.570	A
				2	(1, 3)	298	18.82			305	328	4.5	1.1	25.864	D
			3	1	((1, 2, 3))	433				455	479	13.2	1.0	30.941	D
		Exit	1	1		384	18.82			383	407	0.1	0.1	0.562	A
			2	1		383				383	407	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	395		1033	0.382	397	406	3.8	1.3	14.938	B
		Exit	1	1		559				559	600	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	720		1664	0.432	719	775	0.6	0.5	2.394	A
		Exit	1	1		642				643	674	0.3	0.2	1.349	A
2	1	Entry	1	1	1, 2, 3	286		587	0.488	321	351	18.9	3.8	85.185	F
		Exit	1	1		281				281	295	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	639		1281	0.499	639	673	0.7	0.6	3.102	A
		Exit	1	1		720				720	776	0.2	0.2	0.929	A

	3	Entry	1	1	1	139		1018	0.136	138	146	0.3	0.2	4.779	A
				2	2, 3	536		1018	0.526	540	579	4.0	1.8	15.573	C
			2	1	(1, 2, 3)	657				675	717	16.1	1.0	22.915	C
		Exit	1	1		638				638	679	0.0	0.0	0.000	A

2034 With HIF, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	Junction 1 - Arm 1 - Lane Simulation	Arm 1: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 2 - Arm 1 - Lane Simulation	Arm 1: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 2 - Arm 3 - Lane Simulation	Arm 3: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Mini-roundabout	Junction 2	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 81% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Southern mini	Mini-roundabout		1, 2, 3	153.22	F
2	Northern mini	Mini-roundabout		1, 2, 3	201.09	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2034 With HIF	AM	ONE HOUR	07:45	09:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	2	Simple (vertical queueing)	Normal	0	100.00	
2	2	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	619	100.000
	2		ONE HOUR	✓	573	100.000
	3	✓				
2	1		ONE HOUR	✓	420	100.000
	2	✓				
	3		ONE HOUR	✓	954	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1	[ONEHOUR]	25.00
	2		

	3		
2	1		
	2		
	3		

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	213	406
	2	91	0	482
	3	440	552	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	238	182
	2	199	0	689
	3	196	753	5

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	436.65	70.6	F	569	853
	2	100.99	19.6	F	527	791
	3	2.43	0.7	A	887	1330
2	1	415.92	44.5	F	385	577
	2	3.17	0.8	A	797	1196
	3	286.42	80.3	F	880	1320

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service

1	1	469	117	412	18.82	464	455	397	0.0	3.0	19.850	C
	2	422	105	256		422	424	571	0.0	1.5	12.284	B
	3	742	185	67		743	727	661	0.0	0.5	2.396	A
2	1	322	81	567		318	313	289	0.0	2.3	21.749	C
	2	655	164	142		654	650	744	0.0	0.6	3.092	A
	3	712	178	144		712	704	653	0.0	3.2	14.162	B

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	560	140	487	22.47	540	531	471	3.0	9.4	47.808	E
	2	512	128	300		515	506	677	1.5	3.4	21.787	C
	3	874	219	83		875	859	781	0.5	0.6	2.426	A
2	1	386	96	661		383	363	352	2.3	6.2	49.836	E
	2	781	195	171		780	768	872	0.6	0.7	3.119	A
	3	863	216	176		837	831	775	3.2	10.6	33.795	D

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	666	167	520	27.53	555	564	522	9.4	38.2	159.718	F
	2	640	160	308		605	591	710	3.4	13.7	57.091	F
	3	942	236	100		942	934	868	0.6	0.6	2.431	A
2	1	456	114	736		379	382	381	6.2	25.6	158.084	F
	2	872	218	169		872	861	946	0.7	0.8	3.132	A
	3	1044	261	188		929	910	853	10.6	44.4	116.871	F

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	697	174	524	27.53	558	557	519	38.2	70.6	358.033	F
	2	635	159	334		615	604	721	13.7	19.6	100.994	F
	3	947	237	95		948	942	881	0.6	0.7	2.420	A
2	1	451	113	737		391	385	384	25.6	44.5	348.565	F
	2	882	220	176		881	873	952	0.8	0.8	3.168	A
	3	1063	266	199		922	918	858	44.4	80.3	249.487	F

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	559	140	523	22.47	578	569	502	70.6	68.0	436.651	F
	2	524	131	336		547	559	717	19.6	9.5	82.389	F
	3	938	235	86		938	941	845	0.7	0.7	2.410	A
2	1	380	95	731		386	384	377	44.5	43.2	415.924	F
	2	842	210	175		841	848	942	0.8	0.8	3.161	A
	3	878	219	192		915	920	824	80.3	65.6	286.424	F

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	462	116	495	18.82	576	591	453	68.0	36.5	273.966	F
	2	429	107	331		444	460	691	9.5	2.4	32.919	D
	3	876	219	70		876	904	753	0.7	0.6	2.435	A
2	1	314	78	652		412	394	345	43.2	24.1	273.183	F
	2	752	188	186		752	776	878	0.8	0.7	3.175	A
	3	720	180	173		824	864	765	65.6	29.5	167.765	F

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:45 - 08:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	161		628	0.256	159	158	0.0	0.4	8.249	A
				2	1, 3	306		628	0.487	305	297	0.0	1.5	16.188	C
			2	1	(2)	160	18.82			161	159	0.0	0.0	0.922	A
				2	(1, 3)	307	18.82			306	303	0.0	0.9	8.137	A
			3	1	((1, 2, 3))	469				467	466	0.0	0.2	0.578	A
		Exit	1	1		398	18.82			397	392	0.0	0.0	0.570	A
			2	1		397				397	392	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	422		1031	0.409	422	424	0.0	1.5	12.284	B
		Exit	1	1		571				571	560	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	742		1662	0.446	743	727	0.0	0.5	2.396	A
		Exit	1	1		661				661	653	0.0	0.3	1.296	A
2	1	Entry	1	1	1, 2, 3	322		570	0.565	318	313	0.0	2.3	21.749	C
		Exit	1	1		289				289	291	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	655		1280	0.512	654	650	0.0	0.6	3.092	A
		Exit	1	1		743				744	729	0.0	0.2	0.881	A
	3	Entry	1	1	1	145		1017	0.143	145	146	0.0	0.2	4.651	A
				2	2, 3	568		1017	0.558	567	558	0.0	2.2	12.721	B
			2	1	(1, 2, 3)	712				713	713	0.0	0.8	3.062	A
		Exit	1	1		653				653	646	0.0	0.0	0.000	A

08:00 - 08:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	191		602	0.317	190	188	0.4	0.6	9.491	A
				2	1, 3	353		602	0.587	350	344	1.5	2.4	21.765	C
			2	1	(2)	191	22.47			191	188	0.0	0.0	1.416	A
				2	(1, 3)	358	22.47			353	347	0.9	3.1	24.724	C
			3	1	((1, 2, 3))	560				548	544	0.2	3.3	12.753	B
		Exit	1	1		472	22.47			471	459	0.0	0.1	0.595	A
			2	1		471				471	459	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	512		1007	0.509	515	506	1.5	3.4	21.787	C
		Exit	1	1		677				677	667	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	874		1650	0.530	875	859	0.5	0.6	2.426	A
		Exit	1	1		781				781	769	0.3	0.3	1.499	A
2	1	Entry	1	1	1, 2, 3	386		513	0.752	383	363	2.3	6.2	49.836	E
		Exit	1	1		352				352	348	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	781		1257	0.621	780	768	0.6	0.7	3.119	A
		Exit	1	1		873				872	858	0.2	0.3	1.015	A
	3	Entry	1	1	1	175		997	0.176	176	175	0.2	0.2	5.179	A
				2	2, 3	665		997	0.667	661	656	2.2	3.8	18.092	C
			2	1	(1, 2, 3)	863				840	838	0.8	6.6	18.255	C
		Exit	1	1		775				775	756	0.0	0.0	0.000	A

08:15 - 08:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	192		591	0.325	191	199	0.6	0.6	10.714	B
				2	1, 3	364		591	0.616	364	365	2.4	2.9	27.154	D
			2	1	(2)	195	27.53			192	199	0.0	0.3	2.545	A
				2	(1, 3)	367	27.53			364	367	3.1	6.4	52.411	F
			3	1	((1, 2, 3))	666				561	580	3.3	28.0	101.214	F
		Exit	1	1		523	27.53			522	511	0.1	0.2	0.731	A
			2	1		522				522	511	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	640		1002	0.639	605	591	3.4	13.7	57.091	F
		Exit	1	1		710				710	718	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	942		1637	0.576	942	934	0.6	0.6	2.431	A
		Exit	1	1		869				868	860	0.3	0.4	1.648	A
2	1	Entry	1	1	1, 2, 3	456		467	0.975	379	382	6.2	25.6	158.084	F
		Exit	1	1		381				381	376	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	872		1259	0.692	872	861	0.7	0.8	3.132	A
		Exit	1	1		946				946	936	0.3	0.3	1.082	A

	3	Entry	1	1	1	194		990	0.196	193	187	0.2	0.3	5.436	A
				2	2, 3	735		990	0.742	736	723	3.8	4.9	23.225	C
			2	1	(1, 2, 3)	1044				928	915	6.6	39.1	97.168	F
		Exit	1	1		853				853	841	0.0	0.0	0.000	A

08:30 - 08:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	196		589	0.332	197	195	0.6	0.5	11.161	B
				2	1, 3	361		589	0.612	361	362	2.9	3.0	29.002	D
			2	1	(2)	193	27.53			196	195	0.3	0.1	3.327	A
				2	(1, 3)	362	27.53			361	363	6.4	6.9	67.611	F
			3	1	((1, 2, 3))	697				555	559	28.0	60.0	289.856	F
		Exit	1	1		519	27.53			519	515	0.2	0.1	0.842	A
			2	1		519				519	515	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	635		988	0.643	615	604	13.7	19.6	100.994	F
		Exit	1	1		721				721	717	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	947		1641	0.577	948	942	0.6	0.7	2.420	A
		Exit	1	1		880				881	872	0.4	0.4	1.704	A
2	1	Entry	1	1	1, 2, 3	451		467	0.967	391	385	25.6	44.5	348.565	F
		Exit	1	1		384				384	383	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	882		1254	0.704	881	873	0.8	0.8	3.168	A
		Exit	1	1		952				952	943	0.3	0.3	1.084	A
	3	Entry	1	1	1	184		984	0.187	185	187	0.3	0.2	5.447	A
				2	2, 3	737		984	0.749	737	731	4.9	5.0	24.373	C
			2	1	(1, 2, 3)	1063				921	918	39.1	75.0	228.976	F
		Exit	1	1		858				858	850	0.0	0.0	0.000	A

08:45 - 09:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	197		590	0.335	194	193	0.5	0.8	11.406	B
				2	1, 3	385		590	0.653	384	376	3.0	3.0	28.088	D
			2	1	(2)	198	22.47			197	194	0.1	0.2	3.039	A
				2	(1, 3)	383	22.47			385	376	6.9	6.8	65.757	F
			3	1	((1, 2, 3))	559				582	570	60.0	57.1	372.008	F
		Exit	1	1		501	22.47			502	506	0.1	0.1	0.696	A
			2	1		502				502	506	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	524		987	0.531	547	559	19.6	9.5	82.389	F
		Exit	1	1		717				717	716	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	938		1647	0.569	938	941	0.7	0.7	2.410	A
		Exit	1	1		845				845	847	0.4	0.4	1.650	A
2	1	Entry	1	1	1, 2, 3	380		471	0.807	386	384	44.5	43.2	415.924	F
		Exit	1	1		377				377	380	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	842		1254	0.671	841	848	0.8	0.8	3.161	A
		Exit	1	1		941				942	944	0.3	0.3	1.088	A
	3	Entry	1	1	1	185		988	0.187	184	188	0.2	0.4	5.579	A
				2	2, 3	730		988	0.739	731	731	5.0	4.9	23.934	C
			2	1	(1, 2, 3)	878				915	920	75.0	60.4	266.307	F
		Exit	1	1		824				824	829	0.0	0.0	0.000	A

09:00 - 09:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	194		599	0.324	196	201	0.8	0.4	10.983	B
				2	1, 3	378		599	0.630	380	390	3.0	2.6	25.388	D
			2	1	(2)	192	18.82			194	200	0.2	0.0	2.532	A
				2	(1, 3)	370	18.82			378	389	6.8	5.1	55.816	F
			3	1	((1, 2, 3))	462				562	580	57.1	28.4	223.176	F
		Exit	1	1		452	18.82			453	474	0.1	0.1	0.610	A
			2	1		453				453	474	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	429		989	0.433	444	460	9.5	2.4	32.919	D
		Exit	1	1		691				691	704	0.0	0.0	0.000	A
		Entry	1	2	1, 2, 3	876		1659	0.528	876	904	0.7	0.6	2.435	A

	3	Exit	1	1		753				753	777	0.4	0.3	1.560	A
2	1	Entry	1	1	1, 2, 3	314		518	0.605	412	394	43.2	24.1	273.183	F
		Exit	1	1		345				345	352	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	752		1246	0.604	752	776	0.8	0.7	3.175	A
		Exit	1	1		878				878	904	0.3	0.2	1.081	A
	3	Entry	1	1	1	171		999	0.171	172	179	0.4	0.3	5.380	A
				2	2, 3	649		999	0.649	652	685	4.9	3.8	22.138	C
			2	1	(1, 2, 3)	720				820	860	60.4	25.4	149.658	F
		Exit	1	1		765				765	778	0.0	0.0	0.000	A

2034 With HIF + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	Junction 1 - Arm 1 - Lane Simulation	Arm 1: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 2 - Arm 1 - Lane Simulation	Arm 1: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 2 - Arm 3 - Lane Simulation	Arm 3: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Mini-roundabout	Junction 2	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 81% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Southern mini	Mini-roundabout		1, 2, 3	150.58	F
2	Northern mini	Mini-roundabout		1, 2, 3	206.35	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2034 With HIF + Dev	AM	ONE HOUR	07:45	09:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	2	Simple (vertical queueing)	Normal	0	100.00	
2	2	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	619	100.000
	2		ONE HOUR	✓	573	100.000
	3	✓				
2	1		ONE HOUR	✓	420	100.000
	2	✓				
	3		ONE HOUR	✓	955	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1	[ONEHOUR]	25.00
	2		

	3		
2	1		
	2		
	3		

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	213	406
	2	91	0	482
	3	441	552	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	238	182
	2	199	0	689
	3	196	754	5

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	423.89	69.6	F	565	848
	2	107.48	21.3	F	526	790
	3	2.46	0.7	A	890	1334
2	1	425.25	45.5	F	385	578
	2	3.18	0.8	A	797	1195
	3	294.81	80.3	F	876	1315

Main Results for each time segment

07:45 - 08:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service

1	1	462	116	414	18.82	460	456	399	0.0	2.8	19.945	C
	2	427	107	246		428	423	572	0.0	1.5	11.807	B
	3	747	187	66		746	733	664	0.0	0.6	2.393	A
2	1	326	82	568		323	312	293	0.0	2.6	22.909	C
	2	665	166	144		664	650	748	0.0	0.7	3.105	A
	3	718	180	145		716	709	662	0.0	3.1	14.284	B

08:00 - 08:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	554	139	492	22.47	529	526	469	2.8	8.9	42.849	E
	2	517	129	294		521	511	679	1.5	4.0	24.733	C
	3	879	220	83		879	859	782	0.6	0.6	2.419	A
2	1	376	94	679		364	358	350	2.6	6.9	52.037	F
	2	783	196	161		783	769	883	0.7	0.8	3.163	A
	3	865	216	178		851	833	766	3.1	9.4	32.716	D

08:15 - 08:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	673	168	512	27.53	548	559	515	8.9	38.1	157.311	F
	2	639	160	333		602	592	698	4.0	14.3	59.808	F
	3	931	233	96		930	928	868	0.6	0.7	2.459	A
2	1	463	116	717		378	383	380	6.9	27.1	164.692	F
	2	869	217	168		869	856	926	0.8	0.8	3.174	A
	3	1054	263	194		904	904	843	9.4	45.3	112.226	F

08:30 - 08:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	682	170	527	27.53	550	560	513	38.1	69.6	351.674	F
	2	629	157	336		607	602	718	14.3	21.3	107.483	F
	3	942	236	98		941	938	869	0.7	0.7	2.444	A
2	1	461	115	732		387	390	388	27.1	45.5	347.608	F
	2	870	217	176		870	873	942	0.8	0.8	3.176	A
	3	1050	263	196		924	913	850	45.3	80.3	254.683	F

08:45 - 09:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	560	140	523	22.47	573	575	508	69.6	64.9	423.891	F
	2	510	127	352		543	567	720	21.3	8.2	79.328	F
	3	943	236	87		943	938	833	0.7	0.6	2.438	A
2	1	375	94	728		383	385	378	45.5	43.7	425.253	F
	2	837	209	170		837	854	940	0.8	0.8	3.156	A
	3	859	215	186		920	912	821	80.3	67.2	294.815	F

09:00 - 09:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	459	115	504	18.82	590	588	459	64.9	34.9	270.263	F
	2	436	109	342		439	452	709	8.2	2.7	28.919	D
	3	894	224	69		894	911	755	0.6	0.6	2.400	A
2	1	312	78	686		378	384	341	43.7	25.6	274.391	F
	2	758	189	165		757	773	899	0.8	0.8	3.166	A
	3	712	178	169		858	878	753	67.2	27.2	172.562	F

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

07:45 - 08:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	157		627	0.251	157	159	0.0	0.3	8.172	A
				2	1, 3	303		627	0.484	303	297	0.0	1.5	16.207	C
			2	1	(2)	157	18.82			157	160	0.0	0.0	0.971	A
				2	(1, 3)	304	18.82			303	303	0.0	0.8	8.352	A
			3	1	((1, 2, 3))	462				461	466	0.0	0.1	0.574	A
		Exit	1	1		399	18.82			399	391	0.0	0.1	0.595	A
			2	1		399				399	391	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	427		1036	0.412	428	423	0.0	1.5	11.807	B
		Exit	1	1		572				572	567	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	747		1662	0.449	746	733	0.0	0.6	2.393	A
		Exit	1	1		665				664	653	0.0	0.2	1.306	A
2	1	Entry	1	1	1, 2, 3	326		569	0.573	323	312	0.0	2.6	22.909	C
		Exit	1	1		293				293	291	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	665		1278	0.520	664	650	0.0	0.7	3.105	A
		Exit	1	1		747				748	735	0.0	0.2	0.874	A
	3	Entry	1	1	1	148		1016	0.146	148	145	0.0	0.2	4.627	A
				2	2, 3	568		1016	0.559	568	564	0.0	2.1	12.586	B
			2	1	(1, 2, 3)	718				716	718	0.0	0.8	3.272	A
		Exit	1	1		662				662	645	0.0	0.0	0.000	A

08:00 - 08:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	186		600	0.310	186	186	0.3	0.5	9.032	A
				2	1, 3	345		600	0.575	343	340	1.5	2.4	22.050	C
			2	1	(2)	187	22.47			186	186	0.0	0.1	1.136	A
				2	(1, 3)	352	22.47			345	344	0.8	3.2	24.354	C
			3	1	((1, 2, 3))	554				539	540	0.1	2.7	8.198	A
		Exit	1	1		470	22.47			469	465	0.1	0.1	0.602	A
			2	1		469				469	465	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	517		1010	0.512	521	511	1.5	4.0	24.733	C
		Exit	1	1		679				679	661	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	879		1650	0.533	879	859	0.6	0.6	2.419	A
		Exit	1	1		781				782	770	0.2	0.3	1.525	A
2	1	Entry	1	1	1, 2, 3	376		502	0.749	364	358	2.6	6.9	52.037	F
		Exit	1	1		350				350	346	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	783		1265	0.619	783	769	0.7	0.8	3.163	A
		Exit	1	1		883				883	858	0.2	0.2	1.004	A
	3	Entry	1	1	1	172		996	0.173	171	173	0.2	0.3	5.079	A
				2	2, 3	683		996	0.685	679	660	2.1	3.7	18.133	C
			2	1	(1, 2, 3)	865				855	840	0.8	5.5	17.157	C
		Exit	1	1		766				766	756	0.0	0.0	0.000	A

08:15 - 08:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	187		594	0.315	187	198	0.5	0.6	10.573	B
				2	1, 3	362		594	0.610	361	361	2.4	3.0	27.801	D
			2	1	(2)	188	27.53			187	199	0.1	0.2	2.177	A
				2	(1, 3)	363	27.53			362	363	3.2	6.6	55.856	F
			3	1	((1, 2, 3))	673				551	576	2.7	27.7	96.565	F
		Exit	1	1		514	27.53			515	507	0.1	0.1	0.807	A
			2	1		515				515	507	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	639		988	0.647	602	592	4.0	14.3	59.808	F
		Exit	1	1		698				698	713	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	931		1640	0.568	930	928	0.6	0.7	2.459	A
		Exit	1	1		867				868	858	0.3	0.4	1.681	A
2	1	Entry	1	1	1, 2, 3	463		479	0.967	378	383	6.9	27.1	164.692	F
		Exit	1	1		380				380	382	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	869		1260	0.690	869	856	0.8	0.8	3.174	A
		Exit	1	1		927				926	927	0.2	0.3	1.116	A

	3	Entry	1	1	1	187		987	0.189	187	190	0.3	0.3	5.609	A
				2	2, 3	716		987	0.726	717	714	3.7	4.9	23.447	C
			2	1	(1, 2, 3)	1054				903	909	5.5	40.1	92.394	F
		Exit	1	1		843				843	833	0.0	0.0	0.000	A

08:30 - 08:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	190		588	0.323	191	196	0.6	0.6	11.514	B
				2	1, 3	361		588	0.613	359	364	3.0	3.0	28.814	D
			2	1	(2)	190	27.53			190	195	0.2	0.1	3.486	A
				2	(1, 3)	361	27.53			361	365	6.6	6.8	66.089	F
			3	1	((1, 2, 3))	682				551	561	27.7	59.0	284.650	F
		Exit	1	1		513	27.53			513	510	0.1	0.1	0.839	A
			2	1		513				513	510	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	629		987	0.638	607	602	14.3	21.3	107.483	F
		Exit	1	1		718				718	718	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	942		1639	0.575	941	938	0.7	0.7	2.444	A
		Exit	1	1		868				869	872	0.4	0.3	1.710	A
2	1	Entry	1	1	1, 2, 3	461		470	0.980	387	390	27.1	45.5	347.608	F
		Exit	1	1		388				388	384	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	870		1254	0.694	870	873	0.8	0.8	3.176	A
		Exit	1	1		943				942	939	0.3	0.3	1.103	A
	3	Entry	1	1	1	194		986	0.196	192	189	0.3	0.4	5.800	A
				2	2, 3	731		986	0.742	732	724	4.9	5.0	24.568	C
			2	1	(1, 2, 3)	1050				925	914	40.1	74.9	233.909	F
		Exit	1	1		850				850	853	0.0	0.0	0.000	A

08:45 - 09:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	196		590	0.333	197	198	0.6	0.6	11.466	B
				2	1, 3	376		590	0.638	376	377	3.0	3.0	28.074	D
			2	1	(2)	195	22.47			196	198	0.1	0.2	3.201	A
				2	(1, 3)	375	22.47			376	377	6.8	6.7	65.211	F
			3	1	((1, 2, 3))	560				570	574	59.0	54.5	359.216	F
		Exit	1	1		507	22.47			508	511	0.1	0.1	0.698	A
			2	1		508				508	511	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	510		978	0.521	543	567	21.3	8.2	79.328	F
		Exit	1	1		720				720	716	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	943		1647	0.573	943	938	0.7	0.6	2.438	A
		Exit	1	1		832				833	852	0.3	0.4	1.664	A
2	1	Entry	1	1	1, 2, 3	375		472	0.795	383	385	45.5	43.7	425.253	F
		Exit	1	1		378				378	379	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	837		1258	0.665	837	854	0.8	0.8	3.156	A
		Exit	1	1		941				940	937	0.3	0.3	1.097	A
	3	Entry	1	1	1	192		992	0.194	192	187	0.4	0.3	5.634	A
				2	2, 3	727		992	0.733	728	725	5.0	4.9	24.251	C
			2	1	(1, 2, 3)	859				920	911	74.9	62.0	274.535	F
		Exit	1	1		821				821	835	0.0	0.0	0.000	A

09:00 - 09:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	204		596	0.342	205	200	0.6	0.6	10.950	B
				2	1, 3	384		596	0.644	385	388	3.0	2.6	25.350	D
			2	1	(2)	203	18.82			204	200	0.2	0.1	2.547	A
				2	(1, 3)	375	18.82			384	387	6.7	5.0	55.416	F
			3	1	((1, 2, 3))	459				578	580	54.5	26.4	219.633	F
		Exit	1	1		459	18.82			459	474	0.1	0.1	0.575	A
			2	1		459				459	474	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	436		983	0.444	439	452	8.2	2.7	28.919	D
		Exit	1	1		709				709	709	0.0	0.0	0.000	A
		Entry	1	2	1, 2, 3	894		1660	0.539	894	911	0.6	0.6	2.400	A

	3	Exit	1	1		755				755	769	0.4	0.3	1.557	A
2	1	Entry	1	1	1, 2, 3	312		498	0.626	378	384	43.7	25.6	274.391	F
		Exit	1	1		341				341	353	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	758		1262	0.600	757	773	0.8	0.8	3.166	A
		Exit	1	1		898				899	914	0.3	0.2	1.049	A
	3	Entry	1	1	1	173		1002	0.172	172	178	0.3	0.3	5.188	A
				2	2, 3	680		1002	0.678	686	701	4.9	3.7	22.039	C
			2	1	(1, 2, 3)	712				852	874	62.0	23.2	154.367	F
		Exit	1	1		753				753	769	0.0	0.0	0.000	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: Double Mini - PM Adjusted.j9
Path: Z:\Projects\Projects 18\18-0656 Culham Science Centre\Developments at CSC, on-site work\CCDP Offices\TA October 2021\Capacity Assessments\Junction 7 Marcham Road Double Mini
Report generation date: 11/23/2021 9:30:03 AM

»2021 Survey, PM
»2021 Base + Com, PM
»2024 Base + Com, PM
»2024 Base + Com + Dev, PM
»2024 With HIF, PM
»2024 With HIF + dev, PM
»2034 With HIF, PM
»2034 With HIF + Dev, PM

Summary of junction performance

	PM			
	Queue (PCU)	Delay (s)	RFC	LOS
	[Lane Simulation] - 2021 Survey			
Junction 1 - Arm 1	50.6	205.59		F
Junction 1 - Arm 2	17.2	81.52		F
Junction 1 - Arm 3	0.9	2.52		A
Junction 2 - Arm 1	3.4	32.78		D
Junction 2 - Arm 2	0.8	3.07		A
Junction 2 - Arm 3	19.1	56.65		F
	[Lane Simulation] - 2021 Base + Com			
Junction 1 - Arm 1	48.4	192.06		F
Junction 1 - Arm 2	16.4	76.30		F
Junction 1 - Arm 3	0.9	2.52		A
Junction 2 - Arm 1	2.7	32.05		D
Junction 2 - Arm 2	0.8	3.05		A
Junction 2 - Arm 3	20.1	56.67		F
	[Lane Simulation] - 2024 Base + Com			
Junction 1 - Arm 1	89.3	446.09		F
Junction 1 - Arm 2	27.8	119.27		F
Junction 1 - Arm 3	0.9	2.52		A
Junction 2 - Arm 1	5.3	53.49		F
Junction 2 - Arm 2	0.9	3.08		A
Junction 2 - Arm 3	40.3	107.98		F
	[Lane Simulation] - 2024 Base + Com + Dev			
Junction 1 - Arm 1	95.0	474.29		F
Junction 1 - Arm 2	29.3	123.92		F
Junction 1 - Arm 3	0.9	2.52		A
Junction 2 - Arm 1	5.2	50.51		F
Junction 2 - Arm 2	0.9	3.08		A
Junction 2 - Arm 3	37.2	99.01		F
	[Lane Simulation] - 2024 With HIF			
Junction 1 - Arm 1	70.8	312.53		F
Junction 1 - Arm 2	27.6	120.13		F
Junction 1 - Arm 3	0.9	2.51		A
Junction 2 - Arm 1	5.4	51.27		F

Junction 2 - Arm 2	0.9	3.07		A
Junction 2 - Arm 3	40.2	108.51		F
	[Lane Simulation] - 2024 With HIF + dev			
Junction 1 - Arm 1	76.4	355.99		F
Junction 1 - Arm 2	27.9	117.31		F
Junction 1 - Arm 3	0.9	2.52		A
Junction 2 - Arm 1	5.7	53.46		F
Junction 2 - Arm 2	0.9	3.05		A
Junction 2 - Arm 3	40.2	107.56		F
	[Lane Simulation] - 2034 With HIF			
Junction 1 - Arm 1	136.3	659.44		F
Junction 1 - Arm 2	55.6	237.21		F
Junction 1 - Arm 3	0.9	2.53		A
Junction 2 - Arm 1	8.0	79.03		F
Junction 2 - Arm 2	0.9	3.08		A
Junction 2 - Arm 3	93.1	262.81		F
	[Lane Simulation] - 2034 With HIF + Dev			
Junction 1 - Arm 1	142.3	692.56		F
Junction 1 - Arm 2	58.7	256.90		F
Junction 1 - Arm 3	0.9	2.52		A
Junction 2 - Arm 1	9.0	75.17		F
Junction 2 - Arm 2	0.9	3.09		A
Junction 2 - Arm 3	96.2	261.94		F

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Arm and junction delays are averages for all movements, including movements with zero delay.

File summary

File Description

Title	
Location	
Site number	
Date	11/12/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	BSP-CONSULTING\mmurphy
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75				0.85	36.00	20.00

Lane Simulation options

Criteria type	Stop criteria (%)	Stop criteria time (s)	Stop criteria number of trials	Random seed	Results refresh speed (s)	Individual vehicle animation number of trials	Average animation capture interval (s)	Use quick response	Do flow sampling	Suppress automatic lane creation	Last run random seed	Last run number of trials	Last run time taken (s)
Delay	1.00	100000	100000	-1	3	1	60	✓			706178287	382	52.95

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically

D1	2021 Survey	PM	ONE HOUR	16:45	18:15	15	✓
D2	2021 Base + Com	PM	ONE HOUR	16:45	18:15	15	✓
D3	2024 Base + Com	PM	ONE HOUR	16:45	18:15	15	✓
D4	2024 Base + Com + Dev	PM	ONE HOUR	16:45	18:15	15	✓
D5	2024 With HIF	PM	ONE HOUR	16:45	18:15	15	✓
D6	2024 With HIF + dev	PM	ONE HOUR	16:45	18:15	15	✓
D7	2034 With HIF	PM	ONE HOUR	16:45	18:15	15	✓
D8	2034 With HIF + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

ID	Use Lane Simulation	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	✓	100.000	100.000

2021 Survey, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Mini-roundabout	Junction 2	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 86% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Southern mini	Mini-roundabout		1, 2, 3	83.02	F
2	Northern mini	Mini-roundabout		1, 2, 3	32.05	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Junction	Arm	Name	Description
1	1	Ock Street	
	2	Drayton Road	
	3	Northern Mini Link	
2	1	Spring Road	
	2	Southern Mini Link	
	3	Marcham Road	

Mini Roundabout Geometry

Junction	Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1	1	5.11	5.11	6.20	45.0	13.42	9.80	0.0	✓
	2	3.87	3.87	7.34	4.2	10.28	6.60	0.0	✓
	3	10.00	10.00	10.00	0.0	9.90	5.70	0.0	✓
2	1	3.11	3.11	4.42	1.7	11.98	5.90	0.0	
	2	7.83	7.83	7.83	0.0	11.91	9.40	0.0	
	3	3.70	3.70	5.49	45.0	15.16	10.80	0.0	

Pelican/Puffin Crossings

Junction	Arm	Space between crossing and junc. entry (Signalised) (PCU)	Vehicles queueing on exit (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
1	1	6.00	3.00	3.00	2.90	1.00	6.00	11.00	7.00

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
1	1	0.599	1339
	2	0.549	1171
	3	0.745	1712
	1	0.609	915

2	2	0.775	1390
	3	0.680	1228

The slope and intercept shown above include any corrections and adjustments.

Arm Capacity Adjustments

Junction	Arm	Type	Reason	Percentage capacity adjustment (%)
1	1	Percentage		140.00
	2	Percentage		115.00
2	1	Percentage		250.00
	3	Percentage		360.00

Lane Simulation: Arm options

Junction	Arm	Lane capacity source	Traffic considering secondary lanes (%)
1	1	Evenly split	10.00
	2	Evenly split	10.00
	3	Evenly split	10.00
2	1	Evenly split	10.00
	2	Evenly split	10.00
	3	Evenly split	10.00

Lanes

Junction	Arm	Side	Lane level	Lane	Destination arms	Has limited storage	Storage (PCU)	Has bottleneck	Minimum capacity (PCU/hr)	Maximum capacity (PCU/hr)	Signalised
1	1	Entry	1	1	2	✓	3.00		0	99999	
				2	1, 3	✓	3.00		0	99999	
			2	1	(2)	✓	7.00				
				2	(1, 3)	✓	7.00				
			3	1	((1, 2, 3))		Infinity				
		Exit	1	1		✓	3.00				
			2	1			Infinity				
	2	Entry	1	1	1, 2, 3		Infinity		0	99999	
		Exit	1	1			Infinity				
	3	Entry	1	2	1, 2, 3	✓	1.00		0	99999	
		Exit	1	1		✓	1.00				
2	1	Entry	1	1	1, 2, 3		Infinity		0	99999	
		Exit	1	1			Infinity				
	2	Entry	1	2	1, 2, 3	✓	1.00		0	99999	
		Exit	1	1		✓	1.00				
	3	Entry	1	1	1	✓	5.00		0	99999	
				2	2, 3	✓	5.00		0	99999	
			2	1	(1, 2, 3)		Infinity				
		Exit	1	1			Infinity				

Entry Lane slope and intercept

Junction	Arm	Side	Lane level	Lane	Final slope	Final intercept (PCU/hr)
1	1	Entry	1	1	0.300	669
				2	0.300	669
	2	Entry	1	1	0.549	1171
	3	Entry	1	2	0.745	1712
2	1	Entry	1	1	0.609	915
	2	Entry	1	2	0.775	1390
	3	Entry	1	1	0.340	614
				2	0.340	614

Summary of Entry Lane allowed movements

Junction	Arm	Lane Level	Lane	Destination arm		
				1	2	3
1	1	1	1		✓	
			2	✓		✓
		2	1		✓	
			2	✓		✓

		3	1	✓	✓	✓
	2	1	1	✓	✓	✓
	3	1	2	✓	✓	✓

Summary of Entry Lane allowed movements

Junction	Arm	Lane Level	Lane	Destination arm		
				1	2	3
2	1	1	1	✓	✓	✓
	2	1	2	✓	✓	✓
	3	1	1	✓		
			2		✓	✓
		2	1	✓	✓	✓

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2021 Survey	PM	ONE HOUR	16:45	18:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	2	Simple (vertical queueing)	Normal	0	100.00	
2	2	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	725	100.000
	2		ONE HOUR	✓	653	100.000
	3	✓				
2	1		ONE HOUR	✓	295	100.000
	2	✓				
	3		ONE HOUR	✓	1015	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1	[ONEHOUR]	25.00
	2		
	3		
2	1		
	2		
	3		

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	1	352	372
	2	151	0	502
	3	339	761	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	188	107
	2	169	0	705
	3	102	912	1

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	205.59	50.6	F	664	996
	2	81.52	17.2	F	598	898
	3	2.52	0.9	A	1000	1501
2	1	32.78	3.4	D	269	403
	2	3.07	0.8	A	796	1195
	3	56.65	19.1	F	931	1396

Main Results for each time segment

16:45 - 17:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	542	135	563	18.82	542	539	375	0.0	2.3	14.172	B
	2	498	124	225		496	490	822	0.0	1.5	9.855	A
	3	823	206	116		822	823	661	0.0	0.7	2.452	A
2	1	217	54	686		217	220	210	0.0	0.4	5.941	A
	2	661	165	79		661	649	824	0.0	0.6	2.991	A
	3	768	192	130		766	764	610	0.0	1.3	5.867	A

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	651	163	680	22.47	648	641	443	2.3	5.1	24.112	C
	2	582	146	267		583	576	993	1.5	2.9	16.916	C
	3	986	247	136		986	981	781	0.7	0.7	2.477	A
2	1	266	66	819		267	263	244	0.4	0.6	9.018	A
	2	784	196	98		785	769	988	0.6	0.7	2.987	A

	3	911	228	150		913	908	733	1.3	2.5	10.602	B

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	801	200	814	27.53	707	707	519	5.1	28.1	87.998	F
	2	718	179	317		684	677	1164	2.9	13.3	48.663	E
	3	1172	293	159		1172	1154	881	0.7	0.9	2.507	A
2	1	322	80	974		323	315	283	0.6	2.3	22.429	C
	2	880	220	119		881	873	1178	0.7	0.8	3.067	A
	3	1114	279	172		1085	1068	827	2.5	14.7	33.658	D

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	797	199	824	27.53	705	708	524	28.1	50.6	205.595	F
	2	718	180	338		709	702	1168	13.3	17.2	81.521	F
	3	1187	297	161		1185	1187	907	0.9	0.9	2.516	A
2	1	323	81	981		320	321	288	2.3	3.4	32.777	D
	2	910	227	116		910	905	1184	0.8	0.8	3.047	A
	3	1109	277	176		1093	1095	850	14.7	19.1	56.649	F

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	655	164	701	22.47	746	737	445	50.6	29.9	196.033	F
	2	583	146	322		604	629	1063	17.2	6.7	55.482	F
	3	1007	252	139		1006	1053	849	0.9	0.7	2.482	A
2	1	266	66	839		268	276	259	3.4	0.8	16.926	C
	2	847	212	98		848	864	1009	0.8	0.7	3.023	A
	3	919	230	163		935	976	783	19.1	4.1	29.234	D

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	540	135	569	18.82	595	645	376	29.9	4.8	65.030	F
	2	492	123	259		497	513	848	6.7	1.6	19.161	C
	3	828	207	117		827	847	695	0.7	0.6	2.440	A
2	1	220	55	686		219	224	208	0.8	0.4	6.591	A
	2	696	174	80		697	737	825	0.7	0.6	2.987	A
	3	762	191	134		761	778	643	4.1	1.4	7.188	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	259		701	0.370	260	263	0.0	0.6	8.417	A
				2	1, 3	282		701	0.402	282	276	0.0	1.2	13.370	B
			2	1	(2)	260	18.82			259	266	0.0	0.1	1.510	A
				2	(1, 3)	282	18.82			282	281	0.0	0.4	4.549	A
			3	1	((1, 2, 3))	542				542	549	0.0	0.0	0.101	A
		Exit	1	1		376	18.82			375	371	0.0	0.1	0.625	A
			2	1		375				375	371	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	498		1205	0.413	496	490	0.0	1.5	9.855	A
		Exit	1	1		822				822	829	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	823		1626	0.506	822	823	0.0	0.7	2.452	A
		Exit	1	1		661				661	651	0.0	0.2	1.222	A

2	1	Entry	1	1	1, 2, 3	217		1244	0.175	217	220	0.0	0.4	5.941	A
		Exit	1	1		210				210	203	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	661		1329	0.498	661	649	0.0	0.6	2.991	A
		Exit	1	1		825				824	825	0.0	0.3	1.070	A
	3	Entry	1	1	1	80		2052	0.039	80	77	0.0	0.1	2.035	A
				2	2, 3	688		2052	0.335	686	686	0.0	1.2	5.695	A
			2	1	(1, 2, 3)	768				767	769	0.0	0.1	0.534	A
		Exit	1	1		610				610	604	0.0	0.0	0.000	A

17:00 - 17:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	313		652	0.481	313	312	0.6	1.0	10.038	B
				2	1, 3	333		652	0.512	335	329	1.2	1.8	18.113	C
			2	1	(2)	314	22.47			313	313	0.1	0.3	3.021	A
				2	(1, 3)	335	22.47			333	331	0.4	1.5	12.633	B
			3	1	((1, 2, 3))	651				649	649	0.0	0.6	1.721	A
		Exit	1	1		443	22.47			443	438	0.1	0.1	0.651	A
			2	1		443				443	438	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	582		1178	0.494	583	576	1.5	2.9	16.916	C
		Exit	1	1		993				993	990	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	986		1611	0.612	986	981	0.7	0.7	2.477	A
		Exit	1	1		780				781	770	0.2	0.3	1.401	A
2	1	Entry	1	1	1, 2, 3	266		1043	0.255	267	263	0.4	0.6	9.018	A
		Exit	1	1		244				244	241	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	784		1314	0.597	785	769	0.6	0.7	2.987	A
		Exit	1	1		987				988	982	0.3	0.3	1.246	A
	3	Entry	1	1	1	95		2028	0.047	95	92	0.1	0.1	2.064	A
				2	2, 3	819		2028	0.404	819	816	1.2	1.9	8.528	A
			2	1	(1, 2, 3)	911				914	911	0.1	0.6	2.718	A
		Exit	1	1		733				733	718	0.0	0.0	0.000	A

17:15 - 17:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	350		596	0.588	350	352	1.0	1.4	12.920	B
				2	1, 3	357		596	0.600	357	355	1.8	2.8	25.864	D
			2	1	(2)	349	27.53			350	354	0.3	0.9	7.653	A
				2	(1, 3)	365	27.53			357	359	1.5	5.6	41.674	E
			3	1	((1, 2, 3))	801				714	732	0.6	17.4	41.971	E
		Exit	1	1		518	27.53			519	511	0.1	0.1	0.787	A
			2	1		519				519	511	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	718		1147	0.626	684	677	2.9	13.3	48.663	E
		Exit	1	1		1164				1164	1154	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1172		1593	0.736	1172	1154	0.7	0.9	2.507	A
		Exit	1	1		881				881	873	0.3	0.4	1.619	A
2	1	Entry	1	1	1, 2, 3	322		806	0.399	323	315	0.6	2.3	22.429	C
		Exit	1	1		283				283	281	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	880		1298	0.678	881	873	0.7	0.8	3.067	A
		Exit	1	1		1178				1178	1156	0.3	0.5	1.450	A
	3	Entry	1	1	1	111		2000	0.056	111	110	0.1	0.1	2.133	A
				2	2, 3	977		2000	0.488	974	958	1.9	4.2	13.450	B
			2	1	(1, 2, 3)	1114				1088	1077	0.6	10.4	21.235	C
		Exit	1	1		827				827	818	0.0	0.0	0.000	A

17:30 - 17:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	345		591	0.583	344	346	1.4	1.4	14.046	B
				2	1, 3	362		591	0.612	361	362	2.8	3.0	28.256	D
			2	1	(2)	346	27.53			345	346	0.9	1.0	10.884	B
				2	(1, 3)	365	27.53			362	363	5.6	6.4	59.587	F
			3	1	((1, 2, 3))	797				710	713	17.4	38.8	148.201	F
			1	1		523	27.53			524	528	0.1	0.1	0.835	A

		Exit	2	1		524				524	528	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	718		1134	0.634	709	702	13.3	17.2	81.521	F
		Exit	1	1		1168				1168	1168	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1187		1592	0.745	1185	1187	0.9	0.9	2.516	A
		Exit	1	1		907				907	901	0.4	0.4	1.631	A
2	1	Entry	1	1	1, 2, 3	323		795	0.407	320	321	2.3	3.4	32.777	D
		Exit	1	1		288				288	287	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	910		1300	0.700	910	905	0.8	0.8	3.047	A
		Exit	1	1		1185				1184	1188	0.5	0.5	1.494	A
	3	Entry	1	1	1	112		1995	0.056	112	111	0.1	0.1	2.135	A
				2	2, 3	982		1995	0.492	981	984	4.2	4.2	15.095	C
			2	1	(1, 2, 3)	1109				1094	1095	10.4	14.8	42.833	E
		Exit	1	1		850				850	845	0.0	0.0	0.000	A

17:45 - 18:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	361		643	0.561	362	355	1.4	1.2	13.106	B
				2	1, 3	381		643	0.592	384	381	3.0	2.4	25.476	D
			2	1	(2)	359	22.47			361	354	1.0	0.7	9.495	A
				2	(1, 3)	372	22.47			381	379	6.4	4.4	51.204	F
			3	1	((1, 2, 3))	655				731	724	38.8	21.1	147.860	F
		Exit	1	1		445	22.47			445	466	0.1	0.1	0.711	A
			2	1		445				445	466	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	583		1144	0.510	604	629	17.2	6.7	55.482	F
		Exit	1	1		1063				1063	1087	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1007		1608	0.626	1006	1053	0.9	0.7	2.482	A
		Exit	1	1		849				849	866	0.4	0.4	1.571	A
2	1	Entry	1	1	1, 2, 3	266		1011	0.263	268	276	3.4	0.8	16.926	C
		Exit	1	1		259				259	265	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	847		1314	0.645	848	864	0.8	0.7	3.023	A
		Exit	1	1		1009				1009	1055	0.5	0.4	1.339	A
	3	Entry	1	1	1	96		2012	0.048	96	98	0.1	0.1	2.121	A
				2	2, 3	836		2012	0.416	839	879	4.2	2.2	11.275	B
			2	1	(1, 2, 3)	919				933	968	14.8	1.8	19.185	C
		Exit	1	1		783				783	798	0.0	0.0	0.000	A

18:00 - 18:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	278		698	0.398	279	303	1.2	0.7	10.272	B
				2	1, 3	312		698	0.446	316	342	2.4	1.2	18.435	C
			2	1	(2)	275	18.82			278	300	0.7	0.1	4.823	A
				2	(1, 3)	301	18.82			312	337	4.4	0.9	25.218	D
			3	1	((1, 2, 3))	540				576	621	21.1	1.9	38.498	E
		Exit	1	1		376	18.82			376	381	0.1	0.0	0.559	A
			2	1		376				376	381	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	492		1183	0.416	497	513	6.7	1.6	19.161	C
		Exit	1	1		848				848	888	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	828		1625	0.509	827	847	0.7	0.6	2.440	A
		Exit	1	1		694				695	736	0.4	0.2	1.354	A
2	1	Entry	1	1	1, 2, 3	220		1244	0.177	219	224	0.8	0.4	6.591	A
		Exit	1	1		208				208	218	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	696		1328	0.524	697	737	0.7	0.6	2.987	A
		Exit	1	1		825				825	845	0.4	0.2	1.080	A
	3	Entry	1	1	1	75		2047	0.036	75	77	0.1	0.1	2.009	A
				2	2, 3	687		2047	0.336	686	702	2.2	1.2	6.296	A
			2	1	(1, 2, 3)	762				762	775	1.8	0.2	1.411	A
		Exit	1	1		643				643	676	0.0	0.0	0.000	A

2021 Base + Com, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Warning	Mini-roundabout	Junction 2	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 86% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Southern mini	Mini-roundabout		1, 2, 3	77.48	F
2	Northern mini	Mini-roundabout		1, 2, 3	32.05	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2021 Base + Com	PM	ONE HOUR	16:45	18:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	2	Simple (vertical queueing)	Normal	0	100.00	
2	2	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	725	100.000
	2		ONE HOUR	✓	653	100.000
	3	✓				
2	1		ONE HOUR	✓	295	100.000
	2	✓				
	3		ONE HOUR	✓	1015	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1	[ONEHOUR]	25.00
	2		
	3		
2	1		
	2		
	3		

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	1	352	372
	2	151	0	502
	3	339	761	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	188	107
	2	169	0	705
	3	102	912	1

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	192.06	48.4	F	667	1000
	2	76.30	16.4	F	598	896
	3	2.52	0.9	A	1009	1514
2	1	32.05	2.7	D	271	407
	2	3.05	0.8	A	794	1191
	3	56.67	20.1	F	935	1403

Main Results for each time segment

16:45 - 17:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	549	137	576	18.82	549	537	371	0.0	2.4	14.052	B
	2	498	125	216		500	493	844	0.0	1.4	9.560	A
	3	832	208	116		830	822	665	0.0	0.7	2.450	A
	1	224	56	688		223	222	207	0.0	0.5	6.027	A

2	2	665	166	81		665	650	830	0.0	0.6	2.984	A
	3	763	191	132		763	760	614	0.0	1.3	5.958	A

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	662	166	687	22.47	654	639	439	2.4	5.6	24.969	C
	2	583	146	263		585	582	1006	1.4	3.0	17.393	C
	3	991	248	135		991	979	785	0.7	0.8	2.472	A
2	1	266	66	819		263	263	250	0.5	0.8	9.205	A
	2	786	196	95		785	772	987	0.6	0.7	2.987	A
	3	916	229	153		916	907	727	1.3	2.7	10.463	B

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	791	198	824	27.53	711	713	526	5.6	25.7	83.355	F
	2	717	179	319		692	683	1170	3.0	12.8	48.159	E
	3	1188	297	161		1188	1164	894	0.8	0.9	2.509	A
2	1	320	80	986		319	313	280	0.8	2.6	23.441	C
	2	893	223	118		894	879	1188	0.7	0.8	3.049	A
	3	1116	279	172		1094	1074	839	2.7	14.0	35.051	E

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	801	200	831	27.53	704	706	533	25.7	48.4	192.063	F
	2	715	179	321		703	704	1174	12.8	16.4	76.298	F
	3	1199	300	163		1200	1190	900	0.9	0.9	2.515	A
2	1	326	81	989		327	324	289	2.6	2.7	32.054	D
	2	900	225	124		900	903	1193	0.8	0.8	3.044	A
	3	1131	283	177		1100	1093	847	14.0	20.1	56.666	F

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	647	162	703	22.47	736	736	454	48.4	27.0	181.245	F
	2	587	147	333		595	628	1057	16.4	5.9	49.204	E
	3	1015	254	140		1016	1056	835	0.9	0.7	2.490	A
2	1	267	67	842		270	273	255	2.7	0.9	17.252	C
	2	836	209	98		837	862	1014	0.8	0.7	3.014	A
	3	920	230	161		937	979	774	20.1	3.8	29.653	D

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	547	137	575	18.82	583	639	367	27.0	3.7	52.292	F
	2	485	121	236		491	506	854	5.9	1.3	15.238	C
	3	831	208	111		831	849	683	0.7	0.6	2.445	A
2	1	223	56	691		224	228	210	0.9	0.3	7.012	A
	2	685	171	82		686	726	832	0.7	0.6	2.976	A
	3	767	192	133		768	782	635	3.8	1.4	7.145	A

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service

1	1	Entry	1	1	2	267		695	0.384	267	262	0.0	0.7	8.452	A
				2	1, 3	282		695	0.406	282	275	0.0	1.1	13.255	B
			2	1	(2)	267	18.82			267	265	0.0	0.1	1.446	A
				2	(1, 3)	283	18.82			282	280	0.0	0.4	4.473	A
			3	1	((1, 2, 3))	549				549	546	0.0	0.0	0.096	A
		Exit	1	1		371	18.82			371	366	0.0	0.1	0.609	A
			2	1		371				371	366	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	498		1210	0.412	500	493	0.0	1.4	9.560	A
		Exit	1	1		844				844	832	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	832		1625	0.512	830	822	0.0	0.7	2.450	A
		Exit	1	1		665				665	653	0.0	0.2	1.211	A
2	1	Entry	1	1	1, 2, 3	224		1241	0.180	223	222	0.0	0.5	6.027	A
		Exit	1	1		207				207	204	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	665		1327	0.501	665	650	0.0	0.6	2.984	A
		Exit	1	1		831				830	824	0.0	0.3	1.063	A
	3	Entry	1	1	1	75		2050	0.037	75	76	0.0	0.1	2.022	A
				2	2, 3	689		2050	0.336	688	684	0.0	1.2	5.753	A
			2	1	(1, 2, 3)	763				764	765	0.0	0.1	0.571	A
		Exit	1	1		614				614	603	0.0	0.0	0.000	A

17:00 - 17:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	318		649	0.491	319	313	0.7	0.9	10.201	B
				2	1, 3	337		649	0.519	335	326	1.1	1.9	18.156	C
			2	1	(2)	320	22.47			318	314	0.1	0.4	2.828	A
				2	(1, 3)	341	22.47			337	329	0.4	1.7	13.360	B
			3	1	((1, 2, 3))	662				660	649	0.0	0.7	2.186	A
		Exit	1	1		439	22.47			439	435	0.1	0.1	0.626	A
			2	1		439				439	435	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	583		1181	0.494	585	582	1.4	3.0	17.393	C
		Exit	1	1		1006				1006	992	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	991		1611	0.615	991	979	0.7	0.8	2.472	A
		Exit	1	1		785				785	773	0.2	0.3	1.397	A
2	1	Entry	1	1	1, 2, 3	266		1042	0.255	263	263	0.5	0.8	9.205	A
		Exit	1	1		250				250	244	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	786		1317	0.597	785	772	0.6	0.7	2.987	A
		Exit	1	1		988				987	979	0.3	0.4	1.245	A
	3	Entry	1	1	1	98		2024	0.048	97	95	0.1	0.1	2.061	A
				2	2, 3	819		2024	0.405	819	812	1.2	1.9	8.443	A
			2	1	(1, 2, 3)	916				917	910	0.1	0.7	2.667	A
		Exit	1	1		727				727	718	0.0	0.0	0.000	A

17:15 - 17:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	345		591	0.583	346	354	0.9	1.2	12.843	B
				2	1, 3	367		591	0.620	365	359	1.9	2.9	25.388	D
			2	1	(2)	345	27.53			345	355	0.4	0.8	7.581	A
				2	(1, 3)	373	27.53			367	364	1.7	5.4	40.493	E
			3	1	((1, 2, 3))	791				719	735	0.7	15.3	38.126	E
		Exit	1	1		526	27.53			526	521	0.1	0.1	0.769	A
			2	1		526				526	521	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	717		1145	0.626	692	683	3.0	12.8	48.159	E
		Exit	1	1		1170				1170	1158	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1188		1592	0.746	1188	1164	0.8	0.9	2.509	A
		Exit	1	1		894				894	881	0.3	0.4	1.606	A
2	1	Entry	1	1	1, 2, 3	320		787	0.407	319	313	0.8	2.6	23.441	C
		Exit	1	1		280				280	277	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	893		1299	0.688	894	879	0.7	0.8	3.049	A
		Exit	1	1		1188				1188	1165	0.4	0.5	1.465	A
	3	Entry	1	1	1	108		2000	0.054	108	107	0.1	0.1	2.145	A
				2	2, 3	986		2000	0.493	986	967	1.9	4.0	13.951	B
			2	1	(1, 2, 3)	1116				1094	1082	0.7	10.0	22.162	C
		Exit	1	1		839				839	823	0.0	0.0	0.000	A

17:30 - 17:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	343		589	0.582	343	344	1.2	1.4	13.812	B
				2	1, 3	362		589	0.615	361	362	2.9	3.0	28.292	D
			2	1	(2)	342	27.53			343	345	0.8	1.0	10.187	B
				2	(1, 3)	364	27.53			362	362	5.4	6.4	59.424	F
			3	1	((1, 2, 3))	801				707	711	15.3	36.7	135.216	F
		Exit	1	1		533	27.53			533	530	0.1	0.1	0.829	A
			2	1		533				533	530	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	715		1144	0.624	703	704	12.8	16.4	76.298	F
		Exit	1	1		1174				1174	1169	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1199		1590	0.754	1200	1190	0.9	0.9	2.515	A
		Exit	1	1		900				900	902	0.4	0.4	1.640	A
2	1	Entry	1	1	1, 2, 3	326		783	0.416	327	324	2.6	2.7	32.054	D
		Exit	1	1		289				289	287	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	900		1294	0.696	900	903	0.8	0.8	3.044	A
		Exit	1	1		1192				1193	1188	0.5	0.5	1.499	A
	3	Entry	1	1	1	111		1994	0.056	111	110	0.1	0.1	2.134	A
				2	2, 3	990		1994	0.497	989	983	4.0	4.4	15.221	C
			2	1	(1, 2, 3)	1131				1102	1094	10.0	15.7	42.735	E
		Exit	1	1		847				847	844	0.0	0.0	0.000	A

17:45 - 18:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	354		642	0.551	355	355	1.4	1.3	13.017	B
				2	1, 3	379		642	0.590	381	381	3.0	2.5	25.407	D
			2	1	(2)	352	22.47			354	355	1.0	0.8	9.565	A
				2	(1, 3)	367	22.47			379	379	6.4	4.2	51.448	F
			3	1	((1, 2, 3))	647				719	725	36.7	18.2	132.896	F
		Exit	1	1		453	22.47			454	473	0.1	0.1	0.727	A
			2	1		454				454	473	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	587		1137	0.516	595	628	16.4	5.9	49.204	E
		Exit	1	1		1057				1057	1085	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1015		1607	0.632	1016	1056	0.9	0.7	2.490	A
		Exit	1	1		835				835	862	0.4	0.4	1.548	A
2	1	Entry	1	1	1, 2, 3	267		1007	0.266	270	273	2.7	0.9	17.252	C
		Exit	1	1		255				255	263	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	836		1314	0.636	837	862	0.8	0.7	3.014	A
		Exit	1	1		1014				1014	1055	0.5	0.4	1.345	A
	3	Entry	1	1	1	94		2014	0.047	94	97	0.1	0.1	2.113	A
				2	2, 3	840		2014	0.417	842	881	4.4	2.2	11.429	B
			2	1	(1, 2, 3)	920				934	970	15.7	1.5	19.494	C
		Exit	1	1		774				774	795	0.0	0.0	0.000	A

18:00 - 18:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	277		696	0.398	279	302	1.3	0.7	10.242	B
				2	1, 3	301		696	0.432	304	337	2.5	1.2	17.937	C
			2	1	(2)	276	18.82			277	299	0.8	0.1	4.742	A
				2	(1, 3)	293	18.82			301	332	4.2	0.7	22.641	C
			3	1	((1, 2, 3))	547				569	615	18.2	0.9	27.084	D
		Exit	1	1		368	18.82			367	378	0.1	0.1	0.596	A
			2	1		367				367	378	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	485		1198	0.405	491	506	5.9	1.3	15.238	C
		Exit	1	1		854				854	890	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	831		1629	0.510	831	849	0.7	0.6	2.445	A
		Exit	1	1		683				683	726	0.4	0.2	1.327	A
2	1	Entry	1	1	1, 2, 3	223		1237	0.180	224	228	0.9	0.3	7.012	A
		Exit	1	1		210				210	218	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	685		1326	0.517	686	726	0.7	0.6	2.976	A
		Exit	1	1		832				832	849	0.4	0.3	1.095	A

	3	Entry	1	1	1	77		2048	0.038	77	78	0.1	0.1	2.024	A
				2	2, 3	690		2048	0.337	691	704	2.2	1.2	6.370	A
			2	1	(1, 2, 3)	767				767	778	1.5	0.1	1.282	A
		Exit	1	1		635				635	669	0.0	0.0	0.000	A

2024 Base + Com, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	Junction 1 - Arm 1 - Lane Simulation	Arm 1: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Mini-roundabout	Junction 2	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 86% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Southern mini	Mini-roundabout		1, 2, 3	164.73	F
2	Northern mini	Mini-roundabout		1, 2, 3	58.86	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2024 Base + Com	PM	ONE HOUR	16:45	18:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	2	Simple (vertical queueing)	Normal	0	100.00	
2	2	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	778	100.000
	2		ONE HOUR	✓	692	100.000
	3	✓				
2	1		ONE HOUR	✓	312	100.000
	2	✓				
	3		ONE HOUR	✓	1078	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1	[ONEHOUR]	25.00
	2		
	3		
2	1		
	2		
	3		

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	1	376	401
	2	160	0	532
	3	361	806	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	199	113
	2	180	0	753
	3	108	969	1

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	446.09	89.3	F	713	1070
	2	119.27	27.8	F	634	951
	3	2.52	0.9	A	1059	1589
2	1	53.49	5.3	F	285	427
	2	3.08	0.9	A	844	1265
	3	107.98	40.3	F	989	1484

Main Results for each time segment

16:45 - 17:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	587	147	605	18.82	588	580	398	0.0	2.9	16.890	C
	2	526	131	252		529	520	889	0.0	1.7	11.647	B
	3	881	220	121		881	876	712	0.0	0.6	2.461	A
	1	234	59	736		234	237	219	0.0	0.6	7.101	A

2	2	710	178	86		711	695	884	0.0	0.6	2.983	A
	3	811	203	139		816	812	658	0.0	1.5	7.134	A

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	698	175	723	22.47	685	677	470	2.9	8.5	34.829	D
	2	616	154	310		620	613	1054	1.7	4.2	22.737	C
	3	1049	262	144		1048	1035	828	0.6	0.8	2.478	A
2	1	276	69	879		274	273	256	0.6	1.1	11.876	B
	2	827	207	99		827	816	1053	0.6	0.7	3.011	A
	3	976	244	160		974	962	766	1.5	4.5	14.216	B

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	857	214	840	27.53	680	707	550	8.5	46.5	141.650	F
	2	761	190	302		727	706	1171	4.2	18.9	66.878	F
	3	1222	305	168		1223	1199	908	0.8	0.9	2.524	A
2	1	345	86	1004		336	330	284	1.1	4.5	34.459	D
	2	908	227	122		908	900	1218	0.7	0.9	3.053	A
	3	1190	298	174		1115	1100	856	4.5	26.1	55.049	F

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	863	216	838	27.53	681	687	547	46.5	89.3	362.354	F
	2	762	191	299		731	724	1169	18.9	27.8	119.274	F
	3	1212	303	172		1212	1226	908	0.9	0.9	2.514	A
2	1	342	85	1011		339	338	287	4.5	5.3	53.487	F
	2	908	227	129		908	907	1219	0.9	0.9	3.083	A
	3	1182	296	175		1123	1128	862	26.1	40.3	107.976	F

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	692	173	772	22.47	722	711	491	89.3	86.1	446.091	F
	2	617	154	331		658	683	1117	27.8	13.3	100.270	F
	3	1113	278	148		1114	1155	887	0.9	0.8	2.515	A
2	1	278	70	932		284	296	272	5.3	1.9	33.423	D
	2	885	221	102		887	895	1114	0.9	0.8	3.056	A
	3	963	241	170		1033	1072	818	40.3	13.4	79.407	F

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	581	145	608	18.82	770	774	397	86.1	38.6	255.463	F
	2	521	130	358		537	557	972	13.3	3.6	37.960	E
	3	880	220	123		881	925	819	0.8	0.6	2.451	A
2	1	234	58	733		235	243	245	1.9	0.5	10.426	B
	2	823	206	87		824	838	882	0.8	0.7	3.022	A
	3	814	203	160		817	860	751	13.4	2.0	15.556	C

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service

1	1	Entry	1	1	2	284		683	0.416	284	281	0.0	0.7	9.260	A
				2	1, 3	303		683	0.443	304	299	0.0	1.3	14.732	B
			2	1	(2)	285	18.82			284	283	0.0	0.2	2.192	A
				2	(1, 3)	303	18.82			303	304	0.0	0.6	6.543	A
			3	1	((1, 2, 3))	587				588	591	0.0	0.1	0.284	A
		Exit	1	1		398	18.82			398	391	0.0	0.1	0.642	A
			2	1		398				398	391	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	526		1188	0.443	529	520	0.0	1.7	11.647	B
		Exit	1	1		889				889	886	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	881		1621	0.543	881	876	0.0	0.6	2.461	A
		Exit	1	1		711				712	697	0.0	0.2	1.287	A
2	1	Entry	1	1	1, 2, 3	234		1169	0.200	234	237	0.0	0.6	7.101	A
		Exit	1	1		219				219	217	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	710		1323	0.537	711	695	0.0	0.6	2.983	A
		Exit	1	1		883				884	879	0.0	0.3	1.130	A
	3	Entry	1	1	1	80		2041	0.039	80	80	0.0	0.1	1.998	A
				2	2, 3	732		2041	0.359	736	731	0.0	1.3	6.530	A
			2	1	(1, 2, 3)	811				812	817	0.0	0.2	1.043	A
		Exit	1	1		658				658	646	0.0	0.0	0.000	A

17:00 - 17:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	333		634	0.525	332	330	0.7	1.1	10.768	B
				2	1, 3	354		634	0.558	353	347	1.3	2.2	20.617	C
			2	1	(2)	333	22.47			333	331	0.2	0.4	3.711	A
				2	(1, 3)	358	22.47			354	351	0.6	2.6	20.446	C
			3	1	((1, 2, 3))	698				690	691	0.1	2.2	6.218	A
		Exit	1	1		470	22.47			470	461	0.1	0.1	0.644	A
			2	1		470				470	461	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	616		1151	0.535	620	613	1.7	4.2	22.737	C
		Exit	1	1		1054				1054	1047	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1049		1605	0.653	1048	1035	0.6	0.8	2.478	A
		Exit	1	1		829				828	816	0.2	0.3	1.473	A
2	1	Entry	1	1	1, 2, 3	276		951	0.290	274	273	0.6	1.1	11.876	B
		Exit	1	1		256				256	254	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	827		1313	0.630	827	816	0.6	0.7	3.011	A
		Exit	1	1		1054				1053	1039	0.3	0.4	1.305	A
	3	Entry	1	1	1	95		2015	0.047	96	97	0.1	0.0	2.052	A
				2	2, 3	881		2015	0.437	879	865	1.3	2.7	9.755	A
			2	1	(1, 2, 3)	976				976	967	0.2	1.8	5.177	A
		Exit	1	1		766				766	757	0.0	0.0	0.000	A

17:15 - 17:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	333		585	0.570	331	350	1.1	1.6	13.845	B
				2	1, 3	349		585	0.597	349	356	2.2	2.9	27.712	D
			2	1	(2)	338	27.53			333	352	0.4	1.4	10.280	B
				2	(1, 3)	352	27.53			349	359	2.6	6.4	52.630	F
			3	1	((1, 2, 3))	857				691	731	2.2	34.1	86.752	F
		Exit	1	1		551	27.53			550	536	0.1	0.2	0.813	A
			2	1		550				550	536	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	761		1156	0.659	727	706	4.2	18.9	66.878	F
		Exit	1	1		1171				1171	1176	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1222		1587	0.770	1223	1199	0.8	0.9	2.524	A
		Exit	1	1		907				908	899	0.3	0.4	1.634	A
2	1	Entry	1	1	1, 2, 3	345		760	0.454	336	330	1.1	4.5	34.459	D
		Exit	1	1		284				284	279	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	908		1295	0.701	908	900	0.7	0.9	3.053	A
		Exit	1	1		1218				1218	1199	0.4	0.5	1.517	A
	3	Entry	1	1	1	110		1998	0.055	110	109	0.0	0.1	2.163	A
				2	2, 3	1007		1998	0.504	1004	991	2.7	4.8	15.384	C
			2	1	(1, 2, 3)	1190				1117	1109	1.8	21.3	40.845	E
		Exit	1	1		856				856	852	0.0	0.0	0.000	A

17:30 - 17:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	331		586	0.565	331	336	1.6	1.3	14.415	B
				2	1, 3	350		586	0.597	350	351	2.9	3.0	29.847	D
			2	1	(2)	330	27.53			331	335	1.4	0.9	11.740	B
				2	(1, 3)	350	27.53			350	351	6.4	6.8	67.876	F
			3	1	((1, 2, 3))	863				680	686	34.1	77.3	299.823	F
		Exit	1	1		547	27.53			547	549	0.2	0.1	0.845	A
			2	1		547				547	549	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	762		1158	0.658	731	724	18.9	27.8	119.274	F
		Exit	1	1		1169				1169	1183	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1212		1584	0.765	1212	1226	0.9	0.9	2.514	A
		Exit	1	1		907				908	905	0.4	0.4	1.684	A
2	1	Entry	1	1	1, 2, 3	342		750	0.456	339	338	4.5	5.3	53.487	F
		Exit	1	1		287				287	285	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	908		1290	0.704	908	907	0.9	0.9	3.083	A
		Exit	1	1		1221				1219	1228	0.5	0.6	1.533	A
	3	Entry	1	1	1	112		1997	0.056	112	113	0.1	0.1	2.144	A
				2	2, 3	1012		1997	0.507	1011	1015	4.8	4.8	16.712	C
			2	1	(1, 2, 3)	1182				1123	1128	21.3	35.4	92.715	F
		Exit	1	1		862				862	860	0.0	0.0	0.000	A

17:45 - 18:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	345		614	0.563	345	342	1.3	1.4	14.255	B
				2	1, 3	375		614	0.612	376	369	3.0	2.9	28.642	D
			2	1	(2)	345	22.47			345	342	0.9	1.1	11.783	B
				2	(1, 3)	372	22.47			375	369	6.8	6.5	65.081	F
			3	1	((1, 2, 3))	692				717	711	77.3	74.2	388.011	F
		Exit	1	1		491	22.47			491	514	0.1	0.1	0.723	A
			2	1		491				491	514	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	617		1138	0.542	658	683	27.8	13.3	100.270	F
		Exit	1	1		1117				1117	1140	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1113		1602	0.695	1114	1155	0.9	0.8	2.515	A
		Exit	1	1		886				887	895	0.4	0.4	1.638	A
2	1	Entry	1	1	1, 2, 3	278		871	0.320	284	296	5.3	1.9	33.423	D
		Exit	1	1		272				272	280	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	885		1311	0.675	887	895	0.9	0.8	3.056	A
		Exit	1	1		1114				1114	1155	0.6	0.4	1.461	A
	3	Entry	1	1	1	102		2002	0.051	102	108	0.1	0.1	2.111	A
				2	2, 3	928		2002	0.463	932	965	4.8	3.3	14.557	B
			2	1	(1, 2, 3)	963				1030	1066	35.4	10.0	66.372	F
		Exit	1	1		818				818	829	0.0	0.0	0.000	A

18:00 - 18:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	363		682	0.532	364	367	1.4	1.2	12.399	B
				2	1, 3	402		682	0.590	406	406	2.9	2.4	23.619	C
			2	1	(2)	360	18.82			363	366	1.1	0.8	9.652	A
				2	(1, 3)	389	18.82			402	404	6.5	4.4	49.701	E
			3	1	((1, 2, 3))	581				749	761	74.2	29.8	212.628	F
		Exit	1	1		397	18.82			397	415	0.1	0.1	0.583	A
			2	1		397				397	415	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	521		1121	0.465	537	557	13.3	3.6	37.960	E
		Exit	1	1		972				972	1005	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	880		1620	0.543	881	925	0.8	0.6	2.451	A
		Exit	1	1		819				819	836	0.4	0.3	1.520	A
2	1	Entry	1	1	1, 2, 3	234		1174	0.199	235	243	1.9	0.5	10.426	B
		Exit	1	1		245				245	248	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	823		1322	0.622	824	838	0.8	0.7	3.022	A
		Exit	1	1		881				882	928	0.4	0.3	1.177	A

	3	Entry	1	1	1	84		2015	0.042	84	87	0.1	0.0	2.081	A
				2	2, 3	733		2015	0.364	733	773	3.3	1.5	8.262	A
			2	1	(1, 2, 3)	814				817	853	10.0	0.5	8.296	A
		Exit	1	1		751				751	766	0.0	0.0	0.000	A

2024 Base + Com + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	Junction 1 - Arm 1 - Lane Simulation	Arm 1: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Mini-roundabout	Junction 2	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 86% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Southern mini	Mini-roundabout		1, 2, 3	175.49	F
2	Northern mini	Mini-roundabout		1, 2, 3	54.07	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2024 Base + Com + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	2	Simple (vertical queueing)	Normal	0	100.00	
2	2	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	787	100.000
	2		ONE HOUR	✓	692	100.000
	3	✓				
2	1		ONE HOUR	✓	312	100.000
	2	✓				
	3		ONE HOUR	✓	1078	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1	[ONEHOUR]	25.00
	2		
	3		
2	1		
	2		

	3		

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	1	379	407
	2	160	0	532
	3	362	806	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	199	113
	2	180	0	759
	3	108	969	1

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	474.29	95.0	F	722	1084
	2	123.92	29.3	F	631	946
	3	2.52	0.9	A	1060	1590
2	1	50.51	5.2	F	286	429
	2	3.08	0.9	A	845	1268
	3	99.01	37.2	F	982	1473

Main Results for each time segment

16:45 - 17:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	596	149	601	18.82	598	587	395	0.0	2.8	16.203	C
	2	519	130	261		521	516	893	0.0	1.7	11.290	B
	3	874	219	120		875	871	706	0.0	0.6	2.458	A

2	1	235	59	728		236	236	211	0.0	0.4	6.773	A
	2	704	176	85		704	690	879	0.0	0.6	2.972	A
	3	813	203	130		809	804	659	0.0	1.8	6.812	A

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	700	175	719	22.47	689	681	469	2.8	10.0	39.711	E
	2	627	157	310		614	605	1052	1.7	5.4	22.606	C
	3	1044	261	143		1044	1032	826	0.6	0.9	2.477	A
2	1	278	69	870		278	274	252	0.4	1.0	11.809	B
	2	825	206	103		826	811	1045	0.6	0.7	3.002	A
	3	962	241	156		967	955	773	1.8	3.5	13.587	B

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	867	217	851	27.53	687	707	536	10.0	49.1	153.022	F
	2	758	189	301		720	703	1186	5.4	19.5	71.397	F
	3	1222	305	165		1222	1202	908	0.9	0.8	2.517	A
2	1	342	85	1010		332	329	286	1.0	4.1	30.844	D
	2	906	227	123		906	897	1220	0.7	0.9	3.077	A
	3	1164	291	172		1125	1101	857	3.5	23.2	52.775	F

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	876	219	848	27.53	675	685	548	49.1	95.0	386.250	F
	2	758	190	329		724	721	1172	19.5	29.3	123.919	F
	3	1235	309	160		1235	1231	914	0.8	0.8	2.499	A
2	1	350	87	1016		348	336	286	4.1	5.2	50.506	F
	2	915	229	125		915	914	1239	0.9	0.8	3.055	A
	3	1184	296	174		1129	1135	867	23.2	37.2	99.007	F

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	701	175	756	22.47	739	715	501	95.0	93.5	474.289	F
	2	607	152	349		665	685	1116	29.3	13.3	106.438	F
	3	1104	276	152		1103	1150	891	0.8	0.9	2.496	A
2	1	281	70	926		287	296	276	5.2	1.6	32.237	D
	2	896	224	106		897	902	1106	0.8	0.8	3.055	A
	3	966	241	176		1026	1073	827	37.2	11.0	69.029	F

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	595	149	607	18.82	789	790	395	93.5	44.0	273.860	F
	2	515	129	380		530	558	980	13.3	4.0	40.480	E
	3	879	220	122		879	919	823	0.9	0.6	2.468	A
2	1	232	58	726		233	234	237	1.6	0.5	9.336	A
	2	825	206	84		825	845	875	0.8	0.7	2.988	A
	3	804	201	156		807	851	752	11.0	1.5	12.942	B

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

			Lane		Destination	Total	Pedestrian	Capacity		Throughput	Average	Start	End	Delay	Unsignalised

Junction	Arm	Side	level	Lane	arms	Demand (PCU/hr)	demand (Ped/hr)	(PCU/hr)	RFC	(PCU/hr)	throughput (PCU/hr)	queue (PCU)	queue (PCU)	(s)	level of service
1	1	Entry	1	1	2	290		685	0.423	292	287	0.0	0.7	8.922	A
				2	1, 3	306		685	0.447	306	300	0.0	1.3	14.675	B
			2	1	(2)	289	18.82			290	289	0.0	0.1	1.897	A
				2	(1, 3)	307	18.82			306	306	0.0	0.6	6.090	A
			3	1	((1, 2, 3))	596				595	598	0.0	0.1	0.204	A
		Exit	1	1		394	18.82			395	390	0.0	0.0	0.617	A
			2	1		395				395	390	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	519		1182	0.439	521	516	0.0	1.7	11.290	B
		Exit	1	1		893				893	889	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	874		1623	0.539	875	871	0.0	0.6	2.458	A
		Exit	1	1		707				706	695	0.0	0.3	1.265	A
2	1	Entry	1	1	1, 2, 3	235		1180	0.199	236	236	0.0	0.4	6.773	A
		Exit	1	1		211				211	210	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	704		1324	0.531	704	690	0.0	0.6	2.972	A
		Exit	1	1		879				879	874	0.0	0.3	1.121	A
	3	Entry	1	1	1	81		2051	0.040	81	79	0.0	0.1	2.010	A
				2	2, 3	729		2051	0.355	728	725	0.0	1.4	6.399	A
			2	1	(1, 2, 3)	813				810	810	0.0	0.3	0.834	A
		Exit	1	1		659				659	644	0.0	0.0	0.000	A

17:00 - 17:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	331		635	0.521	333	333	0.7	1.1	10.910	B
				2	1, 3	356		635	0.560	357	348	1.3	2.3	20.777	C
			2	1	(2)	329	22.47			331	335	0.1	0.4	4.138	A
				2	(1, 3)	355	22.47			356	351	0.6	2.8	22.469	C
			3	1	((1, 2, 3))	700				684	697	0.1	3.3	9.349	A
		Exit	1	1		468	22.47			469	462	0.0	0.1	0.692	A
			2	1		469				469	462	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	627		1151	0.544	614	605	1.7	5.4	22.606	C
		Exit	1	1		1052				1052	1046	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1044		1605	0.651	1044	1032	0.6	0.9	2.477	A
		Exit	1	1		826				826	810	0.3	0.3	1.476	A
2	1	Entry	1	1	1, 2, 3	278		964	0.288	278	274	0.4	1.0	11.809	B
		Exit	1	1		252				252	251	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	825		1310	0.630	826	811	0.6	0.7	3.002	A
		Exit	1	1		1045				1045	1033	0.3	0.4	1.297	A
	3	Entry	1	1	1	96		2020	0.048	96	96	0.1	0.0	2.012	A
				2	2, 3	870		2020	0.430	870	859	1.4	2.4	9.690	A
			2	1	(1, 2, 3)	962				966	958	0.3	1.0	4.650	A
		Exit	1	1		773				773	755	0.0	0.0	0.000	A

17:15 - 17:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	335		580	0.578	335	349	1.1	1.4	13.901	B
				2	1, 3	352		580	0.607	352	358	2.3	3.0	27.791	D
			2	1	(2)	334	27.53			335	350	0.4	1.1	10.147	B
				2	(1, 3)	359	27.53			352	360	2.8	6.5	53.006	F
			3	1	((1, 2, 3))	867				693	728	3.3	37.1	98.366	F
		Exit	1	1		536	27.53			536	529	0.1	0.1	0.801	A
			2	1		536				536	529	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	758		1157	0.655	720	703	5.4	19.5	71.397	F
		Exit	1	1		1186				1186	1184	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1222		1589	0.769	1222	1202	0.9	0.8	2.517	A
		Exit	1	1		906				908	898	0.3	0.4	1.660	A
2	1	Entry	1	1	1, 2, 3	342		751	0.455	332	329	1.0	4.1	30.844	D
		Exit	1	1		286				286	282	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	906		1295	0.700	906	897	0.7	0.9	3.077	A
		Exit	1	1		1220				1220	1199	0.4	0.5	1.511	A
		Entry	1	1	1	114		2001	0.057	114	110	0.0	0.0	2.149	A
				2	2, 3	1011		2001	0.505	1010	990	2.4	4.5	15.221	C

	3		2	1	(1, 2, 3)	1164				1125	1110	1.0	18.6	38.711	E
		Exit	1	1		857				857	846	0.0	0.0	0.000	A

17:30 - 17:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	321		581	0.553	324	329	1.4	1.4	14.101	B
				2	1, 3	352		581	0.605	351	356	3.0	3.0	29.552	D
			2	1	(2)	319	27.53			321	329	1.1	0.9	11.119	B
				2	(1, 3)	352	27.53			352	356	6.5	6.7	67.884	F
			3	1	((1, 2, 3))	876				671	685	37.1	83.0	323.492	F
		Exit	1	1		548	27.53			548	547	0.1	0.1	0.821	A
			2	1		548				548	547	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	758		1139	0.666	724	721	19.5	29.3	123.919	F
		Exit	1	1		1172				1172	1176	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1235		1593	0.775	1235	1231	0.8	0.8	2.499	A
		Exit	1	1		915				914	914	0.4	0.4	1.665	A
2	1	Entry	1	1	1, 2, 3	350		742	0.471	348	336	4.1	5.2	50.506	F
		Exit	1	1		286				286	289	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	915		1293	0.708	915	914	0.9	0.8	3.055	A
		Exit	1	1		1239				1239	1235	0.5	0.4	1.515	A
	3	Entry	1	1	1	112		1998	0.056	113	114	0.0	0.1	2.178	A
				2	2, 3	1017		1998	0.509	1016	1021	4.5	4.8	16.667	C
			2	1	(1, 2, 3)	1184				1129	1136	18.6	32.4	83.790	F
		Exit	1	1		867				867	862	0.0	0.0	0.000	A

17:45 - 18:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	358		620	0.578	360	343	1.4	1.4	13.973	B
				2	1, 3	379		620	0.612	379	372	3.0	3.0	28.370	D
			2	1	(2)	356	22.47			358	343	0.9	1.2	11.781	B
				2	(1, 3)	380	22.47			379	372	6.7	6.6	64.142	F
			3	1	((1, 2, 3))	701				736	715	83.0	81.4	417.682	F
		Exit	1	1		500	22.47			501	516	0.1	0.0	0.692	A
			2	1		501				501	516	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	607		1126	0.539	665	685	29.3	13.3	106.438	F
		Exit	1	1		1116				1116	1134	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1104		1598	0.691	1103	1150	0.8	0.9	2.496	A
		Exit	1	1		891				891	900	0.4	0.4	1.643	A
2	1	Entry	1	1	1, 2, 3	281		879	0.319	287	296	5.2	1.6	32.237	D
		Exit	1	1		276				276	281	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	896		1308	0.686	897	902	0.8	0.8	3.055	A
		Exit	1	1		1107				1106	1152	0.4	0.5	1.440	A
	3	Entry	1	1	1	100		1995	0.050	100	107	0.1	0.1	2.148	A
				2	2, 3	923		1995	0.463	926	965	4.8	3.2	14.358	B
			2	1	(1, 2, 3)	966				1023	1066	32.4	7.7	56.197	F
		Exit	1	1		827				827	838	0.0	0.0	0.000	A

18:00 - 18:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	372		682	0.546	373	374	1.4	1.3	12.963	B
				2	1, 3	414		682	0.606	416	416	3.0	2.5	23.277	C
			2	1	(2)	370	18.82			372	373	1.2	1.0	10.860	B
				2	(1, 3)	404	18.82			414	414	6.6	4.6	49.169	E
			3	1	((1, 2, 3))	595				775	779	81.4	34.6	230.132	F
		Exit	1	1		394	18.82			395	412	0.0	0.1	0.566	A
			2	1		395				395	412	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	515		1107	0.465	530	558	13.3	4.0	40.480	E
		Exit	1	1		980				980	1010	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	879		1621	0.542	879	919	0.9	0.6	2.468	A
		Exit	1	1		823				823	845	0.4	0.3	1.495	A
		Entry	1	1	1, 2, 3	232		1184	0.196	233	234	1.6	0.5	9.336	A

2	1	Exit	1	1		237				237	249	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	825		1325	0.622	825	845	0.8	0.7	2.988	A
		Exit	1	1		875				875	917	0.5	0.3	1.187	A
	3	Entry	1	1	1	81		2019	0.040	81	85	0.1	0.0	2.032	A
				2	2, 3	724		2019	0.359	726	766	3.2	1.3	8.144	A
			2	1	(1, 2, 3)	804				805	844	7.7	0.2	5.686	A
		Exit	1	1		752				752	766	0.0	0.0	0.000	A

2024 With HIF, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	Junction 1 - Arm 1 - Lane Simulation	Arm 1: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Mini-roundabout	Junction 2	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 86% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Southern mini	Mini-roundabout		1, 2, 3	123.63	F
2	Northern mini	Mini-roundabout		1, 2, 3	59.28	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2024 With HIF	PM	ONE HOUR	16:45	18:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	2	Simple (vertical queueing)	Normal	0	100.00	
2	2	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	760	100.000
	2		ONE HOUR	✓	692	100.000
	3	✓				
2	1		ONE HOUR	✓	312	100.000
	2	✓				
	3		ONE HOUR	✓	1078	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1	[ONEHOUR]	25.00
	2		
	3		
2	1		
	2		
	3		

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	1	376	383
	2	160	0	532
	3	361	806	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	199	113
	2	180	0	735
	3	108	969	1

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	312.53	70.8	F	695	1043
	2	120.13	27.6	F	636	954
	3	2.51	0.9	A	1066	1599
2	1	51.27	5.4	F	284	426
	2	3.07	0.9	A	828	1242
	3	108.51	40.2	F	992	1488

Main Results for each time segment

16:45 - 17:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	569	142	608	18.82	571	561	395	0.0	2.6	14.973	B
	2	519	130	233		523	514	891	0.0	1.5	10.860	B
	3	877	219	124		878	875	688	0.0	0.6	2.426	A
	1	236	59	729		235	234	215	0.0	0.5	6.688	A

2	2	686	172	88		688	672	878	0.0	0.6	2.973	A
	3	812	203	132		812	812	643	0.0	1.6	6.787	A

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	680	170	725	22.47	670	664	474	2.6	7.2	29.619	D
	2	617	154	310		615	606	1053	1.5	4.2	22.458	C
	3	1050	262	149		1050	1035	806	0.6	0.7	2.466	A
2	1	277	69	879		276	275	257	0.5	1.0	10.650	B
	2	807	202	104		807	794	1052	0.6	0.8	3.037	A
	3	973	243	161		976	959	750	1.6	3.9	13.838	B

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	831	208	842	27.53	709	711	548	7.2	37.1	115.467	F
	2	767	192	318		721	699	1195	4.2	18.7	63.610	F
	3	1220	305	170		1220	1201	904	0.7	0.9	2.503	A
2	1	339	85	1010		333	333	291	1.0	3.9	33.538	D
	2	899	225	121		897	887	1221	0.8	0.9	3.041	A
	3	1197	299	177		1124	1106	841	3.9	25.9	54.663	F

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	834	208	861	27.53	681	698	557	37.1	70.8	284.070	F
	2	752	188	309		731	725	1198	18.7	27.6	120.130	F
	3	1247	312	169		1248	1236	905	0.9	0.9	2.493	A
2	1	341	85	1036		337	337	295	3.9	5.4	51.269	F
	2	906	226	123		905	909	1250	0.9	0.9	3.069	A
	3	1197	299	177		1154	1142	851	25.9	40.2	108.507	F

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	689	172	781	22.47	752	738	496	70.8	57.6	312.527	F
	2	639	160	332		663	683	1148	27.6	13.5	95.540	F
	3	1129	282	148		1128	1162	899	0.9	0.9	2.512	A
2	1	281	70	939		288	295	278	5.4	2.4	37.344	E
	2	894	223	104		894	899	1124	0.9	0.8	3.030	A
	3	963	241	172		1045	1077	825	40.2	12.6	79.211	F

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	570	142	603	18.82	703	734	390	57.6	17.5	150.822	F
	2	523	131	322		536	562	941	13.5	3.1	34.769	D
	3	874	218	120		873	920	780	0.9	0.6	2.478	A
2	1	229	57	728		230	240	234	2.4	0.5	11.355	B
	2	777	194	85		777	815	873	0.8	0.7	2.996	A
	3	811	203	153		808	852	709	12.6	2.2	14.261	B

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service

1	1	Entry	1	1	2	283		682	0.414	283	277	0.0	0.7	8.825	A
				2	1, 3	286		682	0.420	288	284	0.0	1.1	13.798	B
			2	1	(2)	282	18.82			283	280	0.0	0.1	1.691	A
				2	(1, 3)	287	18.82			286	288	0.0	0.6	5.114	A
			3	1	((1, 2, 3))	569				569	571	0.0	0.0	0.155	A
		Exit	1	1		395	18.82			395	393	0.0	0.0	0.571	A
			2	1		395				395	393	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	519		1200	0.433	523	514	0.0	1.5	10.860	B
		Exit	1	1		891				891	879	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	877		1619	0.542	878	875	0.0	0.6	2.426	A
		Exit	1	1		687				688	677	0.0	0.2	1.254	A
2	1	Entry	1	1	1, 2, 3	236		1179	0.200	235	234	0.0	0.5	6.688	A
		Exit	1	1		215				215	213	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	686		1322	0.519	688	672	0.0	0.6	2.973	A
		Exit	1	1		876				878	877	0.0	0.2	1.098	A
	3	Entry	1	1	1	83		2049	0.041	83	82	0.0	0.0	2.018	A
				2	2, 3	728		2049	0.355	729	730	0.0	1.3	6.340	A
			2	1	(1, 2, 3)	812				811	817	0.0	0.3	0.869	A
		Exit	1	1		643				643	627	0.0	0.0	0.000	A

17:00 - 17:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	329		633	0.520	328	331	0.7	1.1	10.410	B
				2	1, 3	341		633	0.539	342	333	1.1	1.9	19.691	C
			2	1	(2)	332	22.47			329	332	0.1	0.5	3.302	A
				2	(1, 3)	343	22.47			341	337	0.6	2.2	16.875	C
			3	1	((1, 2, 3))	680				675	677	0.0	1.4	4.003	A
		Exit	1	1		475	22.47			474	465	0.0	0.1	0.619	A
			2	1		474				474	465	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	617		1151	0.536	615	606	1.5	4.2	22.458	C
		Exit	1	1		1053				1053	1044	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1050		1601	0.656	1050	1035	0.6	0.7	2.466	A
		Exit	1	1		807				806	795	0.2	0.4	1.480	A
2	1	Entry	1	1	1, 2, 3	277		950	0.291	276	275	0.5	1.0	10.650	B
		Exit	1	1		257				257	254	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	807		1309	0.617	807	794	0.6	0.8	3.037	A
		Exit	1	1		1051				1052	1037	0.2	0.3	1.288	A
	3	Entry	1	1	1	97		2014	0.048	97	96	0.0	0.0	2.043	A
				2	2, 3	877		2014	0.436	879	863	1.3	2.4	9.692	A
			2	1	(1, 2, 3)	973				974	964	0.3	1.5	4.873	A
		Exit	1	1		750				750	737	0.0	0.0	0.000	A

17:15 - 17:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	353		584	0.605	353	360	1.1	1.3	13.536	B
				2	1, 3	356		584	0.609	356	351	1.9	2.8	27.255	D
			2	1	(2)	354	27.53			353	360	0.5	1.0	9.505	A
				2	(1, 3)	359	27.53			356	355	2.2	5.9	48.404	E
			3	1	((1, 2, 3))	831				712	732	1.4	25.9	64.351	F
		Exit	1	1		548	27.53			548	532	0.1	0.1	0.790	A
			2	1		548				548	532	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	767		1146	0.669	721	699	4.2	18.7	63.610	F
		Exit	1	1		1195				1195	1189	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1220		1585	0.770	1220	1201	0.7	0.9	2.503	A
		Exit	1	1		906				904	890	0.4	0.5	1.616	A
2	1	Entry	1	1	1, 2, 3	339		752	0.450	333	333	1.0	3.9	33.538	D
		Exit	1	1		291				291	287	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	899		1296	0.693	897	887	0.8	0.9	3.041	A
		Exit	1	1		1222				1221	1201	0.3	0.5	1.492	A
	3	Entry	1	1	1	114		1994	0.057	114	114	0.0	0.0	2.115	A
				2	2, 3	1011		1994	0.507	1010	992	2.4	4.6	15.227	C
			2	1	(1, 2, 3)	1197				1125	1115	1.5	21.2	40.655	E
		Exit	1	1		841				841	837	0.0	0.0	0.000	A

17:30 - 17:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	334		576	0.580	337	348	1.3	1.3	14.737	B
				2	1, 3	345		576	0.599	344	351	2.8	3.0	29.453	D
			2	1	(2)	330	27.53			334	348	1.0	1.0	12.079	B
				2	(1, 3)	350	27.53			345	351	5.9	6.6	63.871	F
			3	1	((1, 2, 3))	834				680	702	25.9	58.8	223.852	F
		Exit	1	1		557	27.53			557	553	0.1	0.1	0.876	A
			2	1		557				557	553	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	752		1152	0.653	731	725	18.7	27.6	120.130	F
		Exit	1	1		1198				1198	1198	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1247		1586	0.786	1248	1236	0.9	0.9	2.493	A
		Exit	1	1		905				905	908	0.5	0.4	1.665	A
2	1	Entry	1	1	1, 2, 3	341		712	0.479	337	337	3.9	5.4	51.269	F
		Exit	1	1		295				295	294	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	906		1294	0.700	905	909	0.9	0.9	3.069	A
		Exit	1	1		1250				1250	1240	0.5	0.5	1.509	A
	3	Entry	1	1	1	118		1994	0.059	118	116	0.0	0.1	2.155	A
				2	2, 3	1033		1994	0.518	1036	1026	4.6	4.7	16.690	C
			2	1	(1, 2, 3)	1197				1152	1143	21.2	35.4	93.217	F
		Exit	1	1		851				851	853	0.0	0.0	0.000	A

17:45 - 18:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	364		610	0.598	368	365	1.3	1.4	14.095	B
				2	1, 3	384		610	0.630	385	373	3.0	2.9	27.892	D
			2	1	(2)	361	22.47			364	365	1.0	1.1	12.503	B
				2	(1, 3)	384	22.47			384	373	6.6	6.2	60.963	F
			3	1	((1, 2, 3))	689				745	737	58.8	46.0	255.971	F
		Exit	1	1		496	22.47			496	514	0.1	0.1	0.712	A
			2	1		496				496	514	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	639		1137	0.562	663	683	27.6	13.5	95.540	F
		Exit	1	1		1148				1148	1169	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1129		1602	0.705	1128	1162	0.9	0.9	2.512	A
		Exit	1	1		899				899	901	0.4	0.4	1.613	A
2	1	Entry	1	1	1, 2, 3	281		859	0.327	288	295	5.4	2.4	37.344	E
		Exit	1	1		278				278	282	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	894		1310	0.682	894	899	0.9	0.8	3.030	A
		Exit	1	1		1124				1124	1156	0.5	0.5	1.465	A
	3	Entry	1	1	1	106		2000	0.053	106	108	0.1	0.1	2.165	A
				2	2, 3	935		2000	0.467	939	969	4.7	3.3	14.766	B
			2	1	(1, 2, 3)	963				1040	1071	35.4	9.2	66.042	F
		Exit	1	1		825				825	833	0.0	0.0	0.000	A

18:00 - 18:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	336		684	0.491	338	352	1.4	1.1	11.804	B
				2	1, 3	362		684	0.529	365	381	2.9	2.0	22.521	C
			2	1	(2)	336	18.82			336	351	1.1	0.5	8.003	A
				2	(1, 3)	347	18.82			362	378	6.2	2.7	42.486	E
			3	1	((1, 2, 3))	570				683	712	46.0	11.2	112.741	F
		Exit	1	1		390	18.82			390	415	0.1	0.1	0.602	A
			2	1		390				390	415	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	523		1144	0.457	536	562	13.5	3.1	34.769	D
		Exit	1	1		941				941	988	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	874		1623	0.538	873	920	0.9	0.6	2.478	A
		Exit	1	1		780				780	814	0.4	0.3	1.456	A
2	1	Entry	1	1	1, 2, 3	229		1180	0.194	230	240	2.4	0.5	11.355	B
		Exit	1	1		234				234	247	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	777		1324	0.587	777	815	0.8	0.7	2.996	A
		Exit	1	1		872				873	920	0.5	0.2	1.203	A

	3	Entry	1	1	1	81		2023	0.040	80	84	0.1	0.0	2.038	A
				2	2, 3	730		2023	0.361	728	768	3.3	1.7	8.257	A
			2	1	(1, 2, 3)	811				811	846	9.2	0.4	6.949	A
		Exit	1	1		709				709	741	0.0	0.0	0.000	A

2024 With HIF + dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	Junction 1 - Arm 1 - Lane Simulation	Arm 1: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Mini-roundabout	Junction 2	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 86% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Southern mini	Mini-roundabout		1, 2, 3	136.20	F
2	Northern mini	Mini-roundabout		1, 2, 3	58.94	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2024 With HIF + dev	PM	ONE HOUR	16:45	18:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	2	Simple (vertical queueing)	Normal	0	100.00	
2	2	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	769	100.000
	2		ONE HOUR	✓	692	100.000
	3	✓				
2	1		ONE HOUR	✓	312	100.000
	2	✓				
	3		ONE HOUR	✓	1078	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1	[ONEHOUR]	25.00
	2		
	3		
2	1		
	2		
	3		

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	1	379	389
	2	160	0	532
	3	361	806	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	199	113
	2	180	0	741
	3	108	969	1

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	355.99	76.4	F	703	1055
	2	117.31	27.9	F	633	949
	3	2.52	0.9	A	1067	1600
2	1	53.46	5.7	F	291	437
	2	3.05	0.9	A	834	1251
	3	107.56	40.2	F	991	1487

Main Results for each time segment

16:45 - 17:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	579	145	599	18.82	583	571	396	0.0	2.7	15.810	C
	2	525	131	234		528	519	885	0.0	1.5	11.155	B
	3	871	218	123		871	870	701	0.0	0.7	2.462	A
	1	235	59	726		235	236	220	0.0	0.5	7.029	A

2	2	701	175	90		700	682	871	0.0	0.6	2.991	A
	3	806	201	137		809	808	653	0.0	1.6	6.948	A

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	685	171	726	22.47	672	668	469	2.7	7.8	31.638	D
	2	616	154	271		611	608	1059	1.5	4.2	21.588	C
	3	1053	263	141		1054	1037	808	0.7	0.8	2.473	A
2	1	287	72	871		282	279	250	0.5	1.3	12.250	B
	2	808	202	101		809	803	1053	0.6	0.7	3.002	A
	3	972	243	154		967	957	755	1.6	4.4	13.461	B

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	852	213	844	27.53	701	714	555	7.8	40.0	121.782	F
	2	768	192	324		731	710	1185	4.2	18.0	64.194	F
	3	1223	306	175		1223	1206	915	0.8	0.9	2.494	A
2	1	353	88	1006		345	334	291	1.3	4.5	34.847	D
	2	912	228	124		912	897	1228	0.7	0.8	3.024	A
	3	1194	298	181		1116	1106	855	4.4	25.1	52.703	F

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	838	210	843	27.53	705	702	549	40.0	76.4	309.537	F
	2	760	190	334		724	725	1188	18.0	27.9	117.309	F
	3	1226	307	164		1227	1228	920	0.9	0.9	2.517	A
2	1	352	88	1012		343	340	288	4.5	5.7	53.462	F
	2	921	230	124		921	913	1231	0.8	0.9	3.051	A
	3	1183	296	177		1123	1127	868	25.1	40.2	107.561	F

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	688	172	785	22.47	740	726	498	76.4	66.7	355.986	F
	2	611	153	355		653	681	1146	27.9	12.3	96.550	F
	3	1130	282	152		1130	1162	881	0.9	0.8	2.511	A
2	1	282	71	944		288	294	281	5.7	1.8	33.148	D
	2	879	220	107		881	894	1124	0.9	0.8	3.040	A
	3	976	244	174		1051	1083	814	40.2	12.7	78.565	F

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	576	144	619	18.82	722	754	399	66.7	22.2	173.659	F
	2	517	129	334		531	556	968	12.3	3.1	32.786	D
	3	897	224	121		897	930	784	0.8	0.6	2.461	A
2	1	238	59	746		238	240	230	1.8	0.4	10.544	B
	2	781	195	84		782	815	900	0.8	0.7	2.984	A
	3	818	204	149		826	858	717	12.7	1.4	14.488	B

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service

1	1	Entry	1	1	2	284		686	0.414	285	284	0.0	0.7	8.962	A
				2	1, 3	296		686	0.432	297	287	0.0	1.2	14.189	B
			2	1	(2)	284	18.82			284	287	0.0	0.2	2.031	A
				2	(1, 3)	295	18.82			296	292	0.0	0.5	5.734	A
			3	1	((1, 2, 3))	579				579	581	0.0	0.1	0.243	A
		Exit	1	1		396	18.82			396	391	0.0	0.0	0.587	A
			2	1		396				396	391	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	525		1199	0.438	528	519	0.0	1.5	11.155	B
		Exit	1	1		885				885	884	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	871		1620	0.538	871	870	0.0	0.7	2.462	A
		Exit	1	1		701				701	684	0.0	0.2	1.259	A
2	1	Entry	1	1	1, 2, 3	235		1183	0.198	235	236	0.0	0.5	7.029	A
		Exit	1	1		220				220	214	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	701		1320	0.531	700	682	0.0	0.6	2.991	A
		Exit	1	1		871				871	873	0.0	0.3	1.121	A
	3	Entry	1	1	1	82		2043	0.040	82	82	0.0	0.0	2.018	A
				2	2, 3	725		2043	0.355	726	726	0.0	1.4	6.523	A
			2	1	(1, 2, 3)	806				807	814	0.0	0.1	0.871	A
		Exit	1	1		653				653	638	0.0	0.0	0.000	A

17:00 - 17:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	334		632	0.528	333	332	0.7	1.2	10.799	B
				2	1, 3	340		632	0.537	339	336	1.2	2.1	20.171	C
			2	1	(2)	338	22.47			334	334	0.2	0.7	3.985	A
				2	(1, 3)	342	22.47			340	340	0.5	2.3	17.799	C
			3	1	((1, 2, 3))	685				679	683	0.1	1.5	4.656	A
		Exit	1	1		470	22.47			469	463	0.0	0.1	0.666	A
			2	1		469				469	463	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	616		1176	0.523	611	608	1.5	4.2	21.588	C
		Exit	1	1		1059				1059	1046	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1053		1606	0.656	1054	1037	0.7	0.8	2.473	A
		Exit	1	1		808				808	803	0.2	0.3	1.463	A
2	1	Entry	1	1	1, 2, 3	287		962	0.298	282	279	0.5	1.3	12.250	B
		Exit	1	1		250				250	252	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	808		1312	0.616	809	803	0.6	0.7	3.002	A
		Exit	1	1		1053				1053	1036	0.3	0.4	1.293	A
	3	Entry	1	1	1	96		2022	0.047	96	97	0.0	0.1	2.094	A
				2	2, 3	872		2022	0.431	871	860	1.4	2.6	9.663	A
			2	1	(1, 2, 3)	972				968	962	0.1	1.7	4.510	A
		Exit	1	1		755				755	750	0.0	0.0	0.000	A

17:15 - 17:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	343		583	0.588	341	359	1.2	1.5	13.492	B
				2	1, 3	361		583	0.619	360	355	2.1	3.0	27.423	D
			2	1	(2)	349	27.53			343	360	0.7	1.4	8.937	A
				2	(1, 3)	366	27.53			361	358	2.3	6.3	50.353	F
			3	1	((1, 2, 3))	852				715	738	1.5	27.8	69.639	F
		Exit	1	1		555	27.53			555	540	0.1	0.1	0.808	A
			2	1		555				555	540	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	768		1142	0.672	731	710	4.2	18.0	64.194	F
		Exit	1	1		1185				1185	1192	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1223		1581	0.773	1223	1206	0.8	0.9	2.494	A
		Exit	1	1		916				915	898	0.3	0.4	1.611	A
2	1	Entry	1	1	1, 2, 3	353		757	0.467	345	334	1.3	4.5	34.847	D
		Exit	1	1		291				291	286	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	912		1294	0.705	912	897	0.7	0.8	3.024	A
		Exit	1	1		1227				1228	1209	0.4	0.5	1.490	A
	3	Entry	1	1	1	110		1989	0.056	110	110	0.1	0.1	2.154	A
				2	2, 3	1008		1989	0.507	1006	996	2.6	4.7	15.279	C
			2	1	(1, 2, 3)	1194				1118	1114	1.7	20.4	38.609	E
		Exit	1	1		855				855	841	0.0	0.0	0.000	A

17:30 - 17:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	344		584	0.590	345	346	1.5	1.4	14.633	B
				2	1, 3	360		584	0.617	361	355	3.0	3.0	29.559	D
			2	1	(2)	343	27.53			344	346	1.4	1.2	13.198	B
				2	(1, 3)	359	27.53			360	355	6.3	6.6	65.782	F
			3	1	((1, 2, 3))	838				702	701	27.8	64.3	247.565	F
		Exit	1	1		549	27.53			549	548	0.1	0.1	0.825	A
			2	1		549				549	548	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	760		1136	0.669	724	725	18.0	27.9	117.309	F
		Exit	1	1		1188				1188	1194	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1226		1589	0.772	1227	1228	0.9	0.9	2.517	A
		Exit	1	1		920				920	913	0.4	0.4	1.655	A
2	1	Entry	1	1	1, 2, 3	352		748	0.470	343	340	4.5	5.7	53.462	F
		Exit	1	1		288				288	293	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	921		1294	0.712	921	913	0.8	0.9	3.051	A
		Exit	1	1		1231				1231	1229	0.5	0.5	1.536	A
	3	Entry	1	1	1	111		1994	0.055	111	114	0.1	0.1	2.149	A
				2	2, 3	1014		1994	0.508	1012	1012	4.7	4.9	16.815	C
			2	1	(1, 2, 3)	1183				1125	1128	20.4	35.3	92.202	F
		Exit	1	1		868				868	859	0.0	0.0	0.000	A

17:45 - 18:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	359		608	0.590	361	355	1.4	1.4	14.512	B
				2	1, 3	379		608	0.624	380	371	3.0	2.9	28.159	D
			2	1	(2)	354	22.47			359	355	1.2	0.9	12.823	B
				2	(1, 3)	377	22.47			379	371	6.6	6.2	62.306	F
			3	1	((1, 2, 3))	688				731	723	64.3	55.3	299.124	F
		Exit	1	1		498	22.47			498	514	0.1	0.1	0.708	A
			2	1		498				498	514	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	611		1123	0.544	653	681	27.9	12.3	96.550	F
		Exit	1	1		1146				1146	1161	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1130		1599	0.707	1130	1162	0.9	0.8	2.511	A
		Exit	1	1		880				881	894	0.4	0.4	1.614	A
2	1	Entry	1	1	1, 2, 3	282		852	0.331	288	294	5.7	1.8	33.148	D
		Exit	1	1		281				281	284	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	879		1307	0.673	881	894	0.9	0.8	3.040	A
		Exit	1	1		1125				1124	1160	0.5	0.4	1.462	A
	3	Entry	1	1	1	107		1997	0.053	106	108	0.1	0.1	2.153	A
				2	2, 3	937		1997	0.469	944	974	4.9	3.1	14.793	B
			2	1	(1, 2, 3)	976				1044	1076	35.3	9.5	65.316	F
		Exit	1	1		814				814	827	0.0	0.0	0.000	A

18:00 - 18:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	347		677	0.513	349	365	1.4	1.1	12.193	B
				2	1, 3	369		677	0.545	373	389	2.9	2.0	22.429	C
			2	1	(2)	344	18.82			347	364	0.9	0.6	9.565	A
				2	(1, 3)	356	18.82			369	386	6.2	3.1	43.014	E
			3	1	((1, 2, 3))	576				701	736	55.3	15.4	135.052	F
		Exit	1	1		399	18.82			399	417	0.1	0.1	0.600	A
			2	1		399				399	417	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	517		1136	0.455	531	556	12.3	3.1	32.786	D
		Exit	1	1		968				968	1005	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	897		1622	0.553	897	930	0.8	0.6	2.461	A
		Exit	1	1		782				784	817	0.4	0.3	1.463	A
2	1	Entry	1	1	1, 2, 3	238		1153	0.206	238	240	1.8	0.4	10.544	B
		Exit	1	1		230				230	242	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	781		1325	0.590	782	815	0.8	0.7	2.984	A
		Exit	1	1		899				900	929	0.4	0.3	1.192	A

	3	Entry	1	1	1	81		2028	0.040	81	84	0.1	0.1	2.012	A
				2	2, 3	743		2028	0.366	746	774	3.1	1.2	8.408	A
			2	1	(1, 2, 3)	818				823	851	9.5	0.1	7.050	A
		Exit	1	1		717				717	743	0.0	0.0	0.000	A

2034 With HIF, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	Junction 1 - Arm 1 - Lane Simulation	Arm 1: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 1 - Arm 2 - Lane Simulation	Arm 2: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 2 - Arm 3 - Lane Simulation	Arm 3: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Mini-roundabout	Junction 2	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 86% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Southern mini	Mini-roundabout		1, 2, 3	258.00	F
2	Northern mini	Mini-roundabout		1, 2, 3	137.33	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2034 With HIF	PM	ONE HOUR	16:45	18:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	2	Simple (vertical queueing)	Normal	0	100.00	
2	2	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	829	100.000
	2		ONE HOUR	✓	755	100.000
	3	✓				
2	1		ONE HOUR	✓	341	100.000
	2	✓				
	3		ONE HOUR	✓	1176	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1	[ONEHOUR]	25.00
	2		

	3		
2	1		
	2		
	3		

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	1	410	418
	2	175	0	580
	3	395	880	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	217	124
	2	195	0	802
	3	118	1057	1

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	659.44	136.3	F	765	1147
	2	237.21	55.6	F	689	1033
	3	2.53	0.9	A	1146	1718
2	1	79.03	8.0	F	311	467
	2	3.08	0.9	A	871	1307
	3	262.81	93.1	F	1077	1615

Main Results for each time segment

16:45 - 17:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service

1	1	626	157	655	18.82	625	611	426	0.0	3.7	19.088	C
	2	565	141	251		558	558	967	0.0	2.6	14.407	B
	3	950	237	131		950	945	741	0.0	0.6	2.487	A
2	1	262	65	787		261	257	235	0.0	0.7	8.963	A
	2	745	186	97		745	729	951	0.0	0.7	3.007	A
	3	878	219	147		875	875	694	0.0	2.3	9.202	A

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	753	188	782	22.47	706	699	499	3.7	14.7	50.503	F
	2	682	170	303		668	659	1136	2.6	7.5	33.375	D
	3	1125	281	156		1125	1112	865	0.6	0.8	2.498	A
2	1	312	78	929		309	304	274	0.7	1.8	17.712	C
	2	861	215	113		861	849	1125	0.7	0.8	3.026	A
	3	1050	263	169		1034	1024	805	2.3	8.5	22.054	C

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	910	227	852	27.53	694	710	555	14.7	66.1	214.284	F
	2	831	208	316		729	723	1198	7.5	34.0	106.685	F
	3	1239	310	166		1239	1233	910	0.8	0.9	2.509	A
2	1	365	91	1013		355	352	290	1.8	6.6	49.948	E
	2	912	228	130		912	907	1237	0.8	0.8	3.067	A
	3	1294	324	177		1126	1122	865	8.5	50.2	97.367	F

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	913	228	856	27.53	687	693	548	66.1	121.4	501.092	F
	2	824	206	337		735	743	1194	34.0	55.6	221.665	F
	3	1235	309	168		1235	1244	915	0.9	0.9	2.535	A
2	1	378	95	990		384	375	287	6.6	8.0	79.029	F
	2	913	228	140		913	919	1235	0.8	0.9	3.077	A
	3	1305	326	178		1099	1119	874	50.2	93.1	230.244	F

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	751	188	851	22.47	690	686	546	121.4	136.3	659.438	F
	2	677	169	319		729	736	1190	55.6	41.3	237.215	F
	3	1224	306	172		1224	1225	906	0.9	0.9	2.530	A
2	1	301	75	1029		310	319	294	8.0	4.3	58.038	F
	2	907	227	114		908	911	1226	0.9	0.8	3.062	A
	3	1044	261	178		1146	1139	845	93.1	71.2	262.810	F

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	635	159	760	18.82	776	751	495	136.3	105.2	474.864	F
	2	553	138	349		649	672	1141	41.3	15.6	130.120	F
	3	1100	275	155		1101	1149	888	0.9	0.8	2.488	A
2	1	248	62	933		252	268	278	4.3	1.7	31.056	D
	2	889	222	89		889	896	1097	0.8	0.8	3.008	A
	3	889	222	175		1036	1088	803	71.2	19.5	126.091	F

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	311		662	0.469	311	308	0.0	0.8	9.859	A
				2	1, 3	313		662	0.472	313	303	0.0	1.5	16.071	C
			2	1	(2)	310	18.82			311	312	0.0	0.2	2.698	A
				2	(1, 3)	314	18.82			313	309	0.0	0.9	8.036	A
			3	1	((1, 2, 3))	626				624	625	0.0	0.3	0.652	A
		Exit	1	1		426	18.82			426	426	0.0	0.1	0.636	A
			2	1		426				426	426	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	565		1189	0.476	558	558	0.0	2.6	14.407	B
		Exit	1	1		967				967	959	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	950		1614	0.588	950	945	0.0	0.6	2.487	A
		Exit	1	1		740				741	729	0.0	0.3	1.362	A
2	1	Entry	1	1	1, 2, 3	262		1091	0.240	261	257	0.0	0.7	8.963	A
		Exit	1	1		235				235	234	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	745		1315	0.567	745	729	0.0	0.7	3.007	A
		Exit	1	1		951				951	947	0.0	0.3	1.226	A
	3	Entry	1	1	1	88		2031	0.043	88	89	0.0	0.1	2.117	A
				2	2, 3	789		2031	0.388	787	786	0.0	1.8	7.821	A
			2	1	(1, 2, 3)	878				877	883	0.0	0.5	1.942	A
		Exit	1	1		694				694	679	0.0	0.0	0.000	A

17:00 - 17:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	355		609	0.582	354	352	0.8	1.3	12.092	B
				2	1, 3	353		609	0.580	352	347	1.5	2.5	23.160	C
			2	1	(2)	357	22.47			355	354	0.2	0.8	5.828	A
				2	(1, 3)	362	22.47			353	351	0.9	3.9	28.168	D
			3	1	((1, 2, 3))	753				719	720	0.3	6.1	14.743	B
		Exit	1	1		499	22.47			499	499	0.1	0.1	0.655	A
			2	1		499				499	499	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	682		1156	0.590	668	659	2.6	7.5	33.375	D
		Exit	1	1		1136				1136	1120	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1125		1596	0.705	1125	1112	0.6	0.8	2.498	A
		Exit	1	1		864				865	852	0.3	0.3	1.542	A
2	1	Entry	1	1	1, 2, 3	312		875	0.357	309	304	0.7	1.8	17.712	C
		Exit	1	1		274				274	274	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	861		1303	0.661	861	849	0.7	0.8	3.026	A
		Exit	1	1		1125				1125	1112	0.3	0.4	1.402	A
	3	Entry	1	1	1	105		2005	0.052	106	105	0.1	0.1	2.128	A
				2	2, 3	928		2005	0.463	929	919	1.8	3.4	12.027	B
			2	1	(1, 2, 3)	1050				1033	1031	0.5	5.1	10.952	B
		Exit	1	1		805				805	791	0.0	0.0	0.000	A

17:15 - 17:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	346		580	0.598	346	356	1.3	1.5	14.315	B
				2	1, 3	349		580	0.603	348	353	2.5	3.0	29.071	D
			2	1	(2)	346	27.53			346	357	0.8	1.3	11.669	B
				2	(1, 3)	354	27.53			349	355	3.9	6.7	60.011	F
			3	1	((1, 2, 3))	910				700	726	6.1	53.5	154.776	F
		Exit	1	1		553	27.53			555	553	0.1	0.1	0.838	A
			2	1		555				555	553	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	831		1148	0.724	729	723	7.5	34.0	106.685	F
		Exit	1	1		1198				1198	1204	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1239		1588	0.780	1239	1233	0.8	0.9	2.509	A
		Exit	1	1		910				910	908	0.3	0.4	1.670	A
2	1	Entry	1	1	1, 2, 3	365		747	0.489	355	352	1.8	6.6	49.948	E
		Exit	1	1		290				290	287	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	912		1289	0.708	912	907	0.8	0.8	3.067	A
		Exit	1	1		1238				1237	1233	0.4	0.6	1.530	A

	3	Entry	1	1	1	113		1994	0.057	113	112	0.1	0.1	2.098	A
				2	2, 3	1013		1994	0.508	1013	1010	3.4	5.0	16.658	C
			2	1	(1, 2, 3)	1294				1127	1129	5.1	45.1	82.049	F
		Exit	1	1		865				865	861	0.0	0.0	0.000	A

17:30 - 17:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	338		578	0.584	338	343	1.5	1.4	14.792	B
				2	1, 3	349		578	0.604	349	350	3.0	3.0	30.179	D
			2	1	(2)	335	27.53			338	342	1.3	1.1	13.304	B
				2	(1, 3)	349	27.53			349	350	6.7	6.8	68.503	F
			3	1	((1, 2, 3))	913				684	692	53.5	109.1	437.429	F
		Exit	1	1		548	27.53			548	557	0.1	0.1	0.820	A
			2	1		548				548	557	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	824		1134	0.727	735	743	34.0	55.6	221.665	F
		Exit	1	1		1194				1194	1202	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1235		1586	0.779	1235	1244	0.9	0.9	2.535	A
		Exit	1	1		915				915	920	0.4	0.4	1.694	A
2	1	Entry	1	1	1, 2, 3	378		781	0.484	384	375	6.6	8.0	79.029	F
		Exit	1	1		287				287	296	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	913		1282	0.712	913	919	0.8	0.9	3.077	A
		Exit	1	1		1235				1235	1244	0.6	0.5	1.574	A
	3	Entry	1	1	1	109		1993	0.055	108	114	0.1	0.1	2.261	A
				2	2, 3	990		1993	0.497	990	1005	5.0	5.1	17.781	C
			2	1	(1, 2, 3)	1305				1099	1119	45.1	87.9	214.009	F
		Exit	1	1		874				874	873	0.0	0.0	0.000	A

17:45 - 18:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	342		580	0.589	339	336	1.4	1.6	14.958	B
				2	1, 3	351		580	0.604	351	351	3.0	3.0	30.221	D
			2	1	(2)	346	22.47			342	337	1.1	1.5	12.941	B
				2	(1, 3)	348	22.47			351	351	6.8	6.6	69.274	F
			3	1	((1, 2, 3))	751				694	688	109.1	123.6	600.131	F
		Exit	1	1		546	22.47			546	548	0.1	0.1	0.709	A
			2	1		546				546	548	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	677		1146	0.591	729	736	55.6	41.3	237.215	F
		Exit	1	1		1190				1190	1185	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1224		1583	0.773	1224	1225	0.9	0.9	2.530	A
		Exit	1	1		907				906	914	0.4	0.4	1.670	A
2	1	Entry	1	1	1, 2, 3	301		722	0.418	310	319	8.0	4.3	58.038	F
		Exit	1	1		294				294	291	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	907		1301	0.697	908	911	0.9	0.8	3.062	A
		Exit	1	1		1225				1226	1226	0.5	0.5	1.554	A
	3	Entry	1	1	1	117		1994	0.059	117	114	0.1	0.1	2.200	A
				2	2, 3	1028		1994	0.516	1029	1025	5.1	4.8	17.289	C
			2	1	(1, 2, 3)	1044				1145	1138	87.9	66.3	247.253	F
		Exit	1	1		845				845	851	0.0	0.0	0.000	A

18:00 - 18:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	380		618	0.615	382	370	1.6	1.5	14.733	B
				2	1, 3	394		618	0.637	394	380	3.0	2.9	27.428	D
			2	1	(2)	382	18.82			380	370	1.5	1.5	13.873	B
				2	(1, 3)	389	18.82			394	380	6.6	6.3	61.104	F
			3	1	((1, 2, 3))	635				771	748	123.6	93.1	427.347	F
		Exit	1	1		496	18.82			495	511	0.1	0.1	0.561	A
			2	1		495				495	511	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	553		1126	0.491	649	672	41.3	15.6	130.120	F
		Exit	1	1		1141				1141	1166	0.0	0.0	0.000	A
		Entry	1	2	1, 2, 3	1100		1597	0.689	1101	1149	0.9	0.8	2.488	A

	3	Exit	1	1		888				888	894	0.4	0.4	1.590	A
2	1	Entry	1	1	1, 2, 3	248		869	0.285	252	268	4.3	1.7	31.056	D
		Exit	1	1		278				278	281	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	889		1321	0.673	889	896	0.8	0.8	3.008	A
		Exit	1	1		1096				1097	1150	0.5	0.4	1.430	A
	3	Entry	1	1	1	103		1997	0.052	103	108	0.1	0.1	2.142	A
				2	2, 3	926		1997	0.464	933	980	4.8	3.2	14.708	B
			2	1	(1, 2, 3)	889				1029	1082	66.3	16.2	112.918	F
		Exit	1	1		803				803	822	0.0	0.0	0.000	A

2034 With HIF + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Lane Simulation	A1 - [Lane Simulation]	This analysis set uses Lane Simulation mode. This is provided as an investigative tool and the user should apply judgement when interpreting the results.
Last Run	Lane Simulation	Junction 1 - Arm 1 - Lane Simulation	Arm 1: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 1 - Arm 2 - Lane Simulation	Arm 2: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Last Run	Lane Simulation	Junction 2 - Arm 3 - Lane Simulation	Arm 3: Queue at end of modelled period is greater than 10 PCU. Delay is likely to have been underestimated.
Warning	Mini-roundabout	Junction 2	Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 86% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Southern mini	Mini-roundabout		1, 2, 3	272.31	F
2	Northern mini	Mini-roundabout		1, 2, 3	136.15	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2034 With HIF + Dev	PM	ONE HOUR	16:45	18:15	15	✓

Default vehicle mix	Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	✓	HV Percentages	2.00

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (PCU/hr)	Flow multiplier (%)	Internal storage space (PCU)
1	3	2	2	Simple (vertical queueing)	Normal	0	100.00	
2	2	1	3	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1	1		ONE HOUR	✓	838	100.000
	2		ONE HOUR	✓	755	100.000
	3	✓				
2	1		ONE HOUR	✓	341	100.000
	2	✓				
	3		ONE HOUR	✓	1176	100.000

Demand overview (Pedestrians)

Junction	Arm	Profile type	Average pedestrian flow (Ped/hr)
1	1	[ONEHOUR]	25.00
	2		

	3		
2	1		
	2		
	3		

Origin-Destination Data

Junction 1

Demand (PCU/hr)

		To		
		1	2	3
From	1	1	413	424
	2	175	0	580
	3	395	880	0

Junction 2

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	217	124
	2	196	0	808
	3	118	1057	1

Vehicle Mix

Junction 1

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Junction 2

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	10	10	10
	2	10	10	10
	3	10	10	10

Results

Results Summary for whole modelled period

Junction	Arm	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	692.56	142.3	F	767	1150
	2	256.90	58.7	F	700	1050
	3	2.52	0.9	A	1155	1732
2	1	75.17	9.0	F	311	466
	2	3.09	0.9	A	881	1321
	3	261.94	96.2	F	1082	1623

Main Results for each time segment

16:45 - 17:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service

1	1	629	157	672	18.82	626	616	432	0.0	4.3	21.315	C
	2	573	143	273		571	560	977	0.0	2.6	14.550	B
	3	969	242	135		968	952	755	0.0	0.7	2.488	A
2	1	257	64	803		256	255	237	0.0	0.6	8.962	A
	2	757	189	93		757	736	966	0.0	0.7	3.035	A
	3	893	223	147		893	883	702	0.0	2.5	9.690	A

17:00 - 17:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	757	189	784	22.47	723	711	502	4.3	15.2	54.244	F
	2	676	169	327		666	651	1144	2.6	8.2	35.322	E
	3	1133	283	152		1133	1126	875	0.7	0.8	2.499	A
2	1	298	74	946		298	297	277	0.6	1.9	18.743	C
	2	874	219	111		874	857	1133	0.7	0.8	3.021	A
	3	1051	263	170		1053	1044	815	2.5	7.9	23.731	C

17:15 - 17:30

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	938	234	856	27.53	690	708	557	15.2	71.6	226.580	F
	2	840	210	284		743	730	1195	8.2	33.8	109.565	F
	3	1239	310	173		1240	1225	921	0.8	0.9	2.523	A
2	1	371	93	1017		353	350	294	1.9	7.4	52.567	F
	2	920	230	128		921	911	1242	0.8	0.8	3.074	A
	3	1300	325	177		1133	1119	872	7.9	52.0	100.731	F

17:30 - 17:45

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	911	228	857	27.53	697	692	555	71.6	126.5	527.759	F
	2	839	210	328		739	733	1205	33.8	58.7	232.270	F
	3	1243	311	170		1243	1247	916	0.9	0.9	2.516	A
2	1	376	94	1021		358	367	292	7.4	9.0	75.170	F
	2	914	228	132		913	910	1246	0.8	0.9	3.094	A
	3	1299	325	178		1134	1126	867	52.0	96.2	242.180	F

17:45 - 18:00

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	750	188	853	22.47	694	686	540	126.5	142.3	692.561	F
	2	689	172	338		738	737	1188	58.7	45.4	256.899	F
	3	1222	306	171		1222	1239	926	0.9	0.9	2.498	A
2	1	302	75	1036		311	323	292	9.0	4.6	63.657	F
	2	923	231	118		924	921	1227	0.9	0.8	3.049	A
	3	1054	264	174		1154	1158	868	96.2	71.3	261.944	F

18:00 - 18:15

Junction	Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Throughput (PCU/hr)	Average throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	616	154	777	18.82	785	744	500	142.3	114.1	533.920	F
	2	581	145	380		653	675	1165	45.4	19.4	139.643	F
	3	1121	280	157		1121	1157	892	0.9	0.9	2.505	A
2	1	261	65	956		268	269	275	4.6	1.3	30.524	D
	2	895	224	100		896	894	1124	0.8	0.8	3.025	A
	3	895	224	173		1059	1096	822	71.3	20.6	129.918	F

Lane Results

Lane Level notation: Lane Level 1 is always closest to the junction.

Lanes: Main Results for each time segment

16:45 - 17:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	308		655	0.470	306	307	0.0	1.0	9.724	A
				2	1, 3	321		655	0.489	320	309	0.0	1.6	16.951	C
			2	1	(2)	308	18.82			308	311	0.0	0.3	2.298	A
				2	(1, 3)	323	18.82			321	315	0.0	1.2	10.215	B
			3	1	((1, 2, 3))	629				631	632	0.0	0.3	1.471	A
		Exit	1	1		432	18.82			432	424	0.0	0.1	0.619	A
			2	1		432				432	424	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	573		1174	0.488	571	560	0.0	2.6	14.550	B
		Exit	1	1		977				977	966	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	969		1611	0.601	968	952	0.0	0.7	2.488	A
		Exit	1	1		756				755	736	0.0	0.3	1.389	A
2	1	Entry	1	1	1, 2, 3	257		1067	0.241	256	255	0.0	0.6	8.962	A
		Exit	1	1		237				237	228	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	757		1318	0.574	757	736	0.0	0.7	3.035	A
		Exit	1	1		966				966	956	0.0	0.3	1.218	A
	3	Entry	1	1	1	89		2031	0.044	90	87	0.0	0.0	2.072	A
				2	2, 3	802		2031	0.395	803	796	0.0	1.9	8.065	A
			2	1	(1, 2, 3)	893				891	891	0.0	0.6	2.197	A
		Exit	1	1		702				702	688	0.0	0.0	0.000	A

17:00 - 17:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	360		608	0.592	360	356	1.0	1.3	12.336	B
				2	1, 3	362		608	0.594	362	355	1.6	2.6	23.236	C
			2	1	(2)	359	22.47			360	358	0.3	0.8	5.987	A
				2	(1, 3)	368	22.47			362	359	1.2	4.0	30.035	D
			3	1	((1, 2, 3))	757				727	730	0.3	6.5	17.295	C
		Exit	1	1		503	22.47			502	497	0.1	0.1	0.682	A
			2	1		502				502	497	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	676		1141	0.593	666	651	2.6	8.2	35.322	E
		Exit	1	1		1144				1144	1136	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1133		1599	0.709	1133	1126	0.7	0.8	2.499	A
		Exit	1	1		876				875	856	0.3	0.3	1.535	A
2	1	Entry	1	1	1, 2, 3	298		849	0.351	298	297	0.6	1.9	18.743	C
		Exit	1	1		277				277	273	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	874		1304	0.671	874	857	0.7	0.8	3.021	A
		Exit	1	1		1133				1133	1127	0.3	0.4	1.417	A
	3	Entry	1	1	1	107		2003	0.053	107	105	0.0	0.1	2.121	A
				2	2, 3	947		2003	0.473	946	938	1.9	3.5	12.335	B
			2	1	(1, 2, 3)	1051				1055	1050	0.6	4.4	12.349	B
		Exit	1	1		815				815	798	0.0	0.0	0.000	A

17:15 - 17:30

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	343		578	0.593	340	357	1.3	1.5	14.334	B
				2	1, 3	351		578	0.607	351	351	2.6	3.0	29.431	D
			2	1	(2)	348	27.53			343	358	0.8	1.6	12.135	B
				2	(1, 3)	352	27.53			351	353	4.0	6.6	61.556	F
			3	1	((1, 2, 3))	938				700	724	6.5	58.8	166.291	F
		Exit	1	1		557	27.53			557	549	0.1	0.1	0.806	A
			2	1		557				557	549	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	840		1167	0.719	743	730	8.2	33.8	109.565	F
		Exit	1	1		1195				1195	1203	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1239		1583	0.783	1240	1225	0.8	0.9	2.523	A
		Exit	1	1		921				921	910	0.3	0.4	1.681	A
2	1	Entry	1	1	1, 2, 3	371		740	0.501	353	350	1.9	7.4	52.567	F
		Exit	1	1		294				294	290	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	920		1290	0.713	921	911	0.8	0.8	3.074	A
		Exit	1	1		1242				1242	1227	0.4	0.6	1.549	A

	3	Entry	1	1	1	116		1994	0.058	116	114	0.1	0.1	2.132	A
				2	2, 3	1018		1994	0.510	1017	1004	3.5	5.1	16.917	C
			2	1	(1, 2, 3)	1300				1133	1125	4.4	46.9	85.162	F
		Exit	1	1		872				872	862	0.0	0.0	0.000	A

17:30 - 17:45

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	346		577	0.598	347	345	1.5	1.4	15.007	C
				2	1, 3	349		577	0.605	349	347	3.0	3.0	30.386	D
			2	1	(2)	345	27.53			346	344	1.6	1.2	14.220	B
				2	(1, 3)	349	27.53			349	347	6.6	6.8	68.978	F
			3	1	((1, 2, 3))	911				695	690	58.8	114.2	463.325	F
		Exit	1	1		556	27.53			555	551	0.1	0.1	0.878	A
			2	1		555				555	551	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	839		1140	0.736	739	733	33.8	58.7	232.270	F
		Exit	1	1		1205				1205	1210	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1243		1585	0.784	1243	1247	0.9	0.9	2.516	A
		Exit	1	1		918				916	910	0.4	0.5	1.716	A
2	1	Entry	1	1	1, 2, 3	376		735	0.511	358	367	7.4	9.0	75.170	F
		Exit	1	1		292				292	290	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	914		1287	0.710	913	910	0.8	0.9	3.094	A
		Exit	1	1		1246				1246	1247	0.6	0.5	1.552	A
	3	Entry	1	1	1	113		1993	0.057	113	111	0.1	0.0	2.142	A
				2	2, 3	1022		1993	0.513	1021	1015	5.1	5.1	17.737	C
			2	1	(1, 2, 3)	1299				1135	1126	46.9	91.1	226.131	F
		Exit	1	1		867				867	865	0.0	0.0	0.000	A

17:45 - 18:00

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	334		579	0.576	335	333	1.4	1.4	14.670	B
				2	1, 3	360		579	0.621	359	352	3.0	3.0	30.206	D
			2	1	(2)	332	22.47			334	334	1.2	1.1	12.320	B
				2	(1, 3)	359	22.47			360	352	6.8	6.7	69.347	F
			3	1	((1, 2, 3))	750				691	685	114.2	130.1	632.574	F
		Exit	1	1		540	22.47			540	550	0.1	0.1	0.718	A
			2	1		540				540	550	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	689		1133	0.608	738	737	58.7	45.4	256.899	F
		Exit	1	1		1188				1188	1190	0.0	0.0	0.000	A
	3	Entry	1	2	1, 2, 3	1222		1585	0.771	1222	1239	0.9	0.9	2.498	A
		Exit	1	1		926				926	921	0.5	0.4	1.660	A
2	1	Entry	1	1	1, 2, 3	302		712	0.423	311	323	9.0	4.6	63.657	F
		Exit	1	1		292				292	296	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	923		1298	0.711	924	921	0.9	0.8	3.049	A
		Exit	1	1		1228				1227	1240	0.5	0.6	1.527	A
	3	Entry	1	1	1	119		1998	0.059	119	119	0.0	0.1	2.149	A
				2	2, 3	1035		1998	0.518	1036	1039	5.1	4.9	17.131	C
			2	1	(1, 2, 3)	1054				1154	1158	91.1	66.3	246.467	F
		Exit	1	1		868				868	866	0.0	0.0	0.000	A

18:00 - 18:15

Junction	Arm	Side	Lane level	Lane	Destination arms	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Average throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	Entry	1	1	2	389		611	0.637	388	364	1.4	1.5	14.468	B
				2	1, 3	398		611	0.651	397	379	3.0	3.0	27.668	D
			2	1	(2)	390	18.82			389	365	1.1	1.2	13.511	B
				2	(1, 3)	400	18.82			398	379	6.7	6.6	61.414	F
			3	1	((1, 2, 3))	616				789	744	130.1	101.8	489.069	F
		Exit	1	1		501	18.82			500	512	0.1	0.1	0.590	A
			2	1		500				500	512	0.0	0.0	0.000	A
	2	Entry	1	1	1, 2, 3	581		1107	0.525	653	675	45.4	19.4	139.643	F
		Exit	1	1		1165				1165	1169	0.0	0.0	0.000	A
		Entry	1	2	1, 2, 3	1121		1595	0.703	1121	1157	0.9	0.9	2.505	A

	3	Exit	1	1		892				892	894	0.4	0.4	1.609	A
2	1	Entry	1	1	1, 2, 3	261		833	0.314	268	269	4.6	1.3	30.524	D
		Exit	1	1		275				275	281	0.0	0.0	0.000	A
	2	Entry	1	2	1, 2, 3	895		1313	0.682	896	894	0.8	0.8	3.025	A
		Exit	1	1		1125				1124	1157	0.6	0.5	1.459	A
	3	Entry	1	1	1	103		1999	0.051	103	108	0.1	0.0	2.229	A
				2	2, 3	949		1999	0.475	956	988	4.9	3.3	15.102	C
			2	1	(1, 2, 3)	895				1052	1089	66.3	17.3	116.305	F
		Exit	1	1		822				822	822	0.0	0.0	0.000	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: J8 Colwell Drive roundabout j9 model.j9
Path: Z:\Projects\Projects 18\18-0656 Culham Science Centre\Developments at CSC, on-site work\CCDP Offices\TA October 2021\Capacity Assessments\Junction 8 Colwell Drive roundabout
Report generation date: 11/19/2021 12:22:14 PM

»2021 base + com, AM
»2021 base + com, PM
»2024 base + com, AM
»2024 base + com, PM
»2024 base + com + dev, AM
»2024 base + com + dev, PM
»2024 With HIF, AM
»2024 With HIF, PM
»2024 With HIF + dev, AM
»2024 With HIF + dev, PM
»2034 With HIF, AM
»2034 With HIF, PM
»2034 With HIF + dev, AM
»2034 With HIF + dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2021 base + com							
Arm A	1.4	3.73	0.56	A	1.5	3.83	0.57	A
Arm B	1.9	8.91	0.63	A	1.9	9.59	0.63	A
Arm C	2.9	12.02	0.73	B	2.5	10.37	0.70	B
	2024 base + com							
Arm A	1.6	4.08	0.59	A	1.7	4.21	0.61	A
Arm B	2.4	10.77	0.69	B	2.4	11.82	0.69	B
Arm C	3.9	15.50	0.79	C	3.4	13.02	0.76	B
	2024 base + com + dev							
Arm A	1.6	4.08	0.59	A	1.7	4.21	0.61	A
Arm B	2.4	10.79	0.69	B	2.4	11.82	0.69	B
Arm C	3.9	15.50	0.79	C	3.4	13.31	0.76	B
	2024 With HIF							
Arm A	1.6	4.08	0.59	A	1.7	4.21	0.61	A
Arm B	2.4	10.79	0.69	B	2.4	11.82	0.69	B
Arm C	3.6	14.46	0.77	B	3.1	12.24	0.74	B
	2024 With HIF + dev							
Arm A	1.6	4.09	0.59	A	1.7	4.21	0.61	A
Arm B	2.4	10.81	0.69	B	2.4	11.82	0.69	B

Arm C	3.6	14.46	0.77	B	3.2	12.49	0.75	B
	2034 With HIF							
Arm A	2.0	4.75	0.65	A	2.2	4.98	0.67	A
Arm B	3.7	15.71	0.78	C	4.1	18.68	0.80	C
Arm C	6.3	24.06	0.86	C	5.1	18.70	0.83	C
	2034 With HIF + dev							
Arm A	2.0	4.76	0.65	A	2.2	4.98	0.67	A
Arm B	3.7	15.75	0.78	C	4.1	18.68	0.80	C
Arm C	6.3	24.21	0.86	C	5.2	19.27	0.84	C

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	4/30/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	BSP-CONSULTING\tbowey
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021 base + com	AM	ONE HOUR	07:30	09:00	15
D2	2021 base + com	PM	ONE HOUR	16:30	18:00	15
D3	2024 base + com	AM	ONE HOUR	07:30	09:00	15
D4	2024 base + com	PM	ONE HOUR	16:30	18:00	15
D5	2024 base + com + dev	AM	ONE HOUR	07:30	09:00	15
D6	2024 base + com + dev	PM	ONE HOUR	16:30	18:00	15
D7	2024 With HIF	AM	ONE HOUR	07:30	09:00	15
D8	2024 With HIF	PM	ONE HOUR	16:30	18:00	15
D9	2024 With HIF + dev	AM	ONE HOUR	07:30	09:00	15
D10	2024 With HIF + dev	PM	ONE HOUR	16:30	18:00	15
D11	2034 With HIF	AM	ONE HOUR	07:30	09:00	15
D12	2034 With HIF	PM	ONE HOUR	16:30	18:00	15
D13	2034 With HIF + dev	AM	ONE HOUR	07:30	09:00	15
D14	2034 With HIF + dev	PM	ONE HOUR	16:30	18:00	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2021 base + com, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	7.50	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Marcham Road (west)	
B	Colwell Drive	
C	Marcham Road (east)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	3.80	10.40	54.5	61.0	29.5	45.0	
B	5.00	6.80	6.6	30.4	29.5	52.0	
C	3.90	7.60	6.5	64.4	29.5	40.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.825	2543
B	0.640	1699
C	0.633	1577

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021 base + com	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1211	100.000
B		✓	688	100.000
C		✓	796	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	21	508	682
	B	513	0	175
	C	633	160	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.56	3.73	1.4	A
B	0.63	8.91	1.9	A
C	0.73	12.02	2.9	B

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	912	122	2442	0.373	909	0.7	2.578	A
B	518	530	1360	0.381	515	0.7	4.675	A
C	599	400	1324	0.453	596	0.9	5.410	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1089	146	2422	0.449	1088	0.9	2.966	A
B	618	634	1293	0.478	617	1.0	5.849	A

C	716	479	1274	0.562	714	1.4	7.040	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1333	178	2396	0.557	1331	1.4	3.714	A
B	758	776	1202	0.630	754	1.8	8.775	A
C	876	585	1207	0.726	871	2.8	11.590	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1333	179	2395	0.557	1333	1.4	3.729	A
B	758	777	1201	0.631	757	1.9	8.913	A
C	876	588	1205	0.727	876	2.9	12.019	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1089	148	2421	0.450	1091	0.9	2.982	A
B	618	636	1292	0.479	622	1.0	5.937	A
C	716	483	1272	0.563	721	1.4	7.264	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	912	123	2441	0.373	913	0.7	2.593	A
B	518	532	1358	0.381	519	0.7	4.729	A
C	599	403	1322	0.453	601	0.9	5.507	A

2021 base + com, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	7.16	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2021 base + com	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1249	100.000
B		✓	650	100.000
C		✓	808	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	38	441	770
	B	402	0	248
	C	660	146	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C

From	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.57	3.83	1.5	A
B	0.63	9.59	1.9	A
C	0.70	10.37	2.5	B

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	940	111	2452	0.384	938	0.7	2.611	A
B	489	608	1310	0.374	487	0.7	4.782	A
C	608	330	1369	0.444	605	0.9	5.159	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1123	133	2433	0.461	1122	0.9	3.014	A
B	584	728	1233	0.474	583	1.0	6.078	A
C	726	395	1328	0.547	725	1.3	6.546	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1375	162	2409	0.571	1373	1.4	3.813	A
B	716	890	1129	0.634	712	1.9	9.420	A
C	890	482	1272	0.699	885	2.5	10.104	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1375	163	2409	0.571	1375	1.5	3.831	A
B	716	892	1128	0.634	716	1.9	9.590	A
C	890	484	1271	0.700	889	2.5	10.368	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1123	134	2432	0.462	1125	0.9	3.034	A
B	584	729	1232	0.474	588	1.0	6.182	A
C	726	398	1326	0.548	731	1.4	6.712	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

A	940	112	2451	0.384	941	0.7	2.626	A
B	489	610	1308	0.374	491	0.7	4.854	A
C	608	332	1367	0.445	610	0.9	5.244	A

2024 base + com, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	9.16	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 base + com	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1286	100.000
B		✓	729	100.000
C		✓	845	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	22	538	726
	B	543	0	186
	C	673	169	3

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C

From	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.59	4.08	1.6	A
B	0.69	10.77	2.4	B
C	0.79	15.50	3.9	C

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	968	129	2437	0.397	965	0.7	2.687	A
B	549	564	1338	0.410	546	0.8	4.980	A
C	636	423	1310	0.486	632	1.0	5.809	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1156	154	2416	0.479	1155	1.0	3.137	A
B	655	674	1267	0.517	654	1.2	6.438	A
C	760	507	1257	0.604	757	1.6	7.886	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1416	188	2388	0.593	1414	1.6	4.053	A
B	803	825	1171	0.686	798	2.3	10.499	B
C	930	619	1186	0.785	922	3.7	14.562	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1416	189	2387	0.593	1416	1.6	4.078	A
B	803	827	1170	0.686	802	2.4	10.768	B
C	930	622	1184	0.786	930	3.9	15.497	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1156	156	2414	0.479	1158	1.0	3.161	A
B	655	677	1266	0.518	660	1.2	6.584	A
C	760	511	1254	0.606	768	1.7	8.294	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

A	968	130	2436	0.398	969	0.7	2.702	A
B	549	566	1337	0.411	551	0.8	5.048	A
C	636	427	1307	0.487	639	1.1	5.946	A

2024 base + com, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	8.67	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 base + com	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1325	100.000
B		✓	689	100.000
C		✓	863	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	40	467	818
	B	426	0	263
	C	706	155	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C

From	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.61	4.21	1.7	A
B	0.69	11.82	2.4	B
C	0.76	13.02	3.4	B

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	998	117	2446	0.408	995	0.8	2.722	A
B	519	645	1286	0.403	516	0.7	5.124	A
C	650	349	1357	0.479	646	1.0	5.540	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1191	141	2427	0.491	1190	1.1	3.198	A
B	619	772	1205	0.514	618	1.1	6.729	A
C	776	418	1313	0.591	774	1.6	7.310	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1459	172	2401	0.608	1456	1.7	4.180	A
B	759	945	1094	0.693	754	2.4	11.469	B
C	950	510	1255	0.757	943	3.3	12.454	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1459	173	2400	0.608	1459	1.7	4.205	A
B	759	947	1093	0.694	758	2.4	11.817	B
C	950	513	1253	0.758	950	3.4	13.024	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1191	142	2425	0.491	1194	1.1	3.220	A
B	619	775	1203	0.515	624	1.2	6.903	A
C	776	422	1310	0.592	783	1.6	7.599	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

A	998	119	2445	0.408	999	0.8	2.741	A
B	519	648	1284	0.404	520	0.8	5.197	A
C	650	352	1355	0.480	652	1.0	5.654	A

2024 base + com + dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	9.16	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 base + com + dev	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1287	100.000
B		✓	729	100.000
C		✓	845	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	22	538	727
	B	543	0	186
	C	673	169	3

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C

From	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.59	4.08	1.6	A
B	0.69	10.79	2.4	B
C	0.79	15.50	3.9	C

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	969	129	2437	0.398	966	0.7	2.688	A
B	549	564	1338	0.410	546	0.8	4.983	A
C	636	423	1310	0.486	632	1.0	5.809	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1157	154	2416	0.479	1156	1.0	3.140	A
B	655	675	1267	0.517	654	1.2	6.444	A
C	760	507	1257	0.604	757	1.6	7.886	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1417	188	2388	0.593	1415	1.6	4.058	A
B	803	827	1170	0.686	798	2.3	10.519	B
C	930	619	1186	0.785	922	3.7	14.561	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1417	189	2387	0.594	1417	1.6	4.083	A
B	803	828	1169	0.687	802	2.4	10.789	B
C	930	622	1184	0.786	930	3.9	15.497	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1157	156	2414	0.479	1159	1.0	3.163	A
B	655	677	1265	0.518	660	1.2	6.593	A
C	760	511	1254	0.606	768	1.7	8.294	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

A	969	130	2436	0.398	970	0.7	2.705	A
B	549	567	1336	0.411	551	0.8	5.053	A
C	636	427	1307	0.487	639	1.1	5.948	A

2024 base + com + dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	8.77	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 base + com + dev	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1325	100.000
B		✓	689	100.000
C		✓	869	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	40	467	818
	B	426	0	263
	C	712	155	2

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C

From	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.61	4.21	1.7	A
B	0.69	11.82	2.4	B
C	0.76	13.31	3.4	B

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	998	117	2446	0.408	995	0.8	2.722	A
B	519	645	1286	0.403	516	0.7	5.124	A
C	654	349	1357	0.482	650	1.0	5.575	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1191	141	2427	0.491	1190	1.1	3.198	A
B	619	772	1205	0.514	618	1.1	6.729	A
C	781	418	1313	0.595	779	1.6	7.382	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1459	172	2401	0.608	1456	1.7	4.179	A
B	759	945	1094	0.693	754	2.4	11.469	B
C	957	510	1255	0.763	950	3.3	12.699	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1459	173	2400	0.608	1459	1.7	4.205	A
B	759	947	1093	0.694	758	2.4	11.817	B
C	957	513	1253	0.764	956	3.4	13.309	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1191	142	2425	0.491	1194	1.1	3.220	A
B	619	775	1203	0.515	624	1.2	6.901	A
C	781	422	1310	0.596	788	1.7	7.687	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

A	998	119	2445	0.408	999	0.8	2.741	A
B	519	648	1284	0.404	520	0.8	5.199	A
C	654	352	1355	0.483	657	1.0	5.692	A

2024 With HIF, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	8.82	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2024 With HIF	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1287	100.000
B		✓	729	100.000
C		✓	828	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	22	538	727
	B	543	0	186
	C	656	169	3

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C

From	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.59	4.08	1.6	A
B	0.69	10.79	2.4	B
C	0.77	14.46	3.6	B

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	969	129	2437	0.398	966	0.7	2.688	A
B	549	564	1338	0.410	546	0.8	4.983	A
C	623	423	1310	0.476	619	1.0	5.706	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1157	154	2416	0.479	1156	1.0	3.140	A
B	655	675	1267	0.517	654	1.2	6.444	A
C	744	507	1257	0.592	742	1.6	7.658	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1417	188	2388	0.593	1415	1.6	4.059	A
B	803	827	1170	0.686	798	2.3	10.519	B
C	912	619	1186	0.769	904	3.4	13.701	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1417	189	2387	0.594	1417	1.6	4.083	A
B	803	828	1169	0.687	802	2.4	10.789	B
C	912	622	1184	0.770	911	3.6	14.458	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1157	156	2414	0.479	1159	1.0	3.163	A
B	655	677	1265	0.518	660	1.2	6.590	A
C	744	511	1254	0.594	752	1.6	8.008	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

A	969	130	2436	0.398	970	0.7	2.705	A
B	549	567	1336	0.411	551	0.8	5.053	A
C	623	427	1307	0.477	626	1.0	5.833	A

2024 With HIF, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	8.41	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2024 With HIF	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1325	100.000
B		✓	689	100.000
C		✓	845	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	40	467	818
	B	426	0	263
	C	688	155	2

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C

From	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.61	4.21	1.7	A
B	0.69	11.82	2.4	B
C	0.74	12.24	3.1	B

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	998	117	2446	0.408	995	0.8	2.722	A
B	519	645	1286	0.403	516	0.7	5.124	A
C	636	349	1357	0.469	632	1.0	5.440	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1191	141	2427	0.491	1190	1.1	3.199	A
B	619	772	1205	0.514	618	1.1	6.729	A
C	760	418	1313	0.579	758	1.5	7.102	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1459	172	2401	0.608	1456	1.7	4.180	A
B	759	945	1094	0.693	754	2.4	11.469	B
C	930	510	1255	0.742	924	3.0	11.769	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1459	173	2400	0.608	1459	1.7	4.205	A
B	759	947	1093	0.694	758	2.4	11.817	B
C	930	513	1253	0.743	930	3.1	12.235	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1191	142	2426	0.491	1194	1.1	3.220	A
B	619	775	1203	0.515	624	1.2	6.903	A
C	760	422	1310	0.580	766	1.5	7.355	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

A	998	119	2445	0.408	999	0.8	2.741	A
B	519	648	1284	0.404	520	0.8	5.197	A
C	636	352	1355	0.470	638	1.0	5.545	A

2024 With HIF + dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	8.83	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2024 With HIF + dev	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1288	100.000
B		✓	729	100.000
C		✓	828	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	22	538	728
	B	543	0	186
	C	656	169	3

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C

From	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.59	4.09	1.6	A
B	0.69	10.81	2.4	B
C	0.77	14.46	3.6	B

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	970	129	2437	0.398	967	0.7	2.688	A
B	549	565	1337	0.410	546	0.8	4.986	A
C	623	423	1310	0.476	619	1.0	5.706	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1158	154	2416	0.479	1157	1.0	3.142	A
B	655	676	1266	0.518	654	1.2	6.451	A
C	744	507	1257	0.592	742	1.6	7.658	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1418	188	2388	0.594	1416	1.6	4.063	A
B	803	828	1169	0.687	798	2.3	10.537	B
C	912	619	1186	0.769	904	3.4	13.700	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1418	189	2387	0.594	1418	1.6	4.087	A
B	803	829	1168	0.687	802	2.4	10.810	B
C	912	622	1184	0.770	911	3.6	14.458	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1158	156	2414	0.480	1160	1.0	3.165	A
B	655	678	1265	0.518	660	1.2	6.600	A
C	744	511	1254	0.594	752	1.6	8.010	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

A	970	130	2436	0.398	971	0.7	2.704	A
B	549	568	1336	0.411	551	0.8	5.056	A
C	623	427	1307	0.477	626	1.0	5.830	A

2024 With HIF + dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	8.50	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2024 With HIF + dev	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1325	100.000
B		✓	689	100.000
C		✓	851	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	40	467	818
	B	426	0	263
	C	694	155	2

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C

From	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.61	4.21	1.7	A
B	0.69	11.82	2.4	B
C	0.75	12.49	3.2	B

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	998	117	2446	0.408	995	0.8	2.722	A
B	519	645	1286	0.403	516	0.7	5.124	A
C	641	349	1357	0.472	637	1.0	5.472	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1191	141	2427	0.491	1190	1.1	3.198	A
B	619	772	1205	0.514	618	1.1	6.729	A
C	765	418	1313	0.583	763	1.5	7.169	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1459	172	2401	0.608	1456	1.7	4.180	A
B	759	945	1094	0.693	754	2.4	11.469	B
C	937	510	1255	0.747	931	3.1	11.990	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1459	173	2400	0.608	1459	1.7	4.205	A
B	759	947	1093	0.694	758	2.4	11.817	B
C	937	513	1253	0.748	937	3.2	12.489	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1191	142	2426	0.491	1194	1.1	3.220	A
B	619	775	1203	0.515	624	1.2	6.901	A
C	765	422	1310	0.584	771	1.6	7.432	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

A	998	119	2445	0.408	999	0.8	2.739	A
B	519	648	1284	0.404	520	0.8	5.199	A
C	641	352	1355	0.473	643	1.0	5.581	A

2034 With HIF, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	13.18	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2034 With HIF	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1399	100.000
B		✓	793	100.000
C		✓	900	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	24	585	790
	B	591	0	202
	C	713	184	3

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C

From	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.65	4.75	2.0	A
B	0.78	15.71	3.7	C
C	0.86	24.06	6.3	C

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1053	140	2428	0.434	1050	0.8	2.867	A
B	597	613	1306	0.457	593	0.9	5.527	A
C	678	460	1286	0.527	673	1.2	6.406	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1258	167	2405	0.523	1256	1.2	3.443	A
B	713	734	1229	0.580	711	1.5	7.600	A
C	809	551	1229	0.659	806	2.1	9.287	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1540	203	2376	0.648	1537	2.0	4.705	A
B	873	898	1124	0.776	865	3.6	14.798	B
C	991	671	1153	0.860	976	5.8	20.843	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1540	205	2373	0.649	1540	2.0	4.753	A
B	873	899	1123	0.777	873	3.7	15.711	C
C	991	677	1149	0.862	989	6.3	24.061	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1258	171	2401	0.524	1261	1.2	3.483	A
B	713	736	1228	0.581	721	1.6	7.951	A
C	809	559	1223	0.661	825	2.2	10.327	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

A	1053	142	2426	0.434	1055	0.8	2.892	A
B	597	616	1305	0.458	599	0.9	5.634	A
C	678	465	1283	0.528	681	1.2	6.623	A

2034 With HIF, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	12.33	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2034 With HIF	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1447	100.000
B		✓	752	100.000
C		✓	922	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	44	510	893
	B	465	0	287
	C	751	169	2

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C

From	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.67	4.98	2.2	A
B	0.80	18.68	4.1	C
C	0.83	18.70	5.1	C

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1089	128	2437	0.447	1086	0.9	2.923	A
B	566	705	1248	0.454	563	0.9	5.749	A
C	694	381	1336	0.519	689	1.2	6.078	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1301	153	2417	0.538	1299	1.3	3.539	A
B	676	843	1159	0.583	674	1.5	8.112	A
C	829	456	1289	0.643	826	1.9	8.496	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1593	186	2389	0.667	1590	2.2	4.930	A
B	828	1032	1039	0.797	818	4.0	17.235	C
C	1015	554	1227	0.828	1004	4.8	16.962	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1593	188	2388	0.667	1593	2.2	4.983	A
B	828	1034	1037	0.798	827	4.1	18.678	C
C	1015	560	1223	0.830	1014	5.1	18.699	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1301	156	2414	0.539	1304	1.3	3.578	A
B	676	846	1157	0.584	686	1.6	8.584	A
C	829	464	1284	0.646	841	2.1	9.170	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

A	1089	129	2436	0.447	1091	0.9	2.948	A
B	566	708	1246	0.454	569	0.9	5.871	A
C	694	385	1334	0.520	698	1.2	6.255	A

2034 With HIF + dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	13.24	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2034 With HIF + dev	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1400	100.000
B		✓	793	100.000
C		✓	901	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	24	585	791
	B	591	0	202
	C	714	184	3

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C

From	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.65	4.76	2.0	A
B	0.78	15.75	3.7	C
C	0.86	24.21	6.3	C

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1054	140	2428	0.434	1051	0.8	2.868	A
B	597	614	1306	0.457	593	0.9	5.530	A
C	678	460	1286	0.527	673	1.2	6.414	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1259	167	2405	0.523	1257	1.2	3.445	A
B	713	735	1229	0.580	711	1.5	7.609	A
C	810	551	1229	0.659	807	2.1	9.305	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1541	203	2376	0.649	1538	2.0	4.711	A
B	873	899	1124	0.777	865	3.6	14.835	B
C	992	671	1153	0.861	977	5.8	20.940	C

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1541	205	2373	0.649	1541	2.0	4.759	A
B	873	901	1123	0.778	873	3.7	15.754	C
C	992	677	1149	0.863	990	6.3	24.209	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1259	172	2401	0.524	1262	1.2	3.486	A
B	713	737	1227	0.581	721	1.6	7.963	A
C	810	559	1223	0.662	826	2.2	10.359	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

A	1054	142	2426	0.434	1055	0.8	2.891	A
B	597	617	1304	0.458	599	0.9	5.638	A
C	678	465	1283	0.529	682	1.3	6.629	A

2034 With HIF + dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm A - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C	12.52	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D14	2034 With HIF + dev	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	1447	100.000
B		✓	752	100.000
C		✓	928	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	44	510	893
	B	465	0	287
	C	757	169	2

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C

From	A	10	10	10
	B	10	10	10
	C	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.67	4.98	2.2	A
B	0.80	18.68	4.1	C
C	0.84	19.27	5.2	C

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1089	128	2437	0.447	1086	0.9	2.923	A
B	566	705	1248	0.454	563	0.9	5.749	A
C	699	381	1336	0.523	694	1.2	6.118	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1301	153	2417	0.538	1299	1.3	3.539	A
B	676	843	1159	0.583	674	1.5	8.112	A
C	834	456	1289	0.647	831	2.0	8.592	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1593	186	2389	0.667	1590	2.2	4.930	A
B	828	1032	1039	0.797	818	4.0	17.235	C
C	1022	554	1227	0.833	1010	4.9	17.388	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1593	188	2388	0.667	1593	2.2	4.983	A
B	828	1034	1037	0.798	827	4.1	18.678	C
C	1022	560	1223	0.835	1021	5.2	19.273	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	1301	156	2414	0.539	1304	1.3	3.578	A
B	676	846	1157	0.584	686	1.6	8.584	A
C	834	464	1284	0.650	847	2.1	9.310	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

A	1089	129	2436	0.447	1091	0.9	2.946	A
B	566	708	1246	0.454	569	0.9	5.873	A
C	699	385	1334	0.524	702	1.2	6.301	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.0.6896
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Filename: J9 Nuffield Way roundabout j9 model.j9
Path: Z:\Projects\Projects 18\18-0656 Culham Science Centre\Developments at CSC, on-site work\CCDP Offices\TA October 2021\Capacity Assessments\Junction 9 Marcham Road-Nuffied Way
Report generation date: 11/19/2021 12:36:34 PM

»2021 base + com, AM
»2021 base + com, PM
»2024 base + com, AM
»2024 base + com, PM
»2024 base + com + dev, AM
»2024 base + com + dev, PM
»2024 With HIF, AM
»2024 With HIF, PM
»2024 With HIF + Dev, AM
»2024 With HIF + Dev, PM
»2034 With HIF, AM
»2034 With HIF, PM
»2034 With HIF + Dev, AM
»2034 With HIF + Dev, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2021 base + com							
Arm A	0.5	11.90	0.29	B	2.3	25.59	0.68	D
Arm B	3.4	9.68	0.76	A	4.4	13.48	0.81	B
Arm C	0.6	5.87	0.37	A	1.5	9.11	0.59	A
Arm D	1.6	4.98	0.60	A	1.3	4.44	0.54	A
	2024 base + com							
Arm A	0.6	14.30	0.34	B	4.0	43.73	0.80	E
Arm B	4.6	12.38	0.81	B	7.0	20.34	0.87	C
Arm C	0.8	6.56	0.41	A	2.0	11.49	0.66	B
Arm D	2.0	5.64	0.64	A	1.5	4.93	0.58	A
	2024 base + com + dev							
Arm A	0.6	14.30	0.34	B	4.0	43.73	0.80	E
Arm B	4.6	12.43	0.81	B	7.3	20.99	0.88	C
Arm C	0.8	6.57	0.41	A	2.1	11.63	0.66	B
Arm D	2.0	5.64	0.64	A	1.5	4.93	0.58	A
	2024 With HIF							
Arm A	0.6	14.33	0.34	B	4.0	43.74	0.80	E
Arm B	4.3	11.71	0.80	B	6.3	18.57	0.86	C
Arm C	0.7	6.43	0.41	A	2.0	11.07	0.65	B

Arm D	2.0	5.65	0.64	A	1.5	4.93	0.58	A
	2024 With HIF + Dev							
Arm A	0.6	14.33	0.34	B	4.0	43.75	0.80	E
Arm B	4.3	11.75	0.80	B	6.5	19.14	0.87	C
Arm C	0.7	6.43	0.41	A	2.0	11.20	0.65	B
Arm D	2.0	5.65	0.64	A	1.5	4.93	0.58	A
	2034 With HIF							
Arm A	0.9	20.95	0.46	C	19.7	177.35	1.06	F
Arm B	7.6	19.47	0.88	C	14.7	40.12	0.95	E
Arm C	1.0	7.85	0.48	A	3.1	16.23	0.75	C
Arm D	2.7	7.12	0.71	A	2.0	5.96	0.64	A
	2034 With HIF + Dev							
Arm A	0.9	21.01	0.46	C	19.6	177.27	1.06	F
Arm B	7.6	19.56	0.88	C	15.5	42.01	0.96	E
Arm C	1.0	7.87	0.48	A	3.2	16.49	0.75	C
Arm D	2.7	7.14	0.71	A	2.0	5.95	0.64	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	4/30/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	BSP-CONSULTING\tbowey
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021 base + com	AM	ONE HOUR	07:30	09:00	15
D2	2021 base + com	PM	ONE HOUR	16:30	18:00	15
D3	2024 base + com	AM	ONE HOUR	07:30	09:00	15
D4	2024 base + com	PM	ONE HOUR	16:30	18:00	15
D5	2024 base + com + dev	AM	ONE HOUR	07:30	09:00	15
D6	2024 base + com + dev	PM	ONE HOUR	16:30	18:00	15
D7	2024 With HIF	AM	ONE HOUR	07:30	09:00	15
D8	2024 With HIF	PM	ONE HOUR	16:30	18:00	15
D9	2024 With HIF + Dev	AM	ONE HOUR	07:30	09:00	15

D10	2024 With HIF + Dev	PM	ONE HOUR	16:30	18:00	15
D11	2034 With HIF	AM	ONE HOUR	07:30	09:00	15
D12	2034 With HIF	PM	ONE HOUR	16:30	18:00	15
D13	2034 With HIF + Dev	AM	ONE HOUR	07:30	09:00	15
D14	2034 With HIF + Dev	PM	ONE HOUR	16:30	18:00	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2021 base + com, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	7.36	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Nuffield Way	
B	Marcham Road (east)	
C	Access Road	
D	Marcham Road (west)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	3.10	4.50	12.6	23.8	36.5	30.0	
B	3.30	12.10	13.0	30.4	36.5	22.0	
C	3.80	6.90	46.8	25.8	36.5	39.0	
D	7.20	7.90	2.0	48.0	36.5	30.0	

Bypass

Arm	Arm has bypass	Bypass utilisation (%)
A	✓	100
B		
C		
D	✓	100

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.563	1262
B	0.708	1924
C	0.681	1887

D	0.788	2347

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021 base + com	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	245	100.000
B		✓	1175	100.000
C		✓	360	100.000
D		✓	1376	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	120	15	110
	B	161	57	198	759
	C	60	144	0	156
	D	300	916	158	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.29	11.90	0.5	B
B	0.76	9.68	3.4	A
C	0.37	5.87	0.6	A
D	0.60	4.98	1.6	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	184	90	958	723	0.130	93	0.2	6.287	A
B	885	0	213	1773	0.499	880	1.1	4.415	A
C	271	0	816	1332	0.203	270	0.3	3.724	A
D	1036	226	316	2097	0.386	807	0.7	3.063	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	220	108	1147	616	0.182	112	0.2	7.846	A
B	1056	0	256	1743	0.606	1054	1.7	5.727	A
C	324	0	977	1223	0.265	323	0.4	4.401	A
D	1237	270	379	2048	0.472	966	1.0	3.656	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	270	132	1403	472	0.291	137	0.4	11.779	B
B	1294	0	313	1703	0.760	1287	3.3	9.376	A
C	396	0	1193	1076	0.369	395	0.6	5.814	A
D	1515	330	463	1982	0.598	1182	1.6	4.936	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	270	132	1406	470	0.293	138	0.5	11.895	B
B	1294	0	314	1702	0.760	1293	3.4	9.676	A
C	396	0	1199	1071	0.370	396	0.6	5.865	A
D	1515	330	465	1980	0.598	1185	1.6	4.975	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	220	108	1151	614	0.183	113	0.2	7.921	A
B	1056	0	257	1742	0.606	1063	1.7	5.892	A
C	324	0	985	1217	0.266	325	0.4	4.445	A
D	1237	270	381	2046	0.473	970	1.0	3.686	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	184	90	963	720	0.131	94	0.2	6.336	A
B	885	0	215	1772	0.499	887	1.1	4.489	A
C	271	0	822	1328	0.204	271	0.3	3.749	A
D	1036	226	318	2096	0.387	811	0.7	3.087	A

2021 base + com, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	11.67	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2021 base + com	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	516	100.000
B		✓	1113	100.000
C		✓	562	100.000
D		✓	1074	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	215	36	265
	B	141	16	269	687
	C	28	296	0	238
	D	132	720	217	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.68	25.59	2.3	D
B	0.81	13.48	4.4	B
C	0.59	9.11	1.5	A
D	0.54	4.44	1.3	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	388	162	941	732	0.309	225	0.5	7.770	A
B	838	0	391	1647	0.509	833	1.1	4.842	A
C	423	0	834	1320	0.321	421	0.5	4.395	A
D	809	99	360	2063	0.344	707	0.6	2.915	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	464	193	1126	628	0.431	269	0.8	10.994	B
B	1001	0	469	1592	0.628	998	1.8	6.629	A
C	505	0	998	1208	0.418	504	0.8	5.619	A
D	966	119	431	2007	0.422	846	0.8	3.412	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	568	237	1377	487	0.681	326	2.2	23.894	C
B	1225	0	570	1521	0.806	1216	4.3	12.601	B
C	619	0	1214	1061	0.583	616	1.5	8.842	A
D	1182	145	527	1932	0.537	1035	1.3	4.409	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	568	237	1381	485	0.684	331	2.3	25.594	D
B	1225	0	575	1517	0.808	1225	4.4	13.482	B
C	619	0	1226	1053	0.588	619	1.5	9.107	A
D	1182	145	529	1929	0.538	1037	1.3	4.438	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	464	193	1131	625	0.433	276	0.9	11.521	B
B	1001	0	476	1587	0.631	1011	1.9	6.991	A
C	505	0	1014	1197	0.422	508	0.8	5.771	A
D	966	119	436	2003	0.423	849	0.8	3.436	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	388	162	946	730	0.311	228	0.5	7.918	A
B	838	0	395	1644	0.510	841	1.2	4.948	A
C	423	0	842	1314	0.322	424	0.5	4.455	A
D	809	99	363	2060	0.344	710	0.6	2.934	A

2024 base + com, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	8.93	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024 base + com	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	259	100.000
B		✓	1246	100.000
C		✓	381	100.000
D		✓	1461	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	127	16	116
	B	170	60	210	806
	C	64	152	0	165
	D	318	974	167	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.34	14.30	0.6	B
B	0.81	12.38	4.6	B
C	0.41	6.56	0.8	A
D	0.64	5.64	2.0	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	195	96	1016	690	0.144	99	0.2	6.690	A
B	938	0	225	1764	0.532	933	1.2	4.737	A
C	287	0	864	1299	0.221	286	0.3	3.901	A
D	1100	239	334	2083	0.413	857	0.8	3.222	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	233	114	1216	577	0.206	118	0.3	8.623	A
B	1120	0	270	1733	0.646	1117	2.0	6.401	A
C	343	0	1035	1183	0.289	342	0.4	4.704	A
D	1313	286	400	2031	0.506	1026	1.1	3.934	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	285	140	1488	424	0.342	144	0.6	14.077	B
B	1372	0	330	1691	0.812	1362	4.4	11.712	B
C	419	0	1261	1029	0.408	418	0.7	6.473	A
D	1609	350	489	1962	0.642	1255	1.9	5.580	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	285	140	1492	422	0.344	145	0.6	14.301	B
B	1372	0	331	1689	0.812	1371	4.6	12.383	B
C	419	0	1270	1023	0.410	419	0.8	6.561	A
D	1609	350	491	1960	0.642	1258	2.0	5.644	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	233	114	1222	574	0.207	120	0.3	8.744	A
B	1120	0	272	1731	0.647	1130	2.1	6.694	A
C	343	0	1047	1175	0.292	344	0.5	4.771	A
D	1313	286	403	2029	0.507	1031	1.1	3.982	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	195	96	1022	687	0.145	100	0.2	6.751	A
B	938	0	227	1763	0.532	941	1.3	4.835	A
C	287	0	872	1294	0.222	287	0.3	3.936	A
D	1100	239	337	2081	0.413	862	0.8	3.253	A

2024 base + com, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	17.44	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2024 base + com	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	547	100.000
B		✓	1186	100.000
C		✓	596	100.000
D		✓	1140	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	228	38	281
	B	149	17	285	735
	C	30	314	0	252
	D	140	765	230	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.80	43.73	4.0	E
B	0.87	20.34	7.0	C
C	0.66	11.49	2.0	B
D	0.58	4.93	1.5	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	412	172	998	700	0.343	238	0.6	8.528	A
B	893	0	414	1631	0.548	888	1.3	5.292	A
C	449	0	888	1283	0.350	446	0.6	4.718	A
D	858	105	382	2046	0.368	750	0.6	3.050	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	492	205	1195	589	0.487	285	1.0	12.933	B
B	1066	0	496	1573	0.678	1062	2.3	7.700	A
C	536	0	1063	1164	0.460	534	0.9	6.275	A
D	1025	126	457	1986	0.453	898	0.9	3.635	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	602	251	1461	440	0.799	341	3.6	36.856	E
B	1306	0	599	1500	0.871	1289	6.4	17.540	C
C	656	0	1285	1013	0.648	652	2.0	10.858	B
D	1255	154	557	1908	0.577	1099	1.5	4.881	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	602	251	1465	437	0.804	350	4.0	43.731	E
B	1306	0	608	1493	0.874	1304	7.0	20.336	C
C	656	0	1304	1000	0.656	656	2.0	11.487	B
D	1255	154	561	1904	0.578	1101	1.5	4.928	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	492	205	1201	586	0.490	298	1.1	14.313	B
B	1066	0	510	1563	0.682	1084	2.4	8.580	A
C	536	0	1091	1145	0.468	540	1.0	6.597	A
D	1025	126	464	1981	0.454	901	0.9	3.673	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	412	172	1004	697	0.345	242	0.6	8.750	A
B	893	0	419	1627	0.549	897	1.4	5.455	A
C	449	0	899	1276	0.352	450	0.6	4.807	A
D	858	105	385	2043	0.369	754	0.6	3.074	A

2024 base + com + dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	8.95	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2024 base + com + dev	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	259	100.000
B		✓	1247	100.000
C		✓	381	100.000
D		✓	1461	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	127	16	116
	B	170	60	210	807
	C	64	152	0	165
	D	318	974	167	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.34	14.30	0.6	B
B	0.81	12.43	4.6	B
C	0.41	6.57	0.8	A
D	0.64	5.64	2.0	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	195	96	1016	690	0.144	99	0.2	6.690	A
B	939	0	225	1764	0.532	934	1.2	4.742	A
C	287	0	865	1299	0.221	286	0.3	3.903	A
D	1100	239	334	2083	0.413	857	0.8	3.222	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	233	114	1216	577	0.206	118	0.3	8.623	A
B	1121	0	270	1733	0.647	1118	2.0	6.410	A
C	343	0	1036	1183	0.290	342	0.4	4.708	A
D	1313	286	400	2031	0.506	1026	1.1	3.934	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	285	140	1488	424	0.342	144	0.6	14.077	B
B	1373	0	330	1691	0.812	1363	4.5	11.748	B
C	419	0	1262	1028	0.408	418	0.7	6.480	A
D	1609	350	489	1962	0.642	1255	1.9	5.580	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	285	140	1492	422	0.344	145	0.6	14.301	B
B	1373	0	331	1689	0.813	1372	4.6	12.426	B
C	419	0	1271	1022	0.410	419	0.8	6.570	A
D	1609	350	491	1960	0.642	1258	2.0	5.644	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	233	114	1222	574	0.207	120	0.3	8.744	A
B	1121	0	272	1731	0.648	1131	2.1	6.708	A
C	343	0	1048	1174	0.292	344	0.5	4.774	A
D	1313	286	404	2029	0.507	1031	1.1	3.981	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	195	96	1022	687	0.145	100	0.2	6.754	A
B	939	0	227	1763	0.532	942	1.3	4.842	A
C	287	0	873	1293	0.222	287	0.3	3.938	A
D	1100	239	337	2081	0.413	862	0.8	3.250	A

2024 base + com + dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	17.70	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2024 base + com + dev	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	547	100.000
B		✓	1192	100.000
C		✓	596	100.000
D		✓	1140	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	228	38	281
	B	149	17	285	741
	C	30	314	0	252
	D	140	765	230	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.80	43.73	4.0	E
B	0.88	20.99	7.3	C
C	0.66	11.63	2.1	B
D	0.58	4.93	1.5	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	412	172	998	700	0.343	238	0.6	8.528	A
B	897	0	414	1631	0.550	892	1.3	5.323	A
C	449	0	892	1280	0.351	446	0.6	4.736	A
D	858	105	382	2046	0.368	750	0.6	3.050	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	492	205	1195	589	0.487	285	1.0	12.933	B
B	1072	0	496	1573	0.681	1068	2.3	7.778	A
C	536	0	1068	1160	0.462	534	0.9	6.311	A
D	1025	126	457	1986	0.453	898	0.9	3.635	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	602	251	1461	440	0.799	341	3.6	36.851	E
B	1312	0	599	1500	0.875	1295	6.6	17.972	C
C	656	0	1291	1009	0.651	652	2.0	10.979	B
D	1255	154	557	1908	0.577	1099	1.5	4.880	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	602	251	1465	437	0.804	350	4.0	43.726	E
B	1312	0	608	1493	0.879	1310	7.3	20.991	C
C	656	0	1310	995	0.659	656	2.1	11.634	B
D	1255	154	561	1904	0.578	1101	1.5	4.928	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	492	205	1201	586	0.490	298	1.1	14.317	B
B	1072	0	510	1563	0.686	1091	2.5	8.711	A
C	536	0	1097	1140	0.470	540	1.0	6.642	A
D	1025	126	464	1981	0.454	901	0.9	3.673	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	412	172	1004	697	0.345	242	0.6	8.748	A
B	897	0	419	1627	0.552	902	1.4	5.493	A
C	449	0	903	1273	0.353	450	0.6	4.825	A
D	858	105	385	2043	0.369	754	0.6	3.074	A

2024 With HIF, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	8.65	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2024 With HIF	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	259	100.000
B		✓	1229	100.000
C		✓	381	100.000
D		✓	1462	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	127	16	116
	B	170	60	210	789
	C	64	152	0	165
	D	318	975	167	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.34	14.33	0.6	B
B	0.80	11.71	4.3	B
C	0.41	6.43	0.7	A
D	0.64	5.65	2.0	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	195	96	1017	689	0.144	99	0.2	6.695	A
B	925	0	225	1764	0.524	920	1.2	4.666	A
C	287	0	851	1308	0.219	286	0.3	3.868	A
D	1101	239	334	2083	0.413	858	0.8	3.224	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	233	114	1217	577	0.206	118	0.3	8.632	A
B	1105	0	270	1733	0.638	1102	1.9	6.250	A
C	343	0	1019	1193	0.287	342	0.4	4.647	A
D	1314	286	400	2031	0.506	1027	1.1	3.937	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	285	140	1489	424	0.343	144	0.6	14.109	B
B	1353	0	330	1691	0.800	1344	4.2	11.147	B
C	419	0	1243	1041	0.403	418	0.7	6.347	A
D	1610	350	489	1961	0.642	1256	1.9	5.590	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	285	140	1493	421	0.345	145	0.6	14.333	B
B	1353	0	331	1689	0.801	1353	4.3	11.710	B
C	419	0	1251	1036	0.405	419	0.7	6.426	A
D	1610	350	491	1960	0.643	1259	2.0	5.653	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	233	114	1223	573	0.207	120	0.3	8.752	A
B	1105	0	272	1731	0.638	1114	2.0	6.507	A
C	343	0	1031	1186	0.289	344	0.5	4.710	A
D	1314	286	403	2029	0.507	1032	1.1	3.985	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	195	96	1023	686	0.145	100	0.2	6.759	A
B	925	0	227	1763	0.525	928	1.2	4.759	A
C	287	0	859	1303	0.220	287	0.3	3.901	A
D	1101	239	337	2081	0.414	863	0.8	3.252	A

2024 With HIF, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	16.76	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2024 With HIF	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	547	100.000
B		✓	1168	100.000
C		✓	596	100.000
D		✓	1140	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	228	38	281
	B	149	17	285	717
	C	30	314	0	252
	D	140	765	230	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.80	43.74	4.0	E
B	0.86	18.57	6.3	C
C	0.65	11.07	2.0	B
D	0.58	4.93	1.5	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	412	172	998	700	0.343	238	0.6	8.529	A
B	879	0	414	1631	0.539	874	1.3	5.201	A
C	449	0	874	1292	0.347	446	0.6	4.669	A
D	858	105	382	2046	0.368	750	0.6	3.050	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	492	205	1195	589	0.487	285	1.0	12.933	B
B	1050	0	496	1573	0.668	1046	2.2	7.471	A
C	536	0	1047	1175	0.456	534	0.9	6.170	A
D	1025	126	457	1986	0.453	898	0.9	3.635	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	602	251	1461	440	0.799	341	3.6	36.877	E
B	1286	0	599	1500	0.857	1271	5.9	16.338	C
C	656	0	1267	1025	0.640	652	1.9	10.509	B
D	1255	154	557	1908	0.577	1099	1.5	4.882	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	602	251	1465	437	0.804	350	4.0	43.741	E
B	1286	0	608	1493	0.861	1284	6.3	18.573	C
C	656	0	1284	1013	0.648	656	2.0	11.065	B
D	1255	154	561	1904	0.578	1101	1.5	4.928	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	492	205	1201	586	0.490	298	1.1	14.312	B
B	1050	0	510	1563	0.672	1066	2.3	8.216	A
C	536	0	1073	1157	0.463	540	1.0	6.461	A
D	1025	126	463	1982	0.454	901	0.9	3.672	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	412	172	1004	697	0.345	242	0.6	8.748	A
B	879	0	419	1627	0.540	883	1.3	5.353	A
C	449	0	885	1285	0.349	450	0.6	4.752	A
D	858	105	385	2043	0.369	754	0.6	3.074	A

2024 With HIF + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	8.67	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2024 With HIF + Dev	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	259	100.000
B		✓	1230	100.000
C		✓	381	100.000
D		✓	1462	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	127	16	116
	B	170	60	210	790
	C	64	152	0	165
	D	318	975	167	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.34	14.33	0.6	B
B	0.80	11.75	4.3	B
C	0.41	6.43	0.7	A
D	0.64	5.65	2.0	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	195	96	1017	689	0.144	99	0.2	6.695	A
B	926	0	225	1764	0.525	921	1.2	4.671	A
C	287	0	852	1307	0.219	286	0.3	3.870	A
D	1101	239	334	2083	0.413	858	0.8	3.224	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	233	114	1217	577	0.206	118	0.3	8.632	A
B	1106	0	270	1733	0.638	1103	1.9	6.259	A
C	343	0	1020	1193	0.287	342	0.4	4.651	A
D	1314	286	400	2031	0.506	1027	1.1	3.937	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	285	140	1489	424	0.343	144	0.6	14.109	B
B	1354	0	330	1691	0.801	1345	4.2	11.179	B
C	419	0	1244	1040	0.403	418	0.7	6.355	A
D	1610	350	489	1961	0.642	1256	1.9	5.590	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	285	140	1493	421	0.345	145	0.6	14.333	B
B	1354	0	331	1689	0.802	1354	4.3	11.749	B
C	419	0	1252	1035	0.405	419	0.7	6.434	A
D	1610	350	491	1960	0.643	1259	2.0	5.653	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	233	114	1223	573	0.207	120	0.3	8.752	A
B	1106	0	272	1731	0.639	1115	2.0	6.518	A
C	343	0	1032	1185	0.289	344	0.5	4.714	A
D	1314	286	403	2029	0.507	1032	1.1	3.984	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	195	96	1023	686	0.145	100	0.2	6.759	A
B	926	0	227	1763	0.525	929	1.2	4.765	A
C	287	0	860	1302	0.220	287	0.3	3.903	A
D	1101	239	337	2081	0.414	863	0.8	3.255	A

2024 With HIF + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	16.98	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2024 With HIF + Dev	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	547	100.000
B		✓	1174	100.000
C		✓	596	100.000
D		✓	1140	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	228	38	281
	B	149	17	285	723
	C	30	314	0	252
	D	140	765	230	5

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.80	43.75	4.0	E
B	0.87	19.14	6.5	C
C	0.65	11.20	2.0	B
D	0.58	4.93	1.5	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	412	172	998	700	0.343	238	0.6	8.528	A
B	884	0	414	1631	0.542	879	1.3	5.230	A
C	449	0	879	1289	0.348	446	0.6	4.683	A
D	858	105	382	2046	0.368	750	0.6	3.050	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	492	205	1195	589	0.487	285	1.0	12.933	B
B	1055	0	496	1573	0.671	1052	2.2	7.546	A
C	536	0	1052	1171	0.457	534	0.9	6.205	A
D	1025	126	457	1986	0.453	898	0.9	3.635	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	602	251	1461	440	0.799	341	3.6	36.872	E
B	1293	0	599	1500	0.862	1277	6.0	16.722	C
C	656	0	1273	1021	0.643	652	1.9	10.623	B
D	1255	154	557	1908	0.577	1099	1.5	4.882	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	602	251	1465	437	0.804	350	4.0	43.747	E
B	1293	0	608	1493	0.866	1291	6.5	19.137	C
C	656	0	1291	1009	0.651	656	2.0	11.202	B
D	1255	154	561	1904	0.578	1101	1.5	4.928	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	492	205	1201	586	0.490	298	1.1	14.310	B
B	1055	0	510	1563	0.675	1072	2.3	8.332	A
C	536	0	1079	1153	0.465	540	1.0	6.506	A
D	1025	126	463	1982	0.454	901	0.9	3.675	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	412	172	1004	697	0.345	242	0.6	8.750	A
B	884	0	419	1627	0.543	888	1.3	5.385	A
C	449	0	889	1282	0.350	450	0.6	4.770	A
D	858	105	385	2043	0.369	754	0.6	3.076	A

2034 With HIF, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	12.84	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2034 With HIF	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	282	100.000
B		✓	1337	100.000
C		✓	415	100.000
D		✓	1589	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	138	17	127
	B	185	66	228	858
	C	69	166	0	180
	D	345	1060	182	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.46	20.95	0.9	C
B	0.88	19.47	7.6	C
C	0.48	7.85	1.0	A
D	0.71	7.12	2.7	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	212	104	1107	639	0.170	108	0.2	7.440	A
B	1007	0	246	1750	0.575	1001	1.5	5.243	A
C	312	0	926	1257	0.249	311	0.4	4.181	A
D	1196	260	364	2060	0.455	933	0.9	3.502	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	254	124	1325	516	0.251	129	0.4	10.209	B
B	1202	0	294	1716	0.700	1198	2.5	7.583	A
C	373	0	1109	1133	0.329	372	0.5	5.205	A
D	1428	310	436	2003	0.558	1116	1.4	4.457	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	310	152	1619	351	0.452	157	0.9	20.181	C
B	1472	0	358	1670	0.881	1454	7.0	17.023	C
C	457	0	1346	971	0.471	455	1.0	7.652	A
D	1750	380	531	1928	0.710	1365	2.6	6.962	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	310	152	1625	347	0.457	158	0.9	20.948	C
B	1472	0	361	1668	0.882	1470	7.6	19.467	C
C	457	0	1361	961	0.476	457	1.0	7.855	A
D	1750	380	535	1925	0.711	1369	2.7	7.121	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	254	124	1334	511	0.253	132	0.4	10.488	B
B	1202	0	298	1713	0.702	1222	2.7	8.359	A
C	373	0	1131	1117	0.334	375	0.6	5.343	A
D	1428	310	442	1999	0.560	1123	1.4	4.549	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	212	104	1114	635	0.171	109	0.2	7.539	A
B	1007	0	248	1749	0.576	1011	1.5	5.404	A
C	312	0	936	1250	0.250	313	0.4	4.231	A
D	1196	260	367	2057	0.455	938	0.9	3.547	A

2034 With HIF, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	46.46	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2034 With HIF	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	597	100.000
B		✓	1274	100.000
C		✓	649	100.000
D		✓	1245	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	249	42	306
	B	163	18	311	782
	C	32	342	0	275
	D	153	835	251	6

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	1.06	177.35	19.7	F
B	0.95	40.12	14.7	E
C	0.75	16.23	3.1	C
D	0.64	5.96	2.0	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	449	187	1089	649	0.404	259	0.7	10.080	B
B	959	0	452	1604	0.598	953	1.6	6.021	A
C	489	0	952	1239	0.394	486	0.7	5.236	A
D	937	115	415	2019	0.407	819	0.8	3.291	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	537	224	1303	528	0.592	310	1.5	17.841	C
B	1145	0	540	1541	0.743	1140	3.1	9.712	A
C	583	0	1139	1112	0.525	582	1.2	7.437	A
D	1119	138	497	1955	0.502	980	1.1	4.057	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	657	274	1591	366	1.047	340	12.2	97.118	F
B	1403	0	622	1483	0.946	1368	11.8	28.204	D
C	715	0	1340	976	0.732	708	2.8	14.453	B
D	1371	168	602	1872	0.642	1199	1.9	5.855	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	657	274	1598	362	1.057	353	19.7	177.350	F
B	1403	0	636	1473	0.952	1391	14.7	40.116	E
C	715	0	1369	956	0.748	713	3.1	16.234	C
D	1371	168	609	1867	0.644	1202	2.0	5.956	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	537	224	1313	523	0.598	384	1.8	42.463	E
B	1145	0	616	1488	0.770	1189	3.9	14.937	B
C	583	0	1242	1042	0.560	590	1.4	8.891	A
D	1119	138	509	1945	0.505	985	1.1	4.137	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	449	187	1096	645	0.406	266	0.8	10.556	B
B	959	0	460	1599	0.600	968	1.7	6.364	A
C	489	0	970	1227	0.398	491	0.7	5.404	A
D	937	115	421	2015	0.408	824	0.8	3.329	A

2034 With HIF + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	12.89	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2034 With HIF + Dev	AM	ONE HOUR	07:30	09:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	282	100.000
B		✓	1338	100.000
C		✓	415	100.000
D		✓	1590	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	138	17	127
	B	185	66	228	859
	C	69	166	0	180
	D	345	1061	182	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	0.46	21.01	0.9	C
B	0.88	19.56	7.6	C
C	0.48	7.87	1.0	A
D	0.71	7.14	2.7	A

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	212	104	1107	638	0.170	108	0.2	7.446	A
B	1007	0	246	1750	0.576	1001	1.5	5.248	A
C	312	0	927	1256	0.249	311	0.4	4.183	A
D	1197	260	364	2060	0.455	934	0.9	3.504	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	254	124	1325	516	0.251	129	0.4	10.222	B
B	1203	0	294	1716	0.701	1199	2.5	7.594	A
C	373	0	1110	1132	0.330	372	0.5	5.209	A
D	1429	310	436	2003	0.559	1117	1.4	4.461	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	310	152	1620	350	0.453	157	0.9	20.243	C
B	1473	0	358	1670	0.882	1455	7.1	17.090	C
C	457	0	1347	970	0.471	455	1.0	7.663	A
D	1751	380	531	1928	0.711	1366	2.6	6.976	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	310	152	1626	347	0.457	158	0.9	21.015	C
B	1473	0	361	1668	0.883	1471	7.6	19.565	C
C	457	0	1362	960	0.476	457	1.0	7.866	A
D	1751	380	535	1925	0.712	1371	2.7	7.135	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	254	124	1335	511	0.254	132	0.4	10.503	B
B	1203	0	298	1713	0.702	1223	2.7	8.378	A
C	373	0	1132	1117	0.334	375	0.6	5.350	A
D	1429	310	442	1999	0.560	1124	1.4	4.554	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	212	104	1114	635	0.171	109	0.2	7.545	A
B	1007	0	248	1749	0.576	1012	1.5	5.410	A
C	312	0	937	1250	0.250	313	0.4	4.232	A
D	1197	260	367	2057	0.456	939	0.9	3.547	A

2034 With HIF + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm C - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D	47.13	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D14	2034 With HIF + Dev	PM	ONE HOUR	16:30	18:00	15

Default vehicle mix	Vehicle mix source	PCU Factor for a HV (PCU)
✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	597	100.000
B		✓	1280	100.000
C		✓	649	100.000
D		✓	1245	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	249	42	306
	B	163	18	311	788
	C	32	342	0	275
	D	153	835	251	6

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	10	10	10	10
	B	10	10	10	10
	C	10	10	10	10
	D	10	10	10	10

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
A	1.06	177.27	19.6	F
B	0.96	42.01	15.5	E
C	0.75	16.49	3.2	C
D	0.64	5.95	2.0	A

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	449	187	1089	649	0.404	259	0.7	10.080	B
B	964	0	452	1604	0.601	957	1.6	6.061	A
C	489	0	957	1236	0.395	486	0.7	5.258	A
D	937	115	415	2019	0.407	819	0.8	3.291	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	537	224	1303	528	0.592	310	1.5	17.841	C
B	1151	0	540	1541	0.746	1145	3.1	9.836	A
C	583	0	1144	1108	0.526	581	1.2	7.485	A
D	1119	138	497	1955	0.502	980	1.1	4.057	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	657	274	1591	366	1.047	340	12.2	97.074	F
B	1409	0	622	1483	0.950	1372	12.3	29.071	D
C	715	0	1345	972	0.735	708	2.9	14.631	B
D	1371	168	602	1872	0.642	1199	1.9	5.853	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	657	274	1598	362	1.057	354	19.6	177.268	F
B	1409	0	636	1473	0.956	1396	15.5	42.006	E
C	715	0	1375	952	0.751	713	3.2	16.487	C
D	1371	168	609	1867	0.644	1202	2.0	5.955	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	537	224	1313	523	0.598	384	1.8	42.456	E
B	1151	0	616	1488	0.773	1197	4.0	15.517	C
C	583	0	1250	1037	0.563	590	1.4	8.999	A
D	1119	138	509	1945	0.505	985	1.1	4.140	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Bypass demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
A	449	187	1096	645	0.406	266	0.8	10.557	B
B	964	0	460	1599	0.603	973	1.7	6.416	A
C	489	0	975	1224	0.399	491	0.7	5.428	A
D	937	115	421	2015	0.408	824	0.8	3.327	A

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