Springwell Solar Farm

Environmental Statement
Appendix 14.1: Transport Assessment

Volume 3

APFP Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

EN010149/APP/6.3
November 2024
Springwell Energyfarm Ltd

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1. Introduction

1.1. Document purpose

1.1.1. This transport assessment has been prepared on behalf of the Applicant and is intended to be read alongside **ES Volume 1, Chapter 14: Traffic and Transport [EN010149/APP/6.1]** of the Environmental Statement (ES). This transport assessment has been prepared to assess the transport related implications of the Proposed Development, as defined in **ES Volume 1, Chapter 3: Proposed Development Description [EN010149/APP/6.1]** as part of the required Development Consent Order (DCO) deliverables upon the local highway network within the study area, as defined below in **Section 1.2**.

1.2. Study area

1.2.1. The study area has previously been defined in **ES Volume 1, Chapter 14: Traffic and Transport [EN010149/APP/6.1]** and comprises the following links:

- A15;
- B1191 Heath Road;
- B1188 (Gorse Hill Lane – Digby);
- B1202 Metheringham Heath Lane;
- Navenby Lane;
- Bloxholm Lane;
- Gorse Hill Lane; and
- Temple Road.

1.2.2. The extent of these links is illustrated in **ES Volume 2, Figure 14.4: Transport Routing and Existing Highway Network [EN010149/APP/6.2]** and is also shown in **Plate 4.1** in **Section 4** of this report.

1.2.3. Additional supporting information can be found in the following documents:

- **Outline Construction Environmental Management Plan (oCEMP) [EN010149/APP/7.7];**
- **Outline Construction Traffic Management Plan (oCTMP) [EN010149/APP/7.8]; and**
- **Outline Public Rights of Way and Permissive Path Management Plan (oPRoWPPMP) [EN010149/APP/7.12].**

1.2.4. Detailed Construction Transport Management Plan(s) (CTMP(s)) and design of the highway accesses and offsite highway works required, will be undertaken with approval with Lincolnshire County Council as the local highway authority (LHA). These are secured via Requirements in the **Draft DCO [EN010149/APP/3.1].**

1.3. Scoping and report structure

1.3.1. Prior to the preparation of this transport assessment, scoping exercises were undertaken with statutory consultees as part of the DCO process. This included scoping the traffic and transport study area limits and proposed methodology with the local and strategic highways authorities: Lincolnshire County Council and National Highways.

1.3.2. Following this exercise, discussion and agreement was undertaken regarding operational and construction phase access points, traffic surveys and modelling assessments and the development of any required mitigation and management measures (e.g. Public Rights of Way (PRoW) Management and the development of an **oCTMP [EN010149/APP/7.8]**) was also agreed.

1.3.3. PRoW proposals were also discussed with both Lincolnshire County Council and North Kesteven District Council. These discussions resulted in the production of the **oPRoWPPMP [EN010149/APP/7.12]**.

1.3.4. At the request of National Highways and developed through discussions with Lincolnshire County Council, this transport assessment has been developed, informing the **ES Volume 1, Chapter 14: Traffic and Transport [EN010149/APP/6.1]** and summarising the above elements for submission as part of the application process.

1.3.5. This **Transport Assessment (ES Volume 3, Appendix 14.1 [EN010149/APP/6.3])** is structured as follows:

2. Proposed Development Overview
3. Policy Review
4. Baseline Transport Conditions
5. Baseline Traffic Flows
6. Committed Developments
7. Trip Generation in Construction
8. Trip Generation in Operation
9. Junction Modelling
10. Impact Assessment
11. Summary and Conclusion
12. Appendices

2. Proposed Development overview

2.1. Proposed Development

2.1.1. A summary of the description of the Proposed Development can be found in Section 3.1 of the **ES Volume 1, Chapter 3:Proposed Development Description [EN010149/APP/6.1]**. The terminology used in this document is defined in the **ES Volume 1, Chapter 00: Glossary and Acronyms [EN010149/APP/6.1].**

2.2. The Order Limits

2.2.1. The extent of the Solar photovoltaic (PV) Site, Mitigation and Enhancement Areas, Potential Highway Works, Springwell Substation, and Grid Connection Route are shown in **ES Volume 2, Figure 3.1: Zonal Masterplan [EN010149/APP/6.2]** and are described in full in **ES Volume 1, Chapter 3: Proposed Development Description [EN010149/APP/6.1]**.

2.3. Construction programme

2.3.1. The construction phase is anticipated to be split into two phases over a 48-month construction period and commissioning. Subject to being granted development consent, the earliest construction is anticipated to start is in 2027, which has been the base for the purposes of all ES assessments. The final programme will depend on the detailed layout design and potential environmental constraints on the timing of construction activities.

2.3.2. **Table 2.1** indicates the potential construction durations across the different parts of the Proposed Development, showing a series of overlapping stages. The assessments have considered a worst-case construction year of 2028.

Table 2.1 Indicative construction programme

Site/Year	2027	2028	2029	2030
Springwell Substation phase 1				
Springwell Substation phase 2				
Battery Energy Storage System (BESS)				
Springwell West				
Springwell Central				
Springwell East				

2.3.3. Construction working hours on site would be from 7 am to 7 pm Monday through Friday and 7 am to 12 noon on Saturday. No working will be permitted on Sundays or Bank Holidays.

2.3.4. Delivery hours will be the same as the construction working hours and deliveries will be scheduled accordingly. The Principal Contractor will consider the ability to reduce deliveries during network peak hours to minimise impacts on congestion, although this may not be possible for time-sensitive activities or long distance journeys where travel during peak periods will be difficult to avoid.

2.3.5. Working days will be one 12-hour shift, with employees typically travelling to and from Site an hour on either side of these times (i.e. between 6 am and 7 am, and 7 pm and 8 pm). Where onsite works are to be conducted outside the core working hours, they will comply with the restrictions pursuant to the consenting process.

2.4. Construction routes

2.4.1. Use of the links within the study area during the construction phase is illustrated in **ES Volume 2, Figure 14.4: Transport Routing and Existing Highway Network [EN010149/APP/6.2]** and also shown in **Plate 2.1** below.

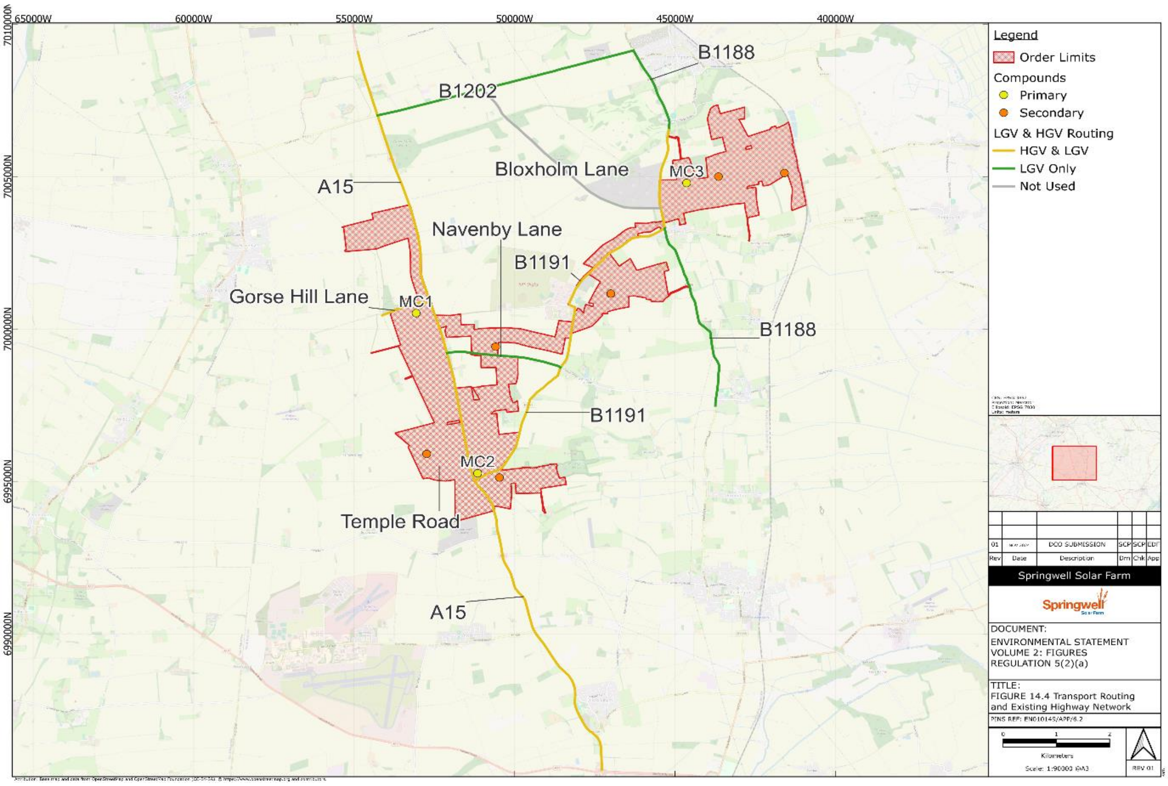

Plate 2.1 Indicative routes used by Large Goods Vehicles and Heavy Goods Vehicles

2.5. Construction access and compounds

2.5.1. The Proposed Development will comprise several Primary Construction Compounds (referred to herein as MC1, 2 and 3 respectively) and several Secondary Construction Compounds, each of which will be accessed from the local highway network or internally via haul roads from a Primary Construction Compound. The locations of the Primary and Secondary Construction Compounds are summarised in **Table 2.2** and are presented in **ES Volume 2, Figure 3.10: Location of Primary and Secondary Construction Compounds [EN010149/APP/6.2]**.

Table 2.2 Summary of temporary Construction Compounds

Area	Name	Construction activities
Springwell West (Main Compound 1 and Main Compound 2, MC1 & MC2)	Primary Compound 1 (Gorse Hill Lane)	Springwell Substation BESS Ground mounted Solar PV generating station Grid Connection Infrastructure Cables
	Secondary Compound 1 (Temple Road)	Ground mounted Solar PV generating station Satellite Collector Compound
	Primary Compound 2 (B1191)	Ground mounted Solar PV generating station
	Secondary Compound 2 (B1191)	Ground mounted Solar PV generating station
	Secondary Compound 3 (B1191)	Ground mounted Solar PV generating station
Springwell Central	Secondary Compound 4	Ground mounted Solar PV generating station
Springwell East (Main Compound 3, MC3)	Primary Compound 3	Ground mounted Solar PV generating station
	Secondary Compound 5	Ground mounted Solar PV generating station

2.5.2. The three Primary Construction Compounds are located within Springwell West and Springwell East, containing laydown areas and staff welfare facilities. Each of these compounds would have a footprint of up to 25,000 m^2 and will provide the primary areas for storage of materials and equipment. Site offices will be erected, and parking provided for construction workers and onward minibus transport.

2.5.3. As illustrated in **ES Volume 2, Figure 3.1: Zonal Masterplan [EN010149/APP/6.2]** of the ES, construction accesses are indicatively located at:

- B1188;
- B1191;
- Gorse Hill Lane; and
- Temple Road.

2.6. Decommissioning

2.6.1. The Proposed Development is assumed to be operational for a period of 40 years per phase.

2.6.2. Following the operational period, the Proposed Development would require decommissioning. This would involve the phased removal of all of the Solar PV infrastructure, including the Ground Mounted Solar PV Generating Stations, Collector Compounds, Springwell Substation, BESS and ancillary infrastructure.

2.6.3. The Solar PV Site would be reinstated in accordance with a Decommissioning Environmental Management Plan (DEMP). The DEMP will be required to be in accordance with the **Outline Decommissioning Environmental Management Plan (oDEMP) [EN010149/APP/7.13]** which has been prepared to support the DCO Application. The DEMP will be subject to the approval of the local planning authorities prior to decommissioning.

2.6.4. The effects of the decommissioning phase are often similar to, or of a lesser magnitude than, the effects generated during the construction phase and have been considered in the relevant sections of the ES. This phase of development is not considered within this transport assessment where any impacts associated with Decommissioning would not be expected to be greater than in the Construction Phase. However, where impacts during the construction phase require mitigation, it is likely that the same mitigation would be necessary during the decommissioning phase.

2.7. Operational access

2.7.1. Access to the Proposed Development post-construction will be made possible via the following locations:

- Springwell West:
  - Heath Lane near Bcd031/Bcd032;
  - Gorse Hill Lane near Bcd043;
  - Thompson’s Bottom near Bcd094/Bcd098;
  - Temple Road near Tb3;
  - Temple Road near W1;
  - B1191 near Bcd138;
  - B1191 near Bcd139; and
  - Navenby Lane near Bcd093.
- Springwell Central:
  - B1191 near Bk03.
- Springwell East:
  - B1188 near Md04;
  - Emergency access point at Acre Lane near Lf08.

2.7.2. Access to these points will be required during the operational phase for a limited number of vehicles, with limited perceptible impact on the local community anticipated.

2.8. Mitigation measures

A15/B1191/Temple Road junction

2.8.1. At present, two priority T-junctions are provided at the A15/Temple Road and A15/B1191. It is proposed that these are to be upgraded, as shown in the **Streets, Rights of Way and Access Plans [EN010149/APP/2.4]**. These junction improvements comprise:

- A new deceleration left-turn lane on the southbound approach to the A15/B1191 junction.
- A new give-way at the end of the left-turn only lane on the southbound approach the A15/B1191 junction, giving way to right-turners from the A15.
- Junction widening at the A15/B1191 junction, which would comprise a new section of two-lane flare on the B1191 on approach to the A15.
- A new pedestrian crossing point with pedestrian island located on the A15 on approach to the A15/B1191 junction.

A15/Gorse Hill Lane junction

2.8.2. This junction is currently a priority T-junction. It is proposed that this is upgraded, as shown in the **Streets, Rights of Way and Access Plans [EN010149/APP/2.4]**. These junction improvements comprise:

- Junction widening at the mouth of the junction, which would comprise a flared approach on Gorse Hill Lane on approach to the A15.
- Widening of the existing A15 carriageway on the northbound approach to the junction.
- Widening of Gorse Hill Lane on the approach to the junction.
- A new dedicated right-turn only lane on the southbound approach to the junction.

Temporary measures

2.8.3. To facilitate the movement of Heavy Goods Vehicles (HGVs) along the B1191 Temple Road during the construction phase, temporary passing bays will be established. The passing bays will be temporary, with the verges reinstated following construction. These proposals are outlined in detail within the **Traffic Regulation Plans [EN010149/APP/2.6]** and the **Streets, Rights of Way and Access Plans [EN010149/APP/2.4]**.

PRoW measures

2.8.4. Key PRoW/permissive path routes have been identified and measures to improve connectivity across the immediate Proposed Development limits. These comprise the following:

- Proposed new PRoW linking Royal Air Force (RAF) Digby to Scopwick;
- Proposed new permissive path from Heath Road to link to the existing PRoW between RAF Digby and Rowston and to enable a circular walking route;
- Proposed new PRoW to provide a connection between the existing PRoW west of the A15 (near Navenby Lane) to New England Lane;
- Proposed new permissive path along the western edge of the Proposed Development linking New England Lane to Temple Road, north of Brauncewell;
- Proposed new PRoW from Temple Road (north of Brauncewell) to the Bloxham Woods Car Park to provide a connection across the A15;
- Proposed new permissive path linking Bloxholm Wood to Brauncewell Village;
- Proposed new permissive paths creating a circular walk at Bloxholm Wood;

- Improvements to the Bloxham Wood access on Heath Road; and
- Proposed improvement to the existing PRoW between Scopwick and Blankney.

2.8.5. These proposals are further detailed in the outline **oPRoWPPMP [EN010149/APP/7.12]**.

Management measures

2.8.6. An **oCTMP [EN010149/APP/7.8]** has been submitted as part of the application and is also supported by the **oCEMP [EN010149/APP/7.7]**. The **oCTMP [EN010149/APP/7.8]** sets out:

- Access and parking arrangements for site personnel, contractors and visitor arrangements for delivery and removal of materials;
- Arrangements for loading, unloading and storage of plant and materials;
- A scheme for routing and control of traffic associated with the construction and temporary signage during the construction phase;
- Implementation programme including the proposed construction period and hours of operation; and
- Details of any additional management measures, including details of wheel washing facilities and condition surveys.

2.8.7. An **oPRoWPPMP [EN010149/APP/7.12]** has been submitted as part of the DCO Application. It sets out the measures required for the management of PRoW during construction.

2.8.8. An **Outline Travel Plan (oTP)** has been prepared as part of the **oCTMP [EN010149/APP/7.8]**. The **oTP** sets out strategies to encourage the use of sustainable transport for the construction workforce. This includes details on initiatives to increase car sharing, and other measures such as shuttle services to/from temporary compounds and provision of staff parking facilities, as well as other measures to encourage mode shift away from private car use. This document should be read in conjunction with the **oCTMP [EN010149/APP/7.8]**.

2.8.9. The final details of both the Travel Plan and CTMP will be agreed with the relevant planning authorities, prior to the commencement of the construction phase as secured by Requirement within the **Draft DCO [EN010149/APP/3.1].**

3. Policy review

3.1. Overview

3.1.1. This section outlines planning policy relevant to the Proposed Development. These policy documents have been reviewed and considered in respect to the Proposed Development, with the aim of contributing to the goals and visions of these documents.

3.2. Overarching National Policy Statement for Energy (EN-1)

3.2.1. The Overarching National Policy Statement (NPS) for Energy, EN-1, was published in November 2023 and came into force in January 2024. It is one of six NPSs (EN-1–EN-6) setting out the basis for decisions regarding energy-related Nationally Significant Infrastructure Projects (NSIPs).

3.2.2. Underpinning the document is the United Kingdoms (UK)'s target of cutting greenhouse gas emissions to net zero by 2050. Paragraph 2.3.4 outlines the requirements to meet this target:

> *"Meeting these objectives necessitates a significant amount of new energy infrastructure, both large nationally significant developments and small-scale developments determined at a local level. This includes the infrastructure needed to convert primary sources of energy (e.g. wind) into energy carriers (e.g. electricity or hydrogen), and to store and transport primary fuels and energy carriers into and around the country."*

3.2.3. In relation to assessing schemes, Paragraph 4.1.5 states that:

> *"In considering any proposed development, in particular when weighing its adverse impacts against its benefits, the Secretary of State should take into account:*
>
> - *its potential benefits including its contribution to meeting the need for energy infrastructure, job creation, reduction of geographical disparities, environmental enhancements, and any long-term or wider benefits*
> - *its potential adverse impacts, including on the environment, and including any long-term and cumulative adverse impacts, as well as any measures to avoid, reduce, mitigate or compensate for any adverse impacts, following the mitigation hierarchy"*

3.2.4. Paragraphs 4.1.6 and 4.1.7 go on to state that:

> *"In this context, the Secretary of State should take into account environmental, social and economic benefits and adverse impacts, at national, regional and local levels…"*
>
> *"Where this NPS or the relevant technology specific NPSs require an applicant to mitigate a particular impact as far as possible, but the Secretary of State considers that there would still be residual adverse effects after the implementation of such mitigation measures, the Secretary of State should weigh those residual effects against the benefits of the proposed development. For projects which qualify as CNP Infrastructure, it is likely that the need case will outweigh the residual effects in all but the most exceptional cases. This presumption, however, does not apply to residual impacts which present an unacceptable risk to, or interference with, human health and public safety, defence, irreplaceable habitats or unacceptable risk to the achievement of net zero…"*

3.2.5. Section 5.14, Traffic and Transport, discusses transport impacts that may arise from the development of energy infrastructure. Paragraph 5.14.4 states that:

> *"The consideration and mitigation of transport impacts is an essential part of Government's wider policy objectives for sustainable development as set out in Section 2.6 of this NPS."*

3.2.6. Paragraphs 5.14.6 to 5.14.10 provide guidance on the Applicant's assessment:

> *"National Highways and Highways Authorities are statutory consultees on NSIP applications including energy infrastructure where it is expected to affect the strategic road network and/or have an impact on the local road network. Applicants should consult with National Highways and Highways Authorities as appropriate on the assessment and mitigation to inform the application to be submitted.*
>
> *The applicant should prepare a travel plan including demand management and monitoring measures to mitigate transport impacts. The applicant should also provide details of proposed measures to improve access by active, public and shared transport to:*
>
> - *reduce the need for parking associated with the proposal*

- *contribute to decarbonisation of the transport network*
- *improve user travel options by offering genuine modal choice*

The assessment should also consider any possible disruption to services and infrastructure (such as road, rail and airports).

If additional transport infrastructure is needed or proposed, it should always include good quality walking, wheeling and cycle routes, and associated facilities (changing/storage etc.) needed to enhance active transport provision.

Applicants should discuss with network providers the possibility of co-funding by government for any third-party benefits. Guidance has been issued which explains the circumstances where this may be possible, although the government cannot guarantee in advance that funding will be available for any given uncommitted scheme at any specified time."

3.2.7. Regarding mitigation, Paragraphs 5.14.11 to 5.14.14 state that:

"Where mitigation is needed, possible demand management measures must be considered. This could include identifying opportunities to:

- *reduce the need to travel by consolidating trips*
- *locate development in areas already accessible by active travel and public transport*
- *provide opportunities for shared mobility*
- *re-mode by shifting travel to a sustainable mode that is more beneficial to the network*
- *retime travel outside of the known peak times*
- *reroute to use parts of the network that are less busy*

If feasible and operationally reasonable, such mitigation should be required, before considering requirements for the provision of new inland transport infrastructure to deal with remaining transport impacts. All stages of the project should support and encourage a modal shift of freight from road to more environmentally sustainable alternatives, such as rail, cargo bike, maritime and inland waterways, as well as making appropriate provision for and infrastructure needed to support the use of alternative fuels including charging for electric vehicles.

Regard should always be given to the needs of freight at all stages in the construction and operation of the development including the need to provide appropriate facilities for HGV drivers as appropriate.

The Secretary of State may attach requirements to a consent where there is likely to be substantial HGV traffic that:

- *control numbers of HGV movements to and from the site in a specified period during its construction and possibly on the routing of such movements*
- *make sufficient provision for HGV parking, and associated high quality drive facilities either on the site or at dedicated facilities elsewhere, to support driver welfare, avoid 'overspill' parking on public roads, prolonged queuing on approach roads and uncontrolled on-street HGV parking in normal operating conditions*
- *ensure satisfactory arrangements for reasonably foreseeable abnormal disruption, in consultation with network providers and the responsible police force."*

3.2.8. Paragraphs 5.14.20 and 5.14.21 outline that:

"Development consent should not be withheld provided that the applicant is willing to enter into planning obligations for funding new infrastructure or requirements can be imposed to mitigate transport impacts. In this situation the Secretary of State should apply appropriately limited weight to residual effects on the surrounding transport infrastructure.

The Secretary of State should only consider refusing development on highways grounds if there would be an unacceptable impact on highway safety, residual cumulative impacts on the road network would be severe, or it does not show how consideration has been given to the provision of adequate active public or shared transport access and provision."

3.2.9. This transport assessment has been prepared with regard to NPS EN-1 and will demonstrate that there is not an unacceptable impact on highway safety and the residual cumulative impacts arising from the development are not severe.

3.3. National Policy Statement for Renewable Energy Infrastructure (EN-3)

3.3.1. EN-3, the NPS for Renewable Energy Infrastructure, was published in November 2023 and came into force in January 2024. It sets out the basis for decisions regarding renewable electricity generation (both onshore and offshore).

3.3.2. The impacts of solar farms to be considered are outlined in Section 2.10. Paragraphs 2.10.120 to 2.10.125 outline construction impacts, including traffic and transport noise and vibration:

"Modern solar farms are large sites that are mainly comprised of small structures that can be transported separately and constructed on-site, with developers designating a compound on-site for the delivery and assemblage of the necessary components.

Many solar farms will be sited in areas served by a minor road network. Public perception of the construction phase of solar farms will derive mainly from the effects of traffic movements, which is likely to involve smaller vehicles than typical onshore energy infrastructure but may be more voluminous.

Generic traffic and transport impacts are covered Section 5.14 of EN-1.

Applicants should assess the various potential routes to the site for delivery of materials and components where the source of the materials is known at the time of the application, and select the route that is the most appropriate.

Where the exact location of the source of construction materials, such as crushed stone or concrete is not be known at the time of the application, applicants should assess the worst-case impact of additional vehicles on the likely potential routes.

Applicants should ensure all sections of roads and bridges on the proposed delivery route can accommodate the weight and volume of the loads and width of vehicles. Although unlikely, where modifications to roads and/or bridges are required, these should be identified, and potential effects addressed in the ES."

3.3.3. Mitigation is discussed in Paragraphs 2.10.139 to 2.10.144:

"In some cases, the local highway authority may request that the Secretary of State impose controls on the number of vehicle movements to and from the solar farm site in a specified period during its construction and, possibly, on the routeing of such movements particularly by heavy vehicles.

Where the Secretary of State agrees that this is necessary, requirements could be imposed on development consent.

Once consent for a scheme has been granted, applicants should liaise with the relevant local highway authority (or other coordinating body) regarding the start of construction and the broad timing of deliveries. Applicants may need to agree a planning obligation to secure appropriate measures, including restoration of roads and verges.

Further, it may be appropriate for any non-permanent highway improvements carried out for the development (such as temporary road widening) to be made available for use by other subsequent solar farm developments."

3.3.4. Paragraphs 2.10.161 and 2.10.162 state that:

"Once solar farms are in operation, traffic movements to and from the site are generally very light, in some instances as little as a few visits each month by a light commercial vehicle or car. Should there be a need to replace machine components, this may generate heavier commercial vehicle movements, but these are likely to be infrequent.

The Secretary of State is unlikely to give any more than limited weight to traffic and transport noise and vibration impacts from the operational phase of a project."

3.3.5. This transport assessment has been prepared with regard to NPS EN-3.

3.4. National Planning Policy Framework

3.4.1. The latest version of the National Planning Policy Framework (NPPF) was published on 19 December 2023 and sets out the Government's planning policies for England, along with the expectations of how these policies are applied when bringing forward new developments. The preparation of this transport assessment is consistent with guidance set out in the NPPF, as outlined below.

3.4.2. Paragraph 11 of the NPPF states:

> *"Plans and decisions should apply a presumption in favour of sustainable development. For plan-making this means that:*
>
> *(a) all plans should promote a sustainable pattern of development that seeks to: meet the development needs of their area; align growth and infrastructure; improve the environment; mitigate climate change (including by making effective use of land in urban areas) and adapt to its effects;*
>
> *(b) strategic policies should, as a minimum, provide for objectively assessed needs for housing and other uses, as well as any needs that cannot be met within neighbouring areas, unless;*
>
> > *(i) the application of policies in this Framework that protect areas or assets of particular importance provides a strong reason for restricting the overall scale, type or distribution of development in the plan area; or*
> >
> > *(ii) any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.*
>
> *For decision-taking this means:*
>
> *(c) approving development proposals that accord with an up-to-date development plan without delay; or*
>
> *(d) where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:*

> *(i) the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or*
>
> *(ii) any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole."*

3.4.3. Section 9 of the NPPF, entitled 'Promoting Sustainable Transport', outlines the Government's planning policies to ensure that appropriate measures are in place to support sustainable growth. Paragraphs 114, 115, and 117 state the following:

> *"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:*
>
> *(a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
>
> *(b) safe and suitable access to the site can be achieved for all users;*
>
> *(c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and*
>
> *(d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree."*
>
> *"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe".*
>
> *"All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed".*

3.4.4. Section 14 of the NPPF, entitled 'Meeting the challenge of climate change, flooding and coastal change', outlines the Government's approach to mitigating climate change, and the associated detrimental impacts.

3.4.5. Paragraph 157 states:

> *"The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure."*

3.4.6. Paragraph 163 states:

> *"When determining planning applications for renewable and low carbon development, local planning authorities should:*
>
> *(a) not require applicants to demonstrate the overall need for renewable or low carbon energy, and recognise that even small-scale projects provide a valuable contribution to significant cutting greenhouse gas emissions;*
>
> *(b) approve the application if its impacts are (or can be made) acceptable. Once suitable areas for renewable and low carbon energy have been identified in plans, local planning authorities should expect subsequent applications for commercial scale projects outside these areas to demonstrate that the proposed location meets the criteria used in identifying suitable areas; and*
>
> *(c) in the case of applications for the repowering and life-extension of existing renewable sites, give significant weight to the benefits of utilising an established site, and approve the proposal if its impacts are or can be made acceptable."*

3.4.7. This transport assessment will demonstrate that the impacts of the proposed development are acceptable and, where necessary, highlight required mitigation to ensure that the residual cumulative impacts on the highway network will not be severe.

3.4.8. It is understood that a consultation on proposed reforms to the NPPF is ongoing, however as the proposed reforms are not currently adopted (therefore hold no legal weight) and given the timeframes of the consultation, these reforms have not been considered within this assessment.

3.5. National Planning Practice Guidance

3.5.1. The Planning Practice Guidance web-based resource was published on 6 March 2014 by the Department for Communities and Local Government. This resource collates relevant planning policy guidance, providing links between the NPPF and additional relevant legislation.

3.5.2. The guidance on ‘Travel Plans, Transport Assessments and Statements in Decision-Taking’ states at Paragraph 005 that:

> *“Transport Assessments and Transport Statements primarily focus on evaluating the potential transport impacts of a development proposal.”*

3.5.3. Paragraph 005 goes on to state that:

> *“The Transport Assessment or Transport Statement may propose mitigation measures where these are necessary to avoid unacceptable or "severe" impacts.”*

3.5.4. Paragraph 005 summarises by stating that:

> *“Transport Assessments and Statements can be used to establish whether the residual transport impacts of a proposed development are likely to be “severe”, which may be a reason for refusal, in accordance with the National Planning Policy Framework.”*

3.5.5. This transport assessment goes on to demonstrate that, with mitigation, generated traffic will not have a severe impact on the local highway network during construction, operation, and decommissioning.

3.6. Transport Analysis Guidance

3.6.1. The Transport Analysis Guidance, published by the Department for Transport (DfT), was last updated in November 2023 and provides guidance on the conduct of transport studies. Advice is provided on how to:

- *“set objectives and identify problems*
- *develop potential solutions*
- *create a transport model for the appraisal of the alternative solutions*
- *how to conduct an appraisal that meets the requirements of the DfT”*

3.6.2. Relevant guidance has been applied within this transport assessment where appropriate.

3.7. Central Lincolnshire Local Plan 2018-2040 adopted 13 April 2023

3.7.1. The Central Lincolnshire Local Plan was prepared by the Central Lincolnshire Joint Strategic Planning Committee (CLJSPC) and was adopted in April 2023. Within the document, CLJSPC sets out the vision for Central Lincolnshire for the period 2018-2040 and outlines planning policies and strategic allocations to realise this vision. Relevant policies are outlined below:

3.7.2. Policy S14: Renewable Energy:

> *"The Central Lincolnshire Joint Strategic Planning Committee is committed to supporting the transition to a net zero carbon future and will seek to maximise appropriately located renewable energy generated in Central Lincolnshire (such energy likely being wind and solar based).*
>
> *Proposals for renewable energy schemes, including ancillary development, will be supported where the direct, indirect, individual and cumulative impacts on the following considerations are, or will be made, acceptable. To determine whether it is acceptable, the following tests will have to be met:*
>
> *i. The impacts are acceptable having considered the scale, siting and design, and the consequent impacts on landscape character; visual amenity; biodiversity; geodiversity; flood risk; townscape; heritage assets, their settings and the historic landscape; and highway safety and rail safety; and*
>
> *ii. The impacts are acceptable on aviation and defence navigation system/communications; and*
>
> *iii. The impacts are acceptable on the amenity of sensitive neighbouring uses (including local residents) by virtue of matters such as noise, dust, odour, shadow flicker, air quality and traffic;*
>
> *Testing compliance with part (i) above will be via applicable policies elsewhere in a development plan document for the area (i.e. this Local Plan; a Neighbourhood Plan, if one exists; any applicable policies in a Minerals or Waste Local Plan); and any further guidance set out in a Supplementary Planning Document.*

In order to test compliance with part (ii) above will require, for relevant proposals, the submission by the applicant of robust evidence of the potential impact on any aviation and defence navigation system/communication, and within such evidence must be documented areas of agreement or disagreement reached with appropriate bodies and organisations responsible for such infrastructure.

In order to test compliance with part (iii) above will require, for relevant proposals, the submission by the applicant of a robust assessment of the potential impact on such users, and the mitigation measures proposed to minimise any identified harm.

For all matters in (i)-(iii), the applicable local planning authority may commission its own independent assessment of the proposals, to ensure it is satisfied what the degree of harm may be and whether reasonable mitigation opportunities are being taken.

Where significant adverse effects are concluded by the local planning authority following consideration of the above assessment(s), such effects will be weighed against the wider environmental, economic, social and community benefits provided by the proposal. In this regard, and as part of the planning balance, significant additional weight in favour of the proposal will arise for any proposal which is community-led for the benefit of that community.

In areas that have been designated for their national importance, as identified in the National Planning Policy Framework, renewable energy infrastructure will only be permitted where it can be demonstrated that it would be appropriate in scale, located in areas that do not contribute positively to the objectives of the designation, is sympathetically designed and includes any necessary mitigation measures.

Additional matters for solar based energy proposals

Proposals for solar thermal or photovoltaics panels and associated infrastructure to be installed on existing property will be under a presumption in favour of permission unless there is clear and demonstrable significant harm arising.

Proposals for ground based photovoltaics and associated infrastructure, including commercial large scale proposals, will be under a presumption in favour unless:

- *there is clear and demonstrable significant harm arising; or*
- *the proposal is (following a site specific soil assessment) to take place on Best and Most Versatile agricultural land and does not meet the requirements of Policy S67; or*
- *the land is allocated for another purpose in this Local Plan or other statutory based document (such as a nature recovery strategy or a Local Transport Plan), and the proposal is not compatible with such other allocation.*

Proposals for ground based photovoltaics should be accompanied by evidence demonstrating how opportunities for delivering biodiversity net gain will be maximised in the scheme taking account of soil, natural features, existing habitats, and planting proposals accompanying the scheme to create new habitats linking into the nature recovery strategy."

3.7.3. Policy S47: Accessibility and Transport:

"Development proposals which contribute towards an efficient and safe transport network that offers a range of transport choices for the movement of people and goods will be supported.

All developments should demonstrate, where appropriate, that they have had regard to the following criteria:

a) Located where travel can be minimised and the use of sustainable transport modes maximised;

b) Minimise additional travel demand through the use of measures such as travel planning, safe and convenient public transport, car clubs, walking and cycling links and integration with existing infrastructure;

c) Making allowance for low and ultra-low emission vehicle refuelling infrastructure.

Delivering Transport Related Infrastructure

All development proposals should have regard to the IDP, and, where necessary contribute to the delivery of the following transport objectives, either directly where appropriate (such as the provision of infrastructure or through the contribution of land to enable a scheme to occur) or indirectly (such as through developer contributions as set out in Policy S45).

For Strategic Transport Infrastructure:

d) Improve and manage the strategic highway infrastructure for a range of users and increased capacity where appropriate and viable;

e) Improve and manage the wider road infrastructure to benefit local communities including through the use of traffic management and calming initiatives where appropriate on rural roads, and key transport links in the towns and villages;

f) Deliver opportunities for improved road and rail interaction, and avoiding impacts upon level crossings;

g) Improve, extend and manage the strategic cycling network for a range of users; h) Support the enhancement of existing or proposed transport interchanges;

i) Improve and manage the strategic highway infrastructure, wider road infrastructure and public rights of way network to deliver biodiversity net gain, including improved connectivity and extent of green infrastructure guided by local nature recovery strategy; and

j) Explore opportunities to utilise waterways for transport, particularly freight.

For Public and Community Transport Infrastructure and Services:

k) Assist in the implementation of infrastructure which will help all communities in Central Lincolnshire, including people living in villages and small settlements, to have opportunities to travel without a car for essential journeys;

l) Improve the integration, efficiency, accessibility, safety, convenience and comfort of public transport stations, including both rail and buses;

m) Deliver flexible transport services that combine public and community transport, ensuring that locally based approaches are delivered to meet the needs of communities;

n) Assist in bringing forward one or more mobility hubs in the Lincoln area.

To demonstrate that developers have considered and taken into account the requirements of this policy, an appropriate Transport Statement/ Assessment and/ or Travel Plan should be submitted with proposals, with the precise form dependent on the scale and nature of development and agreed through early discussion with the local planning or highway authority and external bodies where relevant.

Any development that has severe transport implications will not be granted planning permission unless deliverable mitigation measures have been identified, and arrangements secured for their implementation, which will make the development acceptable in transport terms."

3.7.4. Policy set out within S14 and S47 has been applied throughout this report. The transport assessment goes on to highlight that there is no demonstrable harm arising from the scheme and that there are no unmitigated transport implications.

3.8. Local Transport Plan 5

3.8.1. Produced by Lincolnshire County Council in 2022, Local Transport Plan 5 (LTP 5) provides high-level transport policy and strategy for the short-term (2022-2026), medium-term (2022-2034), and long-term (2022-2050). The Integrated Transport Strategy forms the core document of the LTP and comprises six themes, outlined below:

"Theme 1 – Supporting economic growth

a. Improve connectivity throughout Lincolnshire and to the East Midlands, the rest of the UK and beyond.

b. Ensure a resilient and reliable transport system for the movement of people, goods and services.

c. Support the vitality and viability of our town centres and rural communities. d. Improve connectivity to jobs and employment opportunities.

e. Provide a transport system that supports the priority sectors identified in the LIS.

Theme 2 – Future ready, green transport

a. Support the introduction of low-carbon technologies and thus reduce reliance on fossil fuels.

b. Develop and support communities to flourish locally and thereby helping reduce the need to travel.

c. Deliver sustainable development by ensuring that new developments are designed to reduce the need to travel, minimise car use and

support the use of more sustainable modes

a. Ensure the transport network is made resilient to climate change.

Theme 3 – Promote thriving environments

a. Develop opportunities to both protect and enhance the built and natural environment.

b. Minimise waste and make the best the use of available resources.

c. Provide sustainable access to Lincolnshire's wonderful environment and heritage.

Theme 4 – Supporting safety, security and a healthy lifestyle

a. Improve road safety.

b. Increase confidence in a safer and more secure transport network.

c. Reduce the impacts of air quality, noise and light pollution.

d. Improve the health of our communities through the provision for active travel.

Theme 5 – Promoting high aspirations

a. Improve connectivity and access to education, healthcare and leisure.

b. Improve the accessibility of the transport system and in particular access onto public transport.

c. Encourage wider community participation in developing and delivering transport services.

Theme 6 – Improve quality of life

a. To deliver on the first five objectives above.

b. To improve the quality of place and reduce the overall negative impacts of transport on people's lives.

3.8.2. Relevant policies outlined as part of these themes include:

3.8.3. Policy EC1:

"Lincolnshire County Council will work with national, regional and local funders to identify and deliver a better transport network and services to improve connectivity internally and externally to Lincolnshire. Lincolnshire County Council will improve the "gateways" to Lincolnshire particularly at strategic locations."

3.8.4. Policy EC2:

"Improve the resilience, efficiency and effectiveness of the operation of the transport network and maintain our transport assets in a good state of repair. "Future proof" the network as part of our investment strategy."

3.8.5. Policy EC5:

"We will support a range of transport improvements that underpin and priority sectors to develop and grow."

3.8.6. Notably, energy is one of the six identified priority sectors.

3.8.7. Policy GREEN2:

"This LTP supports the aims of the Green Master Plan and its commitments to achieve net-zero alongside a thriving natural environment."

3.8.8. Policy ENV1:

"We will put in place procedures during construction, surfacing and maintenance works that will minimise and mitigate their environmental impacts."

3.8.9. Policy SH1:

"We will seek to make Lincolnshire's roads safer for all and to make significant year-on-year reductions in those killed or injured on Lincolnshire's roads through a sustainable, co-located road safety partnership delivering targeted interventions focussed on education, engineering, and enforcement."

3.8.10. These themes, and associated policy, have formed a basis for the vision of the development and informed the production of this transport assessment.

3.9. Lincolnshire Road Safety Strategy 2015-2022

3.9.1. Published by the Lincolnshire Road Safety Partnership (LRSP), this document sets out LRSP's vision:

> *"To make significant year on year reductions in those killed or injured on Lincolnshire's roads through a sustainable, co-located road safety partnership delivering targeted interventions focussed on education, engineering, and enforcement."*

3.9.2. LRSP's overall objectives align with this vision, with the ambition to achieve:

- *"A 20% reduction in the number of killed or seriously injured road casualties from an annual average of 457 (in 2010 – 2012) to no more than 367."*
- *"A 20% reduction in the number of children killed or seriously injured road casualties from an average numbers of 27 (in 2010 – 2012) to no more than 22."*

3.9.3. To align with LRSP's vision and to assist in realising their objectives, a Personal Injury Collision (PIC) study has been undertaken and is discussed in further detail in **Section 4** of this transport assessment. Furthermore, mitigation is proposed at several junctions, discussed in detail within **Section 2** of this transport assessment.

3.10. Lincolnshire Walking Strategy

3.10.1. Published by Lincolnshire County Council, the Lincolnshire Walking Strategy is a supporting strategy to the LTP 5 and sets out Lincolnshire County Council's ambitions for walking in Lincolnshire:

> *"Our vision is to make Lincolnshire a place where walking is a natural choice for everyday journeys, for leisure and for enjoyment and where walking is seen as accessible, inclusive and attractive for all."*

3.10.2. Lincolnshire County Council sets out a number of policies to support this vision, including:

"Work with Planning Authorities to ensure that walking is prioritised through effective planning and design of new developments."

"Enhance existing PRoW and identify opportunities for additions to the PRoW network in relation to new developments."

3.10.3. As part of this transport assessment, a number of improvements are proposed to the existing PRoW network, as well as new permissive routes, supporting Lincolnshire County Council's vision of enhancing the existing network.

4. Baseline conditions

4.1. Overview

4.1.1. This section sets out the baseline conditions of the study area.

4.2. Existing highway network

4.2.1. The extent of the highway network considered in this transport assessment is outlined in **ES Volume 2, Figure 14.1: Study Area [EN010149/APP/6.2]** of the ES and also shown below in **Plate 4.1**.

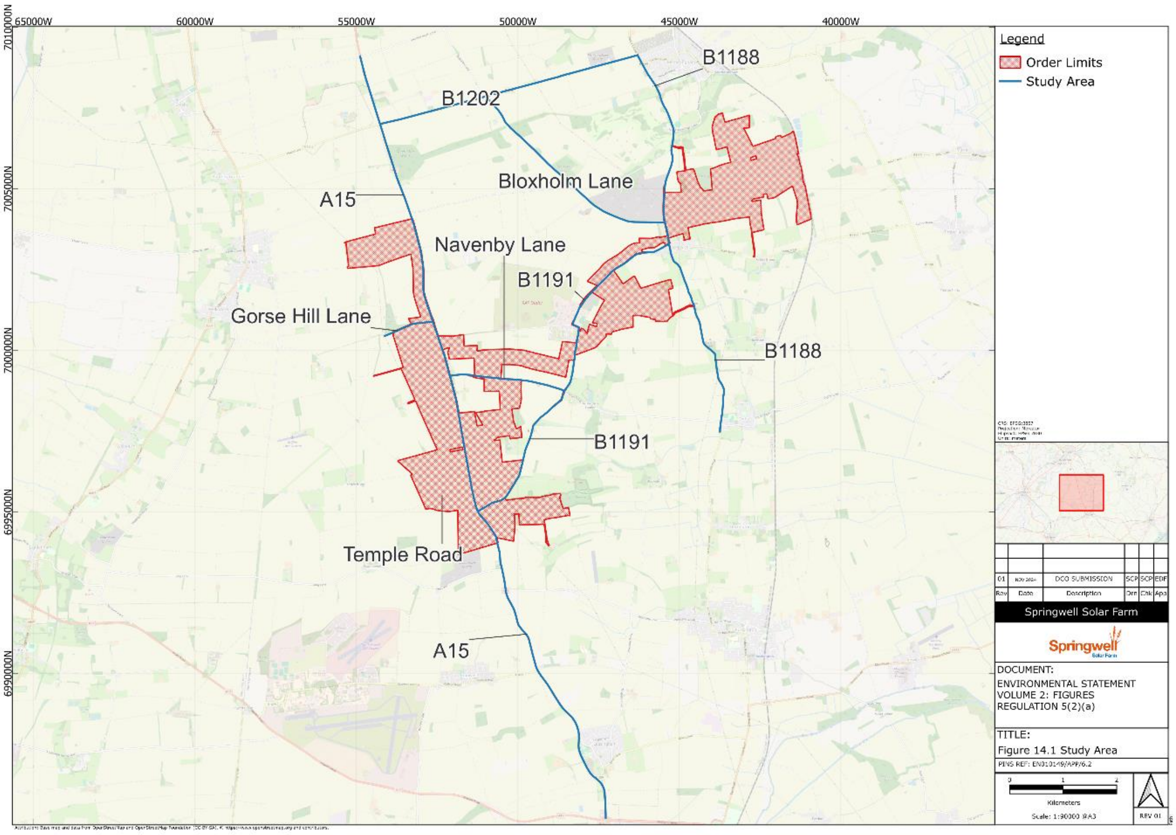

Plate 4.1 Study area

Local highway network

A15

4.2.2. The A15 is a principal road which forms part of the primary road network, running in a north to south direction, bisecting Springwell West.

4.2.3. The A15 runs north to connect with Lincoln approximately 17 kilometres (km) north of Springwell West. To the south, the A15 connects with Sleaford and the A17 approximately 9km to the south at Holdingham Roundabout.

4.2.4. The A15 is a two-way single carriageway road subject to the national speed limit which provides access to a number of settlements and local roads across Lincolnshire. This road will provide a key route to and from the Proposed Development for construction traffic.

4.2.5. In the vicinity of the Proposed Development, the width of the carriageway varies from ~6.5 metres (m) for a majority of its length to ~9.0m where right-turn lanes/flares are present. Along this section of the carriageway, given the rural nature of the surrounding area, it is unlit, and no footways or formal pedestrian crossings are present. It is also a designated clearway restricting parking.

4.2.6. Holdingham roundabout is a five-arm signalised roundabout at the intersection of the A15, A17, and B1518 Lincoln Road. The roundabout has recently undergone a major improvement scheme in 2021, which included the implementation of traffic signals, the re-alignment of the central island, and the addition of more circulating lanes. Entry from each arm is signalised, with the exception of the A17 western arm (although this arm has been future-proofed to allow for the implementation of signals with relative ease).

B1191 Heath Road

4.2.7. The B1191 is a two-way single carriageway road which splits the western and central portions of the Proposed Development in a south-west to north-east direction. The B1191 runs for approximately 6.7km, connecting the A15 to the B1188 and Scopwick village, passing the village of Ashby de la Launde and RAF Digby. The road has a variable carriageway width ranging from ~5.5-6.0m.

4.2.8. The south-western portion of the B1191 is subject to the national speed limit and the road is lined with hedgerows and grass verges with agricultural land beyond. There are a handful of properties/agricultural buildings set back from the carriageway in this area before the B1191 reaches Ashby de la Launde.

4.2.9. At Ashby de la Launde there are a number of residential properties in close proximity to the B1191; however, these properties are not accessed off the B1191, but instead off Main Street which connects to the B1191 at a priority junction.

4.2.10. The national speed limit remains in place on the B1191 as it passes Ashby de la Launde and continues north-east where the road continues to pass agricultural land and a couple of agricultural buildings, including Glebe Farm, until the B1191 reaches RAF Digby.

4.2.11. As the B1191 approaches RAF Digby, the speed limit reduces to 30 miles per hour (mph) for approximately 800m whilst the road travels alongside the air force base, a number of residential dwellings, and an autism care centre, which are all accessed directly from the B1191.

4.2.12. Through RAF Digby there are footways on both sides of the B1191 as well as street lighting, a zebra crossing and bus stops in place along RAF Digby frontage. The crossing and footway provision can be viewed in **Plate 4.2** below.

Plate 4.2 B1191 RAF Digby (view to south)

4.2.13. Here the B1191 departs RAF Digby to the north-east, the speed limit returns to the national speed limit as the road continues to pass agricultural land with occasional agricultural buildings and some residential buildings, including Scopwick Mill until the B1191 approaches Scopwick.

4.2.14. As the B1191 approaches Scopwick, the speed limit reduces to 30mph for the remainder of its length until it meets the B1188 at a priority junction. Through Scopwick, the B1191 is lined with residential properties and has a footway running along the southern side of the carriageway and some areas of provision on the northern side. There is street lighting and bus stops located in the vicinity of the B1188 junction, as illustrated in **Plate 4.3**.

Plate 4.3 B1191 Scopwick (view to east)

B1188

4.2.15. The B1188 is a two-way single carriageway road which splits the central and eastern portions of the Proposed Development in a north to south direction. The B1188 runs for approximately 30km, running north as far as Lincoln and south as far as the A17 and Sleaford.

4.2.16. Where the B1191 meets the B1188 at a priority junction, the B1188 runs north through Scopwick passing through the settlements of Blankney and Metheringham in the vicinity of the Proposed Development. To the south of Scopwick, the B1188 runs through Digby before Dorrington then Ruskington.

4.2.17. Through Scopwick, the B1188 is subject to a 30mph speed limit and the road is lined with residential properties and footway provision through the village, as illustrated in **Plate 4.4**.

Plate 4.4 B1188 Scopwick (view to south)

4.2.18. To the south, the B1188 continues, and the speed limit increases to 50mph as it leaves Scopwick and passes through a large area of agricultural land before it meets Digby, approximately 3.5km south of Scopwick. There are no properties lining this section of the B1188.

4.2.19. The central portion of the Proposed Development will be located to the south of Scopwick, to the west of the B1188.

4.2.20. To the north of Scopwick, the B1188 leaves the village, where the speed limit increases to 50mph. From here, the eastern side of the carriageway is lined with agricultural land until the road reaches Blankney. This is where the eastern portion of the Proposed Development will be located.

4.2.21. On the western side of the B1188 between Scopwick and Blankney, there are some recently converted residential properties before the road passes Longwood Quarry. As the B1188 approaches Blankney, the speed limit reduces to 40mph before the road passes a Church on the eastern side of the carriageway. Where the B1188 passes through Blankney, there are residential properties and footways on both sides of the road, as illustrated in **Plate 4.5**.

Plate 4.5 B1188 Blankney (view to north)

4.2.22. As the B1188 departs Blankney to the north, the speed limit increases to 50mph as it passes agricultural land before it reaches Metheringham. At Metheringham, the speed limit reduces to 40mph on the B1188 as it passes along the western border of this settlement with some residential properties accessed off the B1188. From Metheringham, the B1188 continues north towards Lincoln, passing through a number of other settlements further afield from the study area.

B1202 Metheringham Heath Lane

4.2.23. The B1202 is a two-way single carriageway road which runs in a west to east direction between the A15 and B1188 just north of Metheringham. The road is subject to the national speed limit, has an approximate carriageway width of 6.0m, and runs for approximately 5km.

4.2.24. Agricultural land lines both sides of the B1202 for the majority of its length with just a few sporadic properties. Approximately four residential properties are accessed off the northern side of the B1202 as well as a Biomethane Plant and what appears to be a disused quarry.

Local (minor) roads

Navenby Lane

4.2.25. Navenby Lane is a two-way single carriageway road subject to the national speed limit which runs in a west to east direction between the A15 and B1191. Navenby Lane splits one area of the western portion of the Proposed Development.

4.2.26. Navenby Lane runs for approximately 2.1km and connects to the A15 at a priority junction to the west and to the B1191 at Ashby de la Launde village at a priority junction to the east. The road is approximately 5.5m wide and both sides of the carriageway are lined with grass verges and agricultural land, with no properties along its length.

Bloxholm Lane

4.2.27. Bloxholm Lane is a two-way single carriageway road which runs in a north-west to south-east direction between the B1202 and the B1188. Bloxholm Lane runs for approximately 4.2km from the B1202 to the south-east connecting to the B1188 at a priority junction just north of Scopwick.

4.2.28. Bloxholm Lane is subject to the national speed limit, has an approximate carriageway width of 4.5m, and is lined by agricultural land on both sides of the carriageway for most of its length. As Bloxholm Lane travels south-east from the B1202, it passes approximately three residential properties which are accessed directly from Bloxholm Lane. To the south-east, the road is lined by Longwood Quarry on the northern side of the carriageway as Bloxholm Lane approaches the B1188.

Gorse Hill Lane

4.2.29. Gorse Hill Lane is an unsurfaced rural road which runs in an east to west direction from the A15 to Pottergate Road at the northern extent of Springwell West. Gorse Hill Lane runs for approximately 3.7km, meeting the A15 and Pottergate Road at priority junctions.

4.2.30. Gorse Hill Lane is subject to the national speed limit and is lined by agricultural land, with trees and hedgerows on both sides of the carriageway with a couple of agricultural properties off the carriageway. Along its length, the carriageway width varies from ~4.5-5.5m.

Temple Road

4.2.31. Temple Road is a two-way single carriageway road which runs in an east to west direction from the A15 to Pottergate Road at the south of Springwell West. Temple Road runs for approximately 6km, meeting the A15 and Pottergate Road at priority junctions.

4.2.32. Temple Road is subject to the national speed limit and is lined by agricultural land on both sides of the carriageway with several agricultural properties set back from the carriageway. Along its length, the carriageway width varies from ~4.0-5.0m.

4.3. Personal Injury Collision analysis

4.3.1. To provide an understanding of any underlying deficiencies in the highway network which may be exacerbated by Proposed Development traffic, a review of PIC data has been undertaken. Data for the most recent five-year period available (01/05/2019 - 30/04/2024) has been provided by the LRSP for the extent outlined in **ES Volume 2, Figure 14.3: Personal Injury Collision Study Area [EN010149/APP/6.2]** and below in **Plate 4.6.**

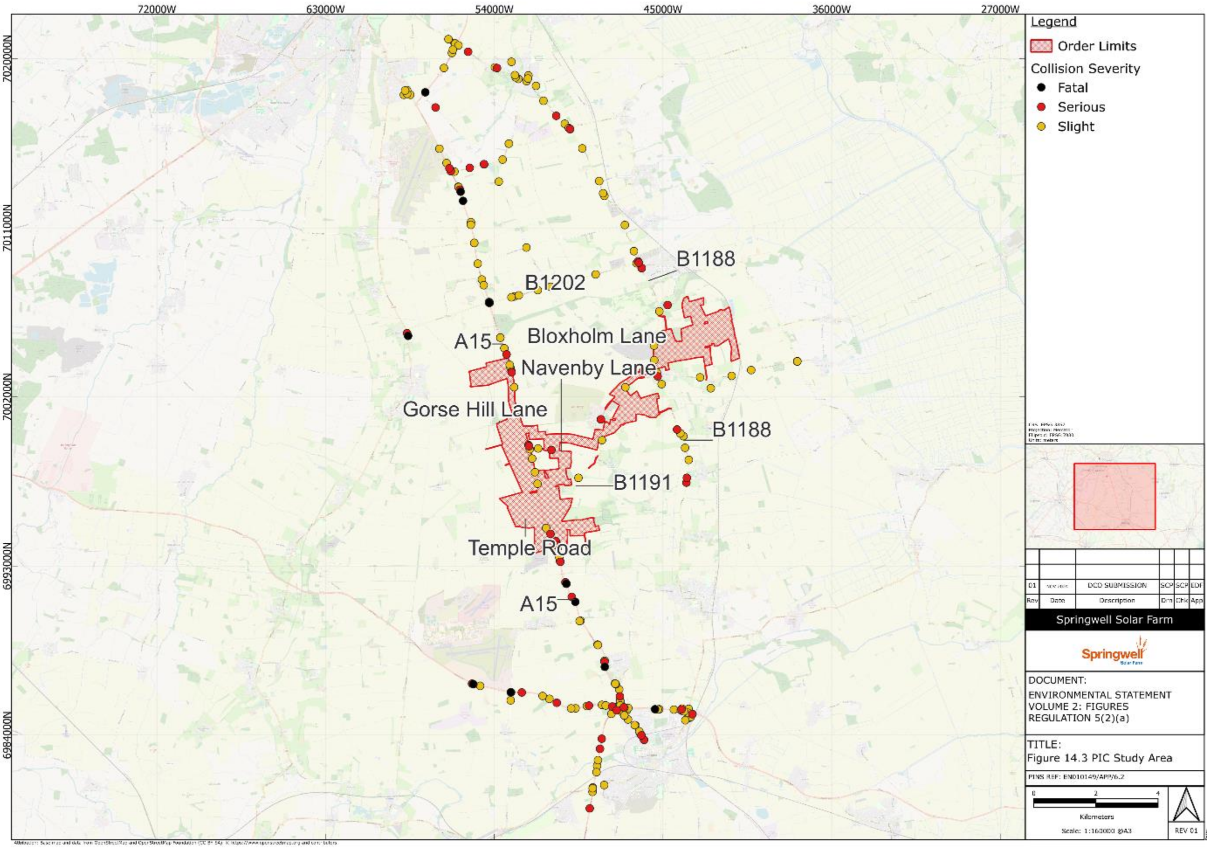

Plate 4.6 PIC study area and reported collisions by severity

4.3.2. **Table 4.1** provides a summary of the full dataset provided by LRSP, outlining collision data by date and the severity of any resulting injuries, categorised as slight, serious, or fatal.

Table 4.1 PIC summary

Severity	01/05/19 – 30/04/20	01/05/20 – 30/04/21	01/05/21 – 30/04/22	01/05/22 – 30/04/23	01/05/23 – 30/04/24	Annual Average
Slight	47	26	41	42	58	**43**
Serious	11	9	6	10	18	**11**
Fatal	2	2	3	1	3	**2**
Total	**60**	**37**	**50**	**53**	**79**	**56**

4.3.3. As outlined above, across the network within the 5-year dataset, there was a 12-month average of 43 slight, 11 serious, and two fatal collisions. The most recent 12-month period has the highest total collisions at 79, an increase of 26 on the prior 12 months. The 2020-2021 period has the lowest number of recorded collisions at 37 – likely due to lower traffic flows as a result of the Covid-19 pandemic.

4.3.4. A total of 11 fatal collisions occurred across the network within the reviewed timeframe. Of these, seven occurred along the A15, three on the A17, and one on the A607. These collisions are reviewed in detail later in this section.

PIC cluster analysis

4.3.5. An analysis of potential 'collision clusters', defined within this transport assessment as a 50m radius in which five or more collisions have occurred over a five-year period, has been carried out. Where clusters have been identified at or adjacent to junctions, the junction has been assessed as a whole, including all collisions within and on approach to the junction – even if not within a 50m radius to provide the most robust assessment possible.

4.3.6. The following clusters were identified:

1. The A15/A17 Holdingham roundabout: three serious and 17 slight collisions;
2. The A15/B1202 priority crossroads: 15 slight, one serious, and one fatal collision;
3. The A17 Bonemill Junction: two serious and 10 slight collisions;
4. The B1188/B1202 priority T-junction: three serious and four slight collisions;
5. The A15/Green Man Road priority T-junction: seven slight collisions;

6. The B1188/B1178 priority staggered crossroads: two serious and four slight collisions;
7. The A15, adjacent to the Brauncewell Church access: two serious and four slight collisions; and
8. The B1191/B1189/Station Road priority crossroads: five slight collisions.

4.3.7. At each cluster, further analysis of each collision was conducted to assess whether there is a common factor between them indicative of an inherent flaw in the highway network in that area.

Cluster 1 - A15/A17 Holdingham roundabout

4.3.8. A review of the LRSP data has identified a cluster at the A15/A17/Lincoln Road Holdingham roundabout. It should be noted that this roundabout was recently upgraded in 2021, which included the implementation of traffic signals, the re-alignment of the central island, and the addition of more circulating lanes. The cluster at this junction comprises three serious and 17 slight collisions, detailed below:

- **190243266 –** 13/05/2019 – Slight: V1, a motorcycle, lost control on the roundabout due to a deposit on the road. No other vehicles were involved.
- **190266585 –** 23/05/2019 – Slight: V1 did not stop in time behind stationary V2 and collided into the rear.
- **190280884 –** 01/06/2019 – Serious: V1, a motorcycle, has braked hard, causing the rider to lose control and fall off. No other vehicles were involved.
- **190303200 –** 12/06/2019 – Slight: V2 was waiting to turn right out of the McDonalds access (off Lincoln Road, adjacent to the roundabout). V1 has exited the roundabout onto Lincoln Road causing collision with another vehicle.
- **190349763 –** 05/07/2019 – Slight: Rear-end shunt occurred.
- **190422644 –** 10/08/2019 – Slight: Whilst no details were provided for this collision, it appears that it has occurred between four queuing vehicles, indicating a sequential rear-end shunt.
- **190506961 –** 22/09/2019 – Slight: On entering the roundabout, V1 has lost control on the wet road surface and collided with the kerb.
- **190574391 –** 24/10/2019 – Slight: V1, travelling south on the A15, has made contact with a large section of surface water on the road, causing the driver to lose control and collide with the reservation.
- **200090813 –** 16/02/2020 – Slight: Rear-end shunt occurred.
- **200138858 –** 11/03/2020 – Slight: Rear-end shunt occurred.

- **200414306 –** 10/08/2020 – Slight: Rear-end shunt occurred.
- **200414396 –** 10/08/2020 – Slight: A sequential rear-end shunt between four vehicles occurred.
- **210359498 –** 28/06/2021 – Serious: V1 has collided with V2 and V3, in the opposite lane.
- **210745499 –** 23/12/2021 – Slight: V1, a fully loaded concrete mixer, has overturned as it traversed the junction.
- **230106286 –** 14/02/2023 – Slight: Rear-end shunt occurred.
- **230181946 –** 25/03/2023 – Slight: V1 has collided with V2 when entering the roundabout.
- **230244982 –** 24/04/2023 – Serious: V1 has collided with the central reservation. No other vehicles were involved.
- **230425186 –** 10/07/2023 – Slight: V1, exiting the BP access (off the A15, adjacent to the roundabout), has collided with V2, exiting the roundabout.
- **230480515 –** 03/08/2023 – Slight: Rear-end shunt occurred.
- **240184788 –** 29/03/2024 – Slight: Rear-end shunt occurred.

4.3.9. Of the 20 collisions that have been reported at this junction, nine comprise rear-end shunts, six were attributed to drivers/riders overturning/losing control, three occurred as vehicles were entering the junction, one involved a vehicle entering the oncoming lane, and the cause of one is unknown.

Cluster 2 - A15/B1202 priority crossroads

4.3.10. A review of the LRSP data has identified a cluster at the A15/B1202 priority crossroads, comprising one fatal, one serious, and 15 slight collisions. These collisions are detailed below:

- **190347667 –** 04/04/2019 – Slight: V1, turning right onto the A15 southbound, has collided with V2 turning right on to A15 towards Lincoln in the junction.
- **200516203 –** 30/09/2020 – Serious: V1 was travelling northbound on the A15 behind V2. As V2 has slowed to turn at the junction, V1 has collided with V2.
- **210200407 –** 12/04/2021 – Slight: V1, turning onto the A15 from the B1202, has collided with V2, travelling southbound on the A15.
- **210213997 –** 19/04/2021 – Slight: V1, turning onto the A15 from the B1202, has collided with V2 travelling southbound on the A15.
- **210244374 –** 04/05/2021 – Slight: V1, turning onto the A15 from the B1202, has collided with V2 travelling southbound on the A15.

- **210362216 –** 29/06/2021 – Slight: V1, turning onto the A15 from the B1202, has collided with V2 travelling southbound on the A15.
- **210433577 –** 02/08/2021 – Slight: V1, turning onto the A15 from the B1202, has collided with V2, travelling northbound on the A15. V2 has then collided with V3, waiting at the junction, and V4, travelling southbound on the A15.
- **210562454 –** 27/09/2021 – Slight: Rear-end shunt occurred.
- **210729737 –** 15/12/2021 – Slight: V1, turning onto the A15 from the B1202, has collided with V2 travelling southbound on the A15.
- **220021064 –** 12/01/2022 – Slight: V1, turning onto the A15 from the B1202, has collided with V2 travelling northbound on the A15.
- **220231860 –** 24/04/2022 – Slight: V1, turning onto the A15 from the B1202, has collided with V2 travelling northbound on the A15. V1 and V2 have then collided with V3, waiting at the junction.
- **220369527 –** 27/06/2022 – Slight: V1, entering the junction from the B1202, has collided with V2 travelling southbound on the A15.
- **220495873 –** 25/08/2022 – Slight: V1, entering the junction from the B1202, has collided with V3 travelling southbound on the A15. V1 has then collided with V2, waiting at the junction.
- **220644456 –** 04/11/2022 – Slight: V1, entering the junction from the B1202, has collided with V2 travelling northbound on the A15.
- **230146502 –** 09/03/2023 – Slight: V1, travelling southbound on the A15, has collided with V2 and V3 during an overtake.
- **240019868 –** 10/01/2024 – Fatal: During wet/damp conditions, V1 was travelling northbound on the A15. V2, approaching the junction from the west, has collided with V1 at the junction, causing V2 to leave the carriageway.
- **240116501 –** 26/02/2024 – Slight: Rear-end shunt occurred.

4.3.11. Of the 17 collisions that have been reported at this junction, 13 occurred as vehicles were entering the junction, three were rear-end shunts, and one occurred as a vehicle was overtaking another vehicle.

Cluster 3 - A17 Bonemill junction

4.3.12. A review of the LRSP data has identified a cluster at the A17/A153 Bonemill junction, comprising two serious and 10 slight collisions. These collisions are detailed below:

- **200101107 –** 20/02/2020 – Slight: V1, joining the A17 from the A513, has collided with the central reservation, rebounded, and then left the carriageway. No other vehicles were involved.

- **200438125 –** 22/08/2020 – Slight: V1, exiting the A17 on the eastbound off-slip, has collided with oncoming V2 on the on-slip.
- **210173928 –** 29/03/2021 – Slight: Rear-end shunt occurred.
- **210246347 –** 05/05/2021 – Slight: Rear-end shunt occurred.
- **210362885 –** 29/06/2021 – Slight: V1, exiting the A17, has left the carriageway. No other vehicles were involved.
- **210419501 –** 26/07/2021 – Slight: V1 and V2 were travelling along the A17 westbound in lanes 1 and 2, respectively. As the vehicles approached the on-slip, V1 and V2 have collided.
- **210602720 –** 16/10/2021 – Serious: V1, exiting the A17 on the westbound off-slip, has collided with the reservation. No other vehicles were involved.
- **210604968 –** 17/10/2021 – Slight: Rear-end shunt occurred.
- **230663569 –** 20/10/2023 – Slight: V1 and V2, travelling westbound on the A17, have collided.
- **230747579 –** 05/12/2023 – Slight: V1, travelling eastbound on the A17, has left the carriageway. No other vehicles were involved.
- **240034985 –** 17/01/2024 – Slight: V1 and V2 were travelling eastbound on the A17 they have collided.
- **240091212 –** 13/02/2024 – Serious: V1, exiting the A17 on the eastbound off-slip, has collided with the street furniture before colliding with the reservation. No other vehicles were involved.

4.3.13. Of the 12 collisions that have occurred at this junction, five occurred as vehicles were entering/exiting the carriageway, five occurred as vehicles were travelling along the carriageway, and two were rear-end shunts.

Cluster 4 - B1188/B1202 priority T-junction

4.3.14. A review of the LRSP data has identified a cluster at the B1188/B1202 priority junction, comprising three serious and four slight collisions. These collisions are detailed below:

- **190291261 –** 06/06/2019 – Serious: V1, turning right from the B1202, has collided with V2, travelling northbound.
- **210297212 –** 29/05/2021 – Slight: V2, turning right from the B1202, has collided with V1, travelling northbound.
- **210347495 –** 22/06/2021 – Slight: The trailer of V1 has toppled, for unknown reasons.
- **220617145 –** 22/10/2022 – Slight: Rear-end shunt occurred.
- **230447008 –** 19/07/2023 – Serious: V2, turning right from the B1202, has collided with V1, travelling northbound.

- **240053791 –** 27/01/2024 – Serious: V1, approaching the junction from the B1202, has continued straight on at the junction, leaving the carriageway. No other vehicles were involved.
- **240116107 –** 26/02/2024 – Slight: V2, towing a trailer, turning left from the B1202, has collided with V1, travelling northbound.

4.3.15. Of the seven collisions that have been reported at this junction, four occurred as vehicles were entering the junction, one was a rear-end shunt, one involved a vehicle leaving the carriageway, and the cause of one is unknown.

Cluster 5 - A15/Green Man Road priority T-junction

4.3.16. A review of the LRSP data has identified a cluster at the A15/Green Man Road priority T-junction, comprising seven slight collisions. These collisions are detailed below:

- **210200209 –** 12/04/2021 – Slight: Rear-end shunt occurred.
- **210539682 –** 16/09/2021 – Slight: Sequential rear-end shunt occurred.
- **220021332 –** 12/01/2022 – Slight: V1 turned left from Green Man Road and collided with V2 (an ambulance) that was overtaking on the A15. The ambulance had emergency lights and sirens activated.
- **220149973 –** 15/03/2022 – Slight: Rear-end shunt occurred.
- **220240993 –** 28/04/2022 – Slight: V1, turning right onto the A15, has collided with V2 travelling northbound on the A15.
- **230319109 –** 25/05/2023 – Slight: Rear-end shunt occurred.
- **230603789 –** 28/09/2023 – Slight: Sequential rear-end shunt occurred.

4.3.17. Of the seven collisions that have been reported at this junction, five comprise rear-end shunts, one occurred as a vehicle entered the junction, and one occurred as an emergency vehicle was overtaking.

Cluster 6 - B1188/B1178 priority staggered crossroads

4.3.18. A review of the LRSP data has identified a cluster at the B1188/B1178 priority junction, comprising two serious and four slight collisions. These collisions are detailed below:

- **200152271 –** 18/03/2020 – Serious: V1, travelling southbound on the B1188, has collided with V2, travelling northbound on the B1188. V1 and V2 have then collided with V3, waiting at the junction on the B1178.
- **210677150 –** 20/11/2021 – Slight: V1, turning right from the B1178 Station Road, has collided with V2, travelling southbound.
- **230631358 –** 10/10/2023 – Slight: V1, turning left onto the B1188 from the B1178, has collided with V2, travelling northbound.

- **240063451 –** 31/01/2024 – Serious: V1, travelling northbound on the B1188, has collided with V2, travelling southbound on the B1188. V2 has then collided with V3, waiting at the junction.
- **240155954 –** 15/03/2024 – Slight: V1, turning right from the B1178, has collided with V2, travelling northbound.
- **240202518 –** 07/04/2024 – Slight: V1, travelling northbound on the B1188, has collided with V2, travelling southbound on the B1188. V1 has then collided with V3, waiting at the junction.

4.3.19. Of the six collisions that have been reported at this junction, all occurred as vehicles were entering the junction.

Cluster 7 - A15, adjacent to the Brauncewell Church access

4.3.20. A review of the LRSP data has identified a cluster on the A15, on a sweeping bend between the A15/B1191 junction and the A15/Long Lane junction, adjacent to the Brauncewell Church access. This cluster comprises two serious and four slight collisions, detailed below:

- **210007503 –** 05/01/2021 – Slight: V1, travelling northbound on the A15, has collided with V3. V1 has then collided with V2 in the oncoming lane.
- **220260445 –** 07/05/2022 – Slight: V1, travelling southbound on the A15, has left the carriageway. No other vehicles were involved.
- **230269853 –** 04/05/2023 – Serious: No details are known other than V1 has left the carriageway. No other vehicles were involved.
- **230735004 –** 28/11/2023 – Serious: V1, travelling southbound on the A15, has left the carriageway. No other vehicles were involved.
- **230752923 –** 07/12/2023 – Slight: V1, travelling southbound on the A15, has collided with V2, travelling northbound on the A15.
- **240030380 –** 15/01/2024 – Slight: V1, travelling southbound on the A15, has left the carriageway just after the bend. No other vehicles were involved.

4.3.21. Of the six collisions that have been reported at this section of the A15, four involved a single vehicle leaving the carriageway on or adjacent to the bend and two involved several vehicles colliding on the bend.

Cluster 8 - B1191/B1189/Station Road priority crossroads

4.3.22. A review of the LRSP data has identified a cluster at the B1191/B1189/Station Road junction, comprising five slight collisions. These collisions are detailed below:

- **200079262 –** 10/02/2020 – Slight: V1, turning into the junction from the B1191, has collided with V2, travelling southbound on the B1189.

- **200364957 –** 16/07/2020 – Slight: V1, turning into the junction from Station Road, has collided with V2, travelling southbound on the B1189.
- **220333527 –** 10/06/2022 – Slight: V1, turning into the junction from Station Road, has collided with V2, travelling northbound on the B1189.
- **220684155 –** 22/11/2022 – Slight: V1, turning into the junction from the B1191, has collided with V2, travelling northbound on the B1189.
- **230729508 –** 25/11/2023 – Slight: V1 has colliding with V2 when entering the junction.

4.3.23. Of the five collisions that have been reported at this junction, all occurred as vehicles were entering the junction.

Fatal collisions

4.3.24. Notably, 11 fatal collisions occurred in the study area within the 5-year period. Only one of these (Ref: 240019868) occurred within an identified cluster, with the rest distributed across the network. The 10 collisions that did not occur within a cluster are detailed below:

- **190697355** – 31/12/2019 – Occurred on the A15, at Dunsby St Andrew: During dark, dry conditions, V1 was travelling northbound on the A15 and V2 was travelling southbound on the A15. V1 has collided with V2.
- **200194508** – 16/04/2020 – Occurred on the A15, between Dunsby St Andrew and the A15/B1429 junction: During dark, dry conditions, V1 was travelling southbound on the A15 and V2 was travelling northbound on the A15. V1 has collided with V2.
- **200365507** – 16/07/2020 – Occurred on the A17, between the A17/B1429 junction and the A17/Rauceby Lane/Main Street junction: During dark, dry conditions, V1 was travelling eastbound on the A17 and V2 was travelling westbound on the A17. V1 has collided with V2.
- **200604551** – 15/11/2020 – Occurred on the A17, between the A15/A17 Holdingham roundabout and the A17 Bonemill junction: During light, wet conditions, V2 was parked in a layby on the westbound carriageway. V1, travelling westbound in lane 1, has collided with V2.
- **210446012** – 09/08/2021 – Occurred on the A15, between the A15/B1178 Mere Road junction and the A15/B1178 Tower Lane junction: During light, dry conditions, V1 was travelling southbound on the A15 and V2, a HGV, was travelling northbound on the A15. V1 has has collided with V2, causing it to leave the carriageway.
- **210511099** – 03/09/2021 – Occurred on the A15, ~200m north of the A15/Sleaford Road roundabout: During dark, dry conditions, V1 was travelling southbound on the A15 and V2 was travelling northbound on the A15. V1 has collided with V2.

- **210727628** – 14/12/2021 – Occurred at the A17/Rauceby Lane/Main Street junction: During dark, dry conditions, V1, turning from Main Street, has collided with V2, travelling eastbound on the A17. V2 has then collided with V3, stationary at the junction.
- **230122892** – 27/02/2023 – Occurred on the A607, between the A607/B1202 junction and the A607/Main Street junction: During dark, dry conditions, V1 was travelling northbound on the A607 and V2 was travelling southbound. At a slight bend, V1 has collided with V2.
- **230483921** – 05/08/2023 – Occurred on the A15, between the A15/B1178 Mere Road junction and the A15/B1178 Tower Lane junction: During light, wet conditions, V1 was travelling southbound on the A15. V1 has left the carriageway.
- **240022613** – 11/01/2024 – Occurred on the A15, between the A15/B1209 junction and the A15/Lincoln Road junction: During light, wet conditions, V1 and V3 were travelling southbound on the A15 and V2 was travelling northbound. V1 has collided with V2, causing both vehicles to spin. V3 has then collided with the rear of V1.

4.3.25. Of the 10 fatal collisions that did not occur within a collision cluster, seven involved vehicles travelling along the carriageway in opposite directions, one involved a vehicle colliding with a stationary vehicle, one involved a single vehicle leaving the carriageway, and one occurred as a vehicle was entering a junction. There does not appear to be any notable spatial trend or trend in contributory factors.

Summary

4.3.26. Whilst several collision clusters are present across the network within the study area, an analysis of the collisions comprising them provides no indication that there are any underlying flaws in the highway network infrastructure.

4.3.27. It is understood that LRSP are progressing with proposals to alter the layout of the A15/B1202 junction. At present the details of any proposed scheme are not available but could include speed reduction and/or junction realignment.

4.4. Public Rights of Way network

4.4.1. There is an extensive network of existing PRoW within and intersecting the Proposed Development Order Limits. These are illustrated in **Plate 4.7** and were provided by Lincolnshire County Council PRoW officers. They are outlined in **Table 4.2**.

Table 4.2 Descriptions of the PRoW network

PRoW	Type	Description
Brau/8/1	Public footpath	An unsurfaced public footpath running in a north/south alignment from Temple Road towards Braunceweell.
AshL/4/1	Public footpath	An unsurfaced public footpath running in a northwest/southeast alignment from the A15 across agricultural land to the west of the A15.
Temp/2/1	Public footpath	An unsurfaced public footpath running in a northeast/southwest alignment across agricultural land from the A15 in the northeast to Gorse Hill Covert in the south-west.
Blan/4/2	Public footpath	An unsurfaced public footpath running in a north/south alignment from Martin Road in the north and Blan/4/2 and Blam/738/1.
Blan/4/3	Public footpath	An unsurfaced public footpath running in a north/south alignment from Blan/4/2 in the north and Blan/4/3 to the south.
Scop/738/1	Public footpath	An unsurfaced public footpath running in a north/south alignment along Acre Lane, connecting Scop/738/1 in the south to Blan/4/2 in the north.
Scop/1134/1	Public footpath	An unsurfaced public footpath running in a north/south alignment, connecting Blan/4a/1 in the north to Scop/7/3 in the south.
Scop/1135/2	Public bridleway	An unsurfaced public bridleway to the north of Scopwick, running in a north/south alignment connecting Scop/1135/3 and Scop/1136/1.
Scop/1135/3	Public bridleway	An unsurfaced public bridleway to the north of Scopwick, running in an east-west alignment from Scopwick Low Field Farm in the east to Scop1135/2 in the west.
Scop/1136/1	Public bridleway	An unsurfaced public bridleway running in an east-west alignment from the B1188 to Scop/1135/2.
Scop/737/1	Public footpath	An unsurfaced public footpath running in a north/south alignment, adjacent to the Brickyard Plantation, and provides a large section of the Scopwick-Blankney route. This PRoW extends from Blan/737/1 in the north to Scop/1135/3 in the south.
Scop/10/1	Restricted byway	An unsurfaced restricted byway running in a north-south alignment to the north of Scopwick. This PRoW

PRoW	Type	Description
		connects Scop/10/2 in the north to Vicarage Lane to the south.
Scop/10/2	Restricted byway	An unsurfaced restricted byway running in an east-west alignment to the north of Scopwick, extending from Scop/10/1 in the west to Scop/11/4 in the east.
Scop/11/1	Restricted byway	An unsurfaced restricted byway running along Acre Lane in a north/south alignment to the north of Kirby Green. This PRoW connects the B1191 in the south and Scop/11/2 in the north.
Scop/8/2	Public footpath	An unsurfaced public footpath running in an east-west alignment, connecting Scop/8/1 in the west to Mtin/7/1in the east.
Scop/12/1	Restricted byway	An unsurfaced restricted byway that runs in an east-west alignment, connecting the B1191 to the east to Scop/12/2 to the west.
Scop/13/1	Restricted byway	An unsurfaced restricted byway that runs in a southeast/northwest direction, connecting the B1191 to Scop/12/2.
Rows/5/1	Public footpath	An unsurfaced public footpath that runs in an east-west alignment to the east of RAF Digby, beginning east of the B1191 and connecting to the B188 to the east.
Blan/737/1	Public footpath	An unsurfaced public footpath running in a north/south alignment, providing a large section of the Scopwick-Blankney route. This PRoW connects Scop/737/1 in the south to the B1188 at Blankney in the north.
Scop/11/2	Restricted byway	An unsurfaced restricted byway running along Acre Lane in a north/south alignment to the north of Kirby Green. This PRoW connects Scop/11/1 in the south and Scop/11/3 in the north.
Scop/11/3	Restricted byway	An unsurfaced restricted byway running along Acre Lane in a north/south alignment to the north of Kirby Green. This PRoW connects Scop/11/2 in the south and Scop/11/4 in the north.
Scop/11/4	Restricted byway	An unsurfaced restricted byway running along Acre Lane in a north/south alignment to the north of Kirby Green. This PRoW connects Scop/11/3 in the south and Scop/8/1 in the north.

PRoW	Type	Description
Scop/1135/1	Public bridleway	An unsurfaced public bridleway to the north of Scopwick, running in a north/south alignment from Scop/1135/2 in the north to Scop/10/2 to the south.
Scop/1135/3	Public bridleway	An unsurfaced public bridleway to the north of Scopwick, running in an east-west alignment from Scopwick Low Field Farm in the east to Scop1135/2 in the west.
Scop/7/3	Public footpath	An unsurfaced public footpath running in a north/south alignment, connecting Scop/1134/1 in the north to Scop/1135/3 in the south.
Scop/738/1	Public footpath	An unsurfaced public footpath running in a north/south alignment along Acre Lane, connecting Blan/738/1 in the north to Scop/8/1 in the south.
Scop/8/1	Public footpath	An unsurfaced public footpath running in an east-west alignment adjacent to Scopwick Low Field Farm. This ProW connects Scop/11/4 in the west to Scop/738/1 in the east.
Scop/1135/4	Public bridleway	An unsurfaced public bridleway running in an east-west alignment, connecting Scop/1135/3 in the west to Scop/8/1 in the east
Scop/739/1	Public footpath	An unsurfaced public footpath running in a north-east/south-west alignment, connecting Scop/8/2 in the northeast to Scop/7/1 in the south-west
Scop/3/1	Public footpath	An unsurfaced public footpath running in a north-east/south-west alignment, connecting Scop/11/2 in the northeast to Main Street in the south-west
Blan/4a/1	Public footpath	An unsurfaced public footpath running in a north/south alignment, connecting Martin Road in the north to Scop/1134/1 in the south
Blan/738/1	Public footpath	An unsurfaced public footpath running in a north/south alignment, connecting Blan/4/2 in the north to Scop/738/1 in the south

PRoW	Type	Description
Temp/1/1	Public bridleway	An unsurfaced public bridleway running in an east-west alignment, connecting Scop/1/2 in the east to the A15 in the west
Scop/7/2	Public footpath	An unsurfaced public footpath running in an east-west alignment, connecting Scop/739/1 in the east to Scop/11/2 in the west
AshL/11/1	Public footpath	An unsurfaced public footpath running in an east-west alignment, running from the B1191 to the west towards Bloxholm to the east, adjacent to Bloxholm Wood Nature Reserve

4.4.2. Improvements to the local PRoW network are proposed, as detailed in **ES Volume 1, Chapter 3: Proposed Development Description [EN010149/APP/6.1]**.

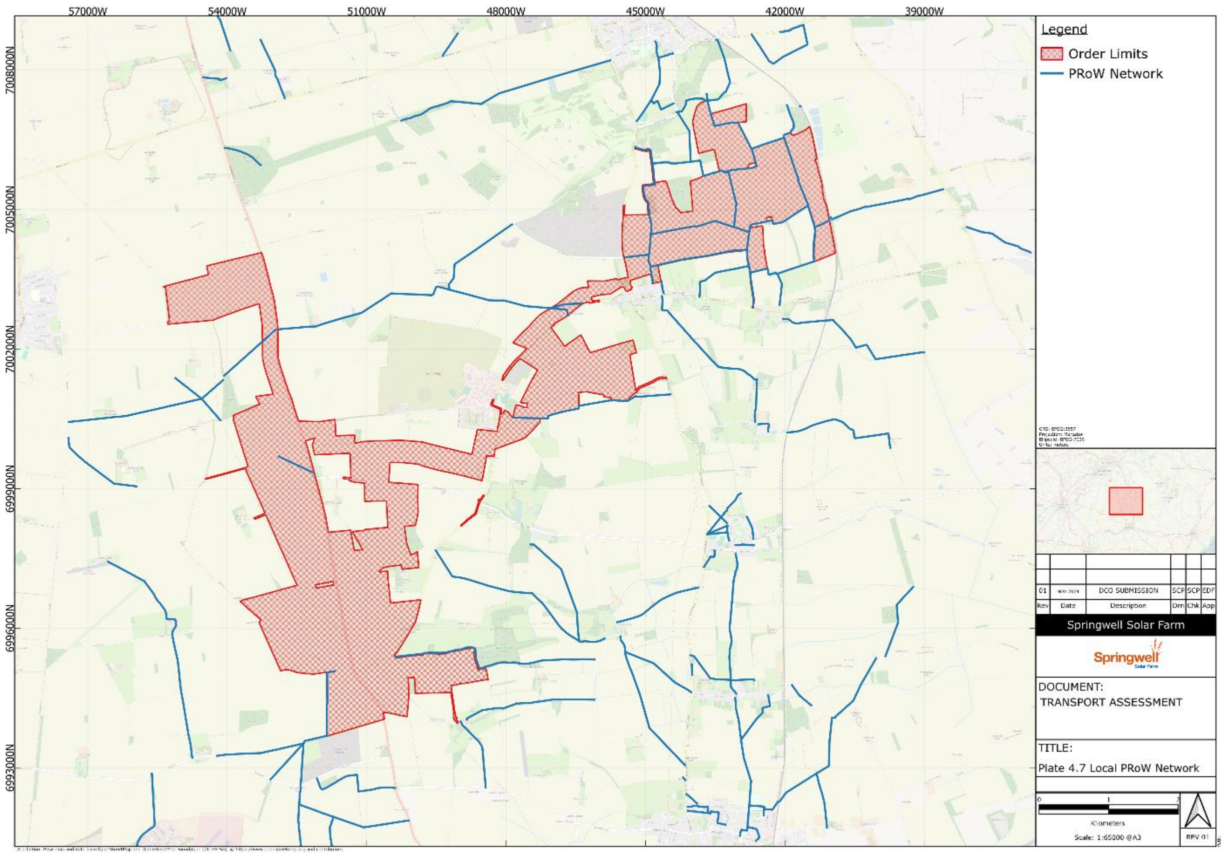

Plate 4.7 Local PRoW network

4.5. Cycle routes

4.5.1. Locally, there are no National Cycle Network Routes (NCN) within the vicinity of the Proposed Development and as such, no link to the existing NCN is proposed. The closest NCN Routes are Route 151 to the south and Route 1 to the east. Located approximately 10km south of the Proposed Development, Route 151 provides a largely traffic-free route between Sleaford and Leasingham. Located approximately 15km to the east of the Proposed Development, Route 1 is a mixed traffic-free/on-road long-distance route from Dover to Scotland.

4.6. Public transport

4.6.1. Local public transport services in the area are comprised of bus only. The nearest bus stops to the Proposed Development are located in Ashby de la Launde, RAF Digby, and Scopwick. These stops are served by several services, comprising the 31, 31X, M2, 18M, and 18S. In addition, several services route through Metheringham to the north-east, including the 55, B5, and B5X. These services are summarised in **Table 4.3** and relevant timetables can be found in **Annex 1.**

Table 4.3 Local bus service information

Service	Route	Frequency		
		Weekday	Saturday	Sunday
31, 31X	Lincoln - Sleaford	9/day	n/a	n/a
M2	Lincoln - Anwick	4/day	3/day	2/day
18M, 18S	n/a – On demand service	On demand 7am – 7pm	On demand 8am – 6pm	n/a
55	Lincoln - Coningsby - Boston	n/a	11/day	n/a
B5, B5X	Lincoln – Woodhall Spa – Boston	13/day	n/a	n/a

5. Baseline Traffic Flows

5.1. DfT count points

5.1.1. DfT count points have been used as part of the baseline data collection process. Daily flow data has been obtained from the following count points:

- 16208 - A15 (south of Metheringham Heath Lane);
- 36224 - A15 (north of Leasingham); and
- 806250 - B1188 (south of Scopwick).

5.1.2. At the time of data analysis, data from 2022 was the most recent available at these count points.

5.2. Survey background

2023 traffic surveys

5.2.1. A number of surveys were carried out in June 2023 to establish a baseline of traffic flows. This included:

- Six automatic traffic count (ATC) locations, located along:
  - The A15, south of the A15/B1191/Temple Road junction;
  - The A15, north of the A15/B1191/Temple Road junction;
  - The B1191, north of the B1191/Navenby Lane/Main Street junction;
  - The B1191, west of the B1188/B1191 Heath Road junction;
  - The B1188, north of the B1188/B1191 Heath Road junction;
  - The B1188, between Digby and Dorrington.

5.2.2. The ATCs were conducted over a 24-hour period for seven days, Tuesday 13 June – Monday 19 June.

2024 traffic surveys

5.2.3. Surveys were carried out in April 2024 in order to establish an up-to-date baseline of traffic flows. This included:

- One ATC location, located along:
  - The B1188, between Scopwick and Blankney.
- Eight junction turning counts (JTC) locations and queue length surveys by lane on all approaches of the following junctions:
  - A15/A17/Lincoln Road signal-controlled roundabout;

- A15/B1191/Temple Road priority staggered junction;
- A15/B1202 priority crossroads;
- A15/Navenby Lane priority T-junction;
- A15/Gorse Hill Lane priority T-junction;
- B1188/B1202 Metheringham Heath Lane priority T-junction;
- B1188/B1191 Heath Road priority T-junction;
- B1188/B1191 Main Street priority T-junction;
- B1191/Navenby Lane/Main Street priority staggered junction.

5.2.4. The ATC was conducted over a 24-hour period for seven days, Monday 15 April – Sunday 21 April. The JTCs were conducted over a six-hour period for one day, Wednesday 17 April.

5.3. Survey summary

5.3.1. Analysis of the most recent (2024) data identified the following peak network times:

- Weekday AM Peak: 07:15 – 08:15.
- Weekday PM Peak: 16:30 – 17:30.

5.3.2. These surveys were used to inform the baseline traffic flows on the network.

5.4. TEMPro growth factors

5.4.1. Traffic growth factors for the proposed construction, operation (including maintenance), and decommissioning years have been obtained from the Trip End Model Presentation Program (TEMPro) v8.1 software, provided by DfT for the purposes of estimating background traffic growth within the local area. These growth factors have then been applied to the baseline data collected to provide an estimate of future baseline traffic.

5.4.2. The growth factors were calculated based on the following parameters:

- Area – Lincolnshire (County level);
- Scenario – NRTP 2022 Core;
- Transport Mode – Car driver only;
- Trip End Type – Origin/Destination; and
- Time Periods - Weekday AM peak period (07:00 – 10:00) and Weekday PM peak period (16:00 – 19:00).

Construction year

5.4.3. The construction period is anticipated to begin in 2027 and end in 2031. A construction year of 2028 has been identified to assess the impact of development traffic upon the highway network as it will represent the worst-case scenario in terms of the proportional impact of the development, when compared to baseline traffic flows.

5.4.4. Whilst only 2024 survey data has been used as a baseline for the junction modelling in **Section 9**, ATC survey data collected in 2023 and DfT count point data collected in 2022 has been used to obtain data for the assessments undertaken in **ES Volume 1, Chapter 6: Air Quality [EN010149/APP/6.1]** and **ES Volume 1, Chapter 12: Noise and Vibration [EN010149/APP/6.1]**. The growth factors outlined in **Table 5.1** have been applied to the baseline data.

Table 5.1 TEMPro growth factors – construction year

Base Year	Future Year	AM Peak Growth Factor	PM Peak Growth Factor
2022	2028	1.0471	1.0486
2023	2028	1.0422	1.0435
2024	2028	1.0372	1.0384

Operation year

5.4.5. An operation year of 2032 has been identified. The growth factors outlined in **Table 5.2** have been applied to the construction year baseline traffic.

Table 5.2 TEMPro growth factors – operation year

Base Year	Future Year	AM Peak Growth Factor	PM Peak Growth Factor
2028	2032	1.0379	1.0392

Decommissioning year

5.4.6. No assessment of decommissioning has been undertaken within this transport assessment as this element of works has been scoped out as detailed earlier in this report.

6. Committed development

6.1. Overview

6.1.1. Baseline traffic has been adjusted to represent the relevant assessment years using TEMPro growth factors, based upon National Trip End Model (NTEM) datasets. The NTEM datasets provide national projections of the below factors, which are translated into growth factors by TEMPro:

- Population;
- Employment;
- Housing;
- Car Ownership; and
- Trip Rates.

6.1.2. As a result, there are some factors which are not considered in the derived growth factors. These include:

- Construction traffic associated with employment and housing growth; and
- Operational or construction traffic associated with NSIPs.

6.1.3. Consequently, a review of local committed developments and NSIPs has been undertaken to ensure that any future developments with the potential for temporal and spatial overlap are appropriately considered.

6.1.4. A shortlist of committed development has been identified in **ES Volume 1, Chapter 16: Cumulative Effects [EN010149/APP/6.1]**. Following discussions and in liaison with Lincolnshire County Council in 2024, this shortlist has been supplemented by several other developments, which are detailed below in **Table 6.1**. A rationale for the inclusion or exclusion of these developments within the junction analysis is also provided.

6.1.5. Note that for residential and employment developments, it is assumed that any operational traffic has already been taken into account by the TEMPro growth factors, hence is not considered further.

Table 6.1 Committed development

Project Name	Reference	Included or excluded in analysis?	Rationale/Justification
Triton Knoll	EN010005	Excluded	Offshore construction was completed in January 2022 and onshore construction was completed in October 2021. As a result any operational traffic generated will already have been included within the traffic surveys undertaken, thus excluded.
Viking Link	17/1200/FUL	Excluded	The Viking Link was completed in December 2023. As a result any operational traffic generated will already have been included within the traffic surveys undertaken, thus excluded.
Heckington Fen Solar Park (including works to Bicker Fen substation)	EN010123	Included	Construction traffic associated with Heckington Fen has the potential for both spatial and temporal overlap.
Beacon Fen Energy Park	EN010151	Excluded	There is no spatial overlap for construction traffic.
Temple Oaks Renewable Park	EN010126	Excluded	There is no spatial overlap for construction traffic.
Lincolnshire Reservoir	WA010003	Excluded	There is no publicly available information on PINS for this scheme.
Sleaford South	13/0498/OUT	Excluded	There is no temporal overlap for construction traffic as build-out should be completed by 2027. Furthermore, build-out

Project Name	Reference	Included or excluded in analysis?	Rationale/Justification
			has already begun, thus construction traffic should have already been captured within the traffic surveys undertaken. Operational traffic generated by the site will have been taken into account by the TEMPro growth factors applied.
Sleaford West	16/0498/OUT	Included	Construction traffic associated with Sleaford West has the potential for both spatial and temporal overlap.
Lincoln South East Quadrant	16/1564/OUT	Excluded	Whilst there is the potential for both spatial and temporal overlap with construction traffic associated with this development, the documentation associated with the application does not contain any definitive numbers or routes for construction vehicles, so cannot be assessed. Operational traffic generated by the site will have been taken into account by the TEMPro growth factors applied.
	20/0057/OUT	Excluded	Whilst there is the potential for both spatial and temporal overlap with construction traffic associated with this development, the documentation associated with the application does not contain any definitive numbers or routes for construction vehicles, so cannot be assessed. Operational traffic

Project Name	Reference	Included or excluded in analysis?	Rationale/Justification
			generated by the site will have been taken into account by the TEMPro growth factors applied, thus excluded.
Land between Sleaford Road and Dunston Road, Metheringham	20/0029/FUL	Excluded	There is no temporal overlap for construction traffic as build-out should be completed by 2026. Furthermore, build-out has already begun, thus construction traffic should have already been captured within the traffic surveys undertaken. Operational traffic generated by the site will have been taken into account by the TEMPro growth factors applied.
Anaerobic Digestion Plant, former RAF Metheringham	EIA/37/22	Excluded	As this is an Environmental Impact Assessment (EIA) screening application, and no outline/full application has been made at the time of writing, this development is not considered at this stage.
Navenby Heath BESS	23/0390/EIASCO	Excluded	As this is an EIA screening application, and no outline/full application has been made at the time of writing, this development is not considered at this stage.
RAF Digby Operational building	24/0959/FUL	Excluded	Whilst it is likely that there will be spatial and temporal overlap with operation traffic associated with this development, the peak hour flows are very low and will not significantly affect junction assessments of the B1191,

Project Name	Reference	Included or excluded in analysis?	Rationale/Justification
			which the traffic will primarily affect. Thus, excluded.

6.1.6. Traffic movements associated with the included developments, detailed above, have been included within the junction modelling.

7. Trip generation in construction

7.1. Overview

7.1.1. Estimates of the number of construction workers and HGV deliveries required daily have been provided by the Applicant. Workers and HGVs will be split across the Primary and Secondary Construction Compounds, thus the number required across the Proposed Development will vary across the anticipated four-year programme as the activity at each compound differs year-to-year. **Table 7.1** outlines the predicted levels of peak HGVs required across the programme, and **Table 7.2** shows the Large Goods Vehicle (LGV) trips.

Table 7.1 Peak daily HGV trips per Primary Construction Compound

Construction compound	Primary Construction Compound HGV two-way trips	Secondary Construction Compound HGV two-way trips	Daily total HGV trips peak combined (two-way)	Road link used
Springwell West (MC1)	80	30	110	A15 North and South Gorse Hill Lane/ Temple Road
Springwell West east of A15 (MC2)	Up to 70	Up to 70	70	A15 North and South B1191
Springwell East (MC3)	Up to 80	Up to 80	80	A15 North and South B1191 B1188

Table 7.2: Peak daily LGV (worker) trips per Primary Construction Compound

Construction Compound	Primary Construction Compound peak LGV two-way trips
Springwell West (MC1)	640
Springwell West east of A15 (MC2)	374
Springwell East (MC3)	508

7.1.2. When considering the impact upon the highway network, the peak activity local to each Primary Construction Compound across the four-year programme has been taken to present a robust and realistic scenario within a single year for the purposes of assessment (2028). Similarly, junctions remote from Primary Construction Compounds have been assessed with a realistic combined impact from multiple compounds representing peak traffic conditions.

7.2. Trip generation – construction workers

7.2.1. Construction workers are assumed to travel to the Proposed Development by car (LGV), with an average occupancy of 1.5 workers per vehicle. This best practice assumption of vehicle occupation is considered robust where, in practice, the number of shared vehicles could be expected to be ~2.5 in respect to occupancy.

7.2.2. The proposed construction working hours are between 07:00 – 19:00 hours Monday to Friday and 07:00 to 12:00 on Saturday. No working will be permitted on Sundays or Bank Holidays. Workers are assumed to all arrive in the AM and depart in the PM, dependent on specific shift schedules by trade. The modelling focuses on the conditions in the observed survey identified network peak periods (AM peak: 07:15 – 08:15 hours; PM peak: 16:30 – 17:30 hours).

7.2.3. In the AM peak hour, it is unlikely there will be any conflict with worker vehicle movements and the observed network peak periods as workers will arrive at the Proposed Development by 07:00. Similarly, during the PM peak, workers leaving the Proposed Development are likely to do so spread over two to three hours (varying across the year due to changing daylight hours). To robustly assess the Development Proposal, 35% of the LGV development traffic has been applied to the modelled peak hour assessments.

7.2.4. Construction worker trip generation is based on the following:

- All traffic arrives in the AM and departs in the PM from the same location;
- LGV occupancy of 1.5 workers per vehicle;
- 35% of AM construction traffic considered within the AM peak hour; and
- 35% of PM construction traffic considered within the PM peak hour.

7.3. Trip generation – HGVs

7.3.1. HGV trip generation is based on HGV traffic arriving/departing regularly across the day, with 10% of the total daily traffic present in the AM peak hour and 10% in the PM peak hour.

7.4. Trip distribution

Study area

7.4.1. The origin of the construction workers has been determined by analysing population data from the census. Middle Super Output Area (MSOA) level data has been reviewed for an area within a 60-minute drive time isochrone to establish a basis for which direction workers will travel from. Lower Super Output Area (LSOA) level data has then been reviewed for a more localised area (~30-minute drive time, including large population centres such as Sleaford and Lincoln) to provide a more detailed understanding of localised population distribution.

7.4.2. When comparing the population distribution derived from MSOA and LSOA data, the proportion of workers located in each direction from the Proposed Development was broadly consistent, thus LSOA data has been used as a basis for the modelled worker distribution as it will provide a more robust approach when assessing localised impacts.

7.4.3. Key routes to/from the Proposed Development for construction workers have been identified using GIS software, prioritising major A-roads (such as the A15 and A17) where possible and applying professional judgement for route desirability where necessary.

7.4.4. As the origin/destination of HGVs servicing the Proposed Development is not currently known, HGV distribution is based upon an assumption of 50% arriving/departing from the north and 50% arriving/departing from the south. HGVs will utilise the A15, B1191, and B1188 to access the construction compounds.

7.4.5. The anticipated distribution for each Primary and Secondary Construction Compound for both workers and HGVs can be viewed in **Annex 2.**

7.4.6. Construction traffic movements for the Proposed Development as a proportion of total traffic movements in the 2028 construction year + committed development scenario profile are shown below in **Plate 7.1**. This modelling scenario is outlined in **Section 9**.

7.4.7. Proposed Development construction traffic movements as a proportion of total traffic are relatively low, as illustrated in **Plate 7.1,** reaching its peak at 06:00 – 07:00 where it equates to approximately 19% of total traffic.

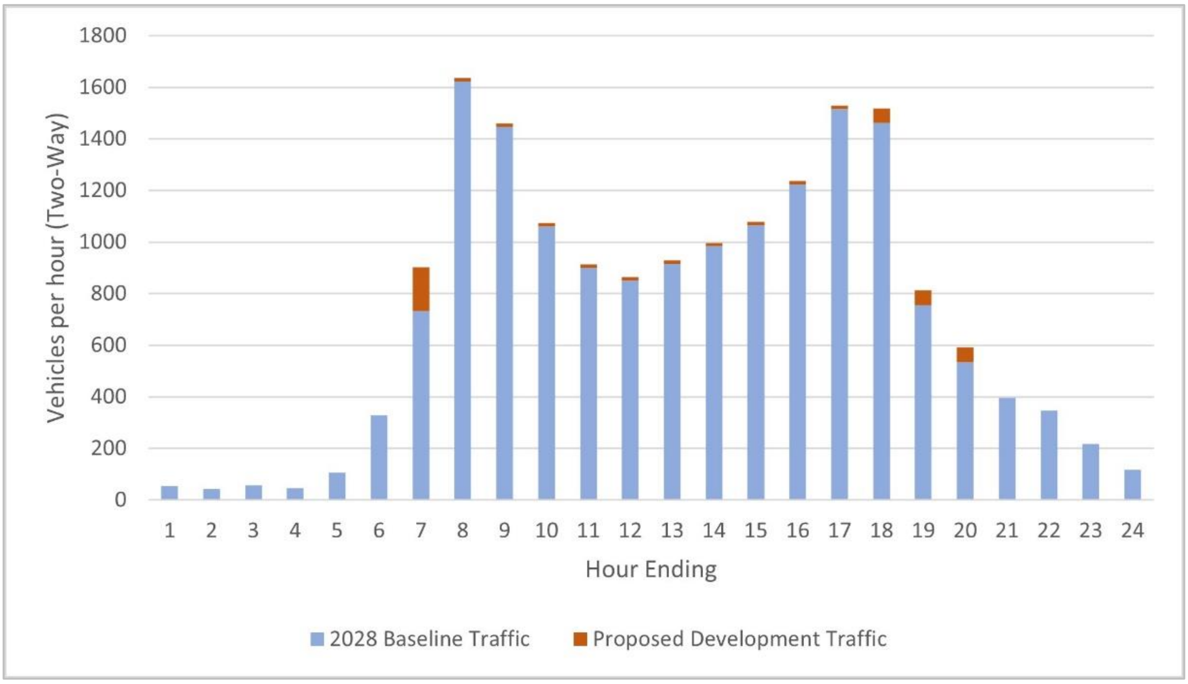

Plate 7.1 2028 + Proposed Development construction traffic movements on the A15

Strategic road network considerations

7.4.8. As requested by National Highways during statutory consultation, a review of the likely impact upon the Strategic Road Network (SRN) has been conducted. The SRN that could potentially be used by workers includes:

- The A1; and
- The A46.

7.4.9. As part of the analysis of the MSOA data, the proportion of workers and HGVs likely to travel along the above links has been reviewed.

7.4.10. The proportion of workers likely to use the SRN has been based upon the distribution discussed above, and the proportion of HGVs likely to use the SRN is based upon the north/south split discussed above. As the specific routes HGVs will take are not known at this time, HGVs are assumed to access/egress the SRN as close to the Proposed Development as possible. This provides the most robust assessment possible.

A1

7.4.11. The proportions of workers that could travel via the reviewed sections of the A1 are outlined in **Table 7.3**. The peak hour trip generation (including assumptions, outlined in **Section 7.2** and **Section 7.3**) is also shown for workers and HGVs.

Table 7.3 SRN impact - A1

Section	Proportion of workers	Number of peak hour workers	Number of peak hour HGVs
A1, north of Newark	Up to 4%	11	7
A1, between Newark and Peterborough	Up to 6%	16	7
A1, south of Peterborough	Up to 1%	3	7

7.4.12. These trips will be well within the daily variation of baseline traffic flows, thus do not merit further assessment.

A46

7.4.13. The proportions of workers that could travel upon the reviewed sections of the A46 are outlined in **Table 7.5**. The peak hour trip generation (including assumptions, outlined in **Section 7.2** and **Section 7.3**) is also shown for workers and HGVs.

Table 7.5 Impact upon the SRN, A46

Section	Proportion of workers	Number of peak hour workers	Number of peak hour HGVs
A46, north of Newark	Up to 1%	3	0
A46, south of Newark	Up to 11%	29	7

7.4.14. These trips will be well within the daily variation of baseline traffic flows, thus do not merit further assessment.

8. Trip generation in operation

8.1. Overview

8.1.1. Given the nature of the Proposed Development, operational trips are expected to be negligible. As per PINS requirements, an estimate of the operational flows and consideration to thresholds within the Institute of Environmental Management and Assessment (IEMA) guidance is noted below.

8.1.1. As outlined by the Planning Inspectorate and noted within the Scoping Opinion (**ES Volume 3, Appendix 5.2: Scoping Opinion [EN010149/APP/6.3]**), the description of the operational phase of development should clearly set out the operational vehicle types and numbers. In the operational (including maintenance) phase of the Proposed Development, it is estimated that approximately 24 permanent staff will be required across all links on a daily basis. Of these movements, the majority would be accessing the Substation/BESS infrastructure located off the A15 at Gorse Hill Lane and as such, limited vehicular movements are anticipated across the wider local road network where these vehicles will gain occasional access from the proposed operational access points. Owing to this low number of anticipated trips during the operational phase, and as these vehicle movements are expected to be within the 10% daily variation of traffic flows to be expected across the highway network at operational years', these vehicle movements will be imperceptible, thus an assessment is not required.

8.1.2. For the replacement of equipment during the operational phase, the number of LGV movements to facilitate these works are not expected to exceed the IEMA guidance Rule 1 criteria "Include highway links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles will increase by more than 30%)".

8.1.3. As well as routine maintenance there may also be a requirement to repair and replace components on site as part of maintaining the Proposed Development during the operational phase. This could require the use of HGVs. Certainty of the number of HGVs required for these works is not known at this stage, given the extent of any repair and replacement works is unknown, however as traffic flows are not expected to exceed the IEMA guidance Rule 1 criteria *"Include highway links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles will increase by more than 30%)"* and so an operational traffic assessment is not required in accordance with the Scoping Opinion. In addition, such works will not be undertaken frequently and highway works delivered for construction accesses will be retained permanently during operation, as set out in **ES Volume 3, Chapter 3: Proposed Development Description [EN010149/APP/6.3]**.

9. Junction modelling

9.1.1. To provide an understanding of how traffic growth, committed development, and the Proposed Development are likely to impact junction operation, capacity assessments have been undertaken for selected junctions within the study area.

9.1.2. Where proposed, planned mitigation has been incorporated into modelled junctions.

9.2. Study area

9.2.1. The following junctions have been modelled and assessed in detail within this transport assessment:

- A15/B1191/Temple Road priority staggered junction;
- A15/B1202 priority crossroads;
- A15/Navenby Lane priority T-junction;
- A15/Gorse Hill Lane priority T-junction;
- B1188/B1202 Metheringham Heath Lane priority T-junction;
- B1188/B1191 Heath Road priority T-junction;
- B1188/B1191 Main Street priority T-junction; and
- B1191/Navenby Lane/Main Street priority staggered junction.

9.3. Modelling assumptions

9.3.1. The modelling assumptions applied to the trip generation are discussed in **Section 7.2** and **Section 7.3**.

9.4. Assessment scenarios

9.4.1. The following scenarios have been assessed within the detailed junction modelling undertaken at each junction:

1. 2024 Baseline;
2. 2028 Construction Year;
3. 2028 Construction Year + Committed Development;
4. 2028 Construction Year + Committed Development + Proposed Development Traffic.

9.5. Methodology

9.5.1. For the priority junctions, analysis was conducted in TRL's junction modelling software: Junctions 10 PICADY module.

9.5.2. Within Junctions 10, approach arms with a Ratio of Flow to Capacity (RFC) value lower than 0.85 are generally considered to be operating 'within capacity', whilst values above 1.00 indicate that the junction is operate 'over capacity'. Between these two RFC figures (0.85 - 1.00), a junction is considered to be 'approaching capacity' and some queues and delays may occur. Junctions 10 also reports predicted queue length in Passenger Car Units (PCU) and predicted delay in seconds.

9.5.3. The analysis of all assessed junctions has been undertaken using the 'ONE HOUR' method, which synthesises a bell curve profile for peak hour traffic, i.e., predicting a short-term peak of traffic within the overall peak hour. This is considered a robust method in traffic capacity assessment terms.

9.5.4. The geometric parameters for all junctions were based on a combination of topographical surveys and aerial imagery.

9.5.5. A full set of the outputs files for all junctions modelled using Junction 10 are attached within **Annex 3**.

10. Impact assessment

A15/B1191/Temple Road

10.1.1. This junction is a priority staggered junction, comprising the A15 as the major arm in a north/south alignment, and the B1191 and Temple Road as the minor arms to the east and west, respectively.

10.1.2. As discussed in **Section 2** and illustrated on the **Streets, Rights of Way and Access Plans [EN010149/APP/2.4]** mitigation measures have been identified at this junction.

10.1.3. On the B1191, the addition of a dedicated and demarcated right and left-turn lane/flare has been proposed. For the A15 southbound, a left-turn flare with deceleration lane and give-way markings at the B1191 has been proposed. On the northbound approach, a right-turn lane for users turning into the B1191 will be maintained. Provision of a pedestrian crossing island is also proposed on the A15 in this location.

10.1.4. These proposed mitigation measures have been incorporated into the model where possible, however as Junction 10 does not allow for prioritisation of right-turn traffic over left-turn traffic on the major arm, the A15 (N)/Temple Road – B1191 movement has priority over the A15 (S) – B1191 movement within the model (with the inverse true for the proposed layout). As a result, the model will slightly overestimate queues for the A15 (S) – B1191 movement and slightly underestimate queues for the A15 (N)/Temple Road – B1191 movement. As a left-turn lane is proposed, an underestimation of queues for the A15 (N)/Temple Road – B1191 will not have an impact upon the overall operation of the junction, unless the queues were to exceed the length of the left-turn lane on the A15. For robustness, a secondary model has been created to ensure this is not the case. This secondary model treats the A15 (N)/Temple Road – B1191 left-turn lane as the minor arm of a T-junction, giving way to the A15 (S) – B1191 movement as the major arm. This is illustrated in **Plate 10.1** for clarity.

10.1.5. The queues of the minor arm of this model therefore provide an accurate representation of likely queues within the left-turn lane, as the model is simply representing the A15 (N)/Temple Road – B1191 movement giving way to the A15 (S) – B1191 movement. The results of this secondary model are provided in **Annex 3,** along with the primary junction models, and demonstrates that the queues would not exceed the length of the left-turn lane, thus the overall junction operation predicted by the primary model can be taken as representative.

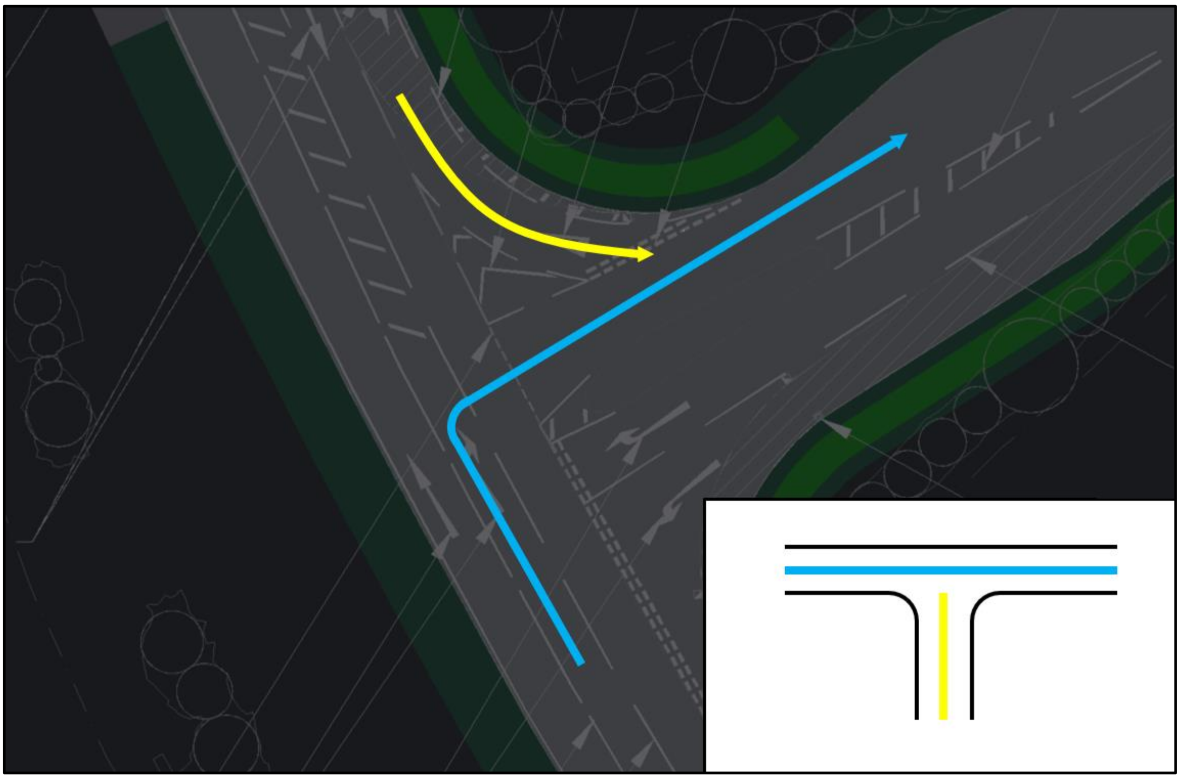

Plate 10.1 Illustration of secondary junction modelling priorities

10.1.6. The modelling results of this junction are summarised in **Table 10.1**, with the full outputs available in **Annex 3.**

10.1.7. The arms of this junction are outlined below and referred to within the model outputs as ‘streams’, e.g. stream B-C is demonstrating vehicular movement from the B1191 to the A15 South:

- A – A15 North
- B – B1191
- C – A15 South
- D – Temple Road

10.1.8. The corresponding flow diagrams for each scenario can be seen in **Annex 2a, b, o, p**, respectively.

Springwell Solar Farm

Table 10.1 A15/B1191/Temple Road PICADY modelling results

Stream	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2024 Baseline						
Stream B-C	0.5	9.82	0.31	0.3	8.89	0.22
Stream B-AD	0.2	26.58	0.17	0.2	24.35	0.14
Stream A-BCD	0.0	7.67	0.01	0.0	0.00	0.00
Stream D-A	0.0	0.00	0.00	0.0	7.24	0.00
Stream D-BC	0.1	17.68	0.11	0.1	15.63	0.09
Stream C-ABD	0.5	10.80	0.30	0.3	10.13	0.25
2028 Construction Year (CY)						
Stream B-C	0.5	10.32	0.32	0.3	9.28	0.23
Stream B-AD	0.2	30.15	0.19	0.2	27.41	0.16
Stream A-BCD	0.0	7.84	0.01	0.0	0.00	0.00
Stream D-A	0.0	0.00	0.00	0.0	7.38	0.00
Stream D-BC	0.1	19.08	0.12	0.1	16.73	0.10
Stream C-ABD	0.5	11.21	0.32	0.4	10.53	0.26
2028 CY + Committed Development						
Stream B-C	0.5	10.42	0.33	0.3	9.32	0.23
Stream B-AD	0.2	31.06	0.20	0.2	27.99	0.16
Stream A-BCD	0.0	7.87	0.01	0.0	0.00	0.00
Stream D-A	0.0	0.00	0.00	0.0	7.43	0.00
Stream D-BC	0.1	19.42	0.12	0.1	17.01	0.10
Stream C-ABD	0.5	11.30	0.32	0.4	10.57	0.26

Stream	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2028 CY + Committed Development + Proposed Development						
Stream B-C	0.5	11.04	0.35	0.4	11.61	0.31
Stream B-AD	0.3	38.17	0.26	0.9	48.07	0.49
Stream A-BCD	0.0	8.00	0.01	0.0	7.42	0.00
Stream D-A	0.0	8.28	0.00	0.0	7.66	0.00
Stream D-BC	0.2	21.43	0.14	0.1	18.96	0.11
Stream C-ABD	0.6	12.66	0.38	0.4	10.92	0.27

10.1.9. As detailed above in **Table 10.1**, in 2024 the junction is estimated to be operating well within capacity, with the highest RFC reached in the AM peak hour at 0.31 on stream B-C. Delays and queues are also minimal across the junction, with the highest predicted delay of ~27s on stream B-AD in the AM peak hour.

10.1.10. The construction year scenarios predict that the junction (with the proposed improvements) will continue to operate within capacity without a significant change in performance, even with the addition of baseline growth, committed development, and development construction traffic. A peak RFC increase of 0.35 is observed on stream B-AD in the PM peak hour, with an associated mean queue increase of 0.7PCU and ~24s delay increase.

A15/B1202

10.1.11. This junction is a priority crossroads comprising the A15 as the major arm in a north/south alignment and the B1202 as the minor arms in an east-west alignment. Upon review of the observed 2024 traffic survey data, it is clear that movements from arm B (B1202 Metheringham Heath Lane) were constrained during the PM peak hour.

10.1.12. As the Junctions 10 model requires the demand for a junction (i.e. how many vehicles want to use a junction) rather than the throughput (i.e. how many vehicles pass through the junction), an adjustment of the flows (throughput) obtained in the observed traffic survey has been made to better represent demand at the junction. The observed traffic survey noted a queue of 11 vehicles remaining at the end of the peak hour period. As such, the model has been adjusted to the vehicle movements from arm B.

10.1.13. The modelling results of the junction are summarised in **Table 10.2**, with the full outputs available in **Annex 3**.

10.1.14. The arms of this junction are:

- A – A15 North
- B – B1202 Metheringham Heath Lane
- C – A15 South
- D – B1202 Heath Lane

10.1.15. The corresponding flow diagrams for each scenario can be seen in **Annex 2a, b, o, p**, respectively.

Table 10.2 A15/B1202 PICADY modelling results

Stream	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2024 Baseline						
Stream B-CD	4.1	139.62	0.88	7.0	209.99	1.00
Stream B-AD	3.4	196.46	0.84	5.1	241.21	0.97
Stream A-BCD	1.6	5.36	0.35	1.8	5.20	0.39
Stream D-AB	4.0	150.65	0.87	0.8	38.63	0.43
Stream D-BC	2.2	226.52	0.80	0.4	42.83	0.29
Stream C-ABD	1.6	4.39	0.33	1.8	5.55	0.38
2028 Construction Year (CY)						
Stream B-CD	11.6	310.05	1.18	14.9	383.88	1.24
Stream B-AD	6.7	385.82	1.09	8.8	417.02	1.18
Stream A-BCD	1.9	5.59	0.38	2.2	5.53	0.43
Stream D-AB	11.3	341.29	1.20	1.0	50.85	0.52
Stream D-BC	4.5	424.36	1.07	0.5	58.48	0.35

Stream	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Stream C-ABD	1.9	4.60	0.37	2.1	5.83	0.42
2028 CY + Committed Development						
Stream B-CD	13.2	346.20	1.23	16.3	415.07	1.29
Stream B-AD	7.3	422.32	1.14	9.4	449.54	1.22
Stream A-BCD	2.0	5.61	0.39	2.3	5.58	0.44
Stream D-AB	12.9	379.54	1.26	1.1	54.30	0.53
Stream D-BC	4.8	459.83	1.12	0.5	62.77	0.37
Stream C-ABD	2.0	4.64	0.38	2.2	5.86	0.43
2028 CY + Committed Development + Proposed Development						
Stream B-CD	20.3	535.36	1.47	23.9	612.07	1.49
Stream B-AD	10.2	606.74	1.38	14.0	633.51	1.44
Stream A-BCD	2.3	5.70	0.42	2.5	5.80	0.46
Stream D-AB	20.0	551.68	1.60	1.6	77.77	0.64
Stream D-BC	5.4	680.57	1.30	0.8	98.33	0.48
Stream C-ABD	2.2	4.79	0.40	2.6	6.19	0.47

10.1.16. As detailed above in **Table 10.2**, in the 2024 baseline scenario, the junction is estimated to already be approaching its theoretical capacity. For example, during the AM peak hour the highest observed RFC was 0.88 on stream B-CD, with an associated mean queue of 4.1PCU and ~140s delay. A similar trend is observed in the PM peak hour, with the highest observed RFC on stream B-CD at 1.00, with an associated mean queue of 7.0PCU and ~210s delay.

10.1.17. In the 2028 construction year scenario, the junction is predicted to be beyond its theoretical capacity. For example, during the AM peak hour the highest observed RFC was 1.20 on stream D-AB, with an associated mean queue of 11.3PCU and ~341s delay. During the PM peak hour, the highest observed RFC was on stream B-CD at 1.24, with an associated mean queue of 14.9PCU and ~384s delay.

10.1.18. In the 2028 construction year + committed development scenario, junction performance is further degraded. For example, during the AM peak hour the highest observed RFC was 1.26 on stream D-AB, with an associated mean queue of 12.9PCU and ~380s delay. During the PM peak hour, the highest observed RFC was on stream B-CD at 1.29, with an associated mean queue of 16.3PCU and ~415s delay.

10.1.19. The addition of construction traffic in the 2028 construction year + committed development + Proposed Development scenario is predicted to slightly reduce junction performance, when compared to the 2028 constriction year + committed development scenario. During the AM peak hour, a maximum RFC increase of 0.34 is predicted on stream D-AB, with an associated mean queue increase of 7.1PCU and ~172s delay increase. During the PM peak hour, a maximum RFC increase of 0.22 RFC is predicted on stream B-AD, with an associated mean queue increase of 4.6PCU and ~184s delay increase.

10.1.20. It should be noted that beyond an RFC of 1.0, the impact of increased traffic flows on queues and delays becomes disproportionate when compared to the actual increase in vehicles, which leads to unreliable results.

10.1.21. Junction improvements are currently being explored by Lincolnshire County Council and the LRSP to increase safety and capacity at the junction. Whilst a formal planning application has not yet been made, this is expected to be completed prior to construction. Whilst the improvement measures to be employed are unknown, it is assumed that any future scheme would consider Springwell construction traffic, thus ensuring the junction operates satisfactorily.

10.1.22. The proposed junction improvement is expected to deliver a signal controlled junction including right turn lanes on the A15. This would improve capacity for the B1202 (east and west arms) and reduce conflict, thereby improving safety. For the purposes of this assessment, an indicative layout of a potential scheme at this junction is illustrated at **Plate 10.2.**

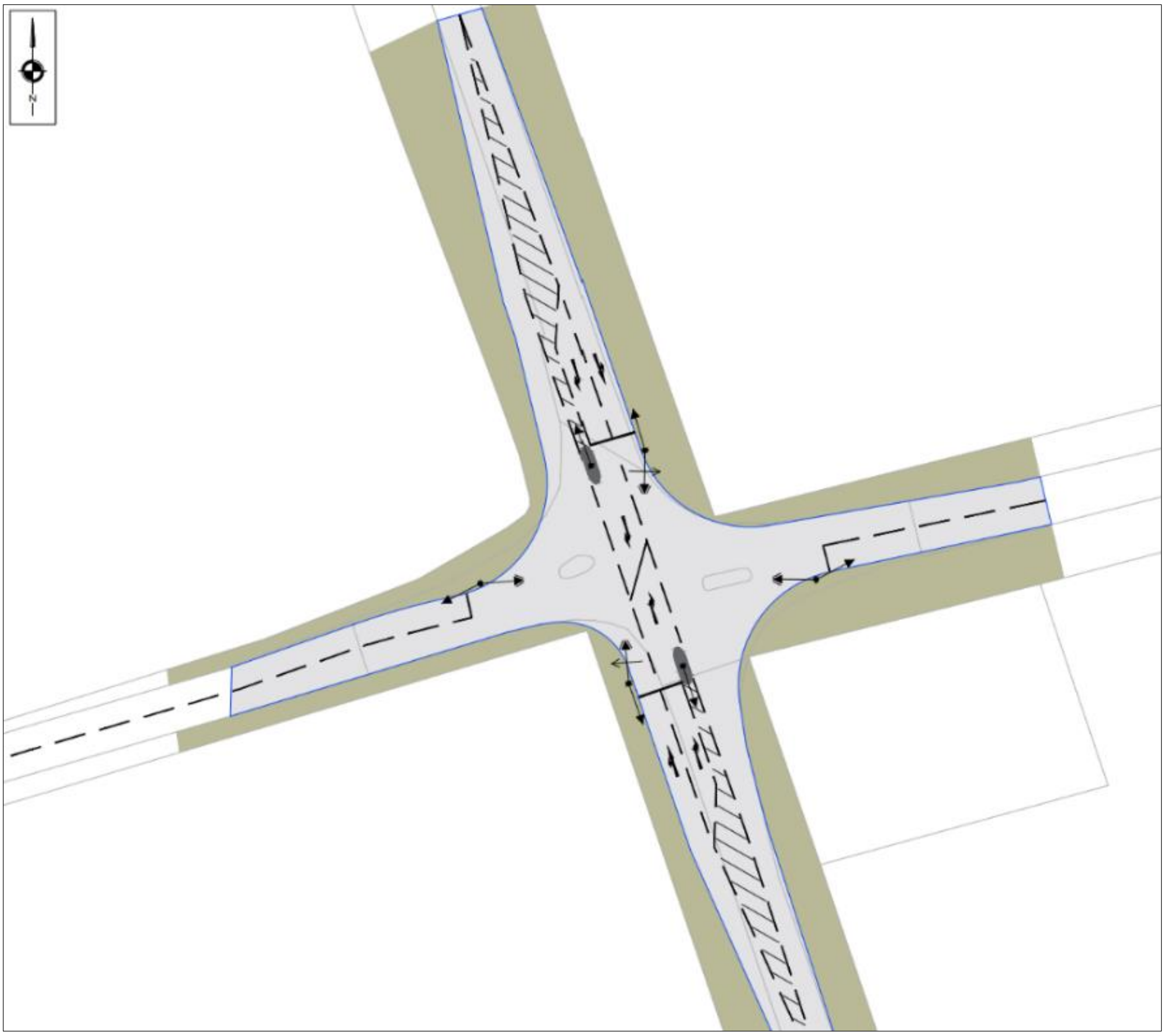

Plate 10.2 Indicative illustration of A15/B1202 junction signalisation layout

10.1.23. This indicative scheme has been modelled in appropriate software (LinSig) to determine the impact of the potential improvements, including construction traffic from the Proposed Development.

10.1.24. The modelling results of the junction are summarised in **Table 10.3**, with the full outputs available in **Annex 5.** The implementation of this junction improvement would significantly reduce queues and delays, resulting in the junction operating within capacity.

Table 10.3 A15/B1202 modelling results

Lane	Lane Description	AM Peak			PM Peak		
		Deg. Sat. (%)	Avg. Delay per PCU (s/PCU)	MMQ (PCU)	Deg. Sat. (%)	Avg. Delay per PCU (s/PCU)	MMQ (PCU)
2024 Baseline							
1/1+1/2	A15 S	69.0%	8.7	13.0	59.7%	7.9	9.5
2/1+2/2	A15 N	58.4%	7.4	8.9	65.4%	8.6	11.3
3/1	B1202 Metheringham Heath Lane	66.1%	59.3	4.8	62.9%	54.5	4.8
4/1	B1202 Heath Lane	51.8%	51.6	3.5	35.8%	45.6	2.5
2028 Construction Year (CY)							
1/1+1/2	A15 S	71.6%	9.2	14.2	61.9%	8.3	10.2
2/1+2/2	A15 N	60.5%	7.8	9.5	67.9%	9.1	12.4
3/1	B1202 Metheringham Heath Lane	71.7%	64.3	5.2	65.1%	55.8	5.0
4/1	B1202 Heath Lane	53.8%	52.4	3.7	36.8%	45.8	2.5
2028 CY + Committed Development							
1/1+1/2	A15 S	71.9%	9.3	14.3	62.5%	8.4	10.6
2/1+2/2	A15 N	61.1%	7.9	9.9	68.2%	9.1	12.4
3/1	B1202 Metheringham Heath Lane	71.7%	64.3	5.2	65.1%	55.8	5.0
4/1	B1202 Heath Lane	53.8%	52.4	3.7	36.8%	45.8	2.5
2028 CY + Committed Development + Proposed Development							

Lane	Lane Description	AM Peak			PM Peak		
		Deg. Sat. (%)	Avg. Delay per PCU (s/PCU)	MMQ (PCU)	Deg. Sat. (%)	Avg. Delay per PCU (s/PCU)	MMQ (PCU)
1/1+1/2	A15 S	72.4%	9.5	14.4	65.4%	8.9	11.4
2/1+2/2	A15 N	64.4%	8.3	10.8	68.7%	9.3	12.8
3/1	B1202 Metheringham Heath Lane	72.3%	64.8	5.4	68.6%	58.0	5.4
4/1	B1202 Heath Lane	53.8%	52.4	3.7	36.8%	45.6	2.5

10.1.25. In the event that the A15/B1202 junction is not improved before construction commences, a commuter bus service will be implemented to pick up construction workers from designated points in Lincoln and Branston and transport them to the Primary Construction Compounds via the B1188. Details of this management measure will be provided in the Travel Plan and secured through the **oCTMP [EN010149/APP/7.8]**.

10.1.26. The proposed commuter bus service will significantly reduce worker travel by car from the north along the A15. The service will be routed to maximise the number of workers to be picked up in Lincoln and Branston. For a robust assessment, an allowance of 5% of workers travelling along the A15 from the north has been retained.

10.1.27. The effect of the removal of worker traffic travelling to/from the north along the A15 and from Branston to the A15 via the B1202 has been modelled. The modelling results of the junction are summarised in **Table 10.4**, with the full outputs available in **Annex 3**.

Table 10.4 A15/B1202 commuter bus scenario

Stream	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2024 Baseline						
Stream B-CD	4.1	139.62	0.88	7.0	209.99	1.00

Stream	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Stream B-AD	3.4	196.46	0.84	5.1	241.21	0.97
Stream A-BCD	1.6	5.36	0.35	1.8	5.20	0.39
Stream D-AB	4.0	150.65	0.87	0.8	38.63	0.43
Stream D-BC	2.2	226.52	0.80	0.4	42.83	0.29
Stream C-ABD	1.6	4.39	0.33	1.8	5.55	0.38
2028 Construction Year (CY)						
Stream B-CD	11.6	310.05	1.18	14.9	383.88	1.24
Stream B-AD	6.7	385.82	1.09	8.8	417.02	1.18
Stream A-BCD	1.9	5.59	0.38	2.2	5.53	0.43
Stream D-AB	11.3	341.29	1.20	1.0	50.85	0.52
Stream D-BC	4.5	424.36	1.07	0.5	58.48	0.35
Stream C-ABD	1.9	4.60	0.37	2.1	5.83	0.42
2028 CY + Committed Development						
Stream B-CD	13.2	346.20	1.23	16.3	415.07	1.29
Stream B-AD	7.3	422.32	1.14	9.4	449.54	1.22
Stream A-BCD	2.0	5.61	0.39	2.3	5.58	0.44
Stream D-AB	12.9	379.54	1.26	1.1	54.30	0.53
Stream D-BC	4.8	459.83	1.12	0.5	62.77	0.37
Stream C-ABD	2.0	4.64	0.38	2.2	5.86	0.43
2028 CY + Committed Development + Proposed Development						
Stream B-CD	13.8	357.57	1.25	17.1	432.68	1.31
Stream B-AD	7.5	433.1	1.15	9.7	469.01	1.23

Stream	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Stream A-BCD	2	5.62	0.39	2.3	5.6	0.44
Stream D-AB	13.2	388.32	1.28	1.1	55.16	0.54
Stream D-BC	4.8	468.53	1.13	0.6	64.38	0.38
Stream C-ABD	2	4.64	0.38	2.2	5.92	0.44

10.1.28. The above results demonstrate that the residual construction traffic passing through this junction will have a minimal effect on queues and delays with the greatest change predicted to occur on stream B-AD during the PM peak with an increase of 0.3 PCUs in queue length and 30 seconds in delay. During the AM peak the increase in delay is only around 10 seconds. This scale of impact is considered to be within daily fluctuations of traffic and therefore imperceivable to road users.

10.1.29. Additionally, the North Hykeham Relief Road (NHRR) scheme is expected to be completed in 2028 (planning ref: PL/0087/23). The NHRR will be ~8km in length and will link the A46 to the A15, forming a ring road around Lincoln with the pre-existing eastern and western bypasses. A full plan of the scheme is available in **Annex 4**. The transport assessment accompanying the planning application suggests that the NHRR is likely to reduce baseline traffic levels along the A15. As a result, it is likely that the baseline levels of traffic predicted for 2028 will not materialise, thus the operation of the junction should improve, and the overall impacts of development traffic lessened.

A15/Navenby Lane

10.1.30. This junction is a priority T-junction, comprising the A15 as the major arm in a north/south alignment and Navenby Lane as the minor arm to the east. The modelling results of this junction are summarised in **Table 10.5**, with the full outputs available in **Annex 3**.

10.1.31. The arms of this junction are:

- A – A15 North;
- B – Navenby Lane; and
- C – A15 South.

10.1.32. The corresponding flow diagrams for each scenario can be seen in **Annex 2a, b, o, p**, respectively.

Table 10.5 A15/Navenby Lane PICADY modelling results

Stream	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2024 Baseline						
Stream B-C	0.0	11.04	0.02	0.1	10.28	0.05
Stream B-A	0.3	22.19	0.23	0.4	22.77	0.27
Stream C-AB	0.1	3.60	0.07	0.0	3.76	0.03
2028 Construction Year (CY)						
Stream B-C	0.0	11.39	0.02	0.1	10.68	0.05
Stream B-A	0.3	24.58	0.26	0.4	25.16	0.30
Stream C-AB	0.2	3.56	0.08	0.0	3.71	0.03
2028 CY + Committed Development						
Stream B-C	0.0	11.48	0.02	0.1	10.73	0.05
Stream B-A	0.3	25.16	0.26	0.4	25.63	0.30
Stream C-AB	0.2	3.56	0.08	0.0	3.70	0.03
2028 CY + Committed Development + Proposed Development						
Stream B-C	0.0	12.87	0.02	0.1	11.36	0.06
Stream B-A	0.6	33.34	0.37	0.5	30.39	0.34
Stream C-AB	0.2	3.51	0.09	0.0	3.61	0.03

10.1.33. As detailed above in **Table 10.5**, in the observed 2024 baseline the junction is estimated to be operating well within capacity, with the highest RFC reached in the PM peak hour at 0.27 on stream B-A. Delays and queues are also minimal across the junction, with the highest predicted delay of ~23s on stream B-A in the PM peak hour.

10.1.34. The construction year scenarios predict that the junction will continue to operate within capacity without a significant change in performance, even with the addition of baseline growth, committed development, and development construction traffic. A peak RFC increase of 0.14 is observed on stream B-A in the AM peak hour, with an associated mean queue increase of 0.3 PCU and ~11s delay increase.

A15/Gorse Hill Lane

10.1.35. This junction is a priority T-junction, comprising the A15 as the major arm in a north/south alignment and Gorse Hill Lane as the minor arm to the west.

10.1.36. As discussed in **Section 2** and illustrated in **Streets, Rights of Way and Access Plans [EN010149/APP/2.4]** of the ES, mitigation measures have been identified at this junction, including widening of the A15 and addition of a southbound right-turn lane. These mitigation measures have been incorporated into the model.

10.1.37. The modelling results of this junction are summarised in **Table 10.6**, with the full outputs available in **Annex 3**.

10.1.38. The arms of this junction are:

- A – A15 South;
- B – Gorse Hill Lane; and
- C – A15 North.

10.1.39. The corresponding flow diagram for the scenario can be seen in **Annex 2p.**

Table 10.6 A15/Gorse Hill Lane PICADY modelling results

Stream	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2028 CY + Committed Development + Proposed Development						
Stream B-C	0.0	8.11	0.01	0.2	9.45	0.18
Stream B-A	0.0	29.26	0.04	0.3	25.51	0.26
Stream C-AB	0.2	9.43	0.18	0.0	7.27	0.01

10.1.40. Due to the absence of observed flows accessing/egressing Gorse Hill Lane in the traffic survey undertaken at this junction, no queues or delays are observed across the following scenarios and so are not shown:

- 2024 Baseline;
- 2024 Construction Year; and
- 2024 Construction Year + Committed Development.

10.1.41. With the introduction of Proposed Development construction traffic, the highest predicted RFC is 0.18 on stream C-AB in the AM peak hour and 0.26 on stream B-A in the PM peak hour. Minor queues and delays are also predicted.

B1188/B1202

10.1.42. This junction is a priority T-junction, comprising the B1188 as the major arm in a north/south alignment and the B1202 to the west as the minor arm. The modelling results of this junction are summarised in **Table 10.7**, with the full outputs available in **Annex 3**.

10.1.43. There is no anticipated traffic associated with committed development at this junction, therefore there are no reported changes to modelling outputs between the 2028 construction year and the 2028 construction year + committed development scenarios reported below.

10.1.44. The arms of this junction are:

- A – B1188 South;
- B – B1202; and
- C – B1188 North.

10.1.45. The corresponding flow diagrams for each scenario can be seen in **Annex 2a, b, o, p**, respectively.

Table 10.7: B1188/B1202 PICADY modelling results

Stream	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2024 Baseline						
Stream B-C	0.0	10.78	0.04	0.1	11.40	0.12
Stream B-A	1.2	25.86	0.54	1.3	25.52	0.57

Stream	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Stream C-AB	0.2	5.26	0.11	0.3	5.09	0.11
2028 Construction Year (CY)						
Stream B-C	0.1	11.53	0.05	0.2	12.21	0.13
Stream B-A	1.4	29.22	0.58	1.5	28.66	0.61
Stream C-AB	0.3	5.24	0.11	0.3	5.07	0.12
2028 CY + Committed Development						
Stream B-C	0.1	11.53	0.05	0.2	12.21	0.13
Stream B-A	1.4	29.22	0.58	1.5	28.66	0.61
Stream C-AB	0.3	5.24	0.11	0.3	5.07	0.12
2028 CY + Committed Development + Proposed Development						
Stream B-C	0.1	12.59	0.05	0.2	13.44	0.15
Stream B-A	1.7	34.54	0.63	1.7	32.57	0.64
Stream C-AB	0.3	5.11	0.13	0.3	5.13	0.12

10.1.46. As detailed above in **Table 10.7**, in the observed 2024 baseline, the junction is estimated to be operating within capacity, with the highest RFC reached in the PM peak hour at 0.57 on stream B-A. Delays and queues are also minimal across the junction, with the highest predicted delay of ~26s on stream B-A in the AM peak hour.

10.1.47. The construction year scenarios predict that the junction will continue to operate within capacity without a significant change in performance, even with the addition of baseline growth, committed development, and Proposed Development construction traffic. A peak RFC increase of 0.09 is observed on stream B-A in the AM peak hour, with an associated mean queue increase of 0.5PCU and ~9s delay increase.

B1188/B1191 Heath Road

10.1.48. This junction is a priority T-junction, comprising the B1188 as the major arm in a north/south alignment and the B1191 Heath Road to the west as the minor arm. The modelling results of this junction are summarised in **Table 10.8**, with the full outputs available in **Annex 3**.

10.1.49. There is no anticipated traffic associated with committed development at this junction, therefore there are no reported changes to modelling outputs between the 2028 construction year and the 2028 construction year + committed development scenarios reported below.

10.1.50. The arms of this junction are:

- A – B1188 South;
- B – B1191 Heath Road; and
- C – B1188 North.

10.1.51. The corresponding flow diagrams for each scenario can be seen in **Annex 2a, b, o, p,** respectively.

Table 10.8 B1188/B1191 Heath Road PICADY modelling results

Stream	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2024 Baseline						
Stream B-C	0.1	6.97	0.12	0.2	7.15	0.20
Stream B-A	0.1	11.46	0.10	0.2	10.92	0.16
Stream C-AB	0.4	6.67	0.25	0.2	5.53	0.15
2028 Construction Year (CY)						
Stream B-C	0.1	7.04	0.12	0.3	7.27	0.21
Stream B-A	0.1	11.68	0.11	0.2	11.14	0.17
Stream C-AB	0.5	6.77	0.26	0.3	5.56	0.16
2028 CY + Committed Development						
Stream B-C	0.1	7.04	0.12	0.3	7.27	0.21
Stream B-A	0.1	11.68	0.11	0.2	11.14	0.17
Stream C-AB	0.5	6.77	0.26	0.3	5.56	0.16

Stream	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2028 CY + Committed Development + Proposed Development						
Stream B-C	0.2	7.31	0.16	0.3	7.61	0.23
Stream B-A	0.1	12.39	0.11	0.3	11.92	0.21
Stream C-AB	0.5	7.11	0.29	0.4	5.84	0.21

10.1.52. As detailed above in **Table 10.8**, in the 2024 baseline, the junction is estimated to be operating well within capacity, with the highest RFC reached in the PM peak hour at 0.25 on stream C-AB. Delays and queues are also minimal across the junction, with the highest predicted delay of ~11s on stream B-A in the AM peak hour.

10.1.53. The construction year scenarios predict that the junction will continue to operate within capacity without a significant change in performance, even with the addition of baseline growth, committed development, and Proposed Development construction traffic. A peak RFC increase of 0.06 is observed on stream C-AB in the PM peak hour, with an associated mean queue increase of 0.2PCU and <1 s delay increase.

B1188/B1191 Main Street

10.1.54. This junction is a priority T-junction, comprising the B1188 as the major arm in a north/south alignment and the B1191 Main Street to the east as the minor arm. The modelling results of this junction are summarised in **Table 10.9**, with the full outputs available in **Annex 3**.

10.1.55. There is no anticipated traffic associated with committed development at this junction, therefore there are no reported changes to modelling outputs between the 2028 construction year and the 2028 construction year + committed development scenarios reported below.

10.1.56. The arms of this junction are:

- A – B1188 North;
- B – B1191 Main Street; and
- C – B1188 South.

10.1.57. The corresponding flow diagrams for each scenario can be seen in **Annex 2a, b, o, p**, respectively.

Table 10.9 B1188/B1191 Main Street PICADY modelling results

Stream	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2024 Baseline						
Stream B-C	0.1	8.33	0.05	0.1	7.62	0.05
Stream B-A	0.6	12.96	0.38	0.2	10.00	0.20
Stream C-AB	0.1	5.07	0.04	0.1	5.05	0.04
2028 Construction Year (CY)						
Stream B-C	0.1	8.49	0.06	0.1	7.70	0.05
Stream B-A	0.7	13.40	0.40	0.3	10.22	0.21
Stream C-AB	0.1	5.05	0.04	0.1	5.05	0.05
2028 CY + Committed Development						
Stream B-C	0.1	8.49	0.06	0.1	7.70	0.05
Stream B-A	0.7	13.40	0.40	0.3	10.22	0.21
Stream C-AB	0.1	5.05	0.04	0.1	5.05	0.05
2028 CY + Committed Development + Proposed Development						
Stream B-C	0.1	8.88	0.06	0.1	7.76	0.05
Stream B-A	0.8	14.66	0.45	0.3	10.33	0.21
Stream C-AB	0.1	5.03	0.04	0.1	5.10	0.05

10.1.58. As detailed above in **Table 10.9**, in the 2024 baseline, the junction is estimated to be operating well within capacity, with the highest RFC reached in the AM peak hour at 0.38 on stream B-A. Delays and queues are also minimal across the junction, with the highest predicted delay of ~13s on stream B-A in the AM peak hour.

10.1.59. The construction year scenarios predict that the junction will continue to operate within capacity without a significant change in performance, even with the addition of baseline growth, committed development, and Proposed Development construction traffic. A peak RFC increase of 0.07

is observed on stream B-A in the PM peak hour, with an associated mean queue increase of 0.2PCU and ~2s delay increase.

B1191/Navenby Lane/Main Street

10.1.60. This junction is a priority staggered junction comprising the B1191 as the major arm in a northeast/southwest alignment, and Navenby Lane and Main Street as the minor arms to the west and east, respectively.

10.1.61. There is no anticipated traffic associated with committed development at this junction, therefore there are no reported changes to modelling outputs between the 2028 construction year and the 2028 construction year + committed development scenarios reported below.

10.1.62. The modelling results of this junction are summarised in **Table 10.10**, with the full outputs available in **Annex 3**.

10.1.63. The arms of this junction are:

- A – B1191 North
- B – Main Street
- C – B1191 South
- D – Navenby Lane

10.1.64. The corresponding flow diagrams for each scenario can be seen in **Annex 2a, b, o, p**, respectively.

Table 10.10 B1191/Navenby Lane/Main Street PICADY modelling results

Stream	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2024 Baseline						
Stream B-C	0.0	6.79	0.03	0.0	5.84	0.02
Stream B-AD	0.2	9.19	0.14	0.1	8.28	0.05
Stream A-BCD	0.1	5.27	0.05	0.1	5.50	0.10
Stream D-A	0.2	6.67	0.15	0.0	5.56	0.04
Stream D-BC	0.1	8.52	0.05	0.0	7.68	0.04
Stream C-ABD	0.0	5.68	0.02	0.0	4.98	0.03

Stream	AM Peak			PM Peak		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2028 Construction Year (CY)						
Stream B-C	0.0	6.83	0.03	0.0	5.84	0.03
Stream B-AD	0.2	9.31	0.14	0.1	8.36	0.05
Stream A-BCD	0.1	5.27	0.06	0.2	5.50	0.11
Stream D-A	0.2	6.75	0.15	0.0	5.59	0.04
Stream D-BC	0.1	8.61	0.05	0.0	7.74	0.04
Stream C-ABD	0.0	5.66	0.02	0.0	4.98	0.03
2028 CY + Committed Development						
Stream B-C	0.0	6.83	0.03	0.0	5.84	0.03
Stream B-AD	0.2	9.31	0.14	0.1	8.36	0.05
Stream A-BCD	0.1	5.27	0.06	0.2	5.50	0.11
Stream D-A	0.2	6.75	0.15	0.0	5.59	0.04
Stream D-BC	0.1	8.61	0.05	0.0	7.74	0.04
Stream C-ABD	0.0	5.66	0.02	0.0	4.98	0.03
2028 CY + Committed Development + Proposed Development						
Stream B-C	0.0	6.95	0.04	0.0	5.92	0.03
Stream B-AD	0.2	9.70	0.16	0.1	8.58	0.05
Stream A-BCD	0.1	5.32	0.07	0.2	5.42	0.11
Stream D-A	0.2	6.86	0.16	0.1	5.73	0.05
Stream D-BC	0.1	8.89	0.05	0.1	8.01	0.06
Stream C-ABD	0.0	5.57	0.02	0.0	4.99	0.03

10.1.65. As detailed above in **Table 10.10**, in the 2024 baseline, the junction is estimated to be operating well within capacity, with the highest RFC reached in the AM peak hour at 0.15 on stream D-A. Delays and queues are also minimal across the junction, with the highest predicted delay of ~9s on stream B-AD in the AM peak hour.

10.1.66. The construction year scenarios predict that the junction will continue to operate well within capacity without a significant change in performance, even with the addition of baseline growth, committed development, and Proposed Development construction traffic. A peak RFC increase of 0.02 is observed on several streams in the AM and PM peak hours, with an associated maximum mean queue increase of 0.1PCU and <1s delay increase.

10.2. Modelling summary

10.2.1. Overall, with the exception of the A15/B1202 priority junction, no capacity issues are predicted to arise due to the addition of Proposed Development traffic. Assessed junctions are predicted to operate within their theoretical capacities with minimal queuing and delay in 2028, even when considering TEMPro growth, committed development, and construction traffic arising from the Proposed Development.

10.2.2. The A15/B1202 priority junction is demonstrated to already be approaching theoretical capacity in 2024 and will exceed its theoretical capacity in 2028 when considering baseline traffic growth only (TEMPro).

10.2.3. These pre-existing issues have already prompted Lincolnshire County Council to consider plans for junction improvements which are expected to be completed prior to 2027. Should these improvements be completed prior to construction of the Proposed Development, this junction is expected to operate within capacity.

10.2.4. In the event that this scheme is not delivered prior to construction, a commuter bus service for workers will be implemented through the CTMP to reduce worker traffic along the A15 and B1202. The implementation of this management measure has been shown to minimise impacts to an acceptable level.

10.2.5. Additionally, the NHRR is also expected to reduce traffic flows on the A15, improving performance of the junction (thereby reducing the impact of development traffic).

11. Summary and conclusion

11.1.1. This transport assessment has been prepared on behalf of the Applicant to consider the highway and transportation implications of the Proposed Development.

11.1.2. The findings of this transport assessment are summarised below in **Table 11.1.**

Table 11.1 Summary of findings

Criteria	Key transport impacts and issues	Design solutions and mitigations
Road safety	There are no observable trends in PIC data that would indicate mitigation is required.	Junction improvements at the A15/B1192 and A15/Gorse Hill Lane junctions are proposed as embedded mitigation to support the Proposed Development, with benefits for all users likely.
Junction performance	Increased traffic at the A15/B1202 priority junction	Capacity issues are predicted prior to the introduction of Proposed Development traffic. However, junction performance is expected to improve following junction improvements (currently being explored by Lincolnshire County Council and LRSP) or alternatively through a commuter bus service for workers, secured via the oCTMP and subsequent CTMP.

11.1.3. This Transport Assessment has demonstrated that the Proposed Development will not have a severe impact on the operation and safety of the surrounding highway network. Consequently, there is no highway or transport related reason why planning consent for the proposal should not be granted.

12. References

- Central Lincolnshire Local Plan (2018-2040) adopted 13 April 2023, North Kesteven District Council (2018). Available online: https://www.n-kesteven.gov.uk/planning-building/planning/planning-policy/central-lincolnshire-local-plan-2018-2040
- Lincolnshire Road Safety Strategy (2015-2022), Lincolnshire Road Safety Partnership. Available online: https://www.lincolnshire.gov.uk/downloads/file/1294/road-safety-strategy-2015-2025.
- Lincolnshire Walking Strategy (2021), Lincolnshire County Council. Available online: https://www.lincolnshire.gov.uk/downloads/file/7194/walking-strategy.
- Local Transport Plan 5 (2022), Lincolnshire County Council. Available online: https://www.lincolnshire.gov.uk/downloads/file/7200/local-transport-plan-5.
- Ministry of Housing, Communities and Local Government (2023). National Planning Policy Framework. Available online: https://www.gov.uk/government/publications/national-planning-policy-framework--2.
- National Planning Practice Guidance, DLUHC (2014). Available online: https://www.gov.uk/government/collections/planning-practice-guidance.
- National Policy Statement for Energy (EN-1) (2023). Available online: Overarching National Policy Statement for energy (EN-1) - GOV.UK.
- National Policy Statement for Renewable Energy Infrastructure (EN-3) (2023). Available online: https://www.gov.uk/government/publications/national-policy-statement-for-renewable-energy-infrastructure-en-3.
- NOMIS Census dataset, Office for National Statistics (2021). Available online: https://www.nomisweb.co.uk/datasets/c2021ts001.

Annex 1 – Bus Timetables

• Lincoln • Sleaford — 31 31X

MONDAY TO FRIDAY (excluding Bank Holidays)

	31	31X▲	31X	31	31	31	31X	31	31X▲
Lincoln Bus Station	0547	0645	0720	0840	1040	1240	1455	1640	1720
International Bomber Command	0550	0648	0723	0845	1045	1245	1500	1645	1723
Branston Beech Rd	0557	0655	0730	0855	1055	1255	1510	1655	1730
Potterhanworth War Memorial	0602	-	-	0902	1102	1302	-	1702	-
Nocton Village Hall	0606	-	-	0906	1106	1306	-	1706	-
Dunston Village Hall	0611	-	-	0911	1111	1311	-	1711	-
Metheringham Co-op	0615	0701	0740	0915	1115	1315	1520	1715	1745
Blankney Post Office	0618	0704	0743	0918	1118	1318	1523	1718	1748
Scopwick Royal Oak PH	-	0706	-	-	-	-	-	-	1750
Scopwick Crossroads	0620	-	0745	0920	1120	1320	1525	1720	-
Digby RAF Camp	0623	-	0748	0923	1123	1323	1528	1723	-
Ashby de la Launde	0625	-	0750	0925	1125	1325	1530	1725	-
Digby Lane End	0629	0708	0754	0929	1129	1329	1534	1729	1752
Dorrington Musicians Arms	0632	0711	0757	0932	1132	1332	1537	1732	1755
Ruskington Library	0636	0715	0801	0936	1136	1336	1541	1736	1759
Sleaford Railway Station	0650	0724	0820	0950	1150	1350	1555	1750	1810

International Bomber Command timing point is an approximated time of arrival.

Key
▲ College days only

• Sleaford • Lincoln — 31 31X

MONDAY TO FRIDAY (excluding Bank Holidays)

	31	31X▲	31X	31	31	31	31X	31	31X▲
Sleaford Railway Station	0655	0725	0835	0955	1155	1355	1600	1755	1815
Ruskington Library	0705	0736	0845	1005	1205	1405	1610	1805	1826
Dorrington Musicians Arms	0709	0740	0849	1009	1209	1409	1614	1809	1830
Digby Lane End	0712	0743	0852	1012	1212	1412	1617	1812	1833
Ashby de la Launde	0715	-	0855	1015	1215	1415	1620	1815	-
Digby RAF Camp	0718	-	0858	1018	1218	1418	1623	1818	-
Scopwick Crossroads	0720	-	0900	1020	1220	1420	1625	1820	-
Scopwick	-	0745	-	-	-	-	-	-	1835
Blankney Post Office	0723	0748	0903	1023	1223	1423	1628	1823	1838
Metheringham Co-op	0725	0750	0905	1025	1225	1425	1630	1825	1840
Dunston Village Hall	0728	-	-	1028	1228	1428	-	1828	-
Nocton Village Hall	0733	-	-	1033	1233	1433	-	1833	-
Potterhanworth War Memorial	0737	-	-	1037	1237	1437	-	1837	-
Branston Beech Rd	0744	0800	0915	1044	1244	1444	1640	1844	1850
International Bomber Command	0800	0820	0925	1054	1254	1454	1650	1850	1856
Lincoln Bus Station	0809	0830	0930	1059	1259	1459	1655	1854	1900

International Bomber Command timing point is an approximated time of arrival.

Key
▲ College days only

Lincoln to Boston 55

via Metheringham, Woodhall Spa, Coningsby & Pilgrim Hospital

Saturdays Only Effective 4th May 2024

Lincoln, Central Bus Station, Bay M	--	0745	0825	0940	1050	1200	1310	1420	1530	1640	1820	--
Canwick, Heighington Road, adj	--	0749	0829	0944	1054	1204	1314	1424	1534	1644	1824	--
Branston, Station Road, adj	--	0757	0837	0952	1102	1212	1322	1432	1542	1652	1832	--
Potterhanworth, War Memorial, adj	--	0803	0843	0958	1108	1218	1328	1438	1548	1658	1838	--
Nocton, Nocton Hall Gates, adj	--	0806	0846	1001	1111	1221	1331	1441	1551	1701	1841	--
Dunston, Village Hall, opp	--	0811	0851	1006	1116	1226	1336	1446	1556	1706	1846	--
Metheringham, Methodist Church, o/s	--	0814	0854	1009	1119	1229	1339	1449	1559	1709	1849	--
Metheringham, Railway Station, adj	--	0816	0896	1011	1121	1231	1341	1451	1601	1711	1851	--
Blankney Barff, Eclipse Farm, adj	--	0820	0900	1015	1125	1235	1345	1455	1605	1715	1855	--
Martin, Mill Lane, adj	--	0822	0902	1017	1127	1237	1347	1457	1607	1717	1857	--
Kirkstead Bridge, Church Road, opp	--	0828	0908	1023	1133	1243	1353	1503	1613	1723	1903	--
Woodhall Spa, Woodhall Spa Hotel, o/s	0613	0833	0913	1028	1138	1248	1358	1508	1618	1728	1908	--
Tattershall Thorpe, Blue Bell PH, opp	0622	0839	0919	1034	1144	1254	1404	1514	1624	1734	1914	--
Tattershall, Bus Shelter, adj	0625	0842	0922	1037	1147	1257	1407	1517	1627	1737	1917	--
Coningsby, Interchange Shelter, adj	0627	0847	0927	1042	1152	1302	1412	1522	1632	1742	1922	--
Dogdyke, Belle Isle, opp	0630	0850	--	1045	--	1305	--	1525	--	1745	1925	--
Hawthorn Hill, Hurnbridge Road, opp	0632	0852	--	1047	--	1307	--	1527	--	1747	1927	--
Scrub Hill, Old Fen Lane, E-bound	0633	0853	--	1048	--	1308	--	1528	--	1748	1928	--
New York, Village Hall, adj	0634	0854	--	1049	--	1309	--	1529	--	1749	1929	--
Hundle Houses, Wildmore Park, adj	0636	0856	--	1051	--	1311	--	1531	--	1751	1931	--
Gipsey Bridge, Lindsey Way, adj	0641	0901	--	1056	--	1316	--	1536	--	1756	1936	--
Langrick, Ivydene House, opp	0643	0903	--	1058	--	1318	--	1538	--	1758	1938	--
Anton's Gowt, Telephone Box, opp	0647	0907	--	1102	--	1322	--	1542	--	1802	1942	--
Cowbridge, Paul's Bridge, NE-bound	0652	0912	--	1107	--	1327	--	1547	--	1807	1947	--
Boston, Pilgrim Hospital, N-bound	0657	0917	--	1112	--	1332	--	1552	--	1812	1952	--
Boston, Foster Street	0702	0922	--	1117	--	1337	--	1557	--	1817	1957	--
Boston, Bus Station, Bay 1	0707	0927	--	1122	--	1342	--	1602	--	1822	2002	--

Boston to Lincoln 55

via Pilgrim Hospital, Coningsby, Woodhall Spa & Metheringham

Saturdays Only Effective 4th May 2024

Boston, Bus Station, Bay 1	--	--	0710	--	1000	--	1210	--	1430	--	1630	1830
Boston, Boots, o/s	--	--	0713	--	1003	--	1213	--	1433	--	1633	1833
Boston, Pilgrim Hospital, N-bound	--	--	0719	--	1009	--	1219	--	1439	--	1639	1839
Cowbridge, Paul's Bridge, SW-bound	--	--	0724	--	1014	--	1224	--	1444	--	1644	1844
Anton's Gowt, Telephone Box, adj	--	--	0727	--	1017	--	1227	--	1447	--	1647	1847
Langrick, Ivydene House, adj	--	--	0730	--	1020	--	1230	--	1450	--	1650	1850
Gipsey Bridge, Castlegate, adj	--	--	0732	--	1022	--	1232	--	1452	--	1652	1852
Hundle Houses, Wildmore Park, opp	--	--	0737	--	1027	--	1237	--	1457	--	1657	1857
New York, Methodist Church, opp	--	--	0739	--	1029	--	1239	--	1459	--	1659	1859
Scrub Hill, Old Fen Lane, W-bound	--	--	0741	--	1031	--	1241	--	1501	--	1701	1901
Hawthorn Hill, Hurnbridge Road, adj	--	--	0742	--	1032	--	1242	--	1502	--	1702	1902
Dogdyke, Belle Isle, adj	--	--	0743	--	1033	--	1243	--	1503	--	1703	1903
Coningsby, Interchange Shelter, opp	--	0617	0747	0937	1037	1157	1247	1417	1507	1637	1707	1907
Tattershall, Bus Shelter, adj	--	0621	0751	0941	1041	1201	1251	1421	1511	1641	1711	1911
Tattershall Thorpe, Blue Bell PH, adj	--	0625	0755	0945	1045	1205	1255	1425	1515	1645	1715	1915
Woodhall Spa, Woodhall Spa Hotel, o/s	--	0633	0803	0953	1053	1213	1303	1433	1523	1653	1723	1923
Kirkstead Bridge, Church Road, adj	--	0638	0808	0958	1058	1218	1308	1438	1528	1658	1728	1928
Martin, Mill Lane, opp	--	0644	0814	1004	1104	1224	1314	1444	1534	1704	1734	1934
Blankney Barff, Eclipse Farm, adj	--	0647	0817	1007	1107	1227	1317	1447	1537	1707	1737	1937
Metheringham, Railway Station, opp	--	0652	0822	1012	1112	1232	1322	1452	1542	1712	1742	1942
Metheringham, Methodist Church, opp	--	0655	0825	1015	1115	1235	1325	1455	1545	1715	1745	1945
Dunston, Village Hall, adj	--	0658	0828	1018	1118	1238	1328	1458	1548	1718	1748	1948
Nocton, Nocton Hall Gates, opp	--	0704	0834	1024	1124	1244	1334	1504	1554	1724	1754	1954
Potterhanworth, War Memorial, opp	--	0707	0837	1027	1127	1247	1337	1507	1557	1727	1757	1957
Branston, Station Road, opp	--	0713	0843	1033	1133	1253	1343	1513	1603	1733	1803	2003
Canwick, Heighington Road, opp	--	0721	0851	1041	1141	1301	1351	1521	1611	1741	1811	2011
Lincoln, Central Bus Station, Bay M	--	0725	0855	1045	1145	1305	1355	1525	1615	1745	1815	2015

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Coaches of Lincoln
www.pccoaches.co.uk

BOSTON - LINCOLN B5_B5A_B5X
PF0002466/18
Monday to Friday (exc Bank Holidays)
Timetable commences 29.04.2024
B5 Boston - Lincoln. Hail & Ride.
B5A Boston - Lincoln. Via Antons Gowt. Hail & Ride
B5X - Limited Stops

Service Number	B5	B5	B5X	B5A	B5	B5	B5	B5	B5	B5	B5	B5A	B5A	B5
	--	--		*S						*S				
Boston, Bus Station, Bay 1	--	--	0730	0740	0900	1000	1100	1200	1300	1420	1500	1600	1715	1815
Boston, Boots, o/s	--	--	0733	0743	0903	1003	1103	1203	1303	1423	1503	1603	1718	1818
Boston, Pilgrim Hospital, N-bound	--	--	--	**0749**	**0909**	**1009**	**1109**	**1209**	**1309**	**1429**	**1509**	**1609**	**1724**	**1824**
Frithville, Garage	--	--	--	--	0920	1021	1121	1221	1321	1441	1521	--	--	1835
Cowbridge, Paul's Bridge, SW-bound (B5X ONLY)	--	--	--	*0754*	--	--	--	--	--	--	--	*1614*	*1729*	--
Anton's Gowt, Telephone Box, adj (B5X ONLY)	--	--	--	*0800*	--	--	--	--	--	--	--	*1619*	*1734*	--
Langrick Ivydean House Adj (see alternative times below)	--	--	--	*0804*	--	--	--	--	--	--	--	*1623*	*1738*	--
Gipsey Bridge, Castlegate, adj (see alternative times below)	--	--	--	*0808*	--	--	--	--	--	--	--	*1626*	*1741*	--
Hundle Houses, Wildmore Park, opp	--	--	--	*0814*	--	--	--	--	--	--	--	*1631*	*1746*	--
Gipsey Bridge School	--	--	--	--	0925	1025	1125	1225	1325	1445	1525	--	--	1840
Langrick, Ivydene House, adj	--	--	--	--	0927	1027	1127	1227	1327	1547	1527	--	--	1841
Langrick Armtree Road Garage	--	--	--	--	0928	1028	1128	1228	1328	1448	1528	--	--	1843
New York, Methodist Church, opp	--	--	0753	0816	0934	1034	1134	1234	1334	1454	1534	1633	1748	1849
Scrub Hill, Old Fen Lane, W-bound	--	--	--	0820	0936	1036	1136	1236	1336	1556	1536	1635	1750	1851
Hawthorn Hill, Hurnbridge Road, adj	--	--	--	0821	0937	1037	1137	1237	1337	1457	1537	1637	1752	1853
Dogdyke, Belle Isle, adj	--	--	--	0822	0938	1038	1138	1238	1338	1458	1538	1638	1753	1854
Coningsby, Interchange Shelter, opp	0620	0710	0806	0827	0943	1043	1143	1243	1343	1503	1543	1643	1758	1859
Tattershall, Barnes Wallis Academy, o/s	--	--	--	0829	--	--	--	--	--	1510	--	--	--	--
Tattershall, Bus Shelter, adj	0623	0714	0809	0832	0946	1046	1146	1246	1346	1513	1546	1645	1801	1902
Tattershall Thorpe, Blue Bell PH, adj	0627	0719	--	0836	0950	1050	1150	1250	1350	1517	1550	1650	1807	1908
Woodhall Spa, Woodhall Spa Hotel, o/s	0635	0725	0819	0843	0957	1057	1157	1257	1357	1525	1557	1657	1815	1915
Kirkstead Bridge, Church Road, adj	0640	0730	0824	0848	1003	1103	1203	1303	1403	1530	1603	1703	1820	--
Martin Dales	0641	0731	0825	0849	1004	1104	1204	1304	1404	1534	1604	1704	1821	--
Martin, Mill Lane, opp	0646	0736	0830	0854	1009	1109	1209	1309	1409	1536	1609	1709	1826	--
Blankney Barff, Eclipse Farm, adj	0649	0739	0833	0857	1014	1114	1214	1314	1414	1539	1614	1714	1831	--
Metheringham, Railway Station, opp	0654	0745	0839	0903	1017	1117	1217	1317	1417	1544	1617	1717	1836	--
Metheringham, Methodist Church, opp	0657	0748	0842	0906	1020	1120	1220	1320	1420	1547	1620	1720	1839	--
Dunston, Village Hall, adj	0700	0751	--	0909	1023	1123	1223	1223	1223	1550	1623	1723	1843	--
Nocton, Nocton Hall Gates, opp	0708	0756	--	0914	1028	1128	1228	1328	1428	--	1628	1728	1849	--
Potterhanworth, War Memorial, opp	0711	0758	--	0916	1030	1130	1230	1320	1430	--	1630	1730	1852	--
Branston, Station Road, opp	0717	0804	0851	0922	1036	1136	1336	1336	1436	1600	1636	1736	1858	--
Lincoln, County Hospital Main Entrance, adj	--	0820	--	0930	1044	1144	1244	1344	1444	--	**1644**	**1744**	**1906**	--
Canwick, Heighington Road, opp	0723	--	0856	--	--	--	--	--	--	1606	--	--	--	--
Lincoln, Central Bus Station, Bay E	0726	0835	0900	0938	1052	1152	1252	1352	1452	1609	1652	1800	1912	--

CODE
SCH - School Days Only
SHOL - School Holidays Only
***S on school days serves Barnes Wallis Accademy**

Service Number	B5A	B5A	B5	B5	B5	B5	B5	B5	B5A	B5	B5X	B5	B5	B5	B5
	Sch	SH	*S						*S						
Lincoln, Central Bus Station, Bay E	--	--	0740	0900	1000	1100	1200	1300	1400	1500	1530	1615	1715	1815	1915
Lincoln, County Hospital Main Entrance, adj	--	--	--	**0908**	**1008**	**1108**	**1208**	**1308**	**1408**	**1508**	--	**1623**	**1723**	**1823**	**1923**
Canwick, Heighington Road, adj	--	--	0743	--	--	--	--	--	--	--	1534	--	--	--	--
Branston, Station Road, adj	--	--	0749	0920	1020	1120	1220	1320	1420	1520	1539	1635	1735	1835	1935
Potterhanworth, War Memorial, adj	--	--	--	0926	1026	1126	1226	1326	--	1526	--	1641	1741	1841	1941
Nocton, Nocton Hall Gates, adj	--	--	--	0930	1030	1130	1230	1330	--	1530	--	1645	1745	1845	1945
Dunston, Village Hall, opp	--	--	--	0935	1035	1135	1235	1335	1428	1535	--	1650	1750	1850	1950
Metheringham, Methodist Church, o/s	--	--	0758	0938	1038	1138	1238	1338	1432	1538	1548	1653	1753	1853	1953
Metheringham, Railway Station, adj	--	--	0801	0940	1040	1140	1240	1340	1434	1540	1550	1655	1756	1856	1956
Blankney Barff, Eclipse Farm, adj	--	--	0804	0943	1043	1143	1243	1343	1437	1543	1553	1658	1758	1858	1958
Martin, Mill Lane, adj	--	--	0806	0945	1045	1145	1245	1345	1439	1545	1555	1700	1800	1900	2000
Kirkstead Bridge, Church Road, opp	--	--	0812	0951	1051	1151	1251	1351	1445	1551	1601	1706	1806	1906	2006
Woodhall Spa, Woodhall Spa Hotel, o/s	0715	0756	0817	0956	1056	1156	1256	1356	1450	1556	1606	1711	1811	1911	2011
Tattershall Thorpe, Blue Bell PH, opp	0720	0802	0823	1002	1102	1202	1302	1402	1454	1602	--	1717	1817	1917	2017
Tattershall, Barnes Wallis Academy, o/s	--	--	0828	--	--	--	--	--	1500	--	--	--	--	--	--
Tattershall, Bus Shelter, adj	0725	0805	0831	1005	1105	1205	1305	1405	1505	1605	1616	1720	1820	1920	2020
Coningsby, Interchange Shelter, adj	0728	0810	0836	1010	1110	1210	1310	1410	1510	1610	1621	1725	1825	1925	2025
Dogdyke, Belle Isle, opp	0733	0813	0839	1013	1113	1213	1313	1413	1513	1613	1624	1728	1828	1928	--
Hawthorn Hill, Hurnbridge Road, opp	0735	0815	0842	1015	1115	1215	1315	1415	1515	1615	1626	1730	1830	1930	--
Scrub Hill, Old Fen Lane, E-bound	0736	0816	0843	1016	1116	1216	1316	1416	1516	1616	1627	1731	1831	1931	--
New York, Village Hall, adj	--	0817	0844	1017	1117	1217	1317	1417	1517	1617	1628	1732	1832	1932	--
New York, Old Post Office, opp	0738	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Hundle Houses, Wildmore Park, adj	--	*0819*	--	--	--	--	--	--	*1519*	--	--	--	--	--	--
Gipsey Bridge, Lindsey Way, adj (see alternative times belo	*0747*	*0824*	--	--	--	--	--	--	*1824*	--	--	--	--	--	--
Langrick, Ivydene House, opp (see alternative times below)	*0750*	*0826*	--	--	--	--	--	--	*1526*	--	--	--	--	--	--
Anton's Gowt, Telephone Box, opp	*0753*	*0830*	--	--	--	--	--	--	*1530*	--	--	--	--	--	--
Cowbridge, Paul's Bridge, NE-bound	*0757*	0835	--	--	--	--	--	--	*1535*	--	--	--	--	--	--
Langrick Garage	--	--	0850	1023	1123	1223	1323	1423	--	1623	--	1738	1838	1938	--
Langrick, Ivydene House, opp	--	--	0850	1023	1123	1223	1323	1423	--	1623	--	1738	1838	1938	--
Gipsey Bridge School	--	--	0852	1025	1125	1225	1325	1425	--	1625	--	1740	1840	1940	--
FRITHVILLE	--	--	0856	1029	1129	1229	1329	1429	--	1629	--	1744	1844	1944	--
Boston, Pilgrim Hospital, s-bound	--	$\boxed{0840}$	**0905**	**1038**	**1138**	**1238**	**1338**	**1438**	**1540**	**1638**	**--**	**1755**	**1855**	**1955**	--
Boston, Foster Street	0810	0845	0910	1043	1143	1243	1343	1443	1545	1643	--	1800	1900	2000	--
Boston, Bus Station, Bay 1	0815	0850	0915	1048	1148	1248	1348	1448	1550	1648	1648	1805	1905	2005	--

Stagecoachbus.com

Service M2

Lincoln - Anwick

Daily (not Bank Hols)

Operated by: SLI
Stagecoach Lincolnshire

Timetable valid from 11 Mar 2024 until further notice

Service:	M2	M2	M2	M2	M2	M2	M2	M2	M2	M2	M2
Notes:	Day!	Day!	Day!	Day!	Day!	Day!	Day!	Day!	Day!	Day!	Day!
Operator:	SLI	SLI	SLI	SLI	SLI	SLI	SLI	SLI	SLI	SLI	SLI
Days:	Su	Su	MSX	T-SX	M-FX	M-FX	M-FX	M-FX	FX	S	Su-Th
Crofton Road Depart:	04:45	04:45	04:45	04:45	04:45	14:14	16:34	16:34	02:28	02:28	02:28
Arboretum	04:47	04:47	04:47	04:47	04:47	14:16	16:36	16:36	02:30	02:30	02:30
Telephone Exchange	04:52	04:52	04:52	04:52	04:52	14:21	16:41	16:41	02:35	02:35	02:35
South Common	05:02	05:02	05:02	05:02	05:02	14:31	16:55	16:55	02:45	02:45	02:45
Main Avenue	05:04	05:04	05:04	05:04	05:04	14:33	17:01	17:01	02:47	02:47	02:47
Nocton Estate	05:08	05:08	05:08	05:08	05:08	14:37	17:05	17:05	02:51	02:51	02:51
Lincoln Road	05:22	05:22	05:22	05:22	05:22	14:41	17:15	17:15	03:05	03:05	03:05
All Saints Church	05:28	05:28	05:28	05:28	05:28	14:47	17:26	17:26	03:11	03:11	03:11
George Adams Factory	05:29	05:29	05:29	05:29	05:29	14:48	17:27	17:27	03:12	03:12	03:12
Moy Park Factory Arrive:	05:34	05:34	05:34	05:34	05:34	15:03	17:35	17:35	03:17	03:17	03:17

Day! Day pattern is different to timetable

FX Fridays (not Bank Hols)
M-FX Monday to Friday (not Bank Hols)
S Saturdays
MSX Mondays & Saturdays (not Bank Hols)
T-SX Tues to Sat (not Bank Hols)
Su Sundays
Su-Th Sundays, Monday to Thursday not BH

Stagecoachbus.com

Anwick - Lincoln

Service M2

Not Saturdays or Bank Hols

Operated by: SLI
Stagecoach Lincolnshire

Timetable valid from 11 Mar 2024 until further notice

	Service:	M2	M2	M2	M2	M2	M2	M2	M2	M2
	Notes:	Day!	Day!	Day!	Day!	Day!	Day!	Day!	Day!	Day!
	Operator:	SLI	SLI	SLI	SLI	SLI	SLI	SLI	SLI	SLI
	Days:	Su	M-FX	Su	Su	M-FX	M-FX	M-FX	M-FX	M-FX
Moy Park Factory	Depart:	15:55	15:55	18:15	18:15	18:15	18:15	23:55	02:15	02:15
George Adams Factory		16:02	16:02	18:22	18:22	18:22	18:22	00:02	02:22	02:22
All Saints Church		16:05	16:05	18:25	18:25	18:25	18:25	00:05	02:25	02:25
Lincoln Road		16:20	16:20	18:40	18:40	18:40	18:40	00:20	02:40	02:40
Nocton Estate		16:28	16:28	18:48	18:48	18:48	18:48	00:28	02:48	02:48
Main Avenue		16:38	16:38	18:58	18:58	18:58	18:58	00:38	02:58	02:58
South Common		16:48	16:48	19:08	19:08	19:08	19:08	00:48	03:08	03:08
St Swithins's Church		16:53	16:53	19:13	19:13	19:13	19:13	00:53	03:13	03:13
Arboretum		16:58	16:58	19:18	19:18	19:18	19:18	00:58	03:18	03:18
Crofton Road	Arrive:	17:00	17:00	19:20	19:20	19:20	19:20	01:00	03:20	03:20

Day! Day pattern is different to timetable

M-FX Monday to Friday (not Bank Hols)
Su Sundays

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Anwick - Lincoln

Service
M2

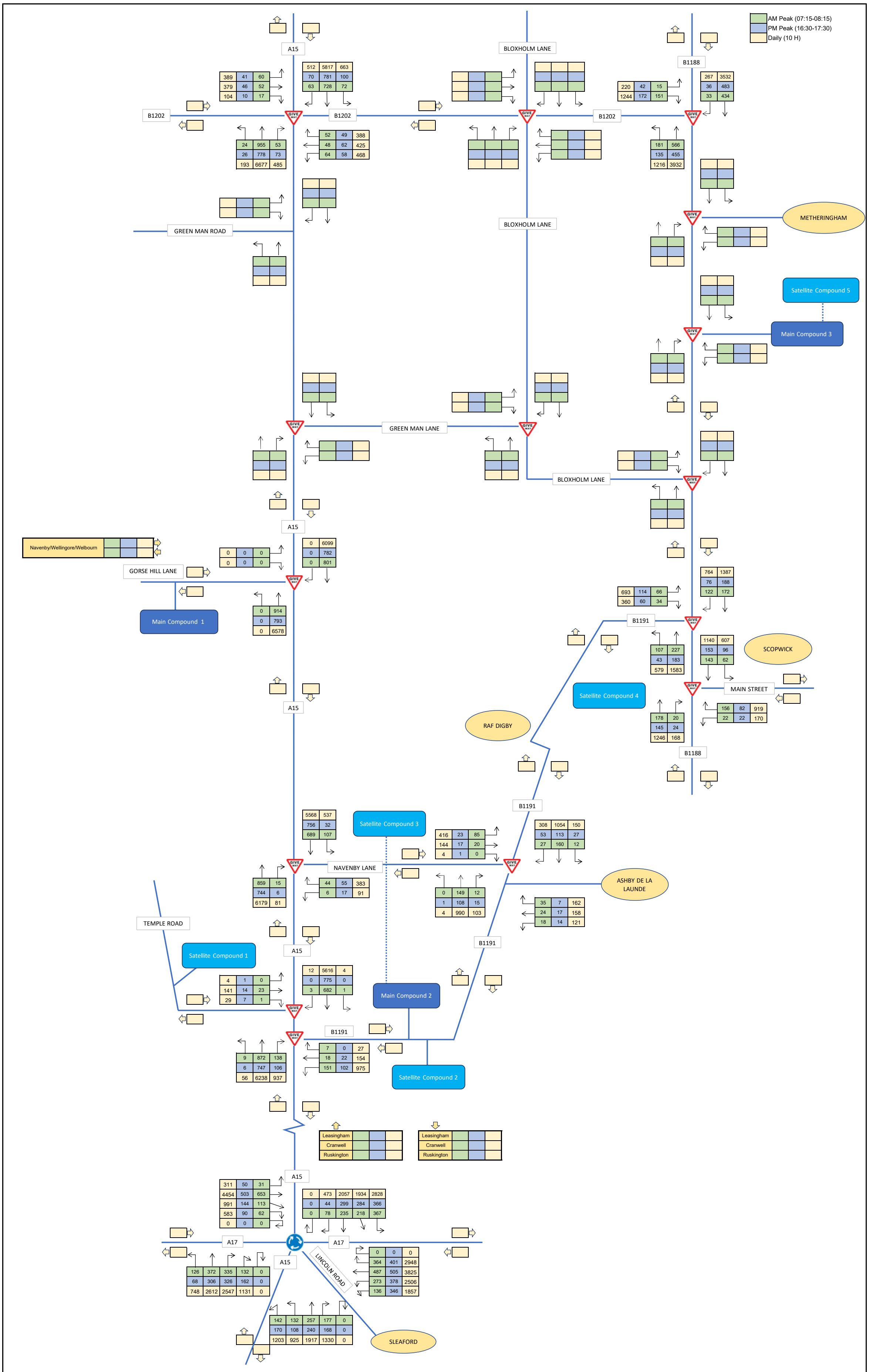
Saturdays (not Bank Holidays)

Operated by: SLI
Stagecoach Lincolnshire

Timetable valid from 11 Mar 2024 until further notice

	Service:	M2	M2	M2
	Operator:	SLI	SLI	SLI
Moy Park Factory	Depart:	15:55	18:15	18:15
George Adams Factory		16:02	18:22	18:22
All Saints Church		16:05	18:25	18:25
Lincoln Road		16:20	18:40	18:40
Nocton Estate		16:28	18:48	18:48
Main Avenue		16:38	18:58	18:58
South Common		16:48	19:08	19:08
St Swithins's Church		16:53	19:13	19:13
Arboretum		16:58	19:18	19:18
Crofton Road	Arrive:	17:00	19:20	19:20

Annex 2 – Traffic Flow Diagrams

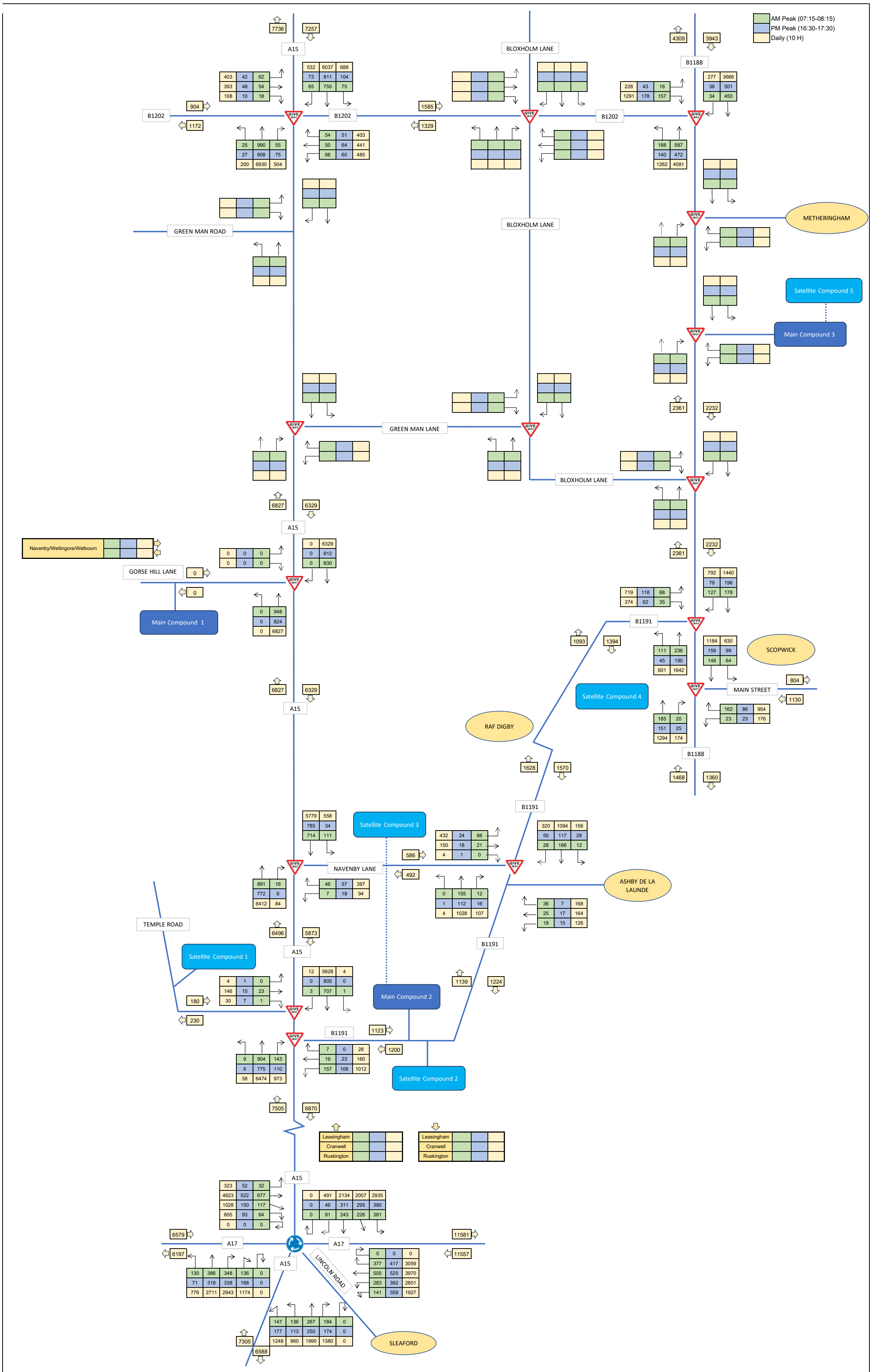


Springwell Solar Farm

A - 2024 Baseline

Notes:
Baseline data is only available for surveyed junctions.
Data is provided in PCU(1 LGV = 1 PCU, 1 HGV = 2.3 PCU)

Springwell Solar Farm

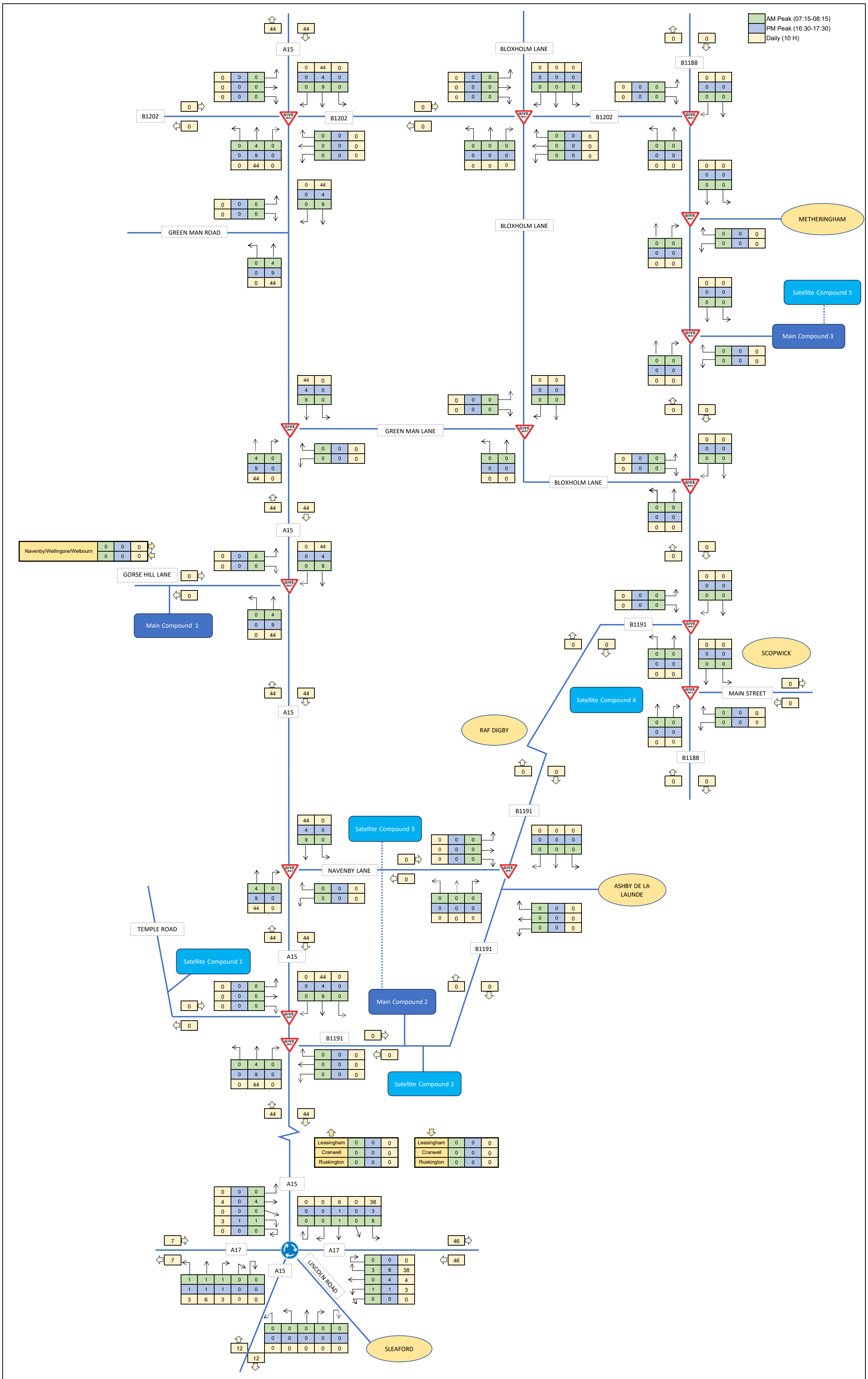


Springwell Solar Farm

B - 2028 Construction Year

Notes:
Baseline data is only available for surveyed junctions.
Data is provided in PCU (1 LGV = 1 PCU, 1 HGV = 2.3 PCU)

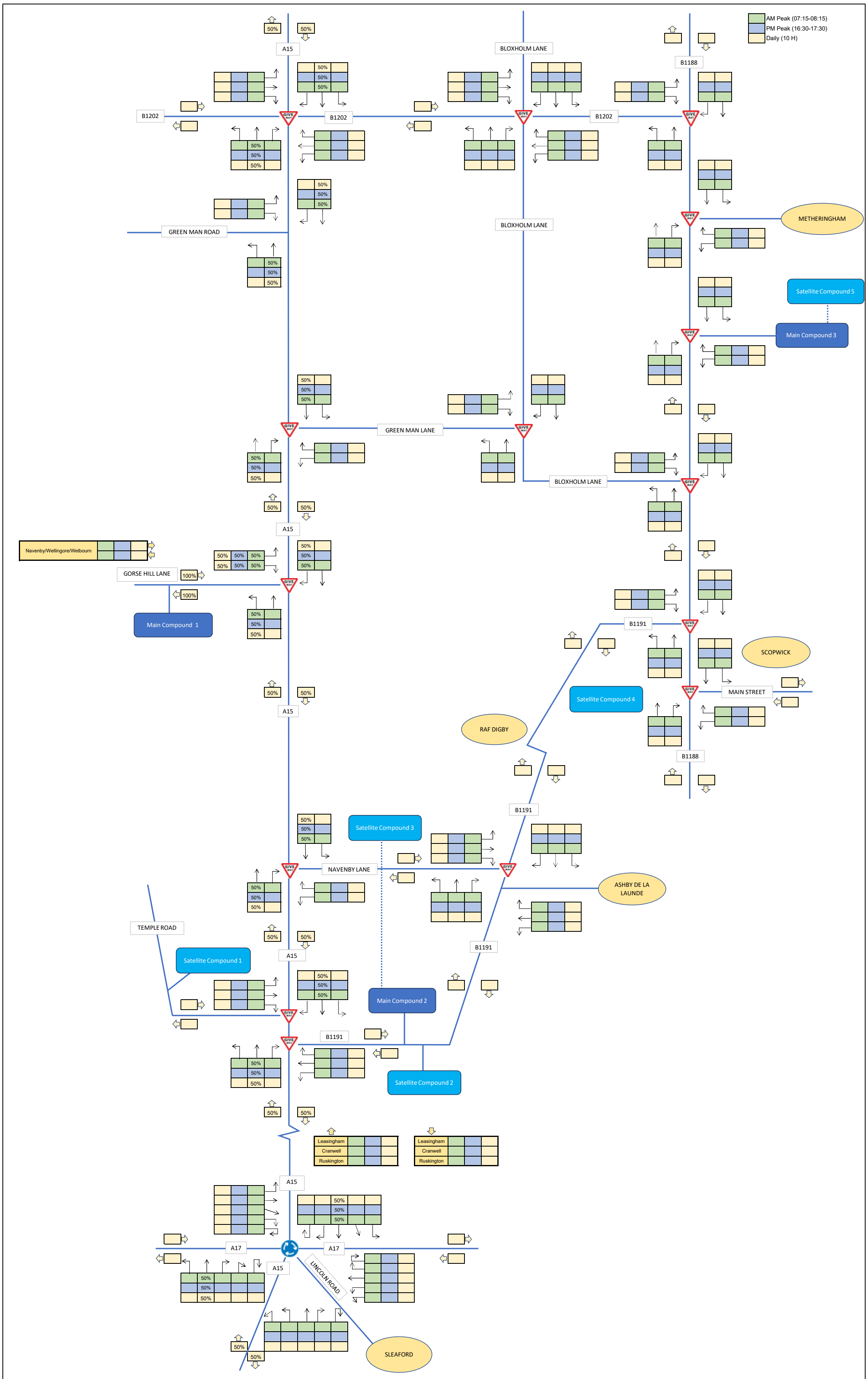
Springwell Solar Farm



Springwell Solar Farm

C - Total Committed Development

Notes:
Data is provided in PCU(1 LGV = 1 PCU, 1 HGV = 2.3 PCU)

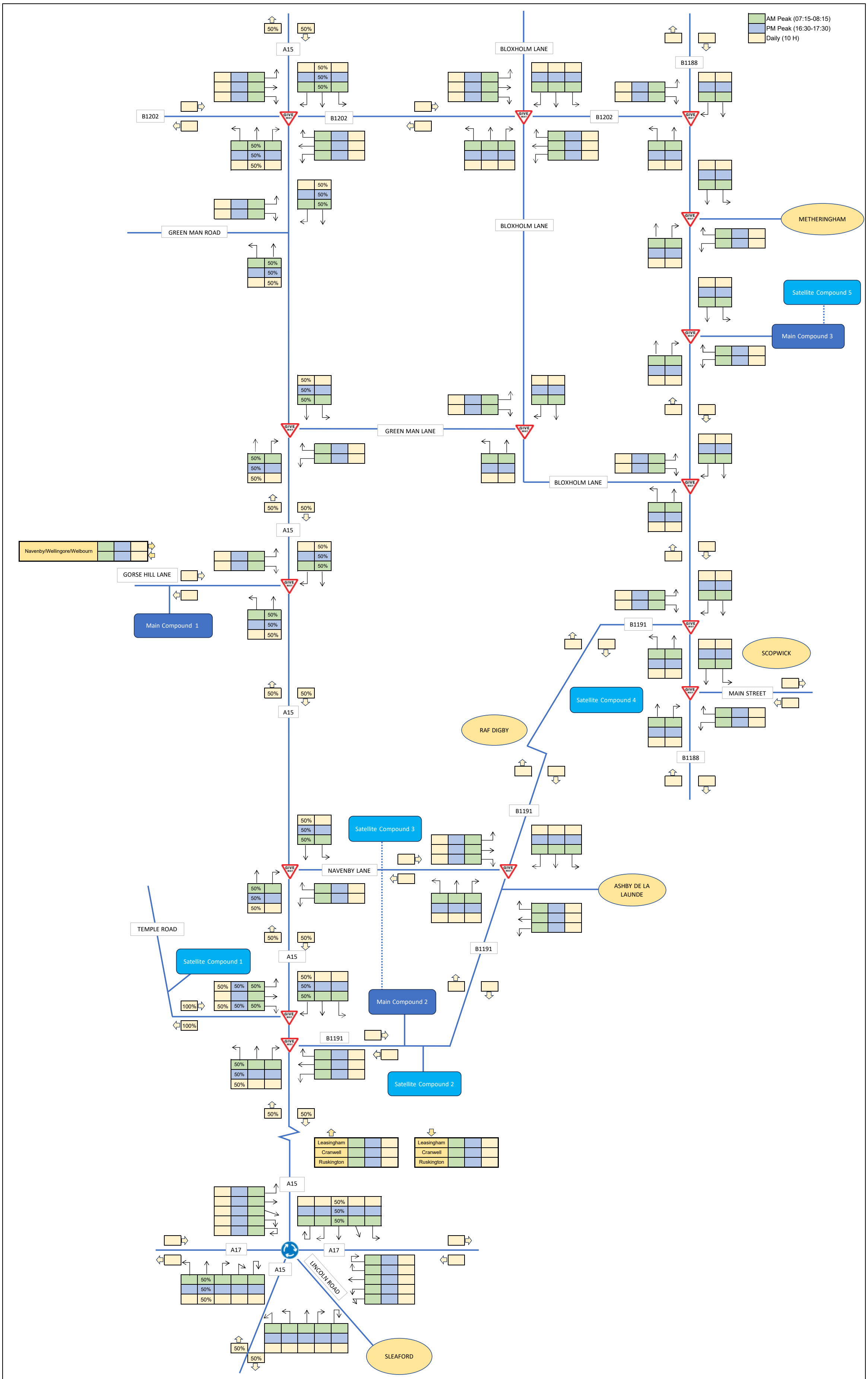


Springwell Solar Farm

D - HGV Distribution (MC1)

Notes:
A distribution assumption of 50/50 north/south has been applied.

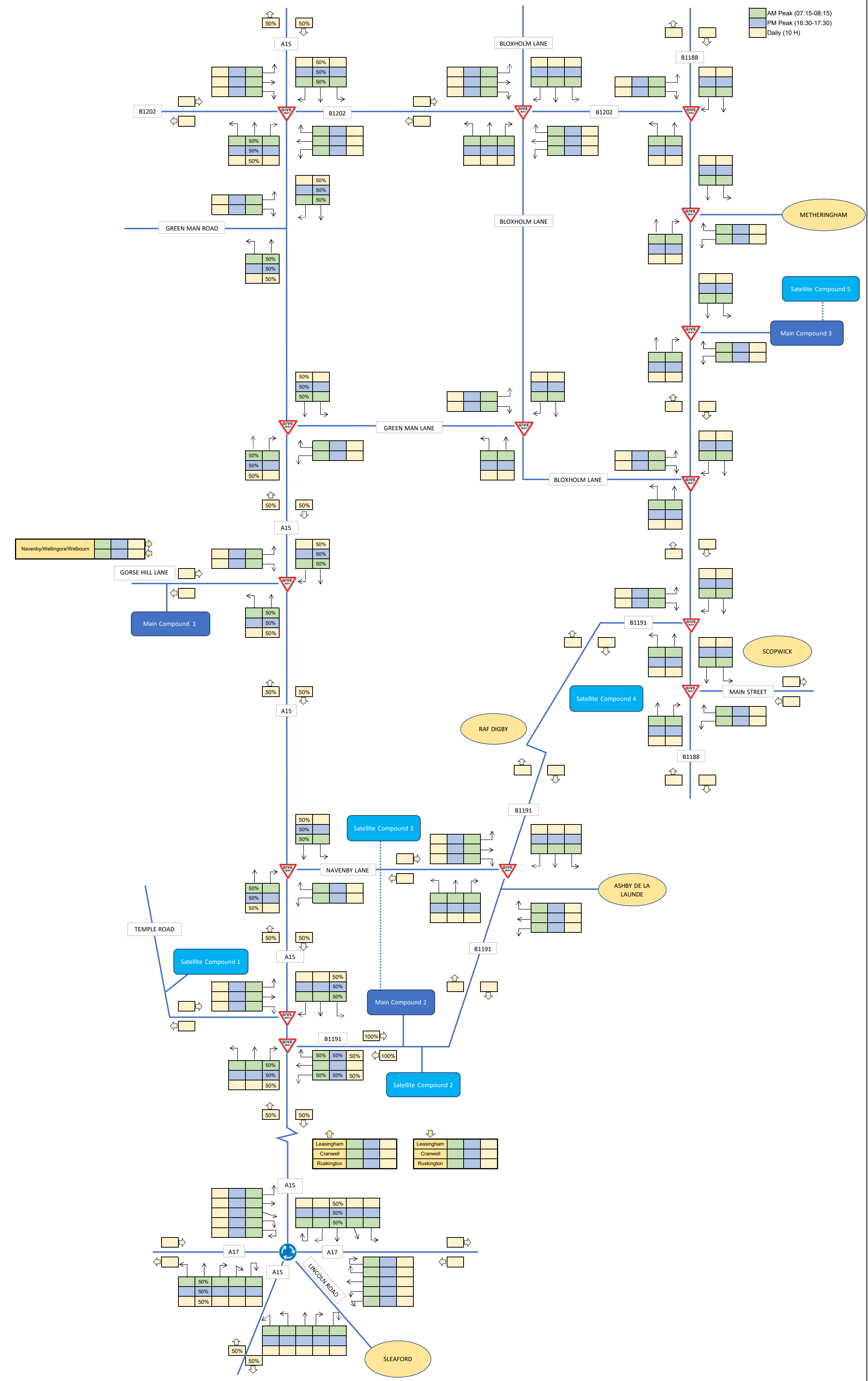
Springwell Solar Farm



Springwell Solar Farm

E - HGV Distribution (SC1)

Notes:
A distribution assumption of 50/50 north/south has been applied.

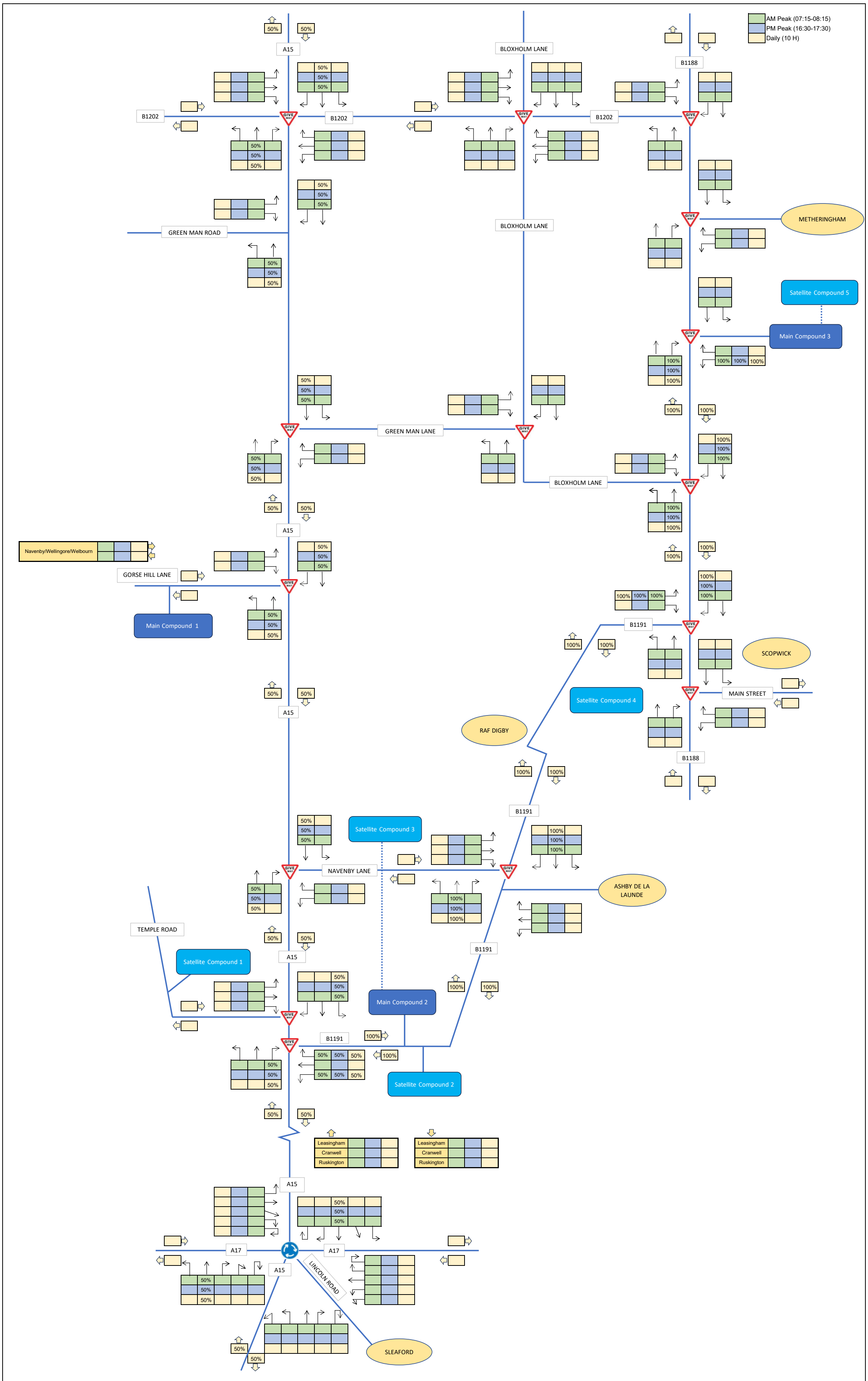


Springwell Solar Farm

F - HGV Distribution (MC2, SC2, SC3)

Notes:
A distribution assumption of 50/50 north/south has been applied.

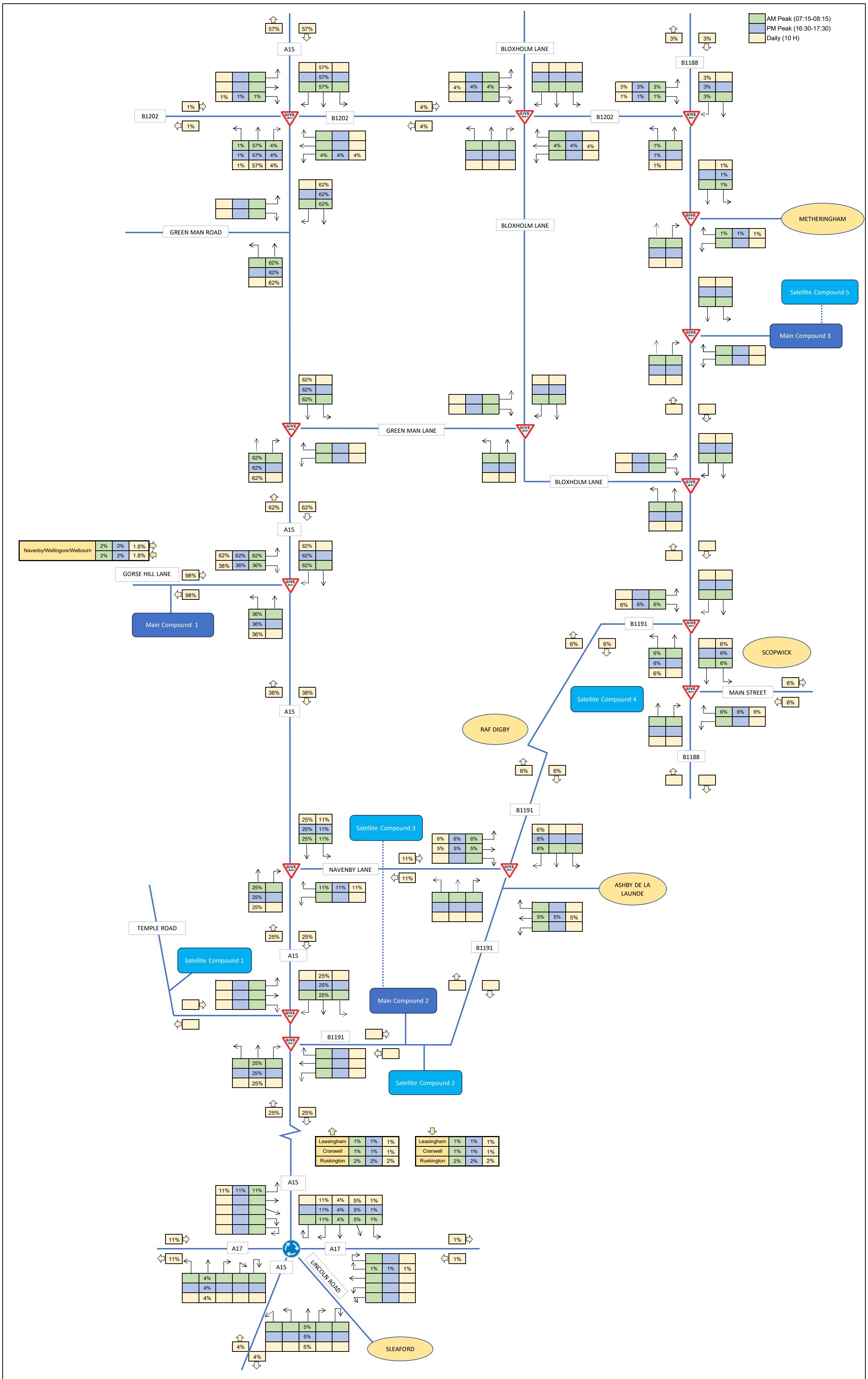
Springwell Solar Farm



Springwell Solar Farm

G - HGV Distribution (MC3, SC4, SC5)

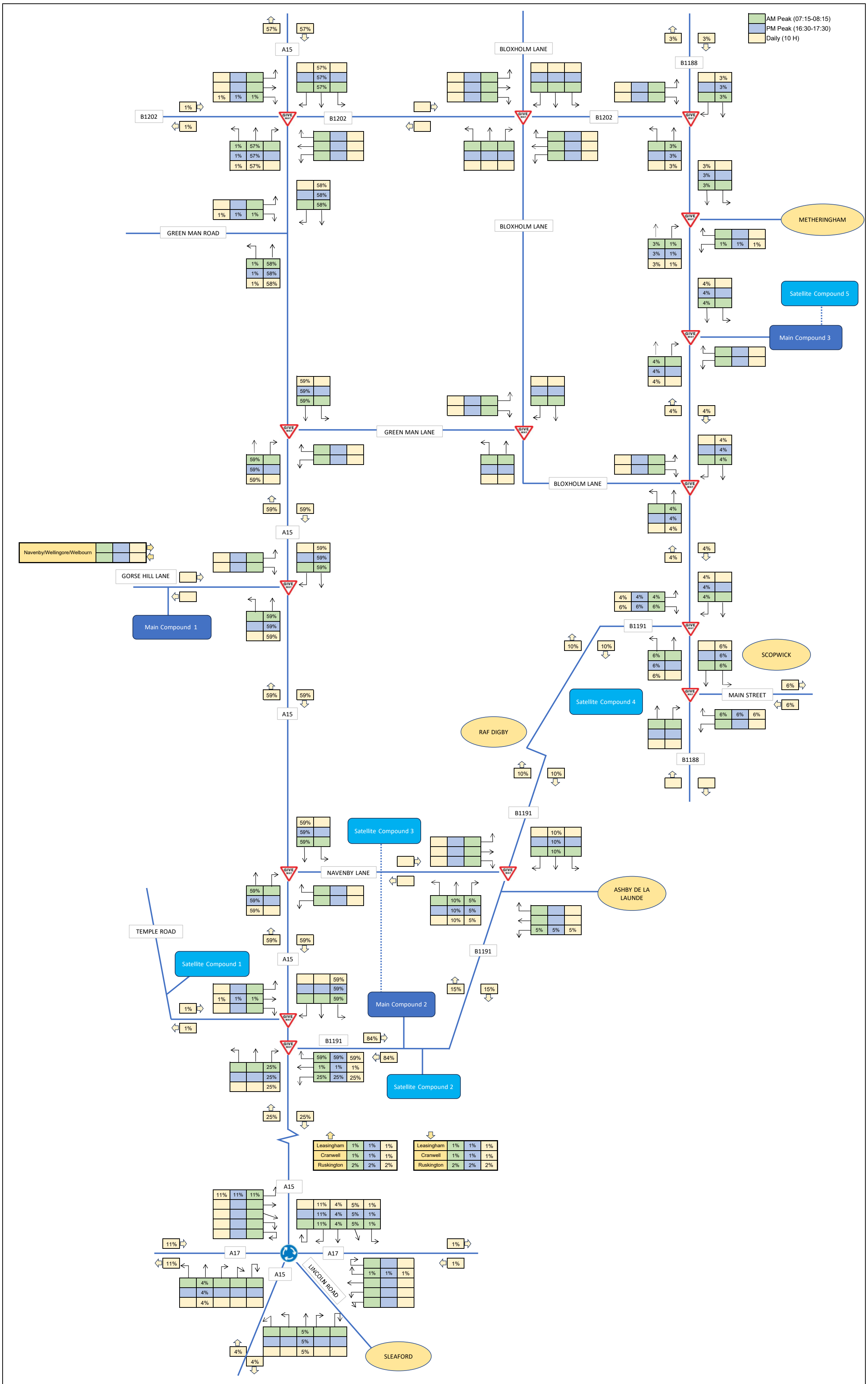
Notes:
A distribution assumption of 50/50 north/south has been applied.



Springwell Solar Farm

H - LGV Distribution (MC1)

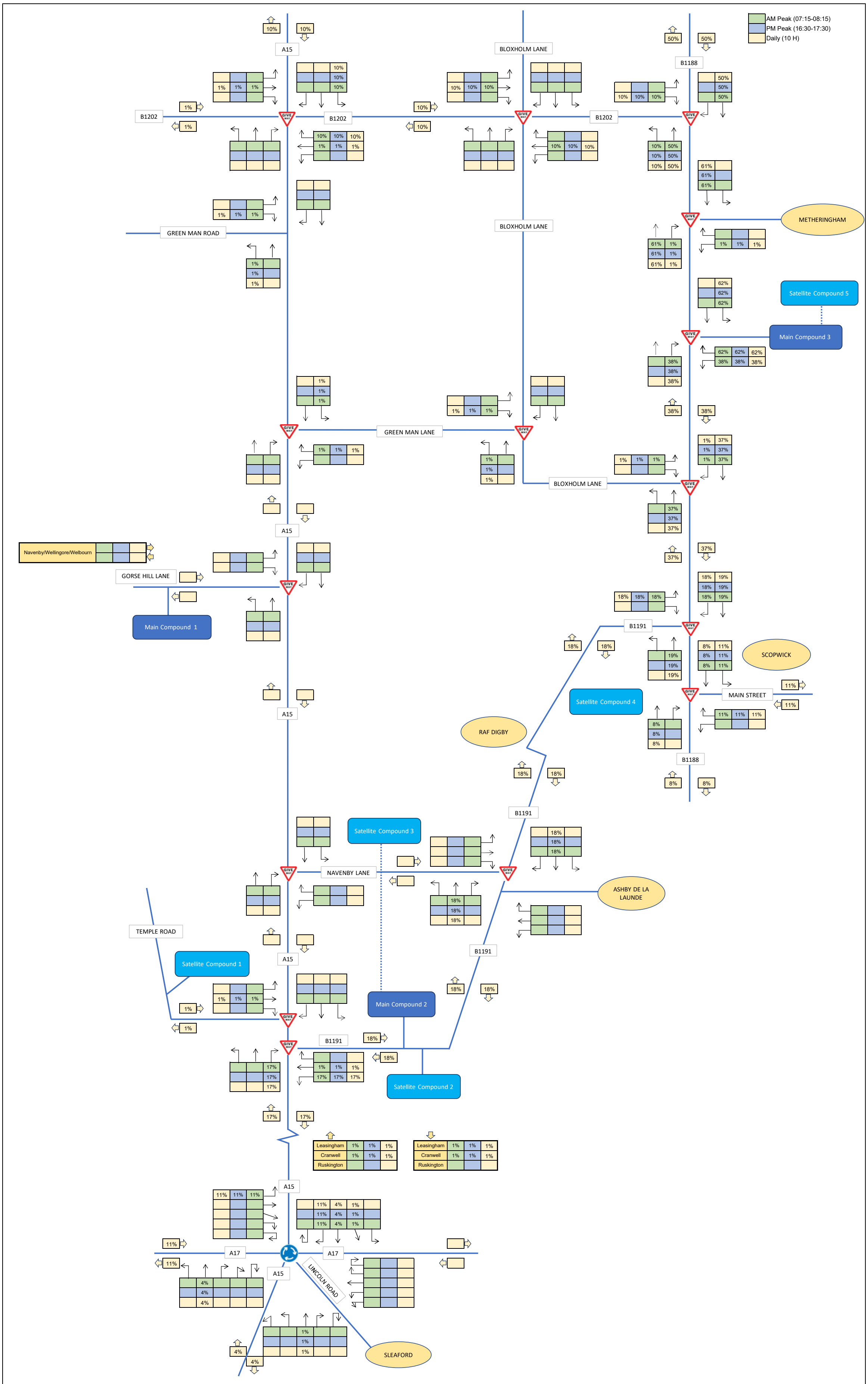
Notes:



Springwell Solar Farm

I - LGV Distribution (MC2)

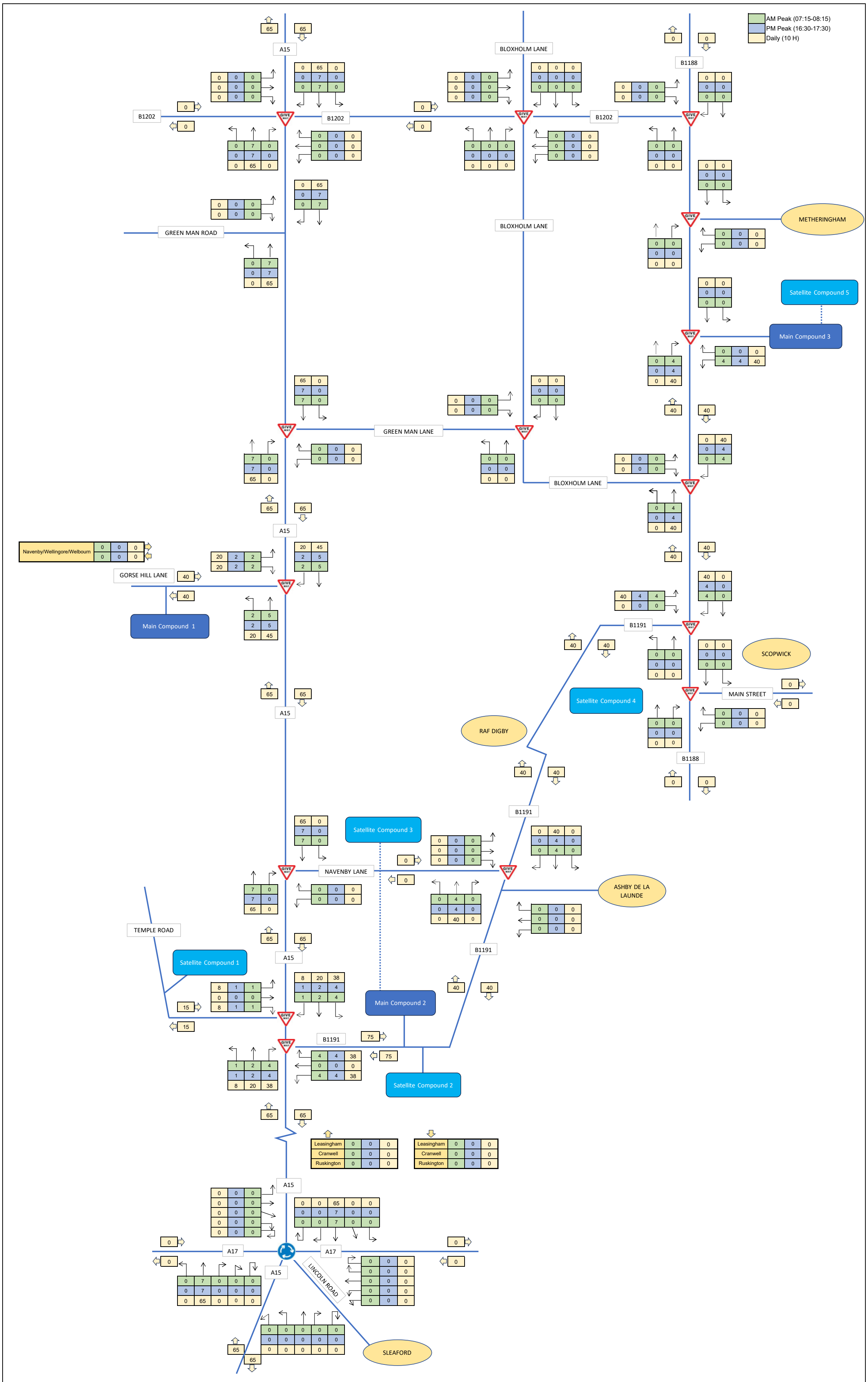
Notes:



Springwell Solar Farm

J - LGV Distribution (MC3)

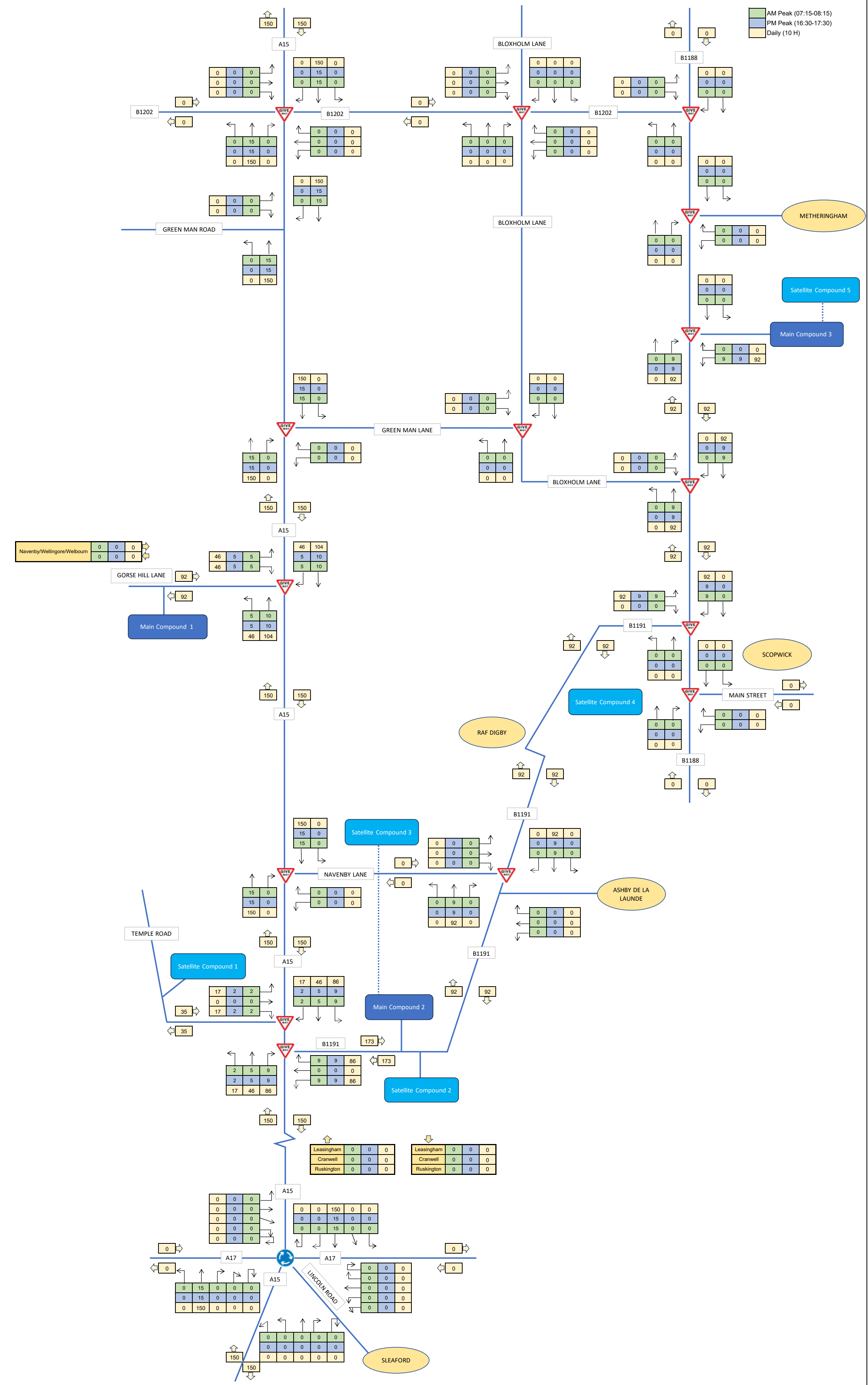
Notes:



Springwell Solar Farm

K - HGV Total Proposed Development Trip Generation (vehicles)

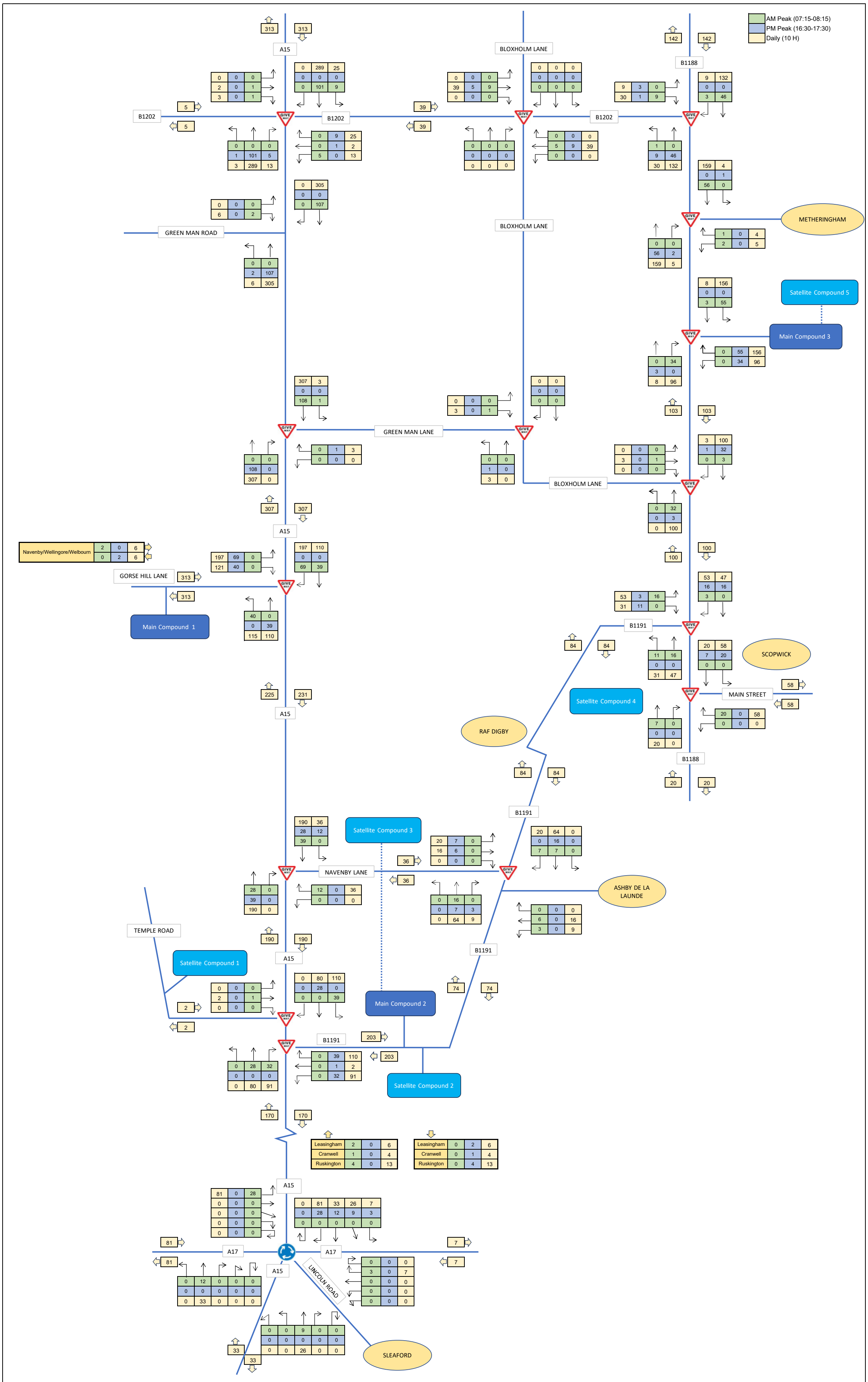
Notes:
Data is provided in vehicle numbers



Springwell Solar Farm

L - HGV Total Proposed Development Trip Generation

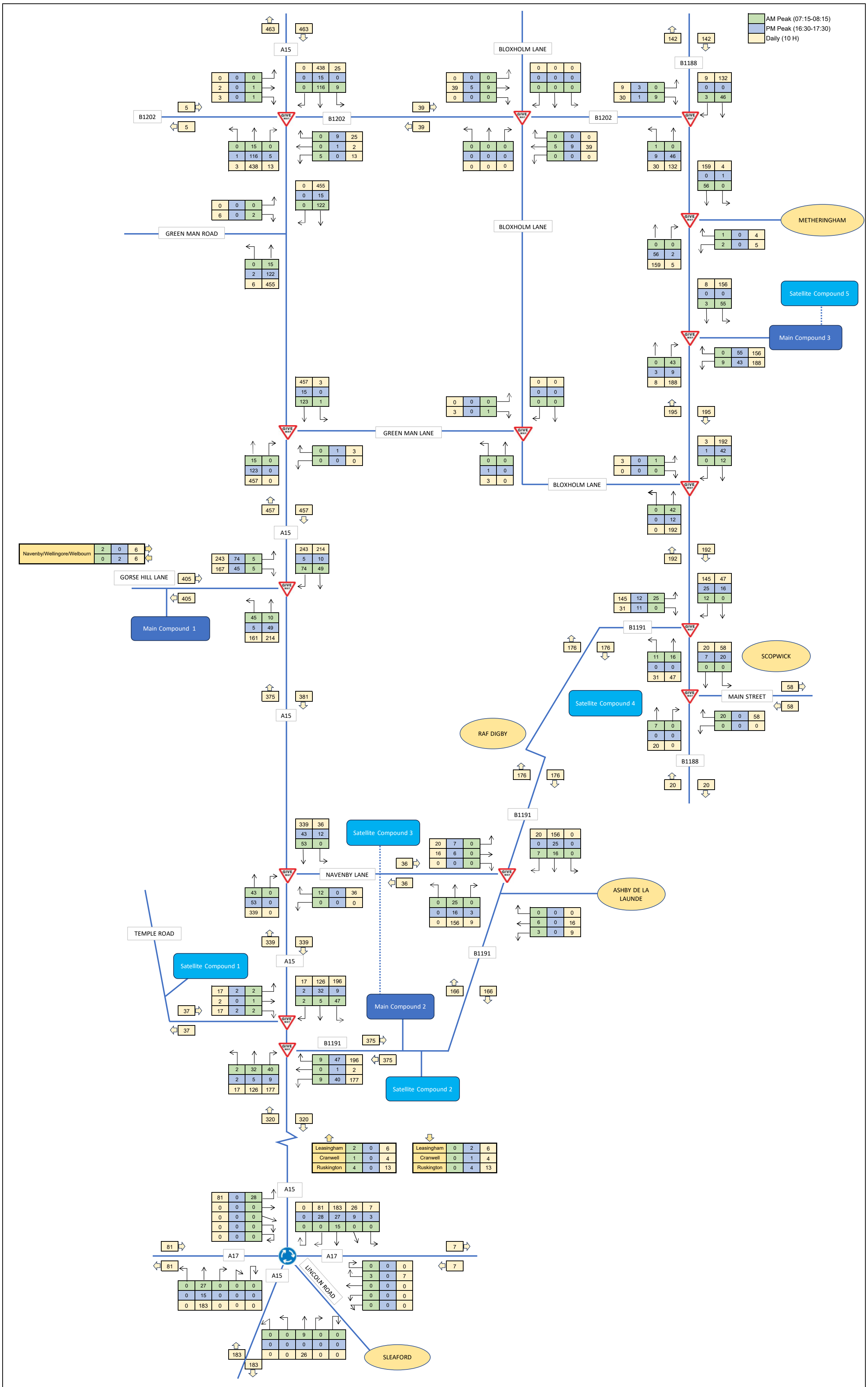
Notes:
Data is provided in PCU (1 HGV = 2.3 PCU)



Springwell Solar Farm

M - LGV Total Proposed Development Trip Generation

Notes:
Data is provided as 1 LGV = 1 PCU

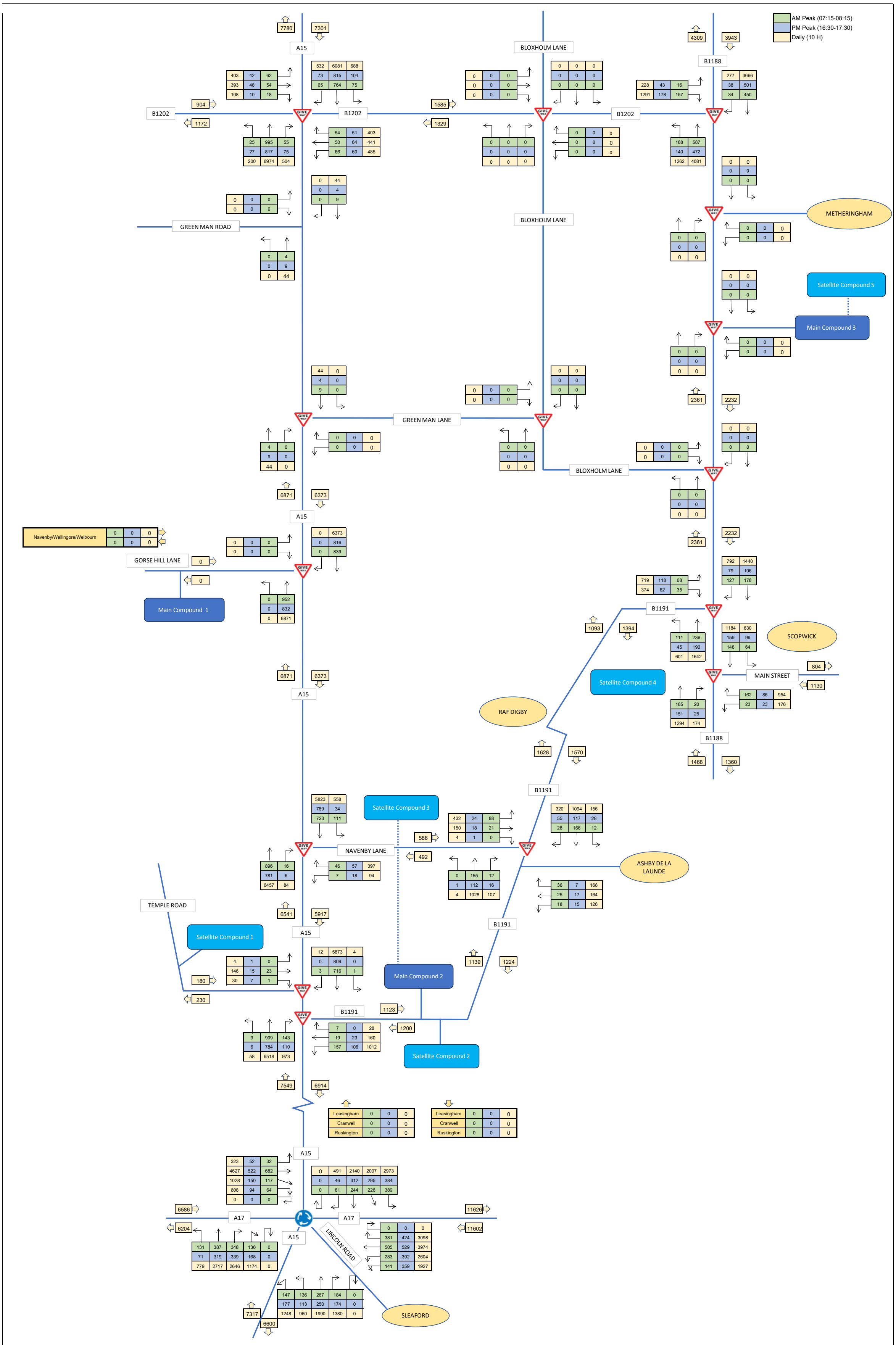


Springwell Solar Farm

N - Total Combined Proposed Development Trip Generation

Notes:
Data is provided in PCU (1 LGV = 1 PCU, 1 HGV = 2.3 PCU)

Springwell Solar Farm

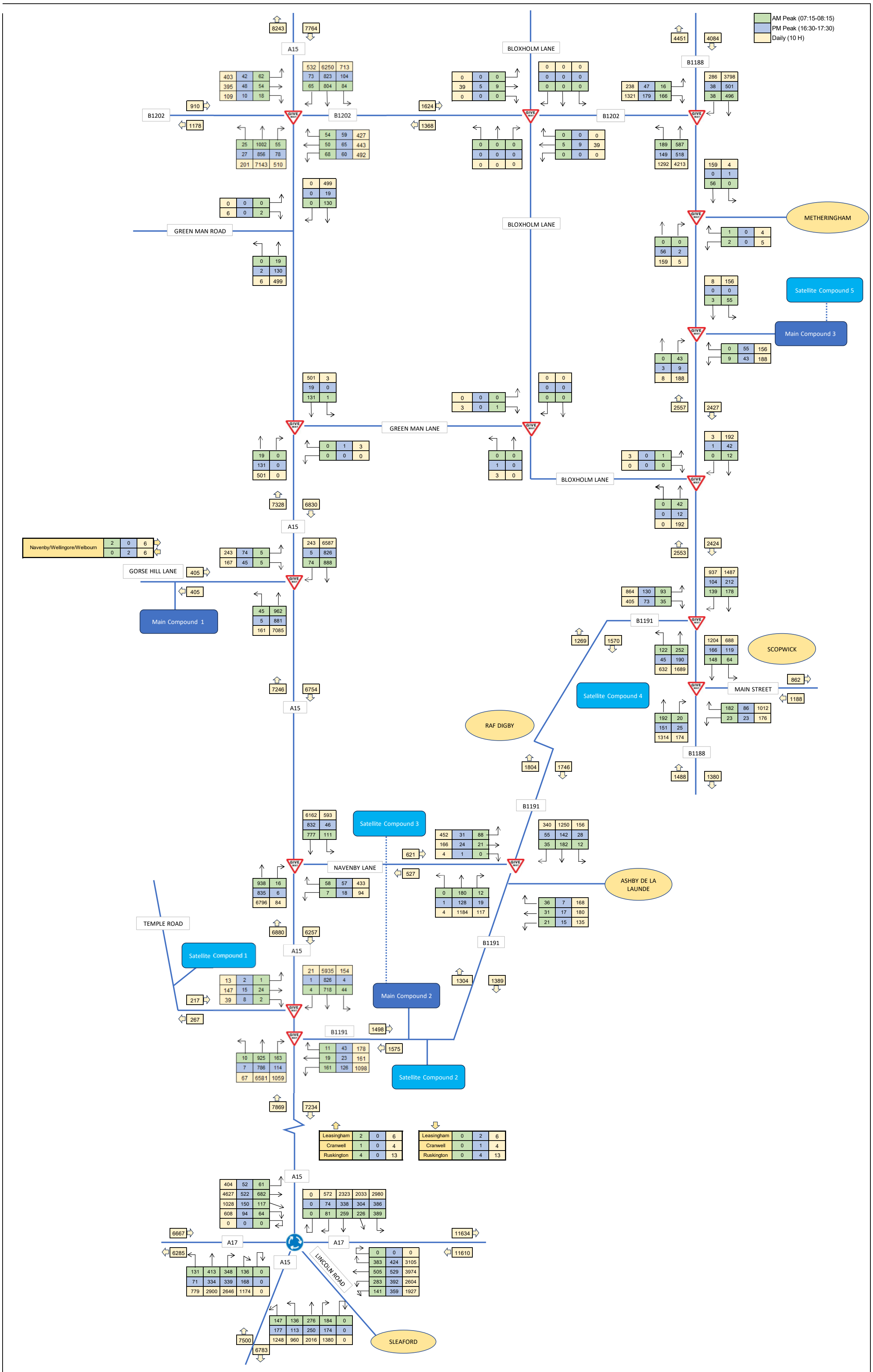


Springwell Solar Farm

O - 2028 Construction Year + Committed Development

Notes:
Baseline data is only available for surveyed junctions.
Data is provided in PCU (1 LGV = 1 PCU, 1 HGV = 2.3 PCU)

Springwell Solar Farm



Springwell Solar Farm

P - 2028 Construction Year + Committed Development + Proposed Development

Notes:
Baseline data is only available for surveyed junctions.
Data is provided in PCU (1 LGV = 1 PCU, 1 HGV = 2.3 PCU)

Annex 3 – J10 Outputs

Application Document Ref: EN010149/APP/6.3
Planning Inspectorate Scheme Ref: EN010149

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: B1188-B1202.j10
Path: C:\Users\Ciaran.Conlon\Documents\Springwell\03 Junction Models
Report generation date: 11/07/2024 11:38:06

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2024 Baseline									
Stream B-C	D1	0.0	10.78	0.04	B	D2	0.1	11.40	0.12	B
Stream B-A		1.2	25.86	0.54	D		1.3	25.52	0.57	D
Stream C-AB		0.2	5.26	0.11	A		0.3	5.09	0.11	A
	2028 Construction Year									
Stream B-C	D3	0.1	11.53	0.05	B	D4	0.2	12.21	0.13	B
Stream B-A		1.4	29.22	0.58	D		1.5	28.66	0.61	D
Stream C-AB		0.3	5.24	0.11	A		0.3	5.07	0.12	A
	2028 Construction Year + CD									
Stream B-C	D5	0.1	11.53	0.05	B	D6	0.2	12.21	0.13	B
Stream B-A		1.4	29.22	0.58	D		1.5	28.66	0.61	D
Stream C-AB		0.3	5.24	0.11	A		0.3	5.07	0.12	A
	2028 Construction Year + CD + Development									
Stream B-C	D7	0.1	12.59	0.05	B	D8	0.2	13.44	0.15	B
Stream B-A		1.7	34.54	0.63	D		1.7	32.57	0.64	D
Stream C-AB		0.3	5.11	0.13	A		0.3	5.13	0.12	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.

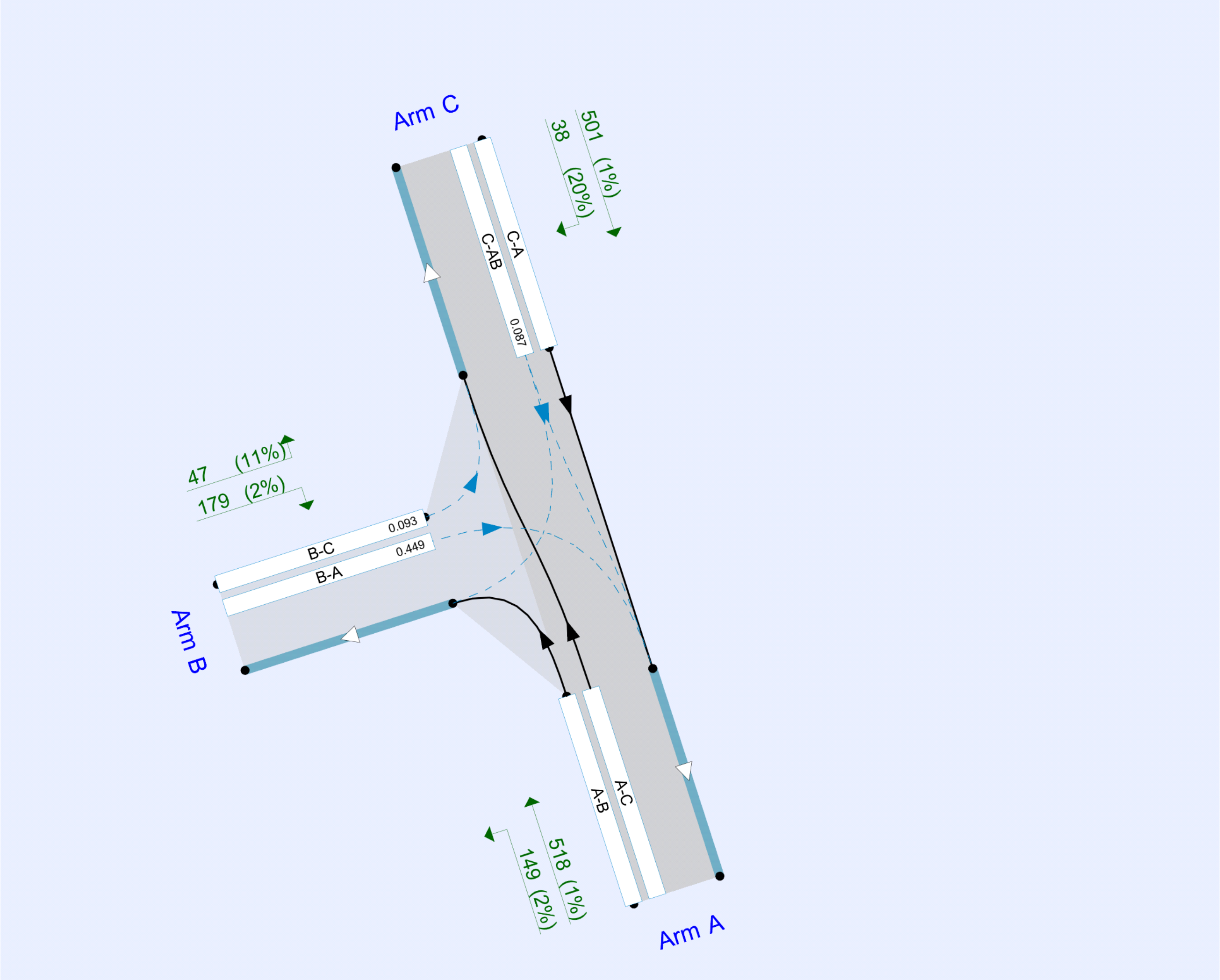
File summary

File Description

Title	B1188 / B1202
Location	
Site number	
Date	11/07/2024
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	CC
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



Flows show original traffic demand (PCU/hr).
Streams (downstream end) show RFC ()

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75				✓		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)	Results for central hour only	Run automatically
D1	2024 Baseline	AM	ONE HOUR	07:00	08:30	15	✓	✓
D2	2024 Baseline	PM	ONE HOUR	16:15	17:45	15	✓	✓
D3	2028 Construction Year	AM	ONE HOUR	07:00	08:30	15	✓	✓
D4	2028 Construction Year	PM	ONE HOUR	16:15	17:45	15	✓	✓
D5	2028 Construction Year + CD	AM	ONE HOUR	07:00	08:30	15	✓	✓
D6	2028 Construction Year + CD	PM	ONE HOUR	16:15	17:45	15	✓	✓
D7	2028 Construction Year + CD + Development	AM	ONE HOUR	07:00	08:30	15	✓	✓
D8	2028 Construction Year + CD + Development	PM	ONE HOUR	16:15	17:45	15	✓	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2024 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D1 - 2024 Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
8	B1188 / B1202	T-Junction	Two-way	Two-way	Two-way		3.23	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.23	A

Arms

Arms

Arm	Name	Description	Arm type
A	B1188 S		Major
B	B1202 Metheringham Heath Lane		Minor
C	B1188 N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.84			172.0	✓	0.00

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	8.44	5.59	4.04	3.62	✓	2.00	24	38

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	581	0.102	0.258	0.162	0.368
B-C	649	0.096	0.242	-	-
C-B	674	0.251	0.251	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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)	Results for central hour only	Run automatically
D1	2024 Baseline	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	747	100.000
B		ONE HOUR	✓	166	100.000
C		ONE HOUR	✓	467	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	181	566
	B	151	0	15
	C	434	33	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	9	4
	B	3	0	7
	C	2	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.04	10.78	0.0	B	15	15
B-A	0.54	25.86	1.2	D	151	151
C-AB	0.11	5.26	0.2	A	73	73
C-A					394	394
A-B					181	181
A-C					566	566

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	451	0.030	13	0.0	0.0	8.810	A
B-A	136	34	359	0.378	135	0.4	0.6	16.471	C
C-AB	59	15	786	0.075	59	0.1	0.1	5.258	A
C-A	361	90			361				
A-B	163	41			163				
A-C	509	127			509				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	377	0.044	16	0.0	0.0	10.695	B
B-A	166	42	309	0.538	164	0.6	1.1	25.190	D
C-AB	87	22	821	0.106	87	0.1	0.2	5.177	A
C-A	427	107			427				
A-B	199	50			199				
A-C	623	156			623				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	374	0.044	16	0.0	0.0	10.775	B
B-A	166	42	309	0.538	166	1.1	1.2	25.861	D
C-AB	88	22	821	0.107	88	0.2	0.2	5.167	A
C-A	427	107			427				
A-B	199	50			199				
A-C	623	156			623				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	449	0.030	14	0.0	0.0	8.853	A
B-A	136	34	359	0.378	138	1.2	0.6	16.911	C
C-AB	59	15	786	0.076	60	0.2	0.1	5.233	A
C-A	360	90			360				
A-B	163	41			163				
A-C	509	127			509				

2024 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D2 - 2024 Baseline, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
8	B1188 / B1202	T-Junction	Two-way	Two-way	Two-way		4.00	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.00	A

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)	Results for central hour only	Run automatically
D2	2024 Baseline	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	590	100.000
B		ONE HOUR	✓	214	100.000
C		ONE HOUR	✓	519	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	135	455
	B	172	0	42
	C	483	36	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	2	1
	B	2	0	11
	C	1	20	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.12	11.40	0.1	B	42	42
B-A	0.57	25.52	1.3	D	172	172
C-AB	0.11	5.09	0.3	A	83	83
C-A					436	436
A-B					135	135
A-C					455	455

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	38	9	476	0.079	38	0.1	0.1	9.117	A
B-A	155	39	378	0.410	154	0.5	0.7	16.334	C
C-AB	67	17	844	0.079	67	0.1	0.2	5.095	A
C-A	400	100			400				
A-B	121	30			121				
A-C	409	102			409				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	46	12	400	0.116	46	0.1	0.1	11.286	B
B-A	189	47	333	0.569	187	0.7	1.3	24.802	C
C-AB	99	25	892	0.111	98	0.2	0.3	4.931	A
C-A	473	118			473				
A-B	149	37			149				
A-C	501	125			501				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	46	12	397	0.117	46	0.1	0.1	11.398	B
B-A	189	47	333	0.569	189	1.3	1.3	25.523	D
C-AB	99	25	892	0.111	99	0.3	0.3	4.903	A
C-A	472	118			472				
A-B	149	37			149				
A-C	501	125			501				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	38	9	473	0.080	38	0.1	0.1	9.186	A
B-A	155	39	378	0.410	157	1.3	0.7	16.814	C
C-AB	67	17	845	0.079	68	0.3	0.2	5.026	A
C-A	399	100			399				
A-B	121	30			121				
A-C	409	102			409				

2028 Construction Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D3 - 2028 Construction Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
8	B1188 / B1202	T-Junction	Two-way	Two-way	Two-way		3.62	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.62	A

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)	Results for central hour only	Run automatically
D3	2028 Construction Year	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	775	100.000
B		ONE HOUR	✓	173	100.000
C		ONE HOUR	✓	484	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	188	587
	B	157	0	16
	C	450	34	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	9	4
	B	3	0	7
	C	2	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.05	11.53	0.1	B	16	16
B-A	0.58	29.22	1.4	D	157	157
C-AB	0.11	5.24	0.3	A	78	78
C-A					406	406
A-B					188	188
A-C					587	587

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	4	440	0.033	14	0.0	0.0	9.043	A
B-A	141	35	351	0.402	140	0.4	0.7	17.509	C
C-AB	63	16	791	0.079	63	0.1	0.2	5.242	A
C-A	372	93			372				
A-B	169	42			169				
A-C	528	132			528				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	4	356	0.050	18	0.0	0.1	11.393	B
B-A	173	43	299	0.578	170	0.7	1.3	28.199	D
C-AB	94	23	828	0.113	93	0.2	0.3	5.165	A
C-A	439	110			439				
A-B	207	52			207				
A-C	646	162			646				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	4	352	0.050	18	0.1	0.1	11.526	B
B-A	173	43	299	0.578	173	1.3	1.4	29.216	D
C-AB	94	23	829	0.113	94	0.3	0.3	5.153	A
C-A	439	110			439				
A-B	207	52			207				
A-C	646	162			646				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	4	438	0.033	14	0.1	0.0	9.106	A
B-A	141	35	351	0.402	144	1.4	0.7	18.110	C
C-AB	63	16	791	0.080	63	0.3	0.2	5.215	A
C-A	372	93			372				
A-B	169	42			169				
A-C	528	132			528				

2028 Construction Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D4 - 2028 Construction Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
8	B1188 / B1202	T-Junction	Two-way	Two-way	Two-way		4.44	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.44	A

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)	Results for central hour only	Run automatically
D4	2028 Construction Year	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	612	100.000
B		ONE HOUR	✓	221	100.000
C		ONE HOUR	✓	539	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	140	472
	B	178	0	43
	C	501	38	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	2	1
	B	2	0	11
	C	1	20	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.13	12.21	0.2	B	43	43
B-A	0.61	28.66	1.5	D	178	178
C-AB	0.12	5.07	0.3	A	91	91
C-A					448	448
A-B					140	140
A-C					472	472

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	39	10	466	0.083	39	0.1	0.1	9.355	A
B-A	160	40	370	0.432	159	0.5	0.8	17.315	C
C-AB	73	18	852	0.085	73	0.1	0.2	5.069	A
C-A	412	103			412				
A-B	126	31			126				
A-C	424	106			424				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	47	12	379	0.125	47	0.1	0.2	12.033	B
B-A	196	49	323	0.606	193	0.8	1.5	27.595	D
C-AB	108	27	902	0.120	108	0.2	0.3	4.917	A
C-A	485	121			485				
A-B	154	39			154				
A-C	520	130			520				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	47	12	375	0.126	47	0.2	0.2	12.210	B
B-A	196	49	323	0.606	196	1.5	1.5	28.664	D
C-AB	109	27	902	0.120	109	0.3	0.3	4.889	A
C-A	485	121			485				
A-B	154	39			154				
A-C	520	130			520				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	39	10	462	0.084	39	0.2	0.1	9.444	A
B-A	160	40	370	0.433	163	1.5	0.8	17.964	C
C-AB	73	18	852	0.086	74	0.3	0.2	5.005	A
C-A	412	103			412				
A-B	126	31			126				
A-C	424	106			424				

2028 Construction Year + CD, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D5 - 2028 Construction Year + CD, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
8	B1188 / B1202	T-Junction	Two-way	Two-way	Two-way		3.62	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.62	A

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)	Results for central hour only	Run automatically
D5	2028 Construction Year + CD	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	775	100.000
B		ONE HOUR	✓	173	100.000
C		ONE HOUR	✓	484	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	188	587
	B	157	0	16
	C	450	34	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	9	4
	B	3	0	7
	C	2	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.05	11.53	0.1	B	16	16
B-A	0.58	29.22	1.4	D	157	157
C-AB	0.11	5.24	0.3	A	78	78
C-A					406	406
A-B					188	188
A-C					587	587

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	4	440	0.033	14	0.0	0.0	9.043	A
B-A	141	35	351	0.402	140	0.4	0.7	17.509	C
C-AB	63	16	791	0.079	63	0.1	0.2	5.242	A
C-A	372	93			372				
A-B	169	42			169				
A-C	528	132			528				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	4	356	0.050	18	0.0	0.1	11.393	B
B-A	173	43	299	0.578	170	0.7	1.3	28.199	D
C-AB	94	23	828	0.113	93	0.2	0.3	5.165	A
C-A	439	110			439				
A-B	207	52			207				
A-C	646	162			646				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	4	352	0.050	18	0.1	0.1	11.526	B
B-A	173	43	299	0.578	173	1.3	1.4	29.216	D
C-AB	94	23	829	0.113	94	0.3	0.3	5.153	A
C-A	439	110			439				
A-B	207	52			207				
A-C	646	162			646				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	4	438	0.033	14	0.1	0.0	9.106	A
B-A	141	35	351	0.402	144	1.4	0.7	18.110	C
C-AB	63	16	791	0.080	63	0.3	0.2	5.215	A
C-A	372	93			372				
A-B	169	42			169				
A-C	528	132			528				

2028 Construction Year + CD, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D6 - 2028 Construction Year + CD, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
8	B1188 / B1202	T-Junction	Two-way	Two-way	Two-way		4.44	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.44	A

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)	Results for central hour only	Run automatically
D6	2028 Construction Year + CD	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	612	100.000
B		ONE HOUR	✓	221	100.000
C		ONE HOUR	✓	539	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	140	472
	B	178	0	43
	C	501	38	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	2	1
	B	2	0	11
	C	1	20	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.13	12.21	0.2	B	43	43
B-A	0.61	28.66	1.5	D	178	178
C-AB	0.12	5.07	0.3	A	91	91
C-A					448	448
A-B					140	140
A-C					472	472

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	39	10	466	0.083	39	0.1	0.1	9.355	A
B-A	160	40	370	0.432	159	0.5	0.8	17.315	C
C-AB	73	18	852	0.085	73	0.1	0.2	5.069	A
C-A	412	103			412				
A-B	126	31			126				
A-C	424	106			424				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	47	12	379	0.125	47	0.1	0.2	12.033	B
B-A	196	49	323	0.606	193	0.8	1.5	27.595	D
C-AB	108	27	902	0.120	108	0.2	0.3	4.917	A
C-A	485	121			485				
A-B	154	39			154				
A-C	520	130			520				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	47	12	375	0.126	47	0.2	0.2	12.210	B
B-A	196	49	323	0.606	196	1.5	1.5	28.664	D
C-AB	109	27	902	0.120	109	0.3	0.3	4.889	A
C-A	485	121			485				
A-B	154	39			154				
A-C	520	130			520				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	39	10	462	0.084	39	0.2	0.1	9.444	A
B-A	160	40	370	0.433	163	1.5	0.8	17.964	C
C-AB	73	18	852	0.086	74	0.3	0.2	5.005	A
C-A	412	103			412				
A-B	126	31			126				
A-C	424	106			424				

2028 Construction Year + CD + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D7 - 2028 Construction Year + CD + Development, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
8	B1188 / B1202	T-Junction	Two-way	Two-way	Two-way		4.30	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.30	A

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)	Results for central hour only	Run automatically
D7	2028 Construction Year + CD + Development	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	776	100.000
B		ONE HOUR	✓	182	100.000
C		ONE HOUR	✓	534	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	189	587
	B	166	0	16
	C	496	38	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	9	4
	B	3	0	7
	C	2	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.05	12.59	0.1	B	16	16
B-A	0.63	34.54	1.7	D	166	166
C-AB	0.13	5.11	0.3	A	95	95
C-A					439	439
A-B					189	189
A-C					587	587

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	4	431	0.033	14	0.0	0.0	9.238	A
B-A	149	37	343	0.435	148	0.5	0.8	18.927	C
C-AB	75	19	821	0.092	75	0.1	0.2	5.106	A
C-A	405	101			405				
A-B	170	42			170				
A-C	528	132			528				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	4	330	0.053	18	0.0	0.1	12.337	B
B-A	183	46	289	0.632	179	0.8	1.6	32.768	D
C-AB	114	28	866	0.132	113	0.2	0.3	5.034	A
C-A	474	118			474				
A-B	208	52			208				
A-C	646	162			646				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	18	4	323	0.054	18	0.1	0.1	12.593	B
B-A	183	46	289	0.632	182	1.6	1.7	34.536	D
C-AB	114	29	866	0.132	114	0.3	0.3	5.027	A
C-A	474	118			474				
A-B	208	52			208				
A-C	646	162			646				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	4	427	0.034	14	0.1	0.0	9.332	A
B-A	149	37	343	0.435	153	1.7	0.8	19.845	C
C-AB	75	19	821	0.092	76	0.3	0.2	5.083	A
C-A	405	101			405				
A-B	170	42			170				
A-C	528	132			528				

2028 Construction Year + CD + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D8 - 2028 Construction Year + CD + Development, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
8	B1188 / B1202	T-Junction	Two-way	Two-way	Two-way		4.84	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.84	A

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)	Results for central hour only	Run automatically
D8	2028 Construction Year + CD + Development	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	667	100.000
B		ONE HOUR	✓	226	100.000
C		ONE HOUR	✓	539	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	149	518
	B	179	0	47
	C	501	38	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	2	1
	B	2	0	11
	C	1	20	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.15	13.44	0.2	B	47	47
B-A	0.64	32.57	1.7	D	179	179
C-AB	0.12	5.13	0.3	A	92	92
C-A					447	447
A-B					149	149
A-C					518	518

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	42	11	453	0.093	42	0.1	0.1	9.733	A
B-A	161	40	358	0.449	160	0.5	0.8	18.412	C
C-AB	74	18	843	0.088	73	0.1	0.2	5.132	A
C-A	411	103			411				
A-B	134	33			134				
A-C	466	116			466				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	52	13	355	0.146	51	0.1	0.2	13.158	B
B-A	197	49	309	0.638	194	0.8	1.6	30.984	D
C-AB	110	28	891	0.124	110	0.2	0.3	4.991	A
C-A	483	121			483				
A-B	164	41			164				
A-C	570	143			570				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	52	13	349	0.148	52	0.2	0.2	13.439	B
B-A	197	49	309	0.638	197	1.6	1.7	32.567	D
C-AB	111	28	891	0.124	111	0.3	0.3	4.964	A
C-A	483	121			483				
A-B	164	41			164				
A-C	570	143			570				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	42	11	448	0.094	43	0.2	0.1	9.857	A
B-A	161	40	358	0.449	164	1.7	0.9	19.271	C
C-AB	74	18	843	0.088	75	0.3	0.2	5.066	A
C-A	411	103			411				
A-B	134	33			134				
A-C	466	116			466				

Junctions 10

PICADY 10 - Priority Intersection Module

For sales and distribution information, program advice and maintenance, contact TRL Software:
+44 (0)1344 379777 software@trl.co.uk trlsoftware.com

Filename: B1188-B1191_Heath_Road.j10
Path: C:\Users\Ciaran.Conlon\Documents\Springwell\03 Junction Models
Report generation date: 11/07/2024 11:48:59

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2024 Baseline									
Stream B-C	D1	0.1	6.97	0.12	A	D2	0.2	7.15	0.20	A
Stream B-A		0.1	11.46	0.10	B		0.2	10.92	0.16	B
Stream C-AB		0.4	6.67	0.25	A		0.2	5.53	0.15	A
	2028 Construction Year									
Stream B-C	D3	0.1	7.04	0.12	A	D4	0.3	7.27	0.21	A
Stream B-A		0.1	11.68	0.11	B		0.2	11.14	0.17	B
Stream C-AB		0.5	6.77	0.26	A		0.3	5.56	0.16	A
	2028 Construction Year + CD									
Stream B-C	D5	0.1	7.04	0.12	A	D6	0.3	7.27	0.21	A
Stream B-A		0.1	11.68	0.11	B		0.2	11.14	0.17	B
Stream C-AB		0.5	6.77	0.26	A		0.3	5.56	0.16	A
	2028 Construction Year + CD + Development									
Stream B-C	D7	0.2	7.31	0.16	A	D8	0.3	7.61	0.23	A
Stream B-A		0.1	12.39	0.11	B		0.3	11.92	0.21	B
Stream C-AB		0.5	7.11	0.29	A		0.4	5.84	0.21	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.

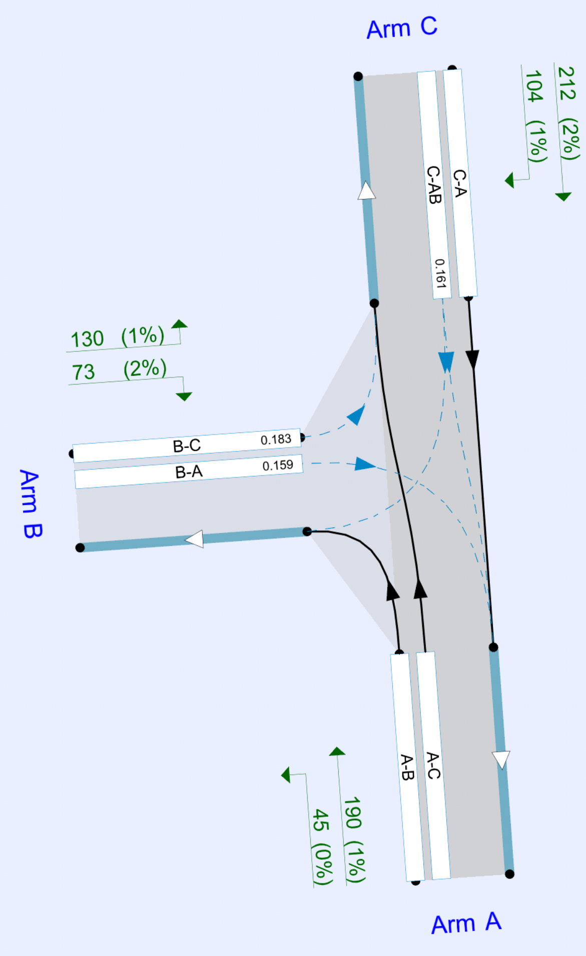
File summary

File Description

Title	B1188 / B1191 Heath Road
Location	
Site number	
Date	11/07/2024
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	CC
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



Flows show original traffic demand (PCU/hr).
Streams (downstream end) show RFC ()

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75				✓		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)	Results for central hour only	Run automatically
D1	2024 Baseline	AM	ONE HOUR	07:00	08:30	15	✓	✓
D2	2024 Baseline	PM	ONE HOUR	16:15	17:45	15	✓	✓
D3	2028 Construction Year	AM	ONE HOUR	07:00	08:30	15	✓	✓
D4	2028 Construction Year	PM	ONE HOUR	16:15	17:45	15	✓	✓
D5	2028 Construction Year + CD	AM	ONE HOUR	07:00	08:30	15	✓	✓
D6	2028 Construction Year + CD	PM	ONE HOUR	16:15	17:45	15	✓	✓
D7	2028 Construction Year + CD + Development	AM	ONE HOUR	07:00	08:30	15	✓	✓
D8	2028 Construction Year + CD + Development	PM	ONE HOUR	16:15	17:45	15	✓	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2024 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D1 - 2024 Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
6	B1188 / B1191 Heath Road	T-Junction	Two-way	Two-way	Two-way		2.64	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.64	A

Arms

Arms

Arm	Name	Description	Arm type
A	B1188 S		Major
B	B1191 Heath Road		Minor
C	B1188 N		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.77			228.0	✓	0.00

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	6.66	4.93	4.11	3.68	✓	2.00	50	32

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	509	0.090	0.226	0.142	0.323
B-C	723	0.107	0.271	-	-
C-B	706	0.264	0.264	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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)	Results for central hour only	Run automatically
D1	2024 Baseline	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	334	100.000
B		ONE HOUR	✓	100	100.000
C		ONE HOUR	✓	294	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	107	227
	B	34	0	66
	C	172	122	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	4	4
	B	6	0	7
	C	3	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.12	6.97	0.1	A	66	66
B-A	0.10	11.46	0.1	B	34	34
C-AB	0.25	6.67	0.4	A	161	161
C-A					133	133
A-B					107	107
A-C					227	227

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	15	644	0.092	59	0.1	0.1	6.587	A
B-A	31	8	396	0.077	30	0.1	0.1	10.438	B
C-AB	140	35	728	0.192	140	0.2	0.3	6.260	A
C-A	125	31			125				
A-B	96	24			96				
A-C	204	51			204				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	73	18	626	0.116	73	0.1	0.1	6.961	A
B-A	37	9	371	0.101	37	0.1	0.1	11.445	B
C-AB	182	45	734	0.248	181	0.3	0.4	6.659	A
C-A	142	36			142				
A-B	118	29			118				
A-C	250	62			250				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	73	18	626	0.116	73	0.1	0.1	6.966	A
B-A	37	9	371	0.101	37	0.1	0.1	11.455	B
C-AB	182	46	734	0.248	182	0.4	0.4	6.674	A
C-A	142	36			142				
A-B	118	29			118				
A-C	250	62			250				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	15	644	0.092	59	0.1	0.1	6.595	A
B-A	31	8	396	0.077	31	0.1	0.1	10.452	B
C-AB	140	35	728	0.193	141	0.4	0.3	6.280	A
C-A	125	31			125				
A-B	96	24			96				
A-C	204	51			204				

2024 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D2 - 2024 Baseline, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
6	B1188 / B1191 Heath Road	T-Junction	Two-way	Two-way	Two-way		3.06	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.06	A

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)	Results for central hour only	Run automatically
D2	2024 Baseline	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	226	100.000
B		ONE HOUR	✓	174	100.000
C		ONE HOUR	✓	264	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	43	183
	B	60	0	114
	C	188	76	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	1
	B	2	0	1
	C	2	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.20	7.15	0.2	A	114	114
B-A	0.16	10.92	0.2	B	60	60
C-AB	0.15	5.53	0.2	A	101	101
C-A					163	163
A-B					43	43
A-C					183	183

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	102	26	651	0.157	102	0.1	0.2	6.628	A
B-A	54	13	422	0.128	54	0.1	0.1	9.963	A
C-AB	88	22	760	0.116	88	0.1	0.2	5.420	A
C-A	149	37			149				
A-B	39	10			39				
A-C	165	41			165				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	126	31	634	0.198	125	0.2	0.2	7.145	A
B-A	66	17	402	0.164	66	0.1	0.2	10.905	B
C-AB	114	29	774	0.148	114	0.2	0.2	5.528	A
C-A	176	44			176				
A-B	47	12			47				
A-C	201	50			201				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	126	31	634	0.198	126	0.2	0.2	7.153	A
B-A	66	17	402	0.164	66	0.2	0.2	10.918	B
C-AB	115	29	774	0.148	114	0.2	0.2	5.533	A
C-A	176	44			176				
A-B	47	12			47				
A-C	201	50			201				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	102	26	651	0.158	103	0.2	0.2	6.639	A
B-A	54	13	422	0.128	54	0.2	0.2	9.980	A
C-AB	88	22	760	0.116	88	0.2	0.2	5.431	A
C-A	149	37			149				
A-B	39	10			39				
A-C	165	41			165				

2028 Construction Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D3 - 2028 Construction Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
6	B1188 / B1191 Heath Road	T-Junction	Two-way	Two-way	Two-way		2.69	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.69	A

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)	Results for central hour only	Run automatically
D3	2028 Construction Year	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	347	100.000
B		ONE HOUR	✓	103	100.000
C		ONE HOUR	✓	305	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	111	236
	B	35	0	68
	C	178	127	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	4	4
	B	6	0	7
	C	3	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.12	7.04	0.1	A	68	68
B-A	0.11	11.68	0.1	B	35	35
C-AB	0.26	6.77	0.5	A	169	169
C-A					136	136
A-B					111	111
A-C					236	236

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	61	15	641	0.095	61	0.1	0.1	6.641	A
B-A	31	8	392	0.080	31	0.1	0.1	10.588	B
C-AB	147	37	728	0.201	146	0.2	0.3	6.324	A
C-A	128	32			128				
A-B	100	25			100				
A-C	212	53			212				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	75	19	622	0.120	75	0.1	0.1	7.037	A
B-A	39	10	365	0.105	38	0.1	0.1	11.663	B
C-AB	191	48	735	0.260	190	0.3	0.5	6.759	A
C-A	145	36			145				
A-B	122	31			122				
A-C	260	65			260				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	75	19	622	0.120	75	0.1	0.1	7.041	A
B-A	39	10	365	0.105	39	0.1	0.1	11.678	B
C-AB	191	48	735	0.260	191	0.5	0.5	6.775	A
C-A	145	36			145				
A-B	122	31			122				
A-C	260	65			260				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	61	15	641	0.095	61	0.1	0.1	6.647	A
B-A	31	8	392	0.080	32	0.1	0.1	10.606	B
C-AB	147	37	728	0.201	147	0.5	0.3	6.346	A
C-A	127	32			127				
A-B	100	25			100				
A-C	212	53			212				

2028 Construction Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D4 - 2028 Construction Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
6	B1188 / B1191 Heath Road	T-Junction	Two-way	Two-way	Two-way		3.10	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.10	A

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)	Results for central hour only	Run automatically
D4	2028 Construction Year	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	235	100.000
B		ONE HOUR	✓	180	100.000
C		ONE HOUR	✓	275	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	45	190
	B	62	0	118
	C	196	79	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	1
	B	2	0	1
	C	2	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.21	7.27	0.3	A	118	118
B-A	0.17	11.14	0.2	B	62	62
C-AB	0.16	5.56	0.3	A	107	107
C-A					168	168
A-B					45	45
A-C					190	190

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	106	27	648	0.164	106	0.2	0.2	6.704	A
B-A	56	14	419	0.133	56	0.1	0.2	10.111	B
C-AB	92	23	763	0.121	92	0.1	0.2	5.435	A
C-A	155	39			155				
A-B	40	10			40				
A-C	171	43			171				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	130	32	630	0.206	130	0.2	0.3	7.257	A
B-A	68	17	398	0.172	68	0.2	0.2	11.124	B
C-AB	121	30	777	0.155	120	0.2	0.2	5.552	A
C-A	182	46			182				
A-B	50	12			50				
A-C	209	52			209				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	130	32	630	0.206	130	0.3	0.3	7.265	A
B-A	68	17	398	0.172	68	0.2	0.2	11.138	B
C-AB	121	30	777	0.155	121	0.2	0.3	5.557	A
C-A	182	46			182				
A-B	50	12			50				
A-C	209	52			209				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	106	27	648	0.164	106	0.3	0.2	6.719	A
B-A	56	14	419	0.133	56	0.2	0.2	10.131	B
C-AB	93	23	763	0.121	93	0.3	0.2	5.444	A
C-A	155	39			155				
A-B	40	10			40				
A-C	171	43			171				

2028 Construction Year + CD, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D5 - 2028 Construction Year + CD, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
6	B1188 / B1191 Heath Road	T-Junction	Two-way	Two-way	Two-way		2.69	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.69	A

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)	Results for central hour only	Run automatically
D5	2028 Construction Year + CD	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	347	100.000
B		ONE HOUR	✓	103	100.000
C		ONE HOUR	✓	305	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	111	236
	B	35	0	68
	C	178	127	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	4	4
	B	6	0	7
	C	3	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.12	7.04	0.1	A	68	68
B-A	0.11	11.68	0.1	B	35	35
C-AB	0.26	6.77	0.5	A	169	169
C-A					136	136
A-B					111	111
A-C					236	236

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	61	15	641	0.095	61	0.1	0.1	6.641	A
B-A	31	8	392	0.080	31	0.1	0.1	10.588	B
C-AB	147	37	728	0.201	146	0.2	0.3	6.324	A
C-A	128	32			128				
A-B	100	25			100				
A-C	212	53			212				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	75	19	622	0.120	75	0.1	0.1	7.037	A
B-A	39	10	365	0.105	38	0.1	0.1	11.663	B
C-AB	191	48	735	0.260	190	0.3	0.5	6.759	A
C-A	145	36			145				
A-B	122	31			122				
A-C	260	65			260				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	75	19	622	0.120	75	0.1	0.1	7.041	A
B-A	39	10	365	0.105	39	0.1	0.1	11.678	B
C-AB	191	48	735	0.260	191	0.5	0.5	6.775	A
C-A	145	36			145				
A-B	122	31			122				
A-C	260	65			260				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	61	15	641	0.095	61	0.1	0.1	6.647	A
B-A	31	8	392	0.080	32	0.1	0.1	10.606	B
C-AB	147	37	728	0.201	147	0.5	0.3	6.346	A
C-A	127	32			127				
A-B	100	25			100				
A-C	212	53			212				

2028 Construction Year + CD, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D6 - 2028 Construction Year + CD, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
6	B1188 / B1191 Heath Road	T-Junction	Two-way	Two-way	Two-way		3.10	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.10	A

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)	Results for central hour only	Run automatically
D6	2028 Construction Year + CD	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	235	100.000
B		ONE HOUR	✓	180	100.000
C		ONE HOUR	✓	275	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	45	190
	B	62	0	118
	C	196	79	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	1
	B	2	0	1
	C	2	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.21	7.27	0.3	A	118	118
B-A	0.17	11.14	0.2	B	62	62
C-AB	0.16	5.56	0.3	A	107	107
C-A					168	168
A-B					45	45
A-C					190	190

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	106	27	648	0.164	106	0.2	0.2	6.704	A
B-A	56	14	419	0.133	56	0.1	0.2	10.111	B
C-AB	92	23	763	0.121	92	0.1	0.2	5.435	A
C-A	155	39			155				
A-B	40	10			40				
A-C	171	43			171				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	130	32	630	0.206	130	0.2	0.3	7.257	A
B-A	68	17	398	0.172	68	0.2	0.2	11.124	B
C-AB	121	30	777	0.155	120	0.2	0.2	5.552	A
C-A	182	46			182				
A-B	50	12			50				
A-C	209	52			209				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	130	32	630	0.206	130	0.3	0.3	7.265	A
B-A	68	17	398	0.172	68	0.2	0.2	11.138	B
C-AB	121	30	777	0.155	121	0.2	0.3	5.557	A
C-A	182	46			182				
A-B	50	12			50				
A-C	209	52			209				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	106	27	648	0.164	106	0.3	0.2	6.719	A
B-A	56	14	419	0.133	56	0.2	0.2	10.131	B
C-AB	93	23	763	0.121	93	0.3	0.2	5.444	A
C-A	155	39			155				
A-B	40	10			40				
A-C	171	43			171				

2028 Construction Year + CD + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D7 - 2028 Construction Year + CD + Development, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
6	B1188 / B1191 Heath Road	T-Junction	Two-way	Two-way	Two-way		2.97	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.97	A

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)	Results for central hour only	Run automatically
D7	2028 Construction Year + CD + Development	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	374	100.000
B		ONE HOUR	✓	128	100.000
C		ONE HOUR	✓	317	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	122	252
	B	35	0	93
	C	178	139	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	4	4
	B	6	0	7
	C	3	2	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.16	7.31	0.2	A	93	93
B-A	0.11	12.39	0.1	B	35	35
C-AB	0.29	7.11	0.5	A	185	185
C-A					132	132
A-B					122	122
A-C					252	252

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	84	21	650	0.129	83	0.1	0.2	6.795	A
B-A	31	8	374	0.084	31	0.1	0.1	11.132	B
C-AB	161	40	722	0.223	160	0.3	0.4	6.550	A
C-A	124	31			124				
A-B	110	27			110				
A-C	227	57			227				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	102	26	629	0.163	102	0.2	0.2	7.310	A
B-A	39	10	347	0.111	38	0.1	0.1	12.374	B
C-AB	210	52	728	0.288	209	0.4	0.5	7.092	A
C-A	139	35			139				
A-B	134	34			134				
A-C	277	69			277				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	102	26	629	0.163	102	0.2	0.2	7.313	A
B-A	39	10	347	0.111	39	0.1	0.1	12.388	B
C-AB	210	52	728	0.288	210	0.5	0.5	7.113	A
C-A	139	35			139				
A-B	134	34			134				
A-C	277	69			277				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	84	21	650	0.129	84	0.2	0.2	6.806	A
B-A	31	8	374	0.084	32	0.1	0.1	11.151	B
C-AB	161	40	723	0.223	162	0.5	0.4	6.576	A
C-A	124	31			124				
A-B	110	27			110				
A-C	227	57			227				

2028 Construction Year + CD + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D8 - 2028 Construction Year + CD + Development, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
6	B1188 / B1191 Heath Road	T-Junction	Two-way	Two-way	Two-way		3.58	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.58	A

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)	Results for central hour only	Run automatically
D8	2028 Construction Year + CD + Development	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	235	100.000
B		ONE HOUR	✓	203	100.000
C		ONE HOUR	✓	316	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	45	190
	B	73	0	130
	C	212	104	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	1
	B	2	0	1
	C	2	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.23	7.61	0.3	A	130	130
B-A	0.21	11.92	0.3	B	73	73
C-AB	0.21	5.84	0.4	A	144	144
C-A					172	172
A-B					45	45
A-C					190	190

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	117	29	640	0.183	117	0.2	0.2	6.945	A
B-A	66	16	412	0.159	65	0.1	0.2	10.604	B
C-AB	124	31	772	0.161	124	0.2	0.2	5.626	A
C-A	160	40			160				
A-B	40	10			40				
A-C	171	43			171				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	143	36	621	0.231	143	0.2	0.3	7.602	A
B-A	80	20	388	0.207	80	0.2	0.3	11.898	B
C-AB	163	41	788	0.207	163	0.2	0.3	5.827	A
C-A	185	46			185				
A-B	50	12			50				
A-C	209	52			209				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	143	36	621	0.231	143	0.3	0.3	7.614	A
B-A	80	20	388	0.207	80	0.3	0.3	11.922	B
C-AB	163	41	789	0.207	163	0.3	0.4	5.835	A
C-A	185	46			185				
A-B	50	12			50				
A-C	209	52			209				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	117	29	640	0.183	117	0.3	0.2	6.960	A
B-A	66	16	411	0.159	66	0.3	0.2	10.635	B
C-AB	124	31	772	0.161	125	0.4	0.3	5.641	A
C-A	160	40			160				
A-B	40	10			40				
A-C	171	43			171				

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: B1188-B1191_Main_St.j10
Path: C:\Users\Ciaran.Conlon\Documents\Springwell\03 Junction Models
Report generation date: 11/07/2024 11:55:18

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2024 Baseline									
Stream B-C	D1	0.1	8.33	0.05	A	D2	0.1	7.62	0.05	A
Stream B-A		0.6	12.96	0.38	B		0.2	10.00	0.20	B
Stream C-AB		0.1	5.07	0.04	A		0.1	5.05	0.04	A
	2028 Construction Year									
Stream B-C	D3	0.1	8.49	0.06	A	D4	0.1	7.70	0.05	A
Stream B-A		0.7	13.40	0.40	B		0.3	10.22	0.21	B
Stream C-AB		0.1	5.05	0.04	A		0.1	5.05	0.05	A
	2028 Construction Year + CD									
Stream B-C	D5	0.1	8.49	0.06	A	D6	0.1	7.70	0.05	A
Stream B-A		0.7	13.40	0.40	B		0.3	10.22	0.21	B
Stream C-AB		0.1	5.05	0.04	A		0.1	5.05	0.05	A
	2028 Construction Year + CD + Development									
Stream B-C	D7	0.1	8.88	0.06	A	D8	0.1	7.76	0.05	A
Stream B-A		0.8	14.66	0.45	B		0.3	10.33	0.21	B
Stream C-AB		0.1	5.03	0.04	A		0.1	5.10	0.05	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.

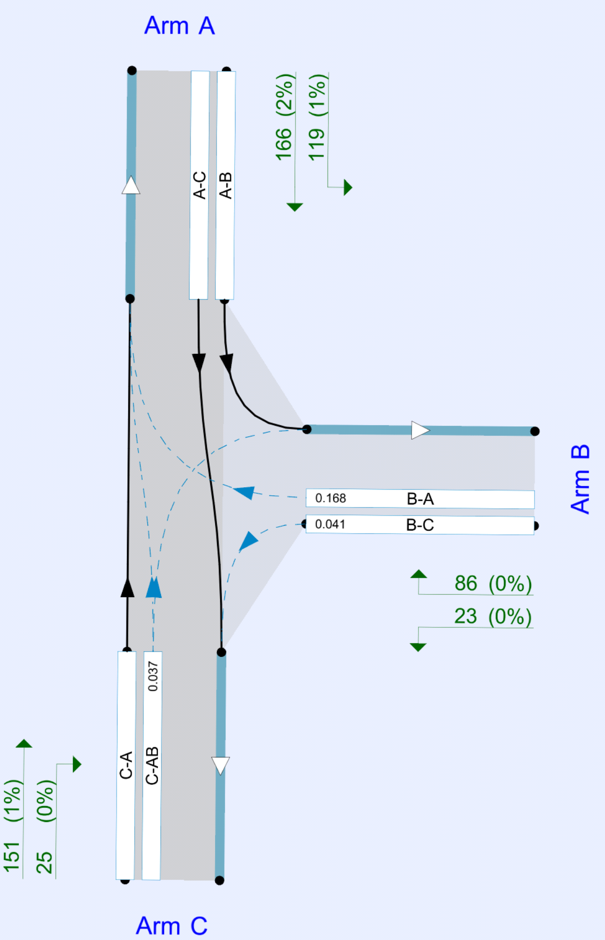
File summary

File Description

Title	B1188 / B1191 Main Street
Location	
Site number	
Date	11/07/2024
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	CC
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



Flows show original traffic demand (PCU/hr).
Streams (downstream end) show RFC ()

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75				✓		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)	Results for central hour only	Run automatically
D1	2024 Baseline	AM	ONE HOUR	07:00	08:30	15	✓	✓
D2	2024 Baseline	PM	ONE HOUR	16:15	17:45	15	✓	✓
D3	2028 Construction Year	AM	ONE HOUR	07:00	08:30	15	✓	✓
D4	2028 Construction Year	PM	ONE HOUR	16:15	17:45	15	✓	✓
D5	2028 Construction Year + CD	AM	ONE HOUR	07:00	08:30	15	✓	✓
D6	2028 Construction Year + CD	PM	ONE HOUR	16:15	17:45	15	✓	✓
D7	2028 Construction Year + CD + Development	AM	ONE HOUR	07:00	08:30	15	✓	✓
D8	2028 Construction Year + CD + Development	PM	ONE HOUR	16:15	17:45	15	✓	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2024 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D1 - 2024 Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
7	B1188 / B1191 Main Street	T-Junction	Two-way	Two-way	Two-way		4.02	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.02	A

Arms

Arms

Arm	Name	Description	Arm type
A	B1188 N		Major
B	B1191 Main Street		Minor
C	B1188 S		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.22			250.0	✓	0.00

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	7.00	3.20	3.02	3.02	3.02	✓	1.00	69	17

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	531	0.092	0.232	0.146	0.331
B-C	571	0.083	0.210	-	-
C-B	719	0.264	0.264	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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)	Results for central hour only	Run automatically
D1	2024 Baseline	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	205	100.000
B		ONE HOUR	✓	178	100.000
C		ONE HOUR	✓	198	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	62	143
	B	156	0	22
	C	178	20	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	3	4
	B	1	0	0
	C	6	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.05	8.33	0.1	A	22	22
B-A	0.38	12.96	0.6	B	156	156
C-AB	0.04	5.07	0.1	A	26	26
C-A					172	172
A-B					62	62
A-C					143	143

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	5	486	0.041	20	0.0	0.0	7.721	A
B-A	140	35	467	0.300	140	0.3	0.4	11.105	B
C-AB	23	6	771	0.029	23	0.0	0.0	5.063	A
C-A	155	39			155				
A-B	56	14			56				
A-C	129	32			129				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	24	6	457	0.053	24	0.0	0.1	8.321	A
B-A	172	43	452	0.380	171	0.4	0.6	12.900	B
C-AB	29	7	783	0.038	29	0.0	0.1	5.023	A
C-A	189	47			189				
A-B	68	17			68				
A-C	157	39			157				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	24	6	456	0.053	24	0.1	0.1	8.332	A
B-A	172	43	452	0.380	172	0.6	0.6	12.964	B
C-AB	29	7	783	0.038	29	0.1	0.1	5.025	A
C-A	189	47			189				
A-B	68	17			68				
A-C	157	39			157				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	5	485	0.041	20	0.1	0.0	7.734	A
B-A	140	35	467	0.300	141	0.6	0.4	11.184	B
C-AB	23	6	771	0.030	23	0.1	0.0	5.066	A
C-A	155	39			155				
A-B	56	14			56				
A-C	129	32			129				

2024 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D2 - 2024 Baseline, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
7	B1188 / B1191 Main Street	T-Junction	Two-way	Two-way	Two-way		2.18	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.18	A

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)	Results for central hour only	Run automatically
D2	2024 Baseline	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	249	100.000
B		ONE HOUR	✓	104	100.000
C		ONE HOUR	✓	169	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	96	153
	B	82	0	22
	C	145	24	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	1	2
	B	0	0	0
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.05	7.62	0.1	A	22	22
B-A	0.20	10.00	0.2	B	82	82
C-AB	0.04	5.05	0.1	A	30	30
C-A					139	139
A-B					96	96
A-C					153	153

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	5	512	0.039	20	0.0	0.0	7.314	A
B-A	74	18	465	0.158	74	0.1	0.2	9.189	A
C-AB	26	7	742	0.035	26	0.0	0.0	5.036	A
C-A	126	31			126				
A-B	86	22			86				
A-C	138	34			138				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	24	6	497	0.049	24	0.0	0.1	7.617	A
B-A	90	23	450	0.201	90	0.2	0.2	9.987	A
C-AB	34	8	749	0.045	34	0.0	0.1	5.043	A
C-A	152	38			152				
A-B	106	26			106				
A-C	168	42			168				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	24	6	497	0.049	24	0.1	0.1	7.619	A
B-A	90	23	450	0.201	90	0.2	0.2	10.001	B
C-AB	34	8	749	0.045	34	0.1	0.1	5.047	A
C-A	152	38			152				
A-B	106	26			106				
A-C	168	42			168				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	5	512	0.039	20	0.1	0.0	7.320	A
B-A	74	18	465	0.159	74	0.2	0.2	9.210	A
C-AB	26	7	742	0.035	26	0.1	0.0	5.040	A
C-A	126	31			126				
A-B	86	22			86				
A-C	138	34			138				

2028 Construction Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D3 - 2028 Construction Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
7	B1188 / B1191 Main Street	T-Junction	Two-way	Two-way	Two-way		4.15	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.15	A

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)	Results for central hour only	Run automatically
D3	2028 Construction Year	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	212	100.000
B		ONE HOUR	✓	185	100.000
C		ONE HOUR	✓	205	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	64	148
	B	162	0	23
	C	185	20	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	3	4
	B	1	0	0
	C	6	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.06	8.49	0.1	A	23	23
B-A	0.40	13.40	0.7	B	162	162
C-AB	0.04	5.05	0.1	A	26	26
C-A					179	179
A-B					64	64
A-C					148	148

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	5	482	0.043	21	0.0	0.0	7.810	A
B-A	146	36	465	0.313	145	0.3	0.5	11.366	B
C-AB	23	6	773	0.030	23	0.0	0.0	5.048	A
C-A	161	40			161				
A-B	58	14			58				
A-C	133	33			133				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	6	450	0.056	25	0.0	0.1	8.474	A
B-A	178	45	450	0.397	178	0.5	0.6	13.330	B
C-AB	30	7	787	0.038	30	0.0	0.1	5.005	A
C-A	196	49			196				
A-B	70	18			70				
A-C	163	41			163				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	6	449	0.056	25	0.1	0.1	8.488	A
B-A	178	45	449	0.397	178	0.6	0.7	13.405	B
C-AB	30	7	787	0.038	30	0.1	0.1	5.009	A
C-A	196	49			196				
A-B	70	18			70				
A-C	163	41			163				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	5	481	0.043	21	0.1	0.0	7.825	A
B-A	146	36	465	0.313	146	0.7	0.5	11.452	B
C-AB	23	6	773	0.030	23	0.1	0.0	5.051	A
C-A	161	40			161				
A-B	58	14			58				
A-C	133	33			133				

2028 Construction Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D4 - 2028 Construction Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
7	B1188 / B1191 Main Street	T-Junction	Two-way	Two-way	Two-way		2.24	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.24	A

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)	Results for central hour only	Run automatically
D4	2028 Construction Year	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	258	100.000
B		ONE HOUR	✓	109	100.000
C		ONE HOUR	✓	176	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	99	159
	B	86	0	23
	C	151	25	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	1	2
	B	0	0	0
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.05	7.70	0.1	A	23	23
B-A	0.21	10.22	0.3	B	86	86
C-AB	0.05	5.05	0.1	A	31	31
C-A					145	145
A-B					99	99
A-C					159	159

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	5	509	0.041	21	0.0	0.0	7.369	A
B-A	77	19	463	0.167	77	0.2	0.2	9.337	A
C-AB	28	7	744	0.037	27	0.0	0.1	5.036	A
C-A	131	33			131				
A-B	89	22			89				
A-C	143	36			143				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	6	493	0.051	25	0.0	0.1	7.694	A
B-A	95	24	447	0.212	94	0.2	0.3	10.209	B
C-AB	35	9	751	0.047	35	0.1	0.1	5.043	A
C-A	158	40			158				
A-B	109	27			109				
A-C	175	44			175				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	6	493	0.051	25	0.1	0.1	7.698	A
B-A	95	24	447	0.212	95	0.3	0.3	10.217	B
C-AB	35	9	751	0.047	35	0.1	0.1	5.046	A
C-A	158	40			158				
A-B	109	27			109				
A-C	175	44			175				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	5	509	0.041	21	0.1	0.0	7.375	A
B-A	77	19	463	0.167	78	0.3	0.2	9.360	A
C-AB	28	7	744	0.037	28	0.1	0.1	5.039	A
C-A	131	33			131				
A-B	89	22			89				
A-C	143	36			143				

2028 Construction Year + CD, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D5 - 2028 Construction Year + CD, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
7	B1188 / B1191 Main Street	T-Junction	Two-way	Two-way	Two-way		4.15	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.15	A

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)	Results for central hour only	Run automatically
D5	2028 Construction Year + CD	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	212	100.000
B		ONE HOUR	✓	185	100.000
C		ONE HOUR	✓	205	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	64	148
	B	162	0	23
	C	185	20	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	3	4
	B	1	0	0
	C	6	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.06	8.49	0.1	A	23	23
B-A	0.40	13.40	0.7	B	162	162
C-AB	0.04	5.05	0.1	A	26	26
C-A					179	179
A-B					64	64
A-C					148	148

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	5	482	0.043	21	0.0	0.0	7.810	A
B-A	146	36	465	0.313	145	0.3	0.5	11.366	B
C-AB	23	6	773	0.030	23	0.0	0.0	5.048	A
C-A	161	40			161				
A-B	58	14			58				
A-C	133	33			133				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	6	450	0.056	25	0.0	0.1	8.474	A
B-A	178	45	450	0.397	178	0.5	0.6	13.330	B
C-AB	30	7	787	0.038	30	0.0	0.1	5.005	A
C-A	196	49			196				
A-B	70	18			70				
A-C	163	41			163				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	6	449	0.056	25	0.1	0.1	8.488	A
B-A	178	45	449	0.397	178	0.6	0.7	13.405	B
C-AB	30	7	787	0.038	30	0.1	0.1	5.009	A
C-A	196	49			196				
A-B	70	18			70				
A-C	163	41			163				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	5	481	0.043	21	0.1	0.0	7.825	A
B-A	146	36	465	0.313	146	0.7	0.5	11.452	B
C-AB	23	6	773	0.030	23	0.1	0.0	5.051	A
C-A	161	40			161				
A-B	58	14			58				
A-C	133	33			133				

2028 Construction Year + CD, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D6 - 2028 Construction Year + CD, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
7	B1188 / B1191 Main Street	T-Junction	Two-way	Two-way	Two-way		2.24	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.24	A

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)	Results for central hour only	Run automatically
D6	2028 Construction Year + CD	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	258	100.000
B		ONE HOUR	✓	109	100.000
C		ONE HOUR	✓	176	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	99	159
	B	86	0	23
	C	151	25	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	1	2
	B	0	0	0
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.05	7.70	0.1	A	23	23
B-A	0.21	10.22	0.3	B	86	86
C-AB	0.05	5.05	0.1	A	31	31
C-A					145	145
A-B					99	99
A-C					159	159

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	5	509	0.041	21	0.0	0.0	7.369	A
B-A	77	19	463	0.167	77	0.2	0.2	9.337	A
C-AB	28	7	744	0.037	27	0.0	0.1	5.036	A
C-A	131	33			131				
A-B	89	22			89				
A-C	143	36			143				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	6	493	0.051	25	0.0	0.1	7.694	A
B-A	95	24	447	0.212	94	0.2	0.3	10.209	B
C-AB	35	9	751	0.047	35	0.1	0.1	5.043	A
C-A	158	40			158				
A-B	109	27			109				
A-C	175	44			175				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	6	493	0.051	25	0.1	0.1	7.698	A
B-A	95	24	447	0.212	95	0.3	0.3	10.217	B
C-AB	35	9	751	0.047	35	0.1	0.1	5.046	A
C-A	158	40			158				
A-B	109	27			109				
A-C	175	44			175				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	5	509	0.041	21	0.1	0.0	7.375	A
B-A	77	19	463	0.167	78	0.3	0.2	9.360	A
C-AB	28	7	744	0.037	28	0.1	0.1	5.039	A
C-A	131	33			131				
A-B	89	22			89				
A-C	143	36			143				

2028 Construction Year + CD + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D7 - 2028 Construction Year + CD + Development, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
7	B1188 / B1191 Main Street	T-Junction	Two-way	Two-way	Two-way		4.78	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.78	A

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)	Results for central hour only	Run automatically
D7	2028 Construction Year + CD + Development	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	212	100.000
B		ONE HOUR	✓	205	100.000
C		ONE HOUR	✓	212	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	64	148
	B	182	0	23
	C	192	20	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	3	4
	B	1	0	0
	C	6	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.06	8.88	0.1	A	23	23
B-A	0.45	14.66	0.8	B	182	182
C-AB	0.04	5.03	0.1	A	27	27
C-A					185	185
A-B					64	64
A-C					148	148

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	5	470	0.044	21	0.0	0.0	8.007	A
B-A	164	41	464	0.353	163	0.4	0.5	12.071	B
C-AB	23	6	777	0.030	23	0.0	0.0	5.023	A
C-A	167	42			167				
A-B	58	14			58				
A-C	133	33			133				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	6	432	0.059	25	0.0	0.1	8.860	A
B-A	200	50	448	0.447	199	0.5	0.8	14.545	B
C-AB	30	8	791	0.038	30	0.0	0.1	4.976	A
C-A	203	51			203				
A-B	70	18			70				
A-C	163	41			163				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	6	431	0.059	25	0.1	0.1	8.881	A
B-A	200	50	448	0.447	200	0.8	0.8	14.658	B
C-AB	30	8	791	0.038	30	0.1	0.1	4.977	A
C-A	203	51			203				
A-B	70	18			70				
A-C	163	41			163				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	5	469	0.044	21	0.1	0.0	8.029	A
B-A	164	41	464	0.353	165	0.8	0.6	12.199	B
C-AB	23	6	777	0.030	23	0.1	0.0	5.028	A
C-A	167	42			167				
A-B	58	14			58				
A-C	133	33			133				

2028 Construction Year + CD + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D8 - 2028 Construction Year + CD + Development, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
7	B1188 / B1191 Main Street	T-Junction	Two-way	Two-way	Two-way		2.15	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.15	A

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)	Results for central hour only	Run automatically
D8	2028 Construction Year + CD + Development	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	285	100.000
B		ONE HOUR	✓	109	100.000
C		ONE HOUR	✓	176	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	119	166
	B	86	0	23
	C	151	25	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	1	2
	B	0	0	0
	C	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.05	7.76	0.1	A	23	23
B-A	0.21	10.33	0.3	B	86	86
C-AB	0.05	5.10	0.1	A	32	32
C-A					144	144
A-B					119	119
A-C					166	166

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	5	506	0.041	21	0.0	0.0	7.412	A
B-A	77	19	459	0.168	77	0.2	0.2	9.413	A
C-AB	28	7	738	0.037	28	0.0	0.1	5.076	A
C-A	131	33			131				
A-B	107	27			107				
A-C	149	37			149				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	6	489	0.052	25	0.0	0.1	7.754	A
B-A	95	24	443	0.214	94	0.2	0.3	10.312	B
C-AB	36	9	744	0.048	35	0.1	0.1	5.096	A
C-A	158	40			158				
A-B	131	33			131				
A-C	183	46			183				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	25	6	489	0.052	25	0.1	0.1	7.757	A
B-A	95	24	443	0.214	95	0.3	0.3	10.329	B
C-AB	36	9	744	0.048	36	0.1	0.1	5.096	A
C-A	158	40			158				
A-B	131	33			131				
A-C	183	46			183				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	21	5	506	0.041	21	0.1	0.0	7.419	A
B-A	77	19	459	0.168	78	0.3	0.2	9.436	A
C-AB	28	7	738	0.037	28	0.1	0.1	5.080	A
C-A	131	33			131				
A-B	107	27			107				
A-C	149	37			149				

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: A15-Gorse_Hill_Lane-MITIGATION.j10
Path: C:\Users\Ciaran.Conlon\Documents\Springwell\03 Junction Models
Report generation date: 11/07/2024 11:28:22

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2024 Baseline									
Stream B-C	D1	0.0	0.00	0.00	A	D2	0.0	0.00	0.00	A
Stream B-A		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2028 Construction Year									
Stream B-C	D3	0.0	0.00	0.00	A	D4	0.0	0.00	0.00	A
Stream B-A		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2028 Construction Year + CD									
Stream B-C	D5	0.0	0.00	0.00	A	D6	0.0	0.00	0.00	A
Stream B-A		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2028 Construction Year + CD + Development									
Stream B-C	D7	0.0	8.11	0.01	A	D8	0.2	9.45	0.18	A
Stream B-A		0.0	29.26	0.04	D		0.3	25.51	0.26	D
Stream C-AB		0.2	9.43	0.18	A		0.0	7.27	0.01	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.

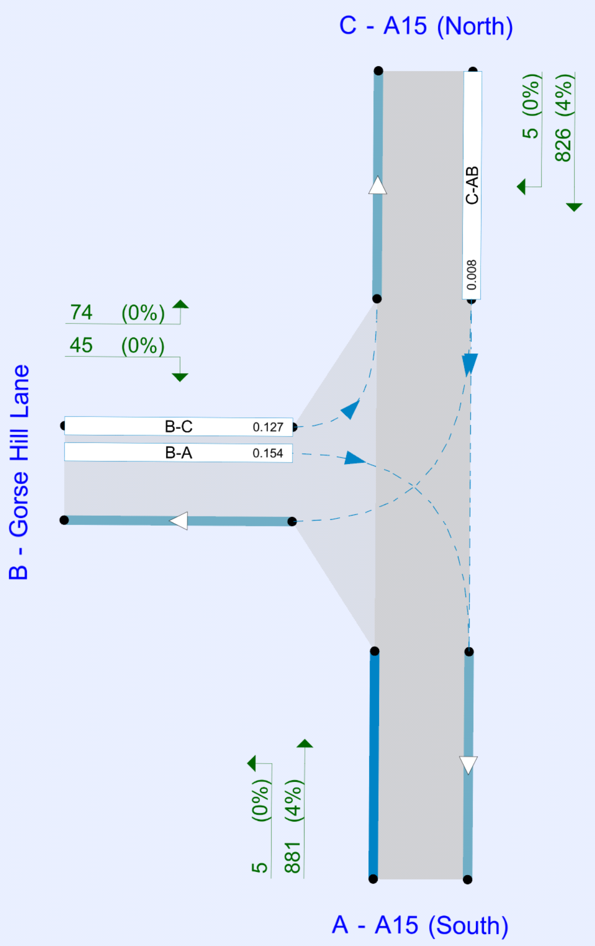
File summary

File Description

Title	A15 / Gorse Hill lnae
Location	
Site number	
Date	11/07/2024
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	CC
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



Flows show original traffic demand (PCU/hr).
Streams (downstream end) show RFC ()

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						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)	Results for central hour only	Run automatically
D1	2024 Baseline	AM	ONE HOUR	07:00	08:30	15	✓	✓
D2	2024 Baseline	PM	ONE HOUR	16:15	17:45	15	✓	✓
D3	2028 Construction Year	AM	ONE HOUR	07:00	08:30	15	✓	✓
D4	2028 Construction Year	PM	ONE HOUR	16:15	17:45	15	✓	✓
D5	2028 Construction Year + CD	AM	ONE HOUR	07:00	08:30	15	✓	✓
D6	2028 Construction Year + CD	PM	ONE HOUR	16:15	17:45	15	✓	✓
D7	2028 Construction Year + CD + Development	AM	ONE HOUR	07:00	08:30	15	✓	✓
D8	2028 Construction Year + CD + Development	PM	ONE HOUR	16:15	17:45	15	✓	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2024 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Gorse Hill Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D1 - 2024 Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	A15 / Gorse Hill Lane	T-Junction	Two-way	Two-way	Two-way		0.00	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	A

Arms

Arms

Arm	Name	Description	Arm type
A	A15 (South)		Major
B	Gorse Hill Lane		Minor
C	A15 (North)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A15 (North)	7.38		✓	2.94	250.0	✓	19.00

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Gorse Hill Lane	One lane plus flare	10.00	10.00	10.00	7.23	4.61	✓	3.00	63	72

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	597	0.102	0.259	0.163	0.370
B-C	749	0.108	0.272	-	-
C-B	777	0.283	0.283	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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)	Results for central hour only	Run automatically
D1	2024 Baseline	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A15 (South)		ONE HOUR	✓	914	100.000
B - Gorse Hill Lane		ONE HOUR	✓	0	100.000
C - A15 (North)		ONE HOUR	✓	801	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A15 (South)	B - Gorse Hill Lane	C - A15 (North)
From	A - A15 (South)	0	0	914
	B - Gorse Hill Lane	0	0	0
	C - A15 (North)	801	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A15 (South)	B - Gorse Hill Lane	C - A15 (North)
From	A - A15 (South)	0	0	3
	B - Gorse Hill Lane	0	0	0
	C - A15 (North)	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	525	0.000	0	0.0	0.0	0.000	A
B-A	0	0	267	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1121	0.000	0	0.0	0.0	0.000	A

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	475	0.000	0	0.0	0.0	0.000	A
B-A	0	0	193	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1014	0.000	0	0.0	0.0	0.000	A

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	475	0.000	0	0.0	0.0	0.000	A
B-A	0	0	193	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1014	0.000	0	0.0	0.0	0.000	A

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	525	0.000	0	0.0	0.0	0.000	A
B-A	0	0	267	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1121	0.000	0	0.0	0.0	0.000	A

2024 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Gorse Hill Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D2 - 2024 Baseline, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	A15 / Gorse Hill Lane	T-Junction	Two-way	Two-way	Two-way		0.00	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	A

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)	Results for central hour only	Run automatically
D2	2024 Baseline	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A15 (South)		ONE HOUR	✓	793	100.000
B - Gorse Hill Lane		ONE HOUR	✓	0	100.000
C - A15 (North)		ONE HOUR	✓	782	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A15 (South)	B - Gorse Hill Lane	C - A15 (North)
From	A - A15 (South)	0	0	793
	B - Gorse Hill Lane	0	0	0
	C - A15 (North)	782	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A15 (South)	B - Gorse Hill Lane	C - A15 (North)
From	A - A15 (South)	0	0	4
	B - Gorse Hill Lane	0	0	0
	C - A15 (North)	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	555	0.000	0	0.0	0.0	0.000	A
B-A	0	0	298	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1173	0.000	0	0.0	0.0	0.000	A

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	511	0.000	0	0.0	0.0	0.000	A
B-A	0	0	231	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1081	0.000	0	0.0	0.0	0.000	A

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	511	0.000	0	0.0	0.0	0.000	A
B-A	0	0	231	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1081	0.000	0	0.0	0.0	0.000	A

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	555	0.000	0	0.0	0.0	0.000	A
B-A	0	0	298	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1173	0.000	0	0.0	0.0	0.000	A

2028 Construction Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Gorse Hill Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D3 - 2028 Construction Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	A15 / Gorse Hill Lane	T-Junction	Two-way	Two-way	Two-way		0.00	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	A

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)	Results for central hour only	Run automatically
D3	2028 Construction Year	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A15 (South)		ONE HOUR	✓	948	100.000
B - Gorse Hill Lane		ONE HOUR	✓	0	100.000
C - A15 (North)		ONE HOUR	✓	830	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A15 (South)	B - Gorse Hill Lane	C - A15 (North)
From	A - A15 (South)	0	0	948
	B - Gorse Hill Lane	0	0	0
	C - A15 (North)	830	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A15 (South)	B - Gorse Hill Lane	C - A15 (North)
From	A - A15 (South)	0	0	3
	B - Gorse Hill Lane	0	0	0
	C - A15 (North)	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	517	0.000	0	0.0	0.0	0.000	A
B-A	0	0	255	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1103	0.000	0	0.0	0.0	0.000	A

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	464	0.000	0	0.0	0.0	0.000	A
B-A	0	0	178	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	992	0.000	0	0.0	0.0	0.000	A

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	464	0.000	0	0.0	0.0	0.000	A
B-A	0	0	178	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	992	0.000	0	0.0	0.0	0.000	A

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	517	0.000	0	0.0	0.0	0.000	A
B-A	0	0	255	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1103	0.000	0	0.0	0.0	0.000	A

2028 Construction Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Gorse Hill Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D4 - 2028 Construction Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	A15 / Gorse Hill Lane	T-Junction	Two-way	Two-way	Two-way		0.00	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	A

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)	Results for central hour only	Run automatically
D4	2028 Construction Year	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A15 (South)		ONE HOUR	✓	824	100.000
B - Gorse Hill Lane		ONE HOUR	✓	0	100.000
C - A15 (North)		ONE HOUR	✓	812	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A15 (South)	B - Gorse Hill Lane	C - A15 (North)
From	A - A15 (South)	0	0	824
	B - Gorse Hill Lane	0	0	0
	C - A15 (North)	812	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A15 (South)	B - Gorse Hill Lane	C - A15 (North)
From	A - A15 (South)	0	0	4
	B - Gorse Hill Lane	0	0	0
	C - A15 (North)	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	547	0.000	0	0.0	0.0	0.000	A
B-A	0	0	287	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1157	0.000	0	0.0	0.0	0.000	A

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	502	0.000	0	0.0	0.0	0.000	A
B-A	0	0	217	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1061	0.000	0	0.0	0.0	0.000	A

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	502	0.000	0	0.0	0.0	0.000	A
B-A	0	0	217	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1061	0.000	0	0.0	0.0	0.000	A

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	547	0.000	0	0.0	0.0	0.000	A
B-A	0	0	287	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1157	0.000	0	0.0	0.0	0.000	A

2028 Construction Year + CD, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Gorse Hill Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D5 - 2028 Construction Year + CD, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	A15 / Gorse Hill Lane	T-Junction	Two-way	Two-way	Two-way		0.00	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	A

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)	Results for central hour only	Run automatically
D5	2028 Construction Year + CD	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A15 (South)		ONE HOUR	✓	952	100.000
B - Gorse Hill Lane		ONE HOUR	✓	0	100.000
C - A15 (North)		ONE HOUR	✓	839	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A15 (South)	B - Gorse Hill Lane	C - A15 (North)
From	A - A15 (South)	0	0	952
	B - Gorse Hill Lane	0	0	0
	C - A15 (North)	839	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A15 (South)	B - Gorse Hill Lane	C - A15 (North)
From	A - A15 (South)	0	0	3
	B - Gorse Hill Lane	0	0	0
	C - A15 (North)	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	516	0.000	0	0.0	0.0	0.000	A
B-A	0	0	253	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1101	0.000	0	0.0	0.0	0.000	A

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	463	0.000	0	0.0	0.0	0.000	A
B-A	0	0	176	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	989	0.000	0	0.0	0.0	0.000	A

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	463	0.000	0	0.0	0.0	0.000	A
B-A	0	0	176	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	989	0.000	0	0.0	0.0	0.000	A

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	516	0.000	0	0.0	0.0	0.000	A
B-A	0	0	253	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1101	0.000	0	0.0	0.0	0.000	A

2028 Construction Year + CD, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Gorse Hill Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D6 - 2028 Construction Year + CD, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	A15 / Gorse Hill Lane	T-Junction	Two-way	Two-way	Two-way		0.00	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.00	A

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)	Results for central hour only	Run automatically
D6	2028 Construction Year + CD	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A15 (South)		ONE HOUR	✓	832	100.000
B - Gorse Hill Lane		ONE HOUR	✓	0	100.000
C - A15 (North)		ONE HOUR	✓	816	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A15 (South)	B - Gorse Hill Lane	C - A15 (North)
From	A - A15 (South)	0	0	832
	B - Gorse Hill Lane	0	0	0
	C - A15 (North)	816	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A15 (South)	B - Gorse Hill Lane	C - A15 (North)
From	A - A15 (South)	0	0	4
	B - Gorse Hill Lane	0	0	0
	C - A15 (North)	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	545	0.000	0	0.0	0.0	0.000	A
B-A	0	0	284	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1153	0.000	0	0.0	0.0	0.000	A

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	499	0.000	0	0.0	0.0	0.000	A
B-A	0	0	214	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1056	0.000	0	0.0	0.0	0.000	A

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	499	0.000	0	0.0	0.0	0.000	A
B-A	0	0	214	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1056	0.000	0	0.0	0.0	0.000	A

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	545	0.000	0	0.0	0.0	0.000	A
B-A	0	0	284	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1153	0.000	0	0.0	0.0	0.000	A

2028 Construction Year + CD + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Gorse Hill Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D7 - 2028 Construction Year + CD + Development, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	A15 / Gorse Hill Lane	T-Junction	Two-way	Two-way	Two-way		0.45	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.45	A

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)	Results for central hour only	Run automatically
D7	2028 Construction Year + CD + Development	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A15 (South)		ONE HOUR	✓	1007	100.000
B - Gorse Hill Lane		ONE HOUR	✓	10	100.000
C - A15 (North)		ONE HOUR	✓	962	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A15 (South)	B - Gorse Hill Lane	C - A15 (North)
From	A - A15 (South)	0	45	962
	B - Gorse Hill Lane	5	0	5
	C - A15 (North)	888	74	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A15 (South)	B - Gorse Hill Lane	C - A15 (North)
From	A - A15 (South)	0	0	3
	B - Gorse Hill Lane	0	0	0
	C - A15 (North)	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.01	8.11	0.0	A	5	5
B-A	0.04	29.26	0.0	D	5	5
C-AB	0.18	9.43	0.2	A	74	74

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4	1	506	0.009	4	0.0	0.0	7.178	A
B-A	4	1	215	0.021	4	0.0	0.0	17.132	C
C-AB	67	17	521	0.128	66	0.1	0.1	7.923	A

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	1	450	0.012	5	0.0	0.0	8.103	A
B-A	6	1	129	0.043	5	0.0	0.0	29.214	D
C-AB	81	20	463	0.176	81	0.1	0.2	9.421	A

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	1	449	0.012	6	0.0	0.0	8.110	A
B-A	6	1	129	0.043	6	0.0	0.0	29.255	D
C-AB	81	20	463	0.176	81	0.2	0.2	9.434	A

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4	1	505	0.009	5	0.0	0.0	7.188	A
B-A	4	1	215	0.021	5	0.0	0.0	17.144	C
C-AB	67	17	521	0.128	67	0.2	0.1	7.938	A

2028 Construction Year + CD + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Gorse Hill Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D8 - 2028 Construction Year + CD + Development, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	A15 / Gorse Hill Lane	T-Junction	Two-way	Two-way	Two-way		1.03	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.03	A

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)	Results for central hour only	Run automatically
D8	2028 Construction Year + CD + Development	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A15 (South)		ONE HOUR	✓	886	100.000
B - Gorse Hill Lane		ONE HOUR	✓	119	100.000
C - A15 (North)		ONE HOUR	✓	831	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - A15 (South)	B - Gorse Hill Lane	C - A15 (North)
From	A - A15 (South)	0	5	881
	B - Gorse Hill Lane	45	0	74
	C - A15 (North)	826	5	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A - A15 (South)	B - Gorse Hill Lane	C - A15 (North)
From	A - A15 (South)	0	0	4
	B - Gorse Hill Lane	0	0	0
	C - A15 (North)	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.18	9.45	0.2	A	74	74
B-A	0.26	25.51	0.3	D	45	45
C-AB	0.01	7.27	0.0	A	5	5

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	67	17	525	0.127	66	0.1	0.1	7.851	A
B-A	40	10	262	0.154	40	0.1	0.2	16.192	C
C-AB	4	1	551	0.008	4	0.0	0.0	6.582	A

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	81	20	463	0.176	81	0.1	0.2	9.418	A
B-A	50	12	190	0.260	49	0.2	0.3	25.313	D
C-AB	6	1	501	0.011	5	0.0	0.0	7.268	A

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	81	20	463	0.176	81	0.2	0.2	9.446	A
B-A	50	12	191	0.260	50	0.3	0.3	25.512	D
C-AB	6	1	501	0.011	6	0.0	0.0	7.268	A

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	67	17	524	0.127	67	0.2	0.1	7.879	A
B-A	40	10	263	0.154	41	0.3	0.2	16.305	C
C-AB	4	1	551	0.008	5	0.0	0.0	6.585	A

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: A15-Navenby_Lane.j10
Path: C:\Users\Ciaran.Conlon\Documents\Springwell\03 Junction Models
Report generation date: 11/07/2024 11:20:54

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2024 Baseline										
Stream B-C	D1	0.0	11.04	0.02	B	D2	0.1	10.28	0.05	B
Stream B-A		0.3	22.19	0.23	C		0.4	22.77	0.27	C
Stream C-AB		0.1	3.60	0.07	A		0.0	3.76	0.03	A
2028 Construction Year										
Stream B-C	D3	0.0	11.39	0.02	B	D4	0.1	10.68	0.05	B
Stream B-A		0.3	24.58	0.26	C		0.4	25.16	0.30	D
Stream C-AB		0.2	3.56	0.08	A		0.0	3.71	0.03	A
2028 Construction Year + CD										
Stream B-C	D5	0.0	11.48	0.02	B	D6	0.1	10.73	0.05	B
Stream B-A		0.3	25.16	0.26	D		0.4	25.63	0.30	D
Stream C-AB		0.2	3.56	0.08	A		0.0	3.70	0.03	A
2028 Construction Year + CD + Development										
Stream B-C	D7	0.0	12.87	0.02	B	D8	0.1	11.36	0.06	B
Stream B-A		0.6	33.34	0.37	D		0.5	30.39	0.34	D
Stream C-AB		0.2	3.51	0.09	A		0.0	3.61	0.03	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.

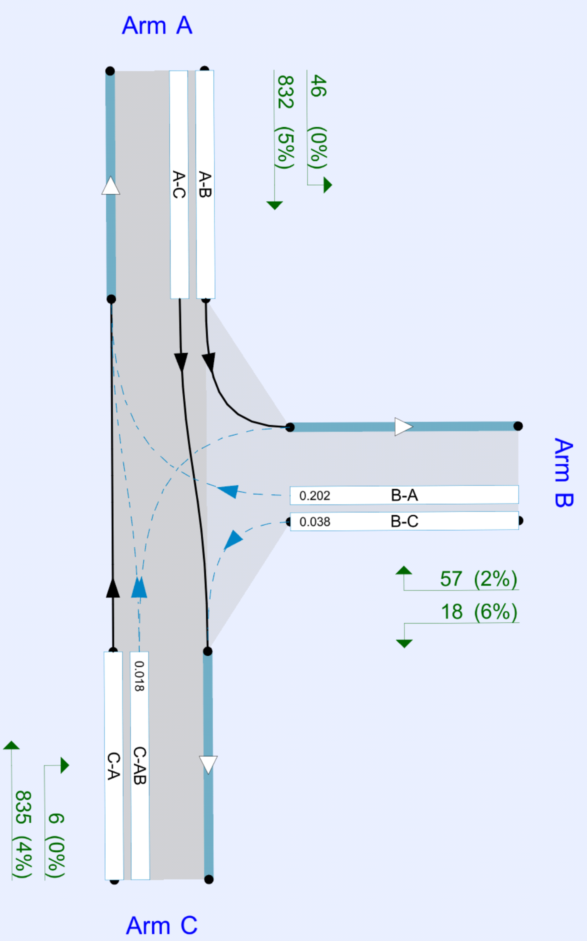
File summary

File Description

Title	A15 / Navenby Lane
Location	
Site number	
Date	11/07/2024
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	CC
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



Flows show original traffic demand (PCU/hr).
Streams (downstream end) show RFC ()

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75				✓		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)	Results for central hour only	Run automatically
D1	2024 Baseline	AM	ONE HOUR	07:00	08:30	15	✓	✓
D2	2024 Baseline	PM	ONE HOUR	16:15	17:45	15	✓	✓
D3	2028 Construction Year	AM	ONE HOUR	07:00	08:30	15	✓	✓
D4	2028 Construction Year	PM	ONE HOUR	16:15	17:45	15	✓	✓
D5	2028 Construction Year + CD	AM	ONE HOUR	07:00	08:30	15	✓	✓
D6	2028 Construction Year + CD	PM	ONE HOUR	16:15	17:45	15	✓	✓
D7	2028 Construction Year + CD + Development	AM	ONE HOUR	07:00	08:30	15	✓	✓
D8	2028 Construction Year + CD + Development	PM	ONE HOUR	16:15	17:45	15	✓	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2024 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D1 - 2024 Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	A15 / Navenby Lane	T-Junction	Two-way	Two-way	Two-way		0.75	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.75	A

Arms

Arms

Arm	Name	Description	Arm type
A	A15 N		Major
B	Navenby Lane		Minor
C	A15 S		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.87			250.0	✓	0.00

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	6.72	4.72	3.48	3.15	✓	1.00	39	43

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	571	0.100	0.253	0.159	0.361
B-C	614	0.091	0.229	-	-
C-B	719	0.268	0.268	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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)	Results for central hour only	Run automatically
D1	2024 Baseline	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	796	100.000
B		ONE HOUR	✓	50	100.000
C		ONE HOUR	✓	874	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	107	689
	B	44	0	6
	C	859	15	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	7
	B	0	0	20
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	11.04	0.0	B	6	6
B-A	0.23	22.19	0.3	C	44	44
C-AB	0.07	3.60	0.1	A	67	67
C-A					807	807
A-B					107	107
A-C					689	689

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	445	0.012	5	0.0	0.0	9.830	A
B-A	40	10	277	0.143	39	0.1	0.2	15.150	C
C-AB	48	12	1073	0.045	48	0.0	0.1	3.583	A
C-A	737	184			737				
A-B	96	24			96				
A-C	619	155			619				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	2	398	0.017	7	0.0	0.0	11.028	B
B-A	48	12	211	0.230	48	0.2	0.3	22.053	C
C-AB	85	21	1176	0.072	85	0.1	0.1	3.375	A
C-A	877	219			877				
A-B	118	29			118				
A-C	759	190			759				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	2	398	0.017	7	0.0	0.0	11.042	B
B-A	48	12	211	0.230	48	0.3	0.3	22.185	C
C-AB	85	21	1176	0.072	85	0.1	0.1	3.382	A
C-A	877	219			877				
A-B	118	29			118				
A-C	759	190			759				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	444	0.012	5	0.0	0.0	9.842	A
B-A	40	10	277	0.143	40	0.3	0.2	15.241	C
C-AB	48	12	1073	0.045	49	0.1	0.1	3.597	A
C-A	737	184			737				
A-B	96	24			96				
A-C	619	155			619				

2024 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D2 - 2024 Baseline, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	A15 / Navenby Lane	T-Junction	Two-way	Two-way	Two-way		0.94	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.94	A

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)	Results for central hour only	Run automatically
D2	2024 Baseline	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	788	100.000
B		ONE HOUR	✓	72	100.000
C		ONE HOUR	✓	750	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	32	756
	B	55	0	17
	C	744	6	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

	To			
From		A	B	C
	A	0	0	5
	B	2	0	6
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.05	10.28	0.1	B	17	17
B-A	0.27	22.77	0.4	C	55	55
C-AB	0.03	3.76	0.0	A	22	22
C-A					728	728
A-B					32	32
A-C					756	756

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15	4	442	0.035	15	0.0	0.0	8.948	A
B-A	49	12	285	0.174	49	0.1	0.2	15.568	C
C-AB	16	4	1001	0.016	16	0.0	0.0	3.745	A
C-A	658	164			658				
A-B	29	7			29				
A-C	680	170			680				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	19	5	390	0.048	19	0.0	0.1	10.264	B
B-A	61	15	222	0.273	60	0.2	0.4	22.602	C
C-AB	27	7	1084	0.025	27	0.0	0.0	3.502	A
C-A	799	200			799				
A-B	35	9			35				
A-C	832	208			832				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	19	5	390	0.048	19	0.1	0.1	10.284	B
B-A	61	15	222	0.273	61	0.4	0.4	22.771	C
C-AB	27	7	1084	0.025	27	0.0	0.0	3.506	A
C-A	799	200			799				
A-B	35	9			35				
A-C	832	208			832				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15	4	441	0.035	15	0.1	0.0	8.967	A
B-A	49	12	285	0.174	50	0.4	0.2	15.685	C
C-AB	16	4	1001	0.016	16	0.0	0.0	3.759	A
C-A	658	164			658				
A-B	29	7			29				
A-C	680	170			680				

2028 Construction Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D3 - 2028 Construction Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	A15 / Navenby Lane	T-Junction	Two-way	Two-way	Two-way		0.83	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.83	A

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)	Results for central hour only	Run automatically
D3	2028 Construction Year	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	825	100.000
B		ONE HOUR	✓	53	100.000
C		ONE HOUR	✓	907	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	111	714
	B	46	0	7
	C	891	16	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	7
	B	0	0	20
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	11.39	0.0	B	7	7
B-A	0.26	24.58	0.3	C	46	46
C-AB	0.08	3.56	0.2	A	76	76
C-A					831	831
A-B					111	111
A-C					714	714

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	2	439	0.014	6	0.0	0.0	9.994	A
B-A	41	10	266	0.156	41	0.1	0.2	16.023	C
C-AB	54	14	1090	0.050	54	0.0	0.1	3.549	A
C-A	761	190			761				
A-B	100	25			100				
A-C	642	160			642				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	388	0.020	8	0.0	0.0	11.366	B
B-A	51	13	197	0.257	50	0.2	0.3	24.383	C
C-AB	98	24	1197	0.082	98	0.1	0.2	3.350	A
C-A	901	225			901				
A-B	122	31			122				
A-C	786	197			786				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	387	0.020	8	0.0	0.0	11.387	B
B-A	51	13	197	0.257	51	0.3	0.3	24.579	C
C-AB	98	25	1198	0.082	98	0.2	0.2	3.357	A
C-A	901	225			901				
A-B	122	31			122				
A-C	786	197			786				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	2	438	0.014	6	0.0	0.0	10.010	B
B-A	41	10	265	0.156	42	0.3	0.2	16.149	C
C-AB	55	14	1090	0.050	55	0.2	0.1	3.561	A
C-A	761	190			761				
A-B	100	25			100				
A-C	642	160			642				

2028 Construction Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D4 - 2028 Construction Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	A15 / Navenby Lane	T-Junction	Two-way	Two-way	Two-way		1.02	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.02	A

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)	Results for central hour only	Run automatically
D4	2028 Construction Year	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	819	100.000
B		ONE HOUR	✓	75	100.000
C		ONE HOUR	✓	778	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	34	785
	B	57	0	18
	C	772	6	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	5
	B	2	0	6
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.05	10.68	0.1	B	18	18
B-A	0.30	25.16	0.4	D	57	57
C-AB	0.03	3.71	0.0	A	23	23
C-A					755	755
A-B					34	34
A-C					785	785

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	434	0.037	16	0.0	0.0	9.135	A
B-A	51	13	274	0.187	51	0.2	0.2	16.435	C
C-AB	17	4	1014	0.017	17	0.0	0.0	3.701	A
C-A	682	171			682				
A-B	31	8			31				
A-C	706	176			706				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	5	378	0.052	20	0.0	0.1	10.646	B
B-A	63	16	209	0.301	62	0.2	0.4	24.924	C
C-AB	29	7	1102	0.026	29	0.0	0.0	3.452	A
C-A	828	207			828				
A-B	37	9			37				
A-C	864	216			864				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	5	377	0.053	20	0.1	0.1	10.677	B
B-A	63	16	209	0.301	63	0.4	0.4	25.161	D
C-AB	29	7	1102	0.026	29	0.0	0.0	3.457	A
C-A	828	207			828				
A-B	37	9			37				
A-C	864	216			864				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	433	0.037	16	0.1	0.0	9.156	A
B-A	51	13	274	0.187	52	0.4	0.2	16.593	C
C-AB	17	4	1014	0.017	17	0.0	0.0	3.714	A
C-A	682	171			682				
A-B	31	8			31				
A-C	706	176			706				

2028 Construction Year + CD, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D5 - 2028 Construction Year + CD, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	A15 / Navenby Lane	T-Junction	Two-way	Two-way	Two-way		0.84	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.84	A

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)	Results for central hour only	Run automatically
D5	2028 Construction Year + CD	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	834	100.000
B		ONE HOUR	✓	53	100.000
C		ONE HOUR	✓	912	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	111	723
	B	46	0	7
	C	896	16	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	7
	B	0	0	20
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	11.48	0.0	B	7	7
B-A	0.26	25.16	0.3	D	46	46
C-AB	0.08	3.56	0.2	A	77	77
C-A					835	835
A-B					111	111
A-C					723	723

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	2	436	0.014	6	0.0	0.0	10.041	B
B-A	41	10	263	0.157	41	0.1	0.2	16.223	C
C-AB	55	14	1092	0.050	55	0.0	0.1	3.544	A
C-A	765	191			765				
A-B	100	25			100				
A-C	650	162			650				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	385	0.020	8	0.0	0.0	11.456	B
B-A	51	13	194	0.262	50	0.2	0.3	24.946	C
C-AB	99	25	1200	0.083	99	0.1	0.2	3.346	A
C-A	905	226			905				
A-B	122	31			122				
A-C	796	199			796				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	384	0.020	8	0.0	0.0	11.478	B
B-A	51	13	194	0.262	51	0.3	0.3	25.160	D
C-AB	100	25	1201	0.083	100	0.2	0.2	3.353	A
C-A	905	226			905				
A-B	122	31			122				
A-C	796	199			796				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	2	436	0.014	6	0.0	0.0	10.060	B
B-A	41	10	263	0.157	42	0.3	0.2	16.354	C
C-AB	55	14	1092	0.051	56	0.2	0.1	3.556	A
C-A	765	191			765				
A-B	100	25			100				
A-C	650	162			650				

2028 Construction Year + CD, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D6 - 2028 Construction Year + CD, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	A15 / Navenby Lane	T-Junction	Two-way	Two-way	Two-way		1.03	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.03	A

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)	Results for central hour only	Run automatically
D6	2028 Construction Year + CD	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	823	100.000
B		ONE HOUR	✓	75	100.000
C		ONE HOUR	✓	787	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	34	789
	B	57	0	18
	C	781	6	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	5
	B	2	0	6
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.05	10.73	0.1	B	18	18
B-A	0.30	25.63	0.4	D	57	57
C-AB	0.03	3.70	0.0	A	23	23
C-A					764	764
A-B					34	34
A-C					789	789

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	433	0.037	16	0.0	0.0	9.157	A
B-A	51	13	272	0.189	51	0.2	0.2	16.600	C
C-AB	17	4	1020	0.017	17	0.0	0.0	3.684	A
C-A	690	173			690				
A-B	31	8			31				
A-C	709	177			709				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	5	376	0.053	20	0.0	0.1	10.698	B
B-A	63	16	206	0.305	62	0.2	0.4	25.371	D
C-AB	30	7	1109	0.027	29	0.0	0.0	3.433	A
C-A	837	209			837				
A-B	37	9			37				
A-C	869	217			869				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	5	375	0.053	20	0.1	0.1	10.730	B
B-A	63	16	206	0.305	63	0.4	0.4	25.629	D
C-AB	30	7	1109	0.027	30	0.0	0.0	3.438	A
C-A	837	209			837				
A-B	37	9			37				
A-C	869	217			869				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	432	0.037	16	0.1	0.0	9.179	A
B-A	51	13	272	0.188	52	0.4	0.2	16.760	C
C-AB	17	4	1020	0.017	17	0.0	0.0	3.700	A
C-A	690	173			690				
A-B	31	8			31				
A-C	709	177			709				

2028 Construction Year + CD + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D7 - 2028 Construction Year + CD + Development, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	A15 / Navenby Lane	T-Junction	Two-way	Two-way	Two-way		1.22	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.22	A

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)	Results for central hour only	Run automatically
D7	2028 Construction Year + CD + Development	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	888	100.000
B		ONE HOUR	✓	65	100.000
C		ONE HOUR	✓	954	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	111	777
	B	58	0	7
	C	938	16	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	7
	B	0	0	20
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	12.87	0.0	B	7	7
B-A	0.37	33.34	0.6	D	58	58
C-AB	0.09	3.51	0.2	A	86	86
C-A					868	868
A-B					111	111
A-C					777	777

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	2	415	0.015	6	0.0	0.0	10.572	B
B-A	52	13	245	0.213	52	0.2	0.3	18.592	C
C-AB	60	15	1112	0.054	60	0.1	0.1	3.495	A
C-A	798	199			798				
A-B	100	25			100				
A-C	699	175			699				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	345	0.022	8	0.0	0.0	12.791	B
B-A	64	16	172	0.372	63	0.3	0.6	32.680	D
C-AB	112	28	1228	0.091	111	0.1	0.2	3.302	A
C-A	939	235			939				
A-B	122	31			122				
A-C	855	214			855				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	8	2	343	0.022	8	0.0	0.0	12.868	B
B-A	64	16	172	0.372	64	0.6	0.6	33.343	D
C-AB	112	28	1228	0.091	112	0.2	0.2	3.307	A
C-A	939	235			939				
A-B	122	31			122				
A-C	855	214			855				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	6	2	414	0.015	6	0.0	0.0	10.610	B
B-A	52	13	245	0.213	53	0.6	0.3	18.897	C
C-AB	60	15	1112	0.054	60	0.2	0.1	3.510	A
C-A	798	199			798				
A-B	100	25			100				
A-C	699	175			699				

2028 Construction Year + CD + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D8 - 2028 Construction Year + CD + Development, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
4	A15 / Navenby Lane	T-Junction	Two-way	Two-way	Two-way		1.13	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.13	A

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)	Results for central hour only	Run automatically
D8	2028 Construction Year + CD + Development	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	878	100.000
B		ONE HOUR	✓	75	100.000
C		ONE HOUR	✓	841	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	46	832
	B	57	0	18
	C	835	6	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	5
	B	2	0	6
	C	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.06	11.36	0.1	B	18	18
B-A	0.34	30.39	0.5	D	57	57
C-AB	0.03	3.61	0.0	A	26	26
C-A					815	815
A-B					46	46
A-C					832	832

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	421	0.038	16	0.0	0.0	9.421	A
B-A	51	13	253	0.202	51	0.2	0.3	18.092	C
C-AB	19	5	1046	0.018	19	0.0	0.0	3.598	A
C-A	737	184			737				
A-B	41	10			41				
A-C	748	187			748				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	5	357	0.056	20	0.0	0.1	11.309	B
B-A	63	16	183	0.342	62	0.3	0.5	29.944	D
C-AB	34	8	1144	0.029	34	0.0	0.0	3.339	A
C-A	892	223			892				
A-B	51	13			51				
A-C	916	229			916				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	5	356	0.056	20	0.1	0.1	11.360	B
B-A	63	16	183	0.342	63	0.5	0.5	30.394	D
C-AB	34	8	1144	0.029	34	0.0	0.0	3.346	A
C-A	892	223			892				
A-B	51	13			51				
A-C	916	229			916				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	420	0.039	16	0.1	0.0	9.453	A
B-A	51	13	254	0.202	52	0.5	0.3	18.334	C
C-AB	19	5	1046	0.018	19	0.0	0.0	3.611	A
C-A	737	184			737				
A-B	41	10			41				
A-C	748	187			748				

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: B1191-Navenby_Ln-Main_St.j10
Path: C:\Users\Ciaran.Conlon\Documents\Springwell\03 Junction Models
Report generation date: 11/07/2024 12:03:36

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2024 Baseline									
Stream B-C	D1	0.0	6.79	0.03	A	D2	0.0	5.84	0.02	A
Stream B-AD		0.2	9.19	0.14	A		0.1	8.28	0.05	A
Stream A-BCD		0.1	5.27	0.05	A		0.1	5.50	0.10	A
Stream D-A		0.2	6.67	0.15	A		0.0	5.56	0.04	A
Stream D-BC		0.1	8.52	0.05	A		0.0	7.68	0.04	A
Stream C-ABD		0.0	5.68	0.02	A		0.0	4.98	0.03	A
	2028 Construction Year									
Stream B-C	D3	0.0	6.83	0.03	A	D4	0.0	5.84	0.03	A
Stream B-AD		0.2	9.31	0.14	A		0.1	8.36	0.05	A
Stream A-BCD		0.1	5.27	0.06	A		0.2	5.50	0.11	A
Stream D-A		0.2	6.75	0.15	A		0.0	5.59	0.04	A
Stream D-BC		0.1	8.61	0.05	A		0.0	7.74	0.04	A
Stream C-ABD		0.0	5.66	0.02	A		0.0	4.98	0.03	A
	2028 Construction Year + CD									
Stream B-C	D5	0.0	6.83	0.03	A	D6	0.0	5.84	0.03	A
Stream B-AD		0.2	9.31	0.14	A		0.1	8.36	0.05	A
Stream A-BCD		0.1	5.27	0.06	A		0.2	5.50	0.11	A
Stream D-A		0.2	6.75	0.15	A		0.0	5.59	0.04	A
Stream D-BC		0.1	8.61	0.05	A		0.0	7.74	0.04	A
Stream C-ABD		0.0	5.66	0.02	A		0.0	4.98	0.03	A
	2028 Construction Year + CD + Development									
Stream B-C	D7	0.0	6.95	0.04	A	D8	0.0	5.92	0.03	A
Stream B-AD		0.2	9.70	0.16	A		0.1	8.58	0.05	A
Stream A-BCD		0.1	5.32	0.07	A		0.2	5.42	0.11	A
Stream D-A		0.2	6.86	0.16	A		0.1	5.73	0.05	A
Stream D-BC		0.1	8.89	0.05	A		0.1	8.01	0.06	A
Stream C-ABD		0.0	5.57	0.02	A		0.0	4.99	0.03	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.

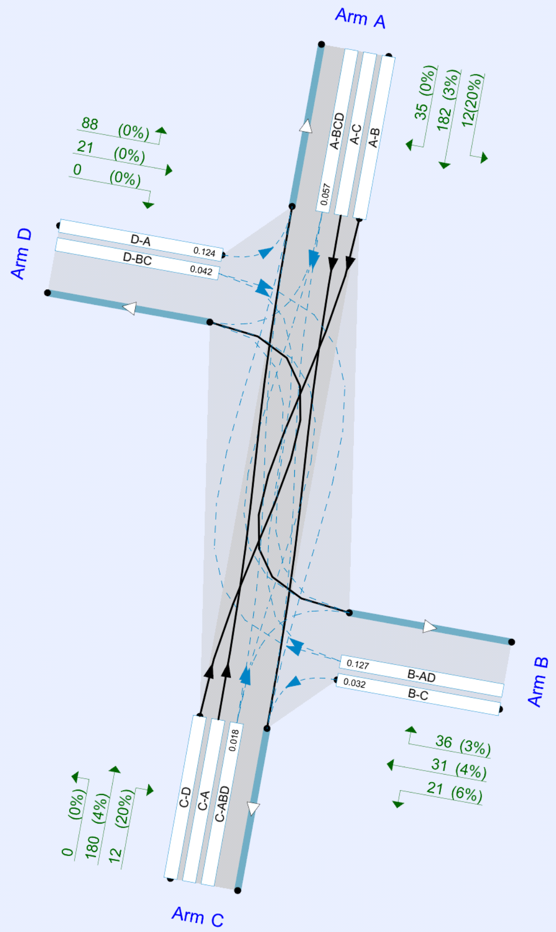
File summary

File Description

Title	B1191 / Navenby Lane / Main Street
Location	
Site number	
Date	11/07/2024
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	CC
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



Flows show original traffic demand (PCU/hr).
Streams (downstream end) show RFC ()

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75				✓		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)	Results for central hour only	Run automatically
D1	2024 Baseline	AM	ONE HOUR	07:00	08:30	15	✓	✓
D2	2024 Baseline	PM	ONE HOUR	16:15	17:45	15	✓	✓
D3	2028 Construction Year	AM	ONE HOUR	07:00	08:30	15	✓	✓
D4	2028 Construction Year	PM	ONE HOUR	16:15	17:45	15	✓	✓
D5	2028 Construction Year + CD	AM	ONE HOUR	07:00	08:30	15	✓	✓
D6	2028 Construction Year + CD	PM	ONE HOUR	16:15	17:45	15	✓	✓
D7	2028 Construction Year + CD + Development	AM	ONE HOUR	07:00	08:30	15	✓	✓
D8	2028 Construction Year + CD + Development	PM	ONE HOUR	16:15	17:45	15	✓	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2024 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D1 - 2024 Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
5	B1191 / Navenby Lane / Main Street	Right-Left Stagger	Two-way	Two-way	Two-way	Two-way		3.09	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.09	A

Arms

Arms

Arm	Name	Description	Arm type
A	B1191 N		Major
B	Main Street		Minor
C	B1191 S		Major
D	Navenby Lane		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A	5.82			163.0	✓	0.00
C	5.84			250.0	✓	0.00

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	5.83	3.97	3.26	3.26	✓	1.00	26	28
D	One lane plus flare	10.00	4.79	3.30	2.93	2.76	✓	1.00	106	60

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-B	Slope for D-C
A-D	668	-	-	-	0.261	0.261	0.261	-	0.261	-	-
B-AD	549	0.101	0.255	-	-	-	0.160	0.364	0.160	0.101	0.255
B-C	653	0.101	0.255	-	-	-	-	-	-	0.101	0.255
C-B	719	0.280	0.280	-	-	-	-	-	-	0.280	0.280
D-A	700	-	-	-	0.273	0.108	0.273	-	0.108	-	-
D-BC	540	0.158	0.158	0.358	0.250	0.099	0.250	-	0.099	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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)	Results for central hour only	Run automatically
D1	2024 Baseline	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	199	100.000
B		ONE HOUR	✓	77	100.000
C		ONE HOUR	✓	161	100.000
D		ONE HOUR	✓	105	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	12	160	27
	B	35	0	18	24
	C	149	12	0	0
	D	85	20	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	20	3	0
	B	3	0	6	4
	C	4	20	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.03	6.79	0.0	A	18	18
B-AD	0.14	9.19	0.2	A	59	59
A-BCD	0.05	5.27	0.1	A	36	36
A-B					11	11
A-C					152	152
D-A	0.15	6.67	0.2	A	85	85
D-BC	0.05	8.52	0.1	A	20	20
C-ABD	0.02	5.68	0.0	A	15	15
C-D					0	0
C-A					146	146

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	596	0.027	16	0.0	0.0	6.581	A
B-AD	53	13	484	0.109	53	0.1	0.1	8.624	A
A-BCD	31	8	721	0.043	31	0.0	0.1	5.257	A
A-B	10	3			10				
A-C	138	34			138				
D-A	76	19	646	0.118	76	0.1	0.1	6.323	A
D-BC	18	4	462	0.039	18	0.0	0.0	8.098	A
C-ABD	13	3	754	0.017	13	0.0	0.0	5.684	A
C-D	0	0			0				
C-A	131	33			131				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	5	582	0.034	20	0.0	0.0	6.785	A
B-AD	65	16	470	0.138	65	0.1	0.2	9.190	A
A-BCD	40	10	734	0.055	40	0.1	0.1	5.239	A
A-B	12	3			12				
A-C	166	42			166				
D-A	94	23	633	0.148	93	0.1	0.2	6.667	A
D-BC	22	6	445	0.050	22	0.0	0.1	8.516	A
C-ABD	17	4	763	0.022	17	0.0	0.0	5.615	A
C-D	0	0			0				
C-A	160	40			160				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	5	582	0.034	20	0.0	0.0	6.786	A
B-AD	65	16	470	0.138	65	0.2	0.2	9.194	A
A-BCD	40	10	734	0.055	40	0.1	0.1	5.244	A
A-B	12	3			12				
A-C	166	42			166				
D-A	94	23	633	0.148	94	0.2	0.2	6.670	A
D-BC	22	6	445	0.050	22	0.1	0.1	8.519	A
C-ABD	17	4	763	0.022	17	0.0	0.0	5.604	A
C-D	0	0			0				
C-A	160	40			160				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	596	0.027	16	0.0	0.0	6.586	A
B-AD	53	13	484	0.109	53	0.2	0.1	8.634	A
A-BCD	31	8	721	0.043	31	0.1	0.1	5.269	A
A-B	10	3			10				
A-C	138	34			138				
D-A	76	19	646	0.118	77	0.2	0.1	6.327	A
D-BC	18	4	462	0.039	18	0.1	0.0	8.103	A
C-ABD	13	3	754	0.017	13	0.0	0.0	5.657	A
C-D	0	0			0				
C-A	131	33			131				

2024 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D2 - 2024 Baseline, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
5	B1191 / Navenby Lane / Main Street	Right-Left Stagger	Two-way	Two-way	Two-way	Two-way		2.52	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.52	A

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)	Results for central hour only	Run automatically
D2	2024 Baseline	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	193	100.000
B		ONE HOUR	✓	38	100.000
C		ONE HOUR	✓	124	100.000
D		ONE HOUR	✓	41	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	27	113	53
	B	7	0	14	17
	C	108	15	0	1
	D	23	17	1	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	4	0	0
	B	0	0	0	14
	C	1	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	5.84	0.0	A	14	14
B-AD	0.05	8.28	0.1	A	24	24
A-BCD	0.10	5.50	0.1	A	66	66
A-B					25	25
A-C					103	103
D-A	0.04	5.56	0.0	A	23	23
D-BC	0.04	7.68	0.0	A	18	18
C-ABD	0.03	4.98	0.0	A	18	18
C-D					0.98	0.98
C-A					105	105

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	640	0.020	13	0.0	0.0	5.735	A
B-AD	22	5	515	0.042	22	0.0	0.0	7.997	A
A-BCD	58	14	718	0.080	58	0.1	0.1	5.455	A
A-B	22	6			22				
A-C	93	23			93				
D-A	21	5	681	0.030	21	0.0	0.0	5.449	A
D-BC	16	4	504	0.032	16	0.0	0.0	7.382	A
C-ABD	16	4	740	0.021	16	0.0	0.0	4.975	A
C-D	0.88	0.22			0.88				
C-A	95	24			95				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15	4	631	0.024	15	0.0	0.0	5.843	A
B-AD	26	7	503	0.053	26	0.0	0.1	8.275	A
A-BCD	74	19	730	0.101	74	0.1	0.1	5.492	A
A-B	27	7			27				
A-C	112	28			112				
D-A	25	6	673	0.038	25	0.0	0.0	5.559	A
D-BC	20	5	488	0.041	20	0.0	0.0	7.682	A
C-ABD	20	5	745	0.026	20	0.0	0.0	4.968	A
C-D	1	0.27			1				
C-A	116	29			116				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	15	4	631	0.024	15	0.0	0.0	5.843	A
B-AD	26	7	503	0.053	26	0.1	0.1	8.277	A
A-BCD	74	19	730	0.101	74	0.1	0.1	5.495	A
A-B	27	7			27				
A-C	112	28			112				
D-A	25	6	673	0.038	25	0.0	0.0	5.559	A
D-BC	20	5	488	0.041	20	0.0	0.0	7.683	A
C-ABD	20	5	745	0.026	20	0.0	0.0	4.969	A
C-D	1	0.27			1				
C-A	116	29			116				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	640	0.020	13	0.0	0.0	5.736	A
B-AD	22	5	515	0.042	22	0.1	0.0	8.000	A
A-BCD	58	14	718	0.081	58	0.1	0.1	5.460	A
A-B	22	6			22				
A-C	93	23			93				
D-A	21	5	681	0.030	21	0.0	0.0	5.453	A
D-BC	16	4	504	0.032	16	0.0	0.0	7.386	A
C-ABD	16	4	740	0.021	16	0.0	0.0	4.977	A
C-D	0.88	0.22			0.88				
C-A	95	24			95				

2028 Construction Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D3 - 2028 Construction Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
5	B1191 / Navenby Lane / Main Street	Right-Left Stagger	Two-way	Two-way	Two-way	Two-way		3.11	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.11	A

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)	Results for central hour only	Run automatically
D3	2028 Construction Year	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	206	100.000
B		ONE HOUR	✓	79	100.000
C		ONE HOUR	✓	167	100.000
D		ONE HOUR	✓	109	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	12	166	28
	B	36	0	18	25
	C	155	12	0	0
	D	88	21	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	20	3	0
	B	3	0	6	4
	C	4	20	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.03	6.83	0.0	A	18	18
B-AD	0.14	9.31	0.2	A	61	61
A-BCD	0.06	5.27	0.1	A	37	37
A-B					11	11
A-C					157	157
D-A	0.15	6.75	0.2	A	88	88
D-BC	0.05	8.61	0.1	A	21	21
C-ABD	0.02	5.66	0.0	A	15	15
C-D					0	0
C-A					152	152

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	593	0.027	16	0.0	0.0	6.618	A
B-AD	55	14	482	0.114	55	0.1	0.1	8.703	A
A-BCD	32	8	723	0.045	32	0.0	0.1	5.258	A
A-B	10	3			10				
A-C	143	36			143				
D-A	79	20	643	0.123	79	0.1	0.1	6.377	A
D-BC	19	5	460	0.041	19	0.0	0.0	8.165	A
C-ABD	13	3	756	0.018	13	0.0	0.0	5.664	A
C-D	0	0			0				
C-A	137	34			137				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	5	578	0.034	20	0.0	0.0	6.831	A
B-AD	67	17	467	0.144	67	0.1	0.2	9.298	A
A-BCD	42	11	736	0.057	42	0.1	0.1	5.238	A
A-B	12	3			12				
A-C	172	43			172				
D-A	97	24	630	0.154	97	0.1	0.2	6.744	A
D-BC	23	6	441	0.052	23	0.0	0.1	8.609	A
C-ABD	17	4	766	0.022	17	0.0	0.0	5.592	A
C-D	0	0			0				
C-A	167	42			167				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	5	578	0.034	20	0.0	0.0	6.832	A
B-AD	67	17	467	0.144	67	0.2	0.2	9.306	A
A-BCD	42	11	736	0.057	42	0.1	0.1	5.242	A
A-B	12	3			12				
A-C	172	43			172				
D-A	97	24	630	0.154	97	0.2	0.2	6.748	A
D-BC	23	6	441	0.052	23	0.1	0.1	8.612	A
C-ABD	17	4	766	0.022	17	0.0	0.0	5.578	A
C-D	0	0			0				
C-A	167	42			167				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	593	0.027	16	0.0	0.0	6.620	A
B-AD	55	14	482	0.114	55	0.2	0.1	8.714	A
A-BCD	32	8	723	0.045	33	0.1	0.1	5.267	A
A-B	10	3			10				
A-C	142	36			142				
D-A	79	20	643	0.123	79	0.2	0.1	6.384	A
D-BC	19	5	460	0.041	19	0.1	0.0	8.169	A
C-ABD	13	3	756	0.018	13	0.0	0.0	5.637	A
C-D	0	0			0				
C-A	137	34			137				

2028 Construction Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D4 - 2028 Construction Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
5	B1191 / Navenby Lane / Main Street	Right-Left Stagger	Two-way	Two-way	Two-way	Two-way		2.54	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.54	A

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)	Results for central hour only	Run automatically
D4	2028 Construction Year	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	200	100.000
B		ONE HOUR	✓	39	100.000
C		ONE HOUR	✓	129	100.000
D		ONE HOUR	✓	43	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	28	117	55
	B	7	0	15	17
	C	112	16	0	1
	D	24	18	1	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	4	0	0
	B	0	0	0	14
	C	1	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.03	5.84	0.0	A	15	15
B-AD	0.05	8.36	0.1	A	24	24
A-BCD	0.11	5.50	0.2	A	69	69
A-B					25	25
A-C					106	106
D-A	0.04	5.59	0.0	A	24	24
D-BC	0.04	7.74	0.0	A	19	19
C-ABD	0.03	4.98	0.0	A	19	19
C-D					0.97	0.97
C-A					109	109

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	642	0.021	13	0.0	0.0	5.728	A
B-AD	22	5	510	0.042	22	0.0	0.0	8.066	A
A-BCD	60	15	720	0.084	60	0.1	0.1	5.460	A
A-B	23	6			23				
A-C	96	24			96				
D-A	22	5	679	0.032	22	0.0	0.0	5.472	A
D-BC	17	4	502	0.034	17	0.0	0.0	7.427	A
C-ABD	17	4	741	0.023	17	0.0	0.0	4.977	A
C-D	0.88	0.22			0.88				
C-A	98	25			98				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	17	4	633	0.026	16	0.0	0.0	5.840	A
B-AD	26	7	498	0.053	26	0.0	0.1	8.356	A
A-BCD	78	19	733	0.106	77	0.1	0.2	5.501	A
A-B	28	7			28				
A-C	115	29			115				
D-A	26	7	671	0.039	26	0.0	0.0	5.586	A
D-BC	21	5	486	0.043	21	0.0	0.0	7.743	A
C-ABD	21	5	746	0.028	21	0.0	0.0	4.971	A
C-D	1	0.27			1				
C-A	120	30			120				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	17	4	633	0.026	17	0.0	0.0	5.841	A
B-AD	26	7	498	0.053	26	0.1	0.1	8.358	A
A-BCD	78	19	733	0.106	78	0.2	0.2	5.504	A
A-B	28	7			28				
A-C	115	29			115				
D-A	26	7	671	0.039	26	0.0	0.0	5.587	A
D-BC	21	5	486	0.043	21	0.0	0.0	7.744	A
C-ABD	21	5	746	0.028	21	0.0	0.0	4.974	A
C-D	1	0.27			1				
C-A	120	30			120				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	642	0.021	14	0.0	0.0	5.729	A
B-AD	22	5	510	0.042	22	0.1	0.0	8.068	A
A-BCD	60	15	721	0.084	61	0.2	0.1	5.466	A
A-B	23	6			23				
A-C	96	24			96				
D-A	22	5	679	0.032	22	0.0	0.0	5.473	A
D-BC	17	4	502	0.034	17	0.0	0.0	7.429	A
C-ABD	17	4	741	0.023	17	0.0	0.0	4.980	A
C-D	0.88	0.22			0.88				
C-A	98	25			98				

2028 Construction Year + CD, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D5 - 2028 Construction Year + CD, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
5	B1191 / Navenby Lane / Main Street	Right-Left Stagger	Two-way	Two-way	Two-way	Two-way		3.11	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.11	A

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)	Results for central hour only	Run automatically
D5	2028 Construction Year + CD	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	206	100.000
B		ONE HOUR	✓	79	100.000
C		ONE HOUR	✓	167	100.000
D		ONE HOUR	✓	109	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	12	166	28
	B	36	0	18	25
	C	155	12	0	0
	D	88	21	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	20	3	0
	B	3	0	6	4
	C	4	20	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.03	6.83	0.0	A	18	18
B-AD	0.14	9.31	0.2	A	61	61
A-BCD	0.06	5.27	0.1	A	37	37
A-B					11	11
A-C					157	157
D-A	0.15	6.75	0.2	A	88	88
D-BC	0.05	8.61	0.1	A	21	21
C-ABD	0.02	5.66	0.0	A	15	15
C-D					0	0
C-A					152	152

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	593	0.027	16	0.0	0.0	6.618	A
B-AD	55	14	482	0.114	55	0.1	0.1	8.703	A
A-BCD	32	8	723	0.045	32	0.0	0.1	5.258	A
A-B	10	3			10				
A-C	143	36			143				
D-A	79	20	643	0.123	79	0.1	0.1	6.377	A
D-BC	19	5	460	0.041	19	0.0	0.0	8.165	A
C-ABD	13	3	756	0.018	13	0.0	0.0	5.664	A
C-D	0	0			0				
C-A	137	34			137				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	5	578	0.034	20	0.0	0.0	6.831	A
B-AD	67	17	467	0.144	67	0.1	0.2	9.298	A
A-BCD	42	11	736	0.057	42	0.1	0.1	5.238	A
A-B	12	3			12				
A-C	172	43			172				
D-A	97	24	630	0.154	97	0.1	0.2	6.744	A
D-BC	23	6	441	0.052	23	0.0	0.1	8.609	A
C-ABD	17	4	766	0.022	17	0.0	0.0	5.592	A
C-D	0	0			0				
C-A	167	42			167				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	5	578	0.034	20	0.0	0.0	6.832	A
B-AD	67	17	467	0.144	67	0.2	0.2	9.306	A
A-BCD	42	11	736	0.057	42	0.1	0.1	5.242	A
A-B	12	3			12				
A-C	172	43			172				
D-A	97	24	630	0.154	97	0.2	0.2	6.748	A
D-BC	23	6	441	0.052	23	0.1	0.1	8.612	A
C-ABD	17	4	766	0.022	17	0.0	0.0	5.578	A
C-D	0	0			0				
C-A	167	42			167				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	4	593	0.027	16	0.0	0.0	6.620	A
B-AD	55	14	482	0.114	55	0.2	0.1	8.714	A
A-BCD	32	8	723	0.045	33	0.1	0.1	5.267	A
A-B	10	3			10				
A-C	142	36			142				
D-A	79	20	643	0.123	79	0.2	0.1	6.384	A
D-BC	19	5	460	0.041	19	0.1	0.0	8.169	A
C-ABD	13	3	756	0.018	13	0.0	0.0	5.637	A
C-D	0	0			0				
C-A	137	34			137				

2028 Construction Year + CD, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D6 - 2028 Construction Year + CD, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
5	B1191 / Navenby Lane / Main Street	Right-Left Stagger	Two-way	Two-way	Two-way	Two-way		2.54	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.54	A

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)	Results for central hour only	Run automatically
D6	2028 Construction Year + CD	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	200	100.000
B		ONE HOUR	✓	39	100.000
C		ONE HOUR	✓	129	100.000
D		ONE HOUR	✓	43	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	28	117	55
	B	7	0	15	17
	C	112	16	0	1
	D	24	18	1	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	4	0	0
	B	0	0	0	14
	C	1	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.03	5.84	0.0	A	15	15
B-AD	0.05	8.36	0.1	A	24	24
A-BCD	0.11	5.50	0.2	A	69	69
A-B					25	25
A-C					106	106
D-A	0.04	5.59	0.0	A	24	24
D-BC	0.04	7.74	0.0	A	19	19
C-ABD	0.03	4.98	0.0	A	19	19
C-D					0.97	0.97
C-A					109	109

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	642	0.021	13	0.0	0.0	5.728	A
B-AD	22	5	510	0.042	22	0.0	0.0	8.066	A
A-BCD	60	15	720	0.084	60	0.1	0.1	5.460	A
A-B	23	6			23				
A-C	96	24			96				
D-A	22	5	679	0.032	22	0.0	0.0	5.472	A
D-BC	17	4	502	0.034	17	0.0	0.0	7.427	A
C-ABD	17	4	741	0.023	17	0.0	0.0	4.977	A
C-D	0.88	0.22			0.88				
C-A	98	25			98				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	17	4	633	0.026	16	0.0	0.0	5.840	A
B-AD	26	7	498	0.053	26	0.0	0.1	8.356	A
A-BCD	78	19	733	0.106	77	0.1	0.2	5.501	A
A-B	28	7			28				
A-C	115	29			115				
D-A	26	7	671	0.039	26	0.0	0.0	5.586	A
D-BC	21	5	486	0.043	21	0.0	0.0	7.743	A
C-ABD	21	5	746	0.028	21	0.0	0.0	4.971	A
C-D	1	0.27			1				
C-A	120	30			120				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	17	4	633	0.026	17	0.0	0.0	5.841	A
B-AD	26	7	498	0.053	26	0.1	0.1	8.358	A
A-BCD	78	19	733	0.106	78	0.2	0.2	5.504	A
A-B	28	7			28				
A-C	115	29			115				
D-A	26	7	671	0.039	26	0.0	0.0	5.587	A
D-BC	21	5	486	0.043	21	0.0	0.0	7.744	A
C-ABD	21	5	746	0.028	21	0.0	0.0	4.974	A
C-D	1	0.27			1				
C-A	120	30			120				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	642	0.021	14	0.0	0.0	5.729	A
B-AD	22	5	510	0.042	22	0.1	0.0	8.068	A
A-BCD	60	15	721	0.084	61	0.2	0.1	5.466	A
A-B	23	6			23				
A-C	96	24			96				
D-A	22	5	679	0.032	22	0.0	0.0	5.473	A
D-BC	17	4	502	0.034	17	0.0	0.0	7.429	A
C-ABD	17	4	741	0.023	17	0.0	0.0	4.980	A
C-D	0.88	0.22			0.88				
C-A	98	25			98				

2028 Construction Year + CD + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D7 - 2028 Construction Year + CD + Development, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
5	B1191 / Navenby Lane / Main Street	Right-Left Stagger	Two-way	Two-way	Two-way	Two-way		3.12	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.12	A

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)	Results for central hour only	Run automatically
D7	2028 Construction Year + CD + Development	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	229	100.000
B		ONE HOUR	✓	88	100.000
C		ONE HOUR	✓	192	100.000
D		ONE HOUR	✓	109	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	12	182	35
	B	36	0	21	31
	C	180	12	0	0
	D	88	21	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	20	3	0
	B	3	0	6	4
	C	4	20	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.04	6.95	0.0	A	21	21
B-AD	0.16	9.70	0.2	A	67	67
A-BCD	0.07	5.32	0.1	A	48	48
A-B					11	11
A-C					170	170
D-A	0.16	6.86	0.2	A	88	88
D-BC	0.05	8.89	0.1	A	21	21
C-ABD	0.02	5.57	0.0	A	16	16
C-D					0	0
C-A					176	176

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	19	5	589	0.032	19	0.0	0.0	6.697	A
B-AD	60	15	475	0.127	60	0.1	0.1	8.984	A
A-BCD	41	10	726	0.057	41	0.1	0.1	5.309	A
A-B	10	3			10				
A-C	154	39			154				
D-A	79	20	636	0.124	79	0.1	0.1	6.455	A
D-BC	19	5	449	0.042	19	0.0	0.0	8.369	A
C-ABD	14	3	767	0.018	14	0.0	0.0	5.568	A
C-D	0	0			0				
C-A	159	40			159				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	6	572	0.040	23	0.0	0.0	6.945	A
B-AD	74	18	458	0.161	74	0.1	0.2	9.691	A
A-BCD	54	14	740	0.073	54	0.1	0.1	5.303	A
A-B	12	3			12				
A-C	186	46			186				
D-A	97	24	622	0.156	97	0.1	0.2	6.852	A
D-BC	23	6	428	0.054	23	0.0	0.1	8.889	A
C-ABD	18	4	779	0.023	18	0.0	0.0	5.477	A
C-D	0	0			0				
C-A	194	48			194				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	6	572	0.040	23	0.0	0.0	6.947	A
B-AD	74	18	458	0.161	74	0.2	0.2	9.701	A
A-BCD	54	14	740	0.073	54	0.1	0.1	5.310	A
A-B	12	3			12				
A-C	186	46			186				
D-A	97	24	622	0.156	97	0.2	0.2	6.856	A
D-BC	23	6	428	0.054	23	0.1	0.1	8.892	A
C-ABD	18	4	779	0.023	18	0.0	0.0	5.464	A
C-D	0	0			0				
C-A	194	48			194				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	19	5	588	0.032	19	0.0	0.0	6.703	A
B-AD	60	15	474	0.127	60	0.2	0.2	8.998	A
A-BCD	42	10	726	0.057	42	0.1	0.1	5.320	A
A-B	10	3			10				
A-C	154	39			154				
D-A	79	20	636	0.124	79	0.2	0.1	6.463	A
D-BC	19	5	449	0.042	19	0.1	0.0	8.373	A
C-ABD	14	3	767	0.018	14	0.0	0.0	5.536	A
C-D	0	0			0				
C-A	159	40			159				

2028 Construction Year + CD + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm A - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D8 - 2028 Construction Year + CD + Development, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
5	B1191 / Navenby Lane / Main Street	Right-Left Stagger	Two-way	Two-way	Two-way	Two-way		2.51	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.51	A

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)	Results for central hour only	Run automatically
D8	2028 Construction Year + CD + Development	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	225	100.000
B		ONE HOUR	✓	39	100.000
C		ONE HOUR	✓	148	100.000
D		ONE HOUR	✓	56	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	28	142	55
	B	7	0	15	17
	C	128	19	0	1
	D	31	24	1	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	4	0	0
	B	0	0	0	14
	C	1	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.03	5.92	0.0	A	15	15
B-AD	0.05	8.58	0.1	A	24	24
A-BCD	0.11	5.42	0.2	A	72	72
A-B					25	25
A-C					128	128
D-A	0.05	5.73	0.1	A	31	31
D-BC	0.06	8.01	0.1	A	25	25
C-ABD	0.03	4.99	0.0	A	23	23
C-D					0.97	0.97
C-A					124	124

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	635	0.021	13	0.0	0.0	5.789	A
B-AD	22	5	501	0.043	22	0.0	0.0	8.232	A
A-BCD	63	16	732	0.086	62	0.1	0.1	5.389	A
A-B	23	6			23				
A-C	117	29			117				
D-A	28	7	673	0.041	28	0.0	0.0	5.582	A
D-BC	22	6	495	0.045	22	0.0	0.0	7.623	A
C-ABD	20	5	742	0.027	20	0.0	0.0	4.992	A
C-D	0.87	0.22			0.87				
C-A	112	28			112				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	17	4	625	0.026	16	0.0	0.0	5.918	A
B-AD	26	7	486	0.054	26	0.0	0.1	8.575	A
A-BCD	81	20	747	0.108	81	0.1	0.2	5.417	A
A-B	27	7			27				
A-C	139	35			139				
D-A	34	9	663	0.052	34	0.0	0.1	5.727	A
D-BC	28	7	477	0.058	27	0.0	0.1	8.008	A
C-ABD	26	6	749	0.035	26	0.0	0.0	4.989	A
C-D	1	0.27			1				
C-A	136	34			136				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	17	4	625	0.026	17	0.0	0.0	5.919	A
B-AD	26	7	486	0.054	26	0.1	0.1	8.577	A
A-BCD	81	20	747	0.108	81	0.2	0.2	5.420	A
A-B	27	7			27				
A-C	139	35			139				
D-A	34	9	663	0.052	34	0.1	0.1	5.727	A
D-BC	28	7	477	0.058	28	0.1	0.1	8.010	A
C-ABD	26	6	749	0.035	26	0.0	0.0	4.991	A
C-D	1	0.27			1				
C-A	136	34			136				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	13	3	635	0.021	14	0.0	0.0	5.791	A
B-AD	22	5	501	0.043	22	0.1	0.0	8.234	A
A-BCD	63	16	732	0.086	63	0.2	0.1	5.393	A
A-B	23	6			23				
A-C	117	29			117				
D-A	28	7	673	0.041	28	0.1	0.0	5.583	A
D-BC	22	6	495	0.045	23	0.1	0.0	7.629	A
C-ABD	20	5	742	0.027	20	0.0	0.0	4.994	A
C-D	0.87	0.22			0.87				
C-A	112	28			112				

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.1.1.1905

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Filename: A15-B1191-Temple_Rd-MITIGATION.j10
Path: C:\Users\Ciaran.Conlon\Documents\Springwell\03 Junction Models
Report generation date: 11/07/2024 10:13:27

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2024 Baseline									
Stream B-C	D1	0.5	9.82	0.31	A	D2	0.3	8.89	0.22	A
Stream B-AD		0.2	26.58	0.17	D		0.2	24.35	0.14	C
Stream A-BCD		0.0	7.67	0.01	A		0.0	0.00	0.00	A
Stream D-A		0.0	0.00	0.00	A		0.0	7.24	0.00	A
Stream D-BC		0.1	17.68	0.11	C		0.1	15.63	0.09	C
Stream C-ABD		0.5	10.80	0.30	B		0.3	10.13	0.25	B
	2028 Construction Year									
Stream B-C	D3	0.5	10.32	0.32	B	D4	0.3	9.28	0.23	A
Stream B-AD		0.2	30.15	0.19	D		0.2	27.41	0.16	D
Stream A-BCD		0.0	7.84	0.01	A		0.0	0.00	0.00	A
Stream D-A		0.0	0.00	0.00	A		0.0	7.38	0.00	A
Stream D-BC		0.1	19.08	0.12	C		0.1	16.73	0.10	C
Stream C-ABD		0.5	11.21	0.32	B		0.4	10.53	0.26	B
	2028 Construction Year + CD									
Stream B-C	D5	0.5	10.42	0.33	B	D6	0.3	9.32	0.23	A
Stream B-AD		0.2	31.06	0.20	D		0.2	27.99	0.16	D
Stream A-BCD		0.0	7.87	0.01	A		0.0	0.00	0.00	A
Stream D-A		0.0	0.00	0.00	A		0.0	7.43	0.00	A
Stream D-BC		0.1	19.42	0.12	C		0.1	17.01	0.10	C
Stream C-ABD		0.5	11.30	0.32	B		0.4	10.57	0.26	B
	2028 Construction Year + CD + Development									
Stream B-C	D7	0.5	11.04	0.35	B	D8	0.4	11.61	0.31	B
Stream B-AD		0.3	38.17	0.26	E		0.9	48.07	0.49	E
Stream A-BCD		0.0	8.00	0.01	A		0.0	7.42	0.00	A
Stream D-A		0.0	8.28	0.00	A		0.0	7.66	0.00	A
Stream D-BC		0.2	21.43	0.14	C		0.1	18.96	0.11	C
Stream C-ABD		0.6	12.66	0.38	B		0.4	10.92	0.27	B

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.

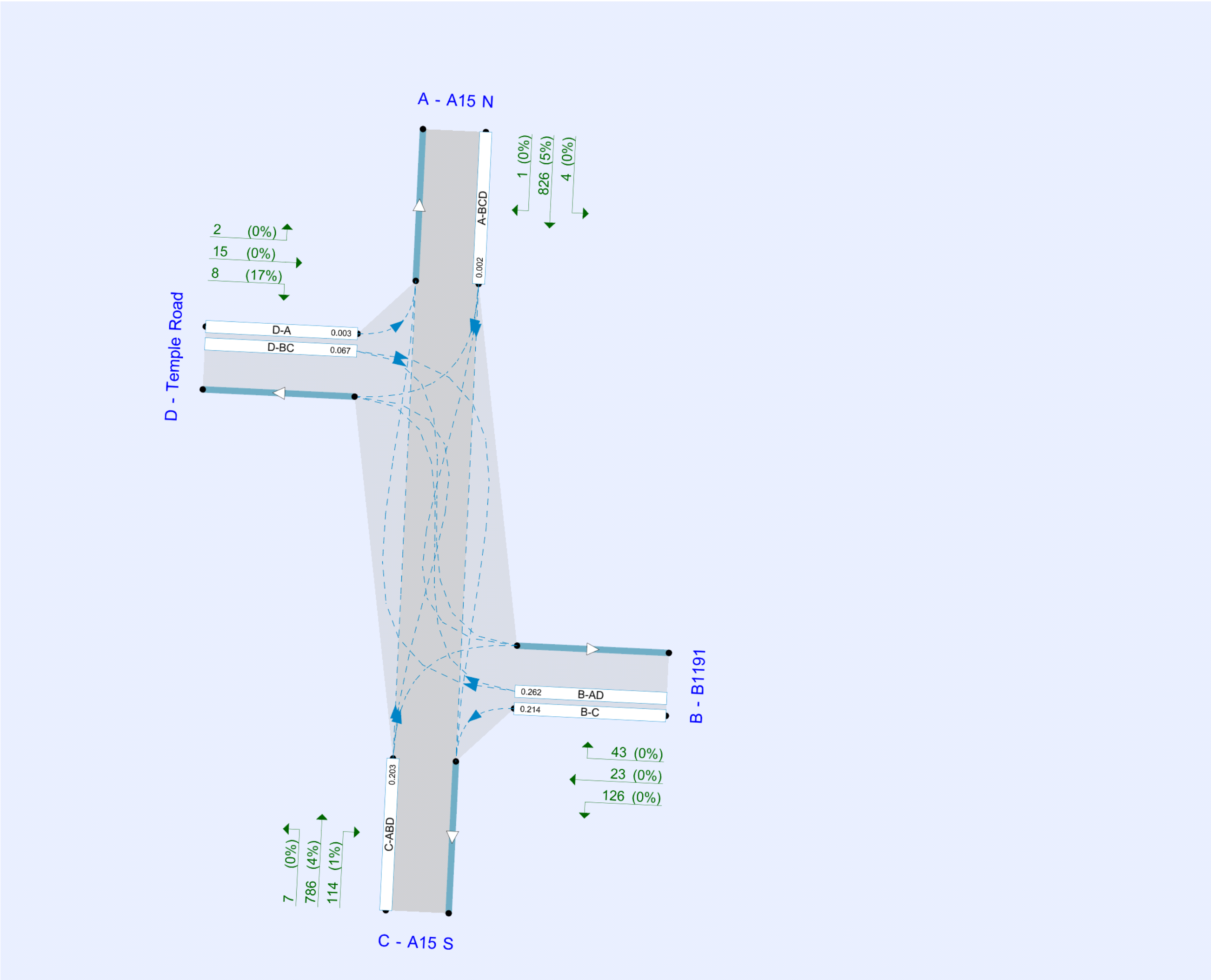
File summary

File Description

Title	A15 / B1191 / Temple Road
Location	
Site number	
Date	11/07/2024
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	CC
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



Flows show original traffic demand (PCU/hr).
Streams (downstream end) show RFC ()

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						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)	Results for central hour only	Run automatically
D1	2024 Baseline	AM	ONE HOUR	07:00	08:30	15	✓	✓
D2	2024 Baseline	PM	ONE HOUR	16:15	17:45	15	✓	✓
D3	2028 Construction Year	AM	ONE HOUR	07:00	08:30	15	✓	✓
D4	2028 Construction Year	PM	ONE HOUR	16:15	17:45	15	✓	✓
D5	2028 Construction Year + CD	AM	ONE HOUR	07:00	08:30	15	✓	✓
D6	2028 Construction Year + CD	PM	ONE HOUR	16:15	17:45	15	✓	✓
D7	2028 Construction Year + CD + Development	AM	ONE HOUR	07:00	08:30	15	✓	✓
D8	2028 Construction Year + CD + Development	PM	ONE HOUR	16:15	17:45	15	✓	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2024 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - B1191 - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	D - Temple Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D1 - 2024 Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A15 / B1191 / Temple Road	Right-Left Stagger	Two-way	Two-way	Two-way	Two-way		2.14	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.14	A

Arms

Arms

Arm	Name	Description	Arm type
A	A15 N		Major
B	B1191		Minor
C	A15 S		Major
D	Temple Road		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - A15 N	7.00		✓	2.76	229.0	✓	12.00
C - A15 S	6.50		✓	2.77	167.0	✓	16.50

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - B1191	One lane plus flare	10.00	10.00	8.70	7.50	7.40		12.00	81	67
D - Temple Road	One lane plus flare	10.00	8.80	5.27	3.13	2.56	✓	2.00	101	178

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-B	Slope for D-C
A-D	750	-	-	-	0.278	0.278	0.278	-	0.278	-	-
B-AD	576	0.103	0.259	-	-	-	0.163	0.371	0.163	0.103	0.259
B-C	799	0.120	0.303	-	-	-	-	-	-	0.120	0.303
C-B	712	0.270	0.270	-	-	-	-	-	-	0.270	0.270
D-A	738	-	-	-	0.273	0.108	0.273	-	0.108	-	-
D-BC	670	0.186	0.186	0.421	0.295	0.117	0.295	-	0.117	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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)	Results for central hour only	Run automatically
D1	2024 Baseline	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A15 N		ONE HOUR	✓	686	100.000
B - B1191		ONE HOUR	✓	176	100.000
C - A15 S		ONE HOUR	✓	1019	100.000
D - Temple Road		ONE HOUR	✓	24	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A15 N	B - B1191	C - A15 S	D - Temple Road
From	A - A15 N	0	1	682	3
	B - B1191	7	0	151	18
	C - A15 S	872	138	0	9
	D - Temple Road	0	23	1	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A - A15 N	B - B1191	C - A15 S	D - Temple Road
From	A - A15 N	0	0	7	0
	B - B1191	0	0	3	0
	C - A15 S	3	5	0	13
	D - Temple Road	0	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.31	9.82	0.5	A	151	151
B-AD	0.17	26.58	0.2	D	25	25
A-BCD	0.01	7.67	0.0	A	3	3
D-A	0.00	0.00	0.0	A	0	0
D-BC	0.11	17.68	0.1	C	24	24
C-ABD	0.30	10.80	0.5	B	138	138

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	136	34	596	0.228	135	0.2	0.3	8.041	A
B-AD	22	6	239	0.094	22	0.1	0.1	16.606	C
A-BCD	3	0.67	523	0.005	3	0.0	0.0	6.914	A
D-A	0	0	510	0.000	0	0.0	0.0	0.000	A
D-BC	22	5	319	0.068	21	0.1	0.1	12.685	B
C-ABD	124	31	541	0.229	124	0.2	0.3	9.061	A

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	166	42	544	0.306	166	0.3	0.4	9.768	A
B-AD	28	7	163	0.169	27	0.1	0.2	26.396	D
A-BCD	3	0.83	472	0.007	3	0.0	0.0	7.673	A
D-A	0	0	457	0.000	0	0.0	0.0	0.000	A
D-BC	26	7	240	0.110	26	0.1	0.1	17.636	C
C-ABD	152	38	502	0.303	151	0.3	0.4	10.762	B

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	166	42	544	0.306	166	0.4	0.5	9.823	A
B-AD	28	7	163	0.169	28	0.2	0.2	26.582	D
A-BCD	3	0.83	472	0.007	3	0.0	0.0	7.674	A
D-A	0	0	457	0.000	0	0.0	0.0	0.000	A
D-BC	26	7	240	0.110	26	0.1	0.1	17.677	C
C-ABD	152	38	502	0.303	152	0.4	0.5	10.797	B

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	136	34	596	0.228	136	0.5	0.3	8.079	A
B-AD	22	6	239	0.094	23	0.2	0.1	16.712	C
A-BCD	3	0.67	523	0.005	3	0.0	0.0	6.916	A
D-A	0	0	510	0.000	0	0.0	0.0	0.000	A
D-BC	22	5	319	0.068	22	0.1	0.1	12.716	B
C-ABD	124	31	541	0.230	125	0.5	0.3	9.099	A

2024 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - B1191 - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	D - Temple Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D2 - 2024 Baseline, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A15 / B1191 / Temple Road	Right-Left Stagger	Two-way	Two-way	Two-way	Two-way		1.60	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.60	A

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)	Results for central hour only	Run automatically
D2	2024 Baseline	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A15 N		ONE HOUR	✓	775	100.000
B - B1191		ONE HOUR	✓	124	100.000
C - A15 S		ONE HOUR	✓	859	100.000
D - Temple Road		ONE HOUR	✓	22	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A15 N	B - B1191	C - A15 S	D - Temple Road
From	A - A15 N	0	0	775	0
	B - B1191	0	0	102	22
	C - A15 S	747	106	0	6
	D - Temple Road	1	14	7	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A - A15 N	B - B1191	C - A15 S	D - Temple Road
From	A - A15 N	0	0	5	0
	B - B1191	0	0	0	0
	C - A15 S	4	1	0	0
	D - Temple Road	0	0	17	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.22	8.89	0.3	A	102	102
B-AD	0.14	24.35	0.2	C	22	22
A-BCD	0.00	0.00	0.0	A	0	0
D-A	0.00	7.24	0.0	A	1	1
D-BC	0.09	15.63	0.1	C	21	21
C-ABD	0.25	10.13	0.3	B	106	106

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	92	23	573	0.160	92	0.1	0.2	7.470	A
B-AD	20	5	246	0.080	20	0.1	0.1	15.873	C
A-BCD	0	0	1126	0.000	0	0.0	0.0	0.000	A
D-A	0.90	0.22	544	0.002	0.90	0.0	0.0	6.632	A
D-BC	19	5	339	0.056	19	0.0	0.1	11.796	B
C-ABD	95	24	519	0.184	95	0.2	0.2	8.571	A

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	112	28	518	0.217	112	0.2	0.3	8.869	A
B-AD	24	6	172	0.141	24	0.1	0.2	24.233	C
A-BCD	0	0	1038	0.000	0	0.0	0.0	0.000	A
D-A	1	0.28	498	0.002	1	0.0	0.0	7.240	A
D-BC	23	6	265	0.087	23	0.1	0.1	15.608	C
C-ABD	117	29	476	0.245	116	0.2	0.3	10.108	B

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	112	28	517	0.217	112	0.3	0.3	8.889	A
B-AD	24	6	172	0.141	24	0.2	0.2	24.352	C
A-BCD	0	0	1038	0.000	0	0.0	0.0	0.000	A
D-A	1	0.28	498	0.002	1	0.0	0.0	7.242	A
D-BC	23	6	265	0.087	23	0.1	0.1	15.628	C
C-ABD	117	29	476	0.245	117	0.3	0.3	10.131	B

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	92	23	573	0.160	92	0.3	0.2	7.495	A
B-AD	20	5	246	0.080	20	0.2	0.1	15.949	C
A-BCD	0	0	1126	0.000	0	0.0	0.0	0.000	A
D-A	0.90	0.22	543	0.002	0.90	0.0	0.0	6.636	A
D-BC	19	5	339	0.056	19	0.1	0.1	11.815	B
C-ABD	95	24	519	0.184	96	0.3	0.2	8.598	A

2028 Construction Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - B1191 - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	D - Temple Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D3 - 2028 Construction Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A15 / B1191 / Temple Road	Right-Left Stagger	Two-way	Two-way	Two-way	Two-way		2.27	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.27	A

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)	Results for central hour only	Run automatically
D3	2028 Construction Year	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A15 N		ONE HOUR	✓	711	100.000
B - B1191		ONE HOUR	✓	183	100.000
C - A15 S		ONE HOUR	✓	1056	100.000
D - Temple Road		ONE HOUR	✓	24	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A15 N	B - B1191	C - A15 S	D - Temple Road
From	A - A15 N	0	1	707	3
	B - B1191	7	0	157	19
	C - A15 S	904	143	0	9
	D - Temple Road	0	23	1	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A - A15 N	B - B1191	C - A15 S	D - Temple Road
From	A - A15 N	0	0	7	0
	B - B1191	0	0	3	0
	C - A15 S	3	5	0	13
	D - Temple Road	0	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.32	10.32	0.5	B	157	157
B-AD	0.19	30.15	0.2	D	26	26
A-BCD	0.01	7.84	0.0	A	3	3
D-A	0.00	0.00	0.0	A	0	0
D-BC	0.12	19.08	0.1	C	24	24
C-ABD	0.32	11.21	0.5	B	143	143

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	141	35	588	0.240	141	0.2	0.3	8.281	A
B-AD	23	6	227	0.103	23	0.1	0.1	17.672	C
A-BCD	3	0.67	515	0.005	3	0.0	0.0	7.025	A
D-A	0	0	502	0.000	0	0.0	0.0	0.000	A
D-BC	22	5	306	0.071	21	0.1	0.1	13.254	B
C-ABD	129	32	535	0.240	128	0.2	0.3	9.295	A

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	173	43	533	0.325	172	0.3	0.5	10.268	B
B-AD	29	7	148	0.193	28	0.1	0.2	29.875	D
A-BCD	3	0.83	462	0.007	3	0.0	0.0	7.842	A
D-A	0	0	446	0.000	0	0.0	0.0	0.000	A
D-BC	26	7	224	0.118	26	0.1	0.1	19.025	C
C-ABD	157	39	495	0.318	157	0.3	0.5	11.171	B

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	173	43	532	0.325	173	0.5	0.5	10.321	B
B-AD	29	7	148	0.194	29	0.2	0.2	30.152	D
A-BCD	3	0.83	462	0.007	3	0.0	0.0	7.845	A
D-A	0	0	446	0.000	0	0.0	0.0	0.000	A
D-BC	26	7	224	0.118	26	0.1	0.1	19.076	C
C-ABD	157	39	495	0.318	157	0.5	0.5	11.210	B

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	141	35	588	0.240	142	0.5	0.3	8.326	A
B-AD	23	6	226	0.103	24	0.2	0.1	17.814	C
A-BCD	3	0.67	515	0.005	3	0.0	0.0	7.028	A
D-A	0	0	502	0.000	0	0.0	0.0	0.000	A
D-BC	22	5	306	0.071	22	0.1	0.1	13.291	B
C-ABD	129	32	534	0.241	129	0.5	0.3	9.341	A

2028 Construction Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - B1191 - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	D - Temple Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D4 - 2028 Construction Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A15 / B1191 / Temple Road	Right-Left Stagger	Two-way	Two-way	Two-way	Two-way		1.70	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.70	A

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)	Results for central hour only	Run automatically
D4	2028 Construction Year	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A15 N		ONE HOUR	✓	805	100.000
B - B1191		ONE HOUR	✓	129	100.000
C - A15 S		ONE HOUR	✓	891	100.000
D - Temple Road		ONE HOUR	✓	23	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A15 N	B - B1191	C - A15 S	D - Temple Road
From	A - A15 N	0	0	805	0
	B - B1191	0	0	106	23
	C - A15 S	775	110	0	6
	D - Temple Road	1	15	7	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A - A15 N	B - B1191	C - A15 S	D - Temple Road
From	A - A15 N	0	0	5	0
	B - B1191	0	0	0	0
	C - A15 S	4	1	0	0
	D - Temple Road	0	0	17	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.23	9.28	0.3	A	106	106
B-AD	0.16	27.41	0.2	D	23	23
A-BCD	0.00	0.00	0.0	A	0	0
D-A	0.00	7.38	0.0	A	1	1
D-BC	0.10	16.73	0.1	C	22	22
C-ABD	0.26	10.53	0.4	B	110	110

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	95	24	564	0.169	95	0.2	0.2	7.678	A
B-AD	21	5	234	0.088	21	0.1	0.1	16.872	C
A-BCD	0	0	1111	0.000	0	0.0	0.0	0.000	A
D-A	0.90	0.22	536	0.002	0.90	0.0	0.0	6.725	A
D-BC	20	5	327	0.061	20	0.0	0.1	12.283	B
C-ABD	99	25	512	0.193	99	0.2	0.2	8.800	A

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	117	29	505	0.231	116	0.2	0.3	9.253	A
B-AD	25	6	157	0.161	25	0.1	0.2	27.226	D
A-BCD	0	0	1020	0.000	0	0.0	0.0	0.000	A
D-A	1	0.28	489	0.002	1	0.0	0.0	7.383	A
D-BC	24	6	250	0.097	24	0.1	0.1	16.689	C
C-ABD	121	30	466	0.260	121	0.2	0.3	10.503	B

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	117	29	505	0.231	117	0.3	0.3	9.280	A
B-AD	25	6	157	0.162	25	0.2	0.2	27.412	D
A-BCD	0	0	1020	0.000	0	0.0	0.0	0.000	A
D-A	1	0.28	488	0.002	1	0.0	0.0	7.385	A
D-BC	24	6	250	0.097	24	0.1	0.1	16.730	C
C-ABD	121	30	466	0.260	121	0.3	0.4	10.531	B

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	95	24	563	0.169	96	0.3	0.2	7.703	A
B-AD	21	5	233	0.089	21	0.2	0.1	16.973	C
A-BCD	0	0	1111	0.000	0	0.0	0.0	0.000	A
D-A	0.90	0.22	536	0.002	0.90	0.0	0.0	6.730	A
D-BC	20	5	327	0.061	20	0.1	0.1	12.307	B
C-ABD	99	25	511	0.193	99	0.4	0.2	8.831	A

2028 Construction Year + CD, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - B1191 - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	D - Temple Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D5 - 2028 Construction Year + CD, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A15 / B1191 / Temple Road	Right-Left Stagger	Two-way	Two-way	Two-way	Two-way		2.29	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.29	A

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)	Results for central hour only	Run automatically
D5	2028 Construction Year + CD	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A15 N		ONE HOUR	✓	720	100.000
B - B1191		ONE HOUR	✓	183	100.000
C - A15 S		ONE HOUR	✓	1061	100.000
D - Temple Road		ONE HOUR	✓	24	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A15 N	B - B1191	C - A15 S	D - Temple Road
From	A - A15 N	0	1	716	3
	B - B1191	7	0	157	19
	C - A15 S	909	143	0	9
	D - Temple Road	0	23	1	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A - A15 N	B - B1191	C - A15 S	D - Temple Road
From	A - A15 N	0	0	7	0
	B - B1191	0	0	3	0
	C - A15 S	3	5	0	13
	D - Temple Road	0	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.33	10.42	0.5	B	157	157
B-AD	0.20	31.06	0.2	D	26	26
A-BCD	0.01	7.87	0.0	A	3	3
D-A	0.00	0.00	0.0	A	0	0
D-BC	0.12	19.42	0.1	C	24	24
C-ABD	0.32	11.30	0.5	B	143	143

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	141	35	586	0.241	141	0.2	0.3	8.335	A
B-AD	23	6	224	0.104	23	0.1	0.1	17.921	C
A-BCD	3	0.67	514	0.005	3	0.0	0.0	7.042	A
D-A	0	0	501	0.000	0	0.0	0.0	0.000	A
D-BC	22	5	303	0.071	21	0.1	0.1	13.387	B
C-ABD	129	32	532	0.241	128	0.2	0.3	9.345	A

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	173	43	529	0.327	172	0.3	0.5	10.370	B
B-AD	29	7	145	0.198	28	0.1	0.2	30.751	D
A-BCD	3	0.83	461	0.007	3	0.0	0.0	7.869	A
D-A	0	0	445	0.000	0	0.0	0.0	0.000	A
D-BC	26	7	221	0.120	26	0.1	0.1	19.362	C
C-ABD	157	39	492	0.320	157	0.3	0.5	11.258	B

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	173	43	529	0.327	173	0.5	0.5	10.422	B
B-AD	29	7	144	0.198	29	0.2	0.2	31.057	D
A-BCD	3	0.83	461	0.007	3	0.0	0.0	7.871	A
D-A	0	0	444	0.000	0	0.0	0.0	0.000	A
D-BC	26	7	221	0.120	26	0.1	0.1	19.416	C
C-ABD	157	39	492	0.320	157	0.5	0.5	11.300	B

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	141	35	585	0.241	142	0.5	0.3	8.375	A
B-AD	23	6	224	0.105	24	0.2	0.1	18.073	C
A-BCD	3	0.67	514	0.005	3	0.0	0.0	7.048	A
D-A	0	0	500	0.000	0	0.0	0.0	0.000	A
D-BC	22	5	303	0.071	22	0.1	0.1	13.426	B
C-ABD	129	32	532	0.242	129	0.5	0.3	9.390	A

2028 Construction Year + CD, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - B1191 - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	D - Temple Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D6 - 2028 Construction Year + CD, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A15 / B1191 / Temple Road	Right-Left Stagger	Two-way	Two-way	Two-way	Two-way		1.71	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.71	A

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)	Results for central hour only	Run automatically
D6	2028 Construction Year + CD	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A15 N		ONE HOUR	✓	809	100.000
B - B1191		ONE HOUR	✓	129	100.000
C - A15 S		ONE HOUR	✓	900	100.000
D - Temple Road		ONE HOUR	✓	23	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A15 N	B - B1191	C - A15 S	D - Temple Road
From	A - A15 N	0	0	809	0
	B - B1191	0	0	106	23
	C - A15 S	784	110	0	6
	D - Temple Road	1	15	7	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A - A15 N	B - B1191	C - A15 S	D - Temple Road
From	A - A15 N	0	0	5	0
	B - B1191	0	0	0	0
	C - A15 S	4	1	0	0
	D - Temple Road	0	0	17	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.23	9.32	0.3	A	106	106
B-AD	0.16	27.99	0.2	D	23	23
A-BCD	0.00	0.00	0.0	A	0	0
D-A	0.00	7.43	0.0	A	1	1
D-BC	0.10	17.01	0.1	C	22	22
C-ABD	0.26	10.57	0.4	B	110	110

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	95	24	563	0.169	95	0.2	0.2	7.698	A
B-AD	21	5	232	0.089	21	0.1	0.1	17.050	C
A-BCD	0	0	1107	0.000	0	0.0	0.0	0.000	A
D-A	0.90	0.22	534	0.002	0.90	0.0	0.0	6.754	A
D-BC	20	5	324	0.061	20	0.0	0.1	12.407	B
C-ABD	99	25	511	0.194	99	0.2	0.2	8.821	A

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	117	29	503	0.232	116	0.2	0.3	9.293	A
B-AD	25	6	154	0.164	25	0.1	0.2	27.802	D
A-BCD	0	0	1014	0.000	0	0.0	0.0	0.000	A
D-A	1	0.28	486	0.002	1	0.0	0.0	7.426	A
D-BC	24	6	246	0.098	24	0.1	0.1	16.982	C
C-ABD	121	30	465	0.260	121	0.2	0.4	10.539	B

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	117	29	503	0.232	117	0.3	0.3	9.320	A
B-AD	25	6	154	0.165	25	0.2	0.2	27.994	D
A-BCD	0	0	1014	0.000	0	0.0	0.0	0.000	A
D-A	1	0.28	486	0.002	1	0.0	0.0	7.428	A
D-BC	24	6	246	0.098	24	0.1	0.1	17.012	C
C-ABD	121	30	465	0.260	121	0.4	0.4	10.568	B

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	95	24	562	0.170	96	0.3	0.2	7.723	A
B-AD	21	5	231	0.089	21	0.2	0.1	17.157	C
A-BCD	0	0	1106	0.000	0	0.0	0.0	0.000	A
D-A	0.90	0.22	534	0.002	0.90	0.0	0.0	6.756	A
D-BC	20	5	324	0.061	20	0.1	0.1	12.431	B
C-ABD	99	25	510	0.194	99	0.4	0.2	8.853	A

2028 Construction Year + CD + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - B1191 - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	D - Temple Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D7 - 2028 Construction Year + CD + Development, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A15 / B1191 / Temple Road	Right-Left Stagger	Two-way	Two-way	Two-way	Two-way		2.68	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.68	A

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)	Results for central hour only	Run automatically
D7	2028 Construction Year + CD + Development	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A15 N		ONE HOUR	✓	766	100.000
B - B1191		ONE HOUR	✓	191	100.000
C - A15 S		ONE HOUR	✓	1098	100.000
D - Temple Road		ONE HOUR	✓	27	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A15 N	B - B1191	C - A15 S	D - Temple Road
From	A - A15 N	0	44	718	4
	B - B1191	11	0	161	19
	C - A15 S	925	163	0	10
	D - Temple Road	1	24	2	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A - A15 N	B - B1191	C - A15 S	D - Temple Road
From	A - A15 N	0	0	7	0
	B - B1191	0	0	3	0
	C - A15 S	3	5	0	13
	D - Temple Road	0	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.35	11.04	0.5	B	161	161
B-AD	0.26	38.17	0.3	E	30	30
A-BCD	0.01	8.00	0.0	A	4	4
D-A	0.00	8.28	0.0	A	1	1
D-BC	0.14	21.43	0.2	C	26	26
C-ABD	0.38	12.66	0.6	B	163	163

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	145	36	577	0.251	144	0.2	0.3	8.572	A
B-AD	27	7	210	0.128	27	0.1	0.1	19.629	C
A-BCD	4	0.90	509	0.007	4	0.0	0.0	7.128	A
D-A	0.90	0.22	494	0.002	0.90	0.0	0.0	7.292	A
D-BC	23	6	290	0.081	23	0.1	0.1	14.119	B
C-ABD	147	37	521	0.281	146	0.3	0.4	10.071	B

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	177	44	514	0.345	176	0.3	0.5	10.961	B
B-AD	33	8	128	0.259	32	0.1	0.3	37.498	E
A-BCD	4	1	454	0.010	4	0.0	0.0	8.001	A
D-A	1	0.28	436	0.003	1	0.0	0.0	8.273	A
D-BC	29	7	204	0.140	28	0.1	0.2	21.343	C
C-ABD	179	45	478	0.375	179	0.4	0.6	12.591	B

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	177	44	513	0.346	177	0.5	0.5	11.039	B
B-AD	33	8	127	0.260	33	0.3	0.3	38.169	E
A-BCD	4	1	454	0.010	4	0.0	0.0	8.005	A
D-A	1	0.28	436	0.003	1	0.0	0.0	8.279	A
D-BC	29	7	204	0.140	29	0.2	0.2	21.428	C
C-ABD	179	45	478	0.376	179	0.6	0.6	12.664	B

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	145	36	576	0.251	145	0.5	0.4	8.632	A
B-AD	27	7	209	0.129	28	0.3	0.2	19.895	C
A-BCD	4	0.90	508	0.007	4	0.0	0.0	7.135	A
D-A	0.90	0.22	494	0.002	0.90	0.0	0.0	7.298	A
D-BC	23	6	290	0.081	24	0.2	0.1	14.174	B
C-ABD	147	37	521	0.281	147	0.6	0.4	10.142	B

2028 Construction Year + CD + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - B1191 - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	D - Temple Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D8 - 2028 Construction Year + CD + Development, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	A15 / B1191 / Temple Road	Right-Left Stagger	Two-way	Two-way	Two-way	Two-way		3.24	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.24	A

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)	Results for central hour only	Run automatically
D8	2028 Construction Year + CD + Development	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A15 N		ONE HOUR	✓	831	100.000
B - B1191		ONE HOUR	✓	192	100.000
C - A15 S		ONE HOUR	✓	907	100.000
D - Temple Road		ONE HOUR	✓	25	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - A15 N	B - B1191	C - A15 S	D - Temple Road
From	A - A15 N	0	4	826	1
	B - B1191	43	0	126	23
	C - A15 S	786	114	0	7
	D - Temple Road	2	15	8	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A - A15 N	B - B1191	C - A15 S	D - Temple Road
From	A - A15 N	0	0	5	0
	B - B1191	0	0	0	0
	C - A15 S	4	1	0	0
	D - Temple Road	0	0	17	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.31	11.61	0.4	B	126	126
B-AD	0.49	48.07	0.9	E	66	66
A-BCD	0.00	7.42	0.0	A	1	1
D-A	0.00	7.66	0.0	A	2	2
D-BC	0.11	18.96	0.1	C	23	23
C-ABD	0.27	10.92	0.4	B	114	114

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	113	28	530	0.214	113	0.2	0.3	8.624	A
B-AD	59	15	226	0.262	59	0.2	0.3	21.430	C
A-BCD	0.90	0.22	535	0.002	0.90	0.0	0.0	6.741	A
D-A	2	0.45	524	0.003	2	0.0	0.0	6.887	A
D-BC	21	5	307	0.067	21	0.1	0.1	13.236	B
C-ABD	102	26	505	0.203	102	0.2	0.3	9.017	A

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	139	35	451	0.307	138	0.3	0.4	11.463	B
B-AD	73	18	147	0.494	70	0.3	0.9	45.848	E
A-BCD	1	0.28	487	0.002	1	0.0	0.0	7.415	A
D-A	2	0.55	473	0.005	2	0.0	0.0	7.648	A
D-BC	25	6	226	0.112	25	0.1	0.1	18.877	C
C-ABD	126	31	459	0.274	125	0.3	0.4	10.881	B

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	139	35	449	0.309	139	0.4	0.4	11.607	B
B-AD	73	18	147	0.494	73	0.9	0.9	48.070	E
A-BCD	1	0.28	486	0.002	1	0.0	0.0	7.424	A
D-A	2	0.55	472	0.005	2	0.0	0.0	7.659	A
D-BC	25	6	225	0.112	25	0.1	0.1	18.963	C
C-ABD	126	31	459	0.274	126	0.4	0.4	10.915	B

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	113	28	527	0.215	114	0.4	0.3	8.725	A
B-AD	59	15	226	0.262	62	0.9	0.4	22.117	C
A-BCD	0.90	0.22	534	0.002	0.90	0.0	0.0	6.753	A
D-A	2	0.45	524	0.003	2	0.0	0.0	6.901	A
D-BC	21	5	306	0.068	21	0.1	0.1	13.294	B
C-ABD	102	26	505	0.203	103	0.4	0.3	9.051	A

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: A15-B1191-Temple_Rd-MITIGATION AD-B queueing test.j10
Path: C:\Users\Ciaran.Conlon\Documents\Springwell\03 Junction Models
Report generation date: 11/07/2024 10:35:52

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2024 Baseline									
Stream B-AC	D1	0.1	7.22	0.05	A	D2	0.0	6.76	0.03	A
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2028 Construction Year									
Stream B-AC	D3	0.1	7.23	0.05	A	D4	0.0	6.78	0.03	A
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	2028 Construction Year + CD									
Stream B-AC	D5	0.1	7.23	0.05	A	D6	0.0	6.78	0.03	A
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	A
	Construction Year + CD + Development									
Stream B-AC	D7	0.2	8.07	0.14	A	D8	0.0	6.85	0.04	A
Stream C-AB		0.0	0.00	0.00	A		0.0	0.00	0.00	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	
Location	
Site number	
Date	11/07/2024
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	CC
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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						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)	Results for central hour only	Run automatically
D1	2024 Baseline	AM	ONE HOUR	07:00	08:30	15	✓	✓
D2	2024 Baseline	PM	ONE HOUR	16:15	17:45	15		✓
D3	2028 Construction Year	AM	ONE HOUR	07:00	08:30	15	✓	✓
D4	2028 Construction Year	PM	ONE HOUR	16:15	17:45	15		✓
D5	2028 Construction Year + CD	AM	ONE HOUR	07:00	08:30	15	✓	✓
D6	2028 Construction Year + CD	PM	ONE HOUR	16:15	17:45	15		✓
D7	Construction Year + CD + Development	AM	ONE HOUR	07:00	08:30	15	✓	✓
D8	Construction Year + CD + Development	PM	ONE HOUR	16:15	17:45	15		✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Generated on 11/07/2024 10:36:42 using Junctions 10 (10.1.1.1905)

2024 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D1 - 2024 Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Entry Only	Two-way		1.07	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.07	A

Arms

Arms

Arm	Name	Description	Arm type
A	A15 right turners to B1191		Major
B	A15 Left turners to B1191		Minor
C	B1191		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00			0.0	✓	0.00

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 (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	2.20	0	0

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.080	0.202	0.127	0.289
B-C	574	0.088	0.222	-	-
C-B	574	0.222	0.222	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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)	Results for central hour only	Run automatically
D1	2024 Baseline	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	138	100.000
B		ONE HOUR	✓	24	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	138
	B	0	0	24
	C	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	5
	B	0	0	3
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	7.22	0.1	A	24	24
C-AB	0.00	0.00	0.0	A	0	0
C-A					0	0
A-B					0	0
A-C					138	138

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	5	546	0.039	22	0.0	0.0	7.064	A
C-AB	0	0	546	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	124	31			124				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	540	0.049	26	0.0	0.1	7.216	A
C-AB	0	0	540	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	152	38			152				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	540	0.049	26	0.1	0.1	7.216	A
C-AB	0	0	540	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	152	38			152				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	5	546	0.039	22	0.1	0.0	7.068	A
C-AB	0	0	546	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	124	31			124				

2024 Baseline, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Entry Only	Two-way		0.79	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.79	A

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	2024 Baseline	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	106	100.000
B		ONE HOUR	✓	14	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	106
	B	0	0	14
	C	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.03	6.76	0.0	A	13	19
C-AB	0.00	0.00	0.0	A	0	0
C-A					0	0
A-B					0	0
A-C					97	146

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	11	3	556	0.019	10	0.0	0.0	6.596	A
C-AB	0	0	556	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	80	20			80				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	3	553	0.023	13	0.0	0.0	6.663	A
C-AB	0	0	553	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	95	24			95				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	4	548	0.028	15	0.0	0.0	6.758	A
C-AB	0	0	548	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	117	29			117				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	4	548	0.028	15	0.0	0.0	6.758	A
C-AB	0	0	548	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	117	29			117				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	3	553	0.023	13	0.0	0.0	6.666	A
C-AB	0	0	553	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	95	24			95				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	11	3	556	0.019	11	0.0	0.0	6.599	A
C-AB	0	0	556	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	80	20			80				

2028 Construction Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D3 - 2028 Construction Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Entry Only	Two-way		1.04	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.04	A

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)	Results for central hour only	Run automatically
D3	2028 Construction Year	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	143	100.000
B		ONE HOUR	✓	24	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	143
	B	0	0	24
	C	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	5
	B	0	0	3
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	7.23	0.1	A	24	24
C-AB	0.00	0.00	0.0	A	0	0
C-A					0	0
A-B					0	0
A-C					143	143

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	5	545	0.040	22	0.0	0.0	7.078	A
C-AB	0	0	545	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	129	32			129				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	539	0.049	26	0.0	0.1	7.233	A
C-AB	0	0	539	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	157	39			157				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	539	0.049	26	0.1	0.1	7.233	A
C-AB	0	0	539	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	157	39			157				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	5	545	0.040	22	0.1	0.0	7.079	A
C-AB	0	0	545	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	129	32			129				

2028 Construction Year, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Entry Only	Two-way		0.81	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.81	A

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	2028 Construction Year	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	110	100.000
B		ONE HOUR	✓	15	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	110
	B	0	0	15
	C	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.03	6.78	0.0	A	14	21
C-AB	0.00	0.00	0.0	A	0	0
C-A					0	0
A-B					0	0
A-C					101	151

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	11	3	556	0.020	11	0.0	0.0	6.613	A
C-AB	0	0	556	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	83	21			83				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	3	552	0.024	13	0.0	0.0	6.684	A
C-AB	0	0	552	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	99	25			99				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	547	0.030	16	0.0	0.0	6.785	A
C-AB	0	0	547	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	121	30			121				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	547	0.030	17	0.0	0.0	6.785	A
C-AB	0	0	547	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	121	30			121				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	3	552	0.024	14	0.0	0.0	6.687	A
C-AB	0	0	552	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	99	25			99				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	11	3	556	0.020	11	0.0	0.0	6.614	A
C-AB	0	0	556	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	83	21			83				

2028 Construction Year + CD, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D5 - 2028 Construction Year + CD, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Entry Only	Two-way		1.04	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.04	A

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)	Results for central hour only	Run automatically
D5	2028 Construction Year + CD	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	143	100.000
B		ONE HOUR	✓	24	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	143
	B	0	0	24
	C	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	5
	B	0	0	3
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	7.23	0.1	A	24	24
C-AB	0.00	0.00	0.0	A	0	0
C-A					0	0
A-B					0	0
A-C					143	143

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	5	545	0.040	22	0.0	0.0	7.078	A
C-AB	0	0	545	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	129	32			129				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	539	0.049	26	0.0	0.1	7.233	A
C-AB	0	0	539	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	157	39			157				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	539	0.049	26	0.1	0.1	7.233	A
C-AB	0	0	539	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	157	39			157				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	5	545	0.040	22	0.1	0.0	7.079	A
C-AB	0	0	545	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	129	32			129				

2028 Construction Year + CD, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Entry Only	Two-way		0.81	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.81	A

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	2028 Construction Year + CD	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	110	100.000
B		ONE HOUR	✓	15	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	110
	B	0	0	15
	C	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.03	6.78	0.0	A	14	21
C-AB	0.00	0.00	0.0	A	0	0
C-A					0	0
A-B					0	0
A-C					101	151

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	11	3	556	0.020	11	0.0	0.0	6.613	A
C-AB	0	0	556	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	83	21			83				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	3	552	0.024	13	0.0	0.0	6.684	A
C-AB	0	0	552	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	99	25			99				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	547	0.030	16	0.0	0.0	6.785	A
C-AB	0	0	547	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	121	30			121				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	547	0.030	17	0.0	0.0	6.785	A
C-AB	0	0	547	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	121	30			121				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	3	552	0.024	14	0.0	0.0	6.687	A
C-AB	0	0	552	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	99	25			99				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	11	3	556	0.020	11	0.0	0.0	6.614	A
C-AB	0	0	556	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	83	21			83				

Construction Year + CD + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Demand Sets	D7 - Construction Year + CD + Development, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Entry Only	Two-way		2.38	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.38	A

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)	Results for central hour only	Run automatically
D7	Construction Year + CD + Development	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	163	100.000
B		ONE HOUR	✓	68	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	163
	B	0	0	68
	C	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	5
	B	0	0	3
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.14	8.07	0.2	A	68	68
C-AB	0.00	0.00	0.0	A	0	0
C-A					0	0
A-B					0	0
A-C					163	163

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	61	15	541	0.113	61	0.1	0.1	7.717	A
C-AB	0	0	541	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	147	37			147				

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	75	19	534	0.140	75	0.1	0.2	8.070	A
C-AB	0	0	534	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	179	45			179				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	75	19	534	0.140	75	0.2	0.2	8.074	A
C-AB	0	0	534	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	179	45			179				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	61	15	541	0.113	61	0.2	0.1	7.726	A
C-AB	0	0	541	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	147	37			147				

Construction Year + CD + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Entry Only	Two-way		0.98	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.98	A

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	Construction Year + CD + Development	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	114	100.000
B		ONE HOUR	✓	19	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	0	114
	B	0	0	19
	C	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	1
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.04	6.85	0.0	A	17	26
C-AB	0.00	0.00	0.0	A	0	0
C-A					0	0
A-B					0	0
A-C					105	157

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	4	555	0.026	14	0.0	0.0	6.658	A
C-AB	0	0	555	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	86	21			86				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	551	0.031	17	0.0	0.0	6.739	A
C-AB	0	0	551	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	102	26			102				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	21	5	546	0.038	21	0.0	0.0	6.854	A
C-AB	0	0	546	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	126	31			126				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	21	5	546	0.038	21	0.0	0.0	6.854	A
C-AB	0	0	546	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	126	31			126				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	551	0.031	17	0.0	0.0	6.743	A
C-AB	0	0	551	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	102	26			102				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	14	4	555	0.026	14	0.0	0.0	6.659	A
C-AB	0	0	555	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	86	21			86				

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.1.1.1905

For sales and distribution information, program advice and maintenance, contact TRL Software:
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Filename: A15-B1202.j10
Path: C:\Users\Ciaran.Conlon\Documents\Springwell\03 Junction Models
Report generation date: 11/07/2024 11:16:51

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2024 Baseline									
Stream B-CD	D1	4.1	139.62	0.88	F	D2	7.0	209.99	1.00	F
Stream B-AD		3.4	196.46	0.84	F		5.1	241.21	0.97	F
Stream A-BCD		1.6	5.36	0.35	A		1.8	5.20	0.39	A
Stream D-AB		4.0	150.65	0.87	F		0.8	38.63	0.43	E
Stream D-BC		2.2	226.52	0.80	F		0.4	42.83	0.29	E
Stream C-ABD		1.6	4.39	0.33	A		1.8	5.55	0.38	A
	2028 Construction Year									
Stream B-CD	D3	11.6	310.05	1.18	F	D4	14.9	383.88	1.24	F
Stream B-AD		6.7	385.82	1.09	F		8.8	417.02	1.18	F
Stream A-BCD		1.9	5.59	0.38	A		2.2	5.53	0.43	A
Stream D-AB		11.3	341.29	1.20	F		1.0	50.85	0.52	F
Stream D-BC		4.5	424.36	1.07	F		0.5	58.48	0.35	F
Stream C-ABD		1.9	4.60	0.37	A		2.1	5.83	0.42	A
	2028 Construction Year + CD									
Stream B-CD	D5	13.2	346.20	1.23	F	D6	16.3	415.07	1.29	F
Stream B-AD		7.3	422.32	1.14	F		9.4	449.54	1.22	F
Stream A-BCD		2.0	5.61	0.39	A		2.3	5.58	0.44	A
Stream D-AB		12.9	379.54	1.26	F		1.1	54.30	0.53	F
Stream D-BC		4.8	459.83	1.12	F		0.5	62.77	0.37	F
Stream C-ABD		2.0	4.64	0.38	A		2.2	5.86	0.43	A
	2028 Construction Year + CD + Development									
Stream B-CD	D7	20.3	535.36	1.47	F	D8	23.9	612.07	1.49	F
Stream B-AD		10.2	606.74	1.38	F		14.0	633.51	1.44	F
Stream A-BCD		2.3	5.70	0.42	A		2.5	5.80	0.46	A
Stream D-AB		20.0	551.68	1.60	F		1.6	77.77	0.64	F
Stream D-BC		5.4	680.57	1.30	F		0.8	98.33	0.48	F
Stream C-ABD		2.2	4.79	0.40	A		2.6	6.19	0.47	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.

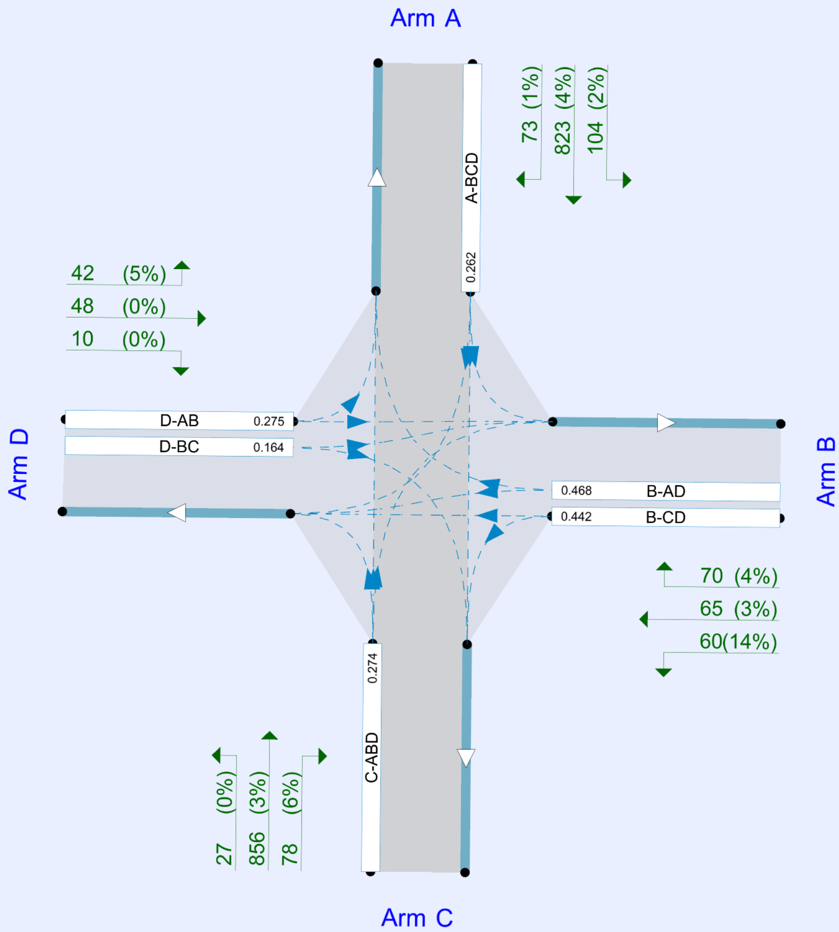
File summary

File Description

Title	A15 / B1202
Location	
Site number	
Date	11/07/2024
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	CC
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



Flows show original traffic demand (PCU/hr).
Streams (downstream end) show RFC ()

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75				✓		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)	Results for central hour only	Run automatically
D1	2024 Baseline	AM	ONE HOUR	07:00	08:30	15	✓	✓
D2	2024 Baseline	PM	ONE HOUR	16:15	17:45	15	✓	✓
D3	2028 Construction Year	AM	ONE HOUR	07:00	08:30	15	✓	✓
D4	2028 Construction Year	PM	ONE HOUR	16:15	17:45	15	✓	✓
D5	2028 Construction Year + CD	AM	ONE HOUR	07:00	08:30	15	✓	✓
D6	2028 Construction Year + CD	PM	ONE HOUR	16:15	17:45	15	✓	✓
D7	2028 Construction Year + CD + Development	AM	ONE HOUR	07:00	08:30	15	✓	✓
D8	2028 Construction Year + CD + Development	PM	ONE HOUR	16:15	17:45	15	✓	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2024 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D1 - 2024 Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	A15 / B1202	Crossroads	Two-way	Two-way	Two-way	Two-way		23.70	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	23.70	C

Arms

Arms

Arm	Name	Description	Arm type
A	A15 N		Major
B	B1202 Metheringham Heath Lane		Minor
C	A15 S		Major
D	B1202 Heath Lane		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A	6.18			250.0	✓	0.00
C	6.18			250.0	✓	0.00

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	10.00	5.65	3.89	3.32	✓	2.00	25	48
D	One lane plus flare	10.00	8.59	5.48	4.34	3.65	✓	2.00	56	51

Slope / Intercept / Capacity

Custom Intercept Adjustments

Custom stream intercept adjustment	Stream	Use adjustment	Reason	Direct intercept adjustment (PCU/hr)
1	B-C	✓	Reduced capacity to match observed queues	-200
2	D-A	✓	Reduced capacity to match observed queues	-240

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	719	-	-	-	-	-	-	0.276	0.395	0.276	-	-	-
B-A	574	0.104	0.262	0.262	-	-	-	0.165	0.375	-	0.262	0.262	0.131
B-C	538	0.112	0.284	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	574	0.104	0.262	0.262	-	-	-	0.165	0.375	0.165	-	-	-
B-D, offside lane	574	0.104	0.262	0.262	-	-	-	0.165	0.375	0.165	-	-	-
C-B	719	0.276	0.276	0.395	-	-	-	-	-	-	-	-	-
D-A	482	-	-	-	-	-	-	0.278	-	0.110	-	-	-
D-B, nearside lane	574	0.165	0.165	0.374	-	-	-	0.262	0.262	0.104	-	-	-
D-B, offside lane	574	0.165	0.165	0.374	-	-	-	0.262	0.262	0.104	-	-	-
D-C	574	-	0.165	0.374	0.131	0.262	0.262	0.262	0.262	0.104	-	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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)	Results for central hour only	Run automatically
D1	2024 Baseline	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	863	100.000
B		ONE HOUR	✓	164	100.000
C		ONE HOUR	✓	1032	100.000
D		ONE HOUR	✓	129	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	72	728	63
	B	52	0	64	48
	C	955	53	0	24
	D	60	52	17	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	1	5	3
	B	30	0	7	4
	C	2	2	0	0
	D	7	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	0.88	139.62	4.1	F	99	99
B-AD	0.84	196.46	3.4	F	65	65
A-BCD	0.35	5.36	1.6	A	292	292
D-AB	0.87	150.65	4.0	F	91	91
D-BC	0.80	226.52	2.2	F	38	38
C-ABD	0.33	4.39	1.6	A	316	316

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	84	21	264	0.319	83	0.3	0.5	21.061	C
B-AD	63	16	196	0.321	62	0.3	0.5	32.485	D
A-BCD	207	52	994	0.208	206	0.4	0.7	4.768	A
D-AB	79	20	212	0.375	78	0.3	0.6	28.552	D
D-BC	37	9	180	0.202	36	0.1	0.3	25.719	D
C-ABD	214	54	1135	0.189	213	0.3	0.6	3.990	A

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	111	28	148	0.752	104	0.5	2.4	76.873	F
B-AD	69	17	93	0.741	62	0.5	2.2	123.630	F
A-BCD	375	94	1085	0.345	371	0.7	1.6	5.290	A
D-AB	102	25	125	0.813	93	0.6	2.8	101.187	F
D-BC	41	10	67	0.608	37	0.3	1.2	113.820	F
C-ABD	413	103	1259	0.328	410	0.6	1.5	4.348	A

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	114	28	128	0.885	107	2.4	4.1	139.616	F
B-AD	67	17	79	0.843	62	2.2	3.4	196.455	F
A-BCD	378	95	1087	0.348	378	1.6	1.6	5.360	A
D-AB	103	26	118	0.872	98	2.8	4.0	150.653	F
D-BC	39	10	49	0.804	36	1.2	2.2	226.523	F
C-ABD	418	104	1261	0.331	417	1.5	1.6	4.395	A

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	86	21	252	0.341	100	4.1	0.6	27.180	D
B-AD	61	15	186	0.330	73	3.4	0.7	42.726	E
A-BCD	210	52	996	0.210	213	1.6	0.8	4.839	A
D-AB	80	20	206	0.388	93	4.0	0.7	37.374	E
D-BC	36	9	172	0.209	43	2.2	0.3	30.489	D
C-ABD	217	54	1137	0.191	221	1.6	0.7	4.034	A

2024 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D2 - 2024 Baseline, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	A15 / B1202	Crossroads	Two-way	Two-way	Two-way	Two-way		22.65	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	22.65	C

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)	Results for central hour only	Run automatically
D2	2024 Baseline	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	951	100.000
B		ONE HOUR	✓	180	100.000
C		ONE HOUR	✓	877	100.000
D		ONE HOUR	✓	97	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	100	781	70
	B	60	0	58	62
	C	778	73	0	26
	D	41	46	10	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	2	4	1
	B	4	0	14	3
	C	3	6	0	0
	D	5	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	1.00	209.99	7.0	F	104	104
B-AD	0.97	241.21	5.1	F	76	76
A-BCD	0.39	5.20	1.8	A	349	349
D-AB	0.43	38.63	0.8	E	66	66
D-BC	0.29	42.83	0.4	E	31	31
C-ABD	0.38	5.55	1.8	A	328	328

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	88	22	244	0.359	87	0.3	0.6	24.853	C
B-AD	74	19	203	0.366	73	0.3	0.6	28.627	D
A-BCD	246	61	1069	0.230	244	0.5	0.8	4.509	A
D-AB	59	15	246	0.238	58	0.2	0.3	19.707	C
D-BC	29	7	208	0.138	28	0.1	0.2	20.005	C
C-ABD	235	59	1008	0.233	233	0.5	0.8	4.843	A

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	118	29	126	0.933	103	0.6	4.4	127.913	F
B-AD	80	20	88	0.915	69	0.6	3.4	152.698	F
A-BCD	449	112	1175	0.382	445	0.8	1.8	5.123	A
D-AB	73	18	171	0.426	71	0.3	0.7	36.555	E
D-BC	34	8	122	0.277	33	0.2	0.4	40.066	E
C-ABD	419	105	1100	0.381	415	0.8	1.7	5.483	A

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	121	30	121	0.997	111	4.4	7.0	209.990	F
B-AD	77	19	80	0.970	70	3.4	5.1	241.211	F
A-BCD	454	113	1177	0.385	453	1.8	1.8	5.200	A
D-AB	73	18	169	0.434	73	0.7	0.8	38.626	E
D-BC	33	8	117	0.285	33	0.4	0.4	42.828	E
C-ABD	423	106	1102	0.384	422	1.7	1.8	5.551	A

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	90	23	228	0.396	115	7.0	0.8	41.555	E
B-AD	72	18	191	0.375	90	5.1	0.7	42.302	E
A-BCD	249	62	1071	0.232	253	1.8	0.8	4.586	A
D-AB	59	15	243	0.241	60	0.8	0.3	20.431	C
D-BC	29	7	202	0.142	29	0.4	0.2	20.957	C
C-ABD	238	59	1010	0.235	241	1.8	0.8	4.895	A

2028 Construction Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D3 - 2028 Construction Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	A15 / B1202	Crossroads	Two-way	Two-way	Two-way	Two-way		48.40	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	48.40	E

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)	Results for central hour only	Run automatically
D3	2028 Construction Year	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	895	100.000
B		ONE HOUR	✓	170	100.000
C		ONE HOUR	✓	1070	100.000
D		ONE HOUR	✓	134	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	75	755	65
	B	54	0	66	50
	C	990	55	0	25
	D	62	54	18	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	1	5	3
	B	30	0	7	4
	C	2	2	0	0
	D	7	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	1.18	310.05	11.6	F	107	107
B-AD	1.09	385.82	6.7	F	63	63
A-BCD	0.38	5.59	1.9	A	326	326
D-AB	1.20	341.29	11.3	F	97	97
D-BC	1.07	424.36	4.5	F	37	37
C-ABD	0.37	4.60	1.9	A	359	359

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	88	22	249	0.353	87	0.3	0.6	23.405	C
B-AD	65	16	181	0.358	64	0.3	0.6	36.956	E
A-BCD	227	57	1009	0.225	226	0.4	0.8	4.804	A
D-AB	83	21	199	0.414	81	0.4	0.7	32.177	D
D-BC	38	9	165	0.230	37	0.2	0.3	29.110	D
C-ABD	238	60	1154	0.206	237	0.4	0.7	4.011	A

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	119	30	115	1.042	98	0.6	5.8	163.856	F
B-AD	68	17	66	1.023	53	0.6	4.2	243.518	F
A-BCD	421	105	1105	0.381	417	0.8	1.9	5.497	A
D-AB	108	27	102	1.058	88	0.7	5.7	184.321	F
D-BC	40	10	38	1.054	29	0.3	3.0	308.913	F
C-ABD	475	119	1285	0.369	470	0.7	1.9	4.534	A

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	126	32	107	1.179	103	5.8	11.6	310.049	F
B-AD	61	15	56	1.093	51	4.2	6.7	385.819	F
A-BCD	426	107	1108	0.385	426	1.9	1.9	5.590	A
D-AB	113	28	94	1.200	90	5.7	11.3	341.285	F
D-BC	35	9	33	1.071	29	3.0	4.5	424.363	F
C-ABD	481	120	1288	0.373	480	1.9	1.9	4.602	A

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	92	23	215	0.428	135	11.6	0.9	69.266	F
B-AD	61	15	148	0.409	84	6.7	1.0	87.359	F
A-BCD	231	58	1011	0.228	235	1.9	0.9	4.889	A
D-AB	85	21	186	0.456	126	11.3	1.0	93.814	F
D-BC	36	9	130	0.275	52	4.5	0.4	55.840	F
C-ABD	242	61	1158	0.209	247	1.9	0.8	4.069	A

2028 Construction Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D4 - 2028 Construction Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	A15 / B1202	Crossroads	Two-way	Two-way	Two-way	Two-way		38.23	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	38.23	E

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)	Results for central hour only	Run automatically
D4	2028 Construction Year	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	988	100.000
B		ONE HOUR	✓	186	100.000
C		ONE HOUR	✓	910	100.000
D		ONE HOUR	✓	100	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	104	811	73
	B	62	0	60	64
	C	808	75	0	27
	D	42	48	10	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	2	4	1
	B	4	0	14	3
	C	3	6	0	0
	D	5	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	1.24	383.88	14.9	F	112	112
B-AD	1.18	417.02	8.8	F	74	74
A-BCD	0.43	5.53	2.2	A	396	396
D-AB	0.52	50.85	1.0	F	68	68
D-BC	0.35	58.48	0.5	F	32	32
C-ABD	0.42	5.83	2.1	A	365	365

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	91	23	229	0.400	90	0.4	0.7	28.136	D
B-AD	76	19	187	0.405	75	0.4	0.7	32.758	D
A-BCD	273	68	1086	0.252	272	0.5	0.9	4.566	A
D-AB	60	15	234	0.258	60	0.2	0.3	21.250	C
D-BC	29	7	194	0.152	29	0.1	0.2	21.784	C
C-ABD	256	64	1023	0.251	255	0.5	0.9	4.886	A

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	126	32	110	1.148	98	0.7	7.8	205.692	F
B-AD	79	20	69	1.135	60	0.7	5.4	253.808	F
A-BCD	513	128	1199	0.428	508	0.9	2.1	5.422	A
D-AB	76	19	153	0.497	74	0.3	0.9	45.673	E
D-BC	34	9	103	0.333	33	0.2	0.5	50.840	F
C-ABD	469	117	1121	0.418	464	0.9	2.0	5.729	A

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	133	33	107	1.245	104	7.8	14.9	383.882	F
B-AD	72	18	61	1.180	58	5.4	8.8	417.025	F
A-BCD	519	130	1202	0.432	519	2.1	2.2	5.534	A
D-AB	77	19	148	0.516	76	0.9	1.0	50.849	F
D-BC	34	8	95	0.355	33	0.5	0.5	58.479	F
C-ABD	474	119	1123	0.422	474	2.0	2.1	5.829	A

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	97	24	192	0.503	151	14.9	1.3	141.267	F
B-AD	70	18	145	0.485	101	8.8	1.1	114.384	F
A-BCD	278	69	1090	0.255	283	2.2	1.0	4.662	A
D-AB	61	15	230	0.263	63	1.0	0.4	22.496	C
D-BC	29	7	183	0.160	31	0.5	0.2	23.754	C
C-ABD	260	65	1026	0.254	265	2.1	0.9	4.957	A

2028 Construction Year + CD, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D5 - 2028 Construction Year + CD, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	A15 / B1202	Crossroads	Two-way	Two-way	Two-way	Two-way		52.99	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	52.99	F

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)	Results for central hour only	Run automatically
D5	2028 Construction Year + CD	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	904	100.000
B		ONE HOUR	✓	170	100.000
C		ONE HOUR	✓	1075	100.000
D		ONE HOUR	✓	134	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	75	764	65
	B	54	0	66	50
	C	995	55	0	25
	D	62	54	18	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	1	5	3
	B	30	0	7	4
	C	2	2	0	0
	D	7	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	1.23	346.20	13.2	F	107	107
B-AD	1.14	422.32	7.3	F	63	63
A-BCD	0.39	5.61	2.0	A	333	333
D-AB	1.26	379.54	12.9	F	97	97
D-BC	1.12	459.83	4.8	F	37	37
C-ABD	0.38	4.64	2.0	A	365	365

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	88	22	246	0.358	87	0.3	0.6	23.878	C
B-AD	65	16	178	0.363	63	0.3	0.7	37.862	E
A-BCD	231	58	1014	0.228	229	0.4	0.8	4.792	A
D-AB	83	21	197	0.419	81	0.4	0.7	32.711	D
D-BC	38	9	162	0.234	37	0.2	0.3	29.710	D
C-ABD	241	60	1156	0.208	240	0.4	0.8	4.012	A

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	120	30	111	1.081	97	0.6	6.4	178.697	F
B-AD	67	17	63	1.060	52	0.7	4.5	264.551	F
A-BCD	431	108	1112	0.387	426	0.8	1.9	5.517	A
D-AB	108	27	99	1.096	86	0.7	6.2	200.178	F
D-BC	39	10	36	1.092	28	0.3	3.2	333.921	F
C-ABD	483	121	1288	0.375	478	0.8	1.9	4.562	A

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	128	32	104	1.234	100	6.4	13.2	346.202	F
B-AD	59	15	52	1.138	48	4.5	7.3	422.322	F
A-BCD	436	109	1115	0.391	436	1.9	2.0	5.615	A
D-AB	114	29	90	1.263	88	6.2	12.9	379.542	F
D-BC	33	8	30	1.117	27	3.2	4.8	459.829	F
C-ABD	489	122	1291	0.379	489	1.9	2.0	4.636	A

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	93	23	207	0.450	142	13.2	1.0	91.500	F
B-AD	60	15	138	0.433	84	7.3	1.1	107.056	F
A-BCD	234	59	1017	0.230	239	2.0	0.9	4.882	A
D-AB	85	21	182	0.467	132	12.9	1.1	116.805	F
D-BC	35	9	119	0.297	53	4.8	0.5	66.963	F
C-ABD	245	61	1160	0.211	250	2.0	0.8	4.073	A

2028 Construction Year + CD, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D6 - 2028 Construction Year + CD, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	A15 / B1202	Crossroads	Two-way	Two-way	Two-way	Two-way		40.90	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	40.90	E

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)	Results for central hour only	Run automatically
D6	2028 Construction Year + CD	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	992	100.000
B		ONE HOUR	✓	186	100.000
C		ONE HOUR	✓	919	100.000
D		ONE HOUR	✓	100	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	104	815	73
	B	62	0	60	64
	C	817	75	0	27
	D	42	48	10	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	2	4	1
	B	4	0	14	3
	C	3	6	0	0
	D	5	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	1.29	415.07	16.3	F	113	113
B-AD	1.22	449.54	9.4	F	73	73
A-BCD	0.44	5.58	2.3	A	401	401
D-AB	0.53	54.30	1.1	F	68	68
D-BC	0.37	62.77	0.5	F	32	32
C-ABD	0.43	5.86	2.2	A	372	372

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	92	23	226	0.404	90	0.4	0.7	28.610	D
B-AD	76	19	185	0.409	74	0.4	0.7	33.421	D
A-BCD	276	69	1088	0.254	274	0.5	0.9	4.573	A
D-AB	60	15	231	0.261	60	0.2	0.4	21.571	C
D-BC	29	7	191	0.154	29	0.1	0.2	22.151	C
C-ABD	260	65	1028	0.253	259	0.5	0.9	4.874	A

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	127	32	108	1.179	97	0.7	8.3	218.535	F
B-AD	78	19	67	1.165	58	0.7	5.6	270.510	F
A-BCD	520	130	1201	0.433	515	0.9	2.2	5.460	A
D-AB	76	19	149	0.511	74	0.4	1.0	47.921	E
D-BC	34	9	99	0.344	33	0.2	0.5	53.531	F
C-ABD	479	120	1128	0.424	474	0.9	2.1	5.750	A

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	134	34	104	1.287	102	8.3	16.3	415.069	F
B-AD	70	18	58	1.216	56	5.6	9.4	449.537	F
A-BCD	527	132	1204	0.438	527	2.2	2.3	5.580	A
D-AB	77	19	144	0.533	76	1.0	1.1	54.299	F
D-BC	33	8	90	0.370	33	0.5	0.5	62.773	F
C-ABD	484	121	1130	0.429	484	2.1	2.2	5.859	A

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	97	24	186	0.523	157	16.3	1.5	175.466	F
B-AD	70	17	134	0.520	102	9.4	1.4	147.421	F
A-BCD	281	70	1091	0.257	286	2.3	1.0	4.673	A
D-AB	61	15	228	0.267	64	1.1	0.4	22.954	C
D-BC	29	7	180	0.163	31	0.5	0.2	24.359	C
C-ABD	264	66	1031	0.256	269	2.2	0.9	4.950	A

2028 Construction Year + CD + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D7 - 2028 Construction Year + CD + Development, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	A15 / B1202	Crossroads	Two-way	Two-way	Two-way	Two-way		76.28	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	76.28	F

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)	Results for central hour only	Run automatically
D7	2028 Construction Year + CD + Development	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	953	100.000
B		ONE HOUR	✓	172	100.000
C		ONE HOUR	✓	1082	100.000
D		ONE HOUR	✓	134	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	84	804	65
	B	54	0	68	50
	C	1002	55	0	25
	D	62	54	18	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	1	5	3
	B	30	0	7	4
	C	2	2	0	0
	D	7	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	1.47	535.36	20.3	F	111	111
B-AD	1.38	606.74	10.2	F	61	61
A-BCD	0.42	5.70	2.3	A	367	367
D-AB	1.60	551.68	20.0	F	100	100
D-BC	1.30	680.57	5.4	F	34	34
C-ABD	0.40	4.79	2.2	A	381	381

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	90	23	233	0.388	89	0.3	0.6	26.299	D
B-AD	64	16	166	0.387	63	0.4	0.7	42.011	E
A-BCD	250	62	1046	0.239	248	0.5	0.9	4.715	A
D-AB	83	21	192	0.432	81	0.4	0.8	34.359	D
D-BC	38	9	153	0.246	37	0.2	0.3	31.909	D
C-ABD	249	62	1155	0.215	247	0.4	0.8	4.052	A

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	127	32	99	1.282	90	0.6	9.7	264.214	F
B-AD	63	16	50	1.251	43	0.7	5.6	374.446	F
A-BCD	479	120	1154	0.415	474	0.9	2.2	5.573	A
D-AB	110	28	88	1.250	80	0.8	8.4	271.456	F
D-BC	37	9	30	1.242	24	0.3	3.6	465.164	F
C-ABD	506	127	1289	0.393	501	0.8	2.1	4.697	A

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	130	32	89	1.467	88	9.7	20.3	535.363	F
B-AD	59	15	43	1.382	41	5.6	10.2	606.742	F
A-BCD	486	121	1157	0.420	486	2.2	2.3	5.695	A
D-AB	122	30	76	1.597	75	8.4	20.0	551.685	F
D-BC	26	6	20	1.300	18	3.6	5.4	680.566	F
C-ABD	514	128	1292	0.398	513	2.1	2.2	4.785	A

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	98	25	169	0.582	161	20.3	4.7	293.411	F
B-AD	56	14	91	0.616	82	10.2	3.9	320.521	F
A-BCD	254	64	1050	0.242	260	2.3	1.0	4.814	A
D-AB	87	22	167	0.520	159	20.0	2.1	272.098	F
D-BC	34	8	56	0.599	46	5.4	2.3	301.813	F
C-ABD	254	63	1159	0.219	259	2.2	0.9	4.123	A

2028 Construction Year + CD + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D8 - 2028 Construction Year + CD + Development, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	A15 / B1202	Crossroads	Two-way	Two-way	Two-way	Two-way		59.59	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	59.59	F

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)	Results for central hour only	Run automatically
D8	2028 Construction Year + CD + Development	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1000	100.000
B		ONE HOUR	✓	195	100.000
C		ONE HOUR	✓	961	100.000
D		ONE HOUR	✓	100	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	104	823	73
	B	70	0	60	65
	C	856	78	0	27
	D	42	48	10	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	2	4	1
	B	4	0	14	3
	C	3	6	0	0
	D	5	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	1.49	612.07	23.9	F	117	117
B-AD	1.44	633.51	14.0	F	78	78
A-BCD	0.46	5.80	2.5	A	417	417
D-AB	0.64	77.77	1.6	F	69	69
D-BC	0.48	98.33	0.8	F	31	31
C-ABD	0.47	6.19	2.6	A	419	419

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	94	23	212	0.442	92	0.4	0.8	32.263	D
B-AD	82	20	174	0.468	80	0.4	0.8	38.924	E
A-BCD	284	71	1087	0.262	283	0.5	1.0	4.626	A
D-AB	61	15	220	0.275	60	0.2	0.4	23.047	C
D-BC	29	7	180	0.164	29	0.1	0.2	23.853	C
C-ABD	288	72	1053	0.274	286	0.6	1.0	4.894	A

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	135	34	95	1.420	89	0.8	12.4	323.271	F
B-AD	80	20	57	1.395	52	0.8	7.8	383.014	F
A-BCD	544	136	1203	0.452	538	1.0	2.4	5.647	A
D-AB	77	19	131	0.584	73	0.4	1.2	60.747	F
D-BC	33	8	82	0.407	32	0.2	0.6	69.736	F
C-ABD	542	136	1160	0.467	536	1.0	2.5	6.037	A

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	138	34	92	1.491	92	12.4	23.9	612.071	F
B-AD	77	19	53	1.444	52	7.8	14.0	633.505	F
A-BCD	552	138	1206	0.458	552	2.4	2.5	5.795	A
D-AB	78	20	123	0.637	77	1.2	1.6	77.771	F
D-BC	32	8	67	0.475	31	0.6	0.8	98.329	F
C-ABD	550	138	1164	0.473	550	2.5	2.6	6.192	A

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	103	26	164	0.630	157	23.9	10.5	387.305	F
B-AD	72	18	105	0.682	98	14.0	7.4	374.067	F
A-BCD	290	72	1091	0.265	296	2.5	1.0	4.741	A
D-AB	61	15	215	0.284	66	1.6	0.4	25.489	D
D-BC	29	7	162	0.178	31	0.8	0.2	27.963	D
C-ABD	294	73	1057	0.278	300	2.6	1.1	4.990	A

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: A15-B1202 - testing.j10
Path: C:\Users\Ciaran.Conlon\OneDrive - RSK Group\Documents - SCP Major Projects\111313 - Springwell Solar Farm, Lincs\03 Data\04 Traffic Modelling\06 PICADY Modelling\03 Junctions\jct9_A15-B1202\Testing
Report generation date: 14/08/2024 15:56:38

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2024 Baseline									
Stream B-CD	D1	4.1	139.62	0.88	F	D2	7.0	209.99	1.00	F
Stream B-AD		3.4	196.46	0.84	F		5.1	241.21	0.97	F
Stream A-BCD		1.6	5.36	0.35	A		1.8	5.20	0.39	A
Stream D-AB		4.0	150.65	0.87	F		0.8	38.63	0.43	E
Stream D-BC		2.2	226.52	0.80	F		0.4	42.83	0.29	E
Stream C-ABD		1.6	4.39	0.33	A		1.8	5.55	0.38	A
	2028 Construction Year									
Stream B-CD	D3	11.6	310.05	1.18	F	D4	14.9	383.88	1.24	F
Stream B-AD		6.7	385.82	1.09	F		8.8	417.02	1.18	F
Stream A-BCD		1.9	5.59	0.38	A		2.2	5.53	0.43	A
Stream D-AB		11.3	341.29	1.20	F		1.0	50.85	0.52	F
Stream D-BC		4.5	424.36	1.07	F		0.5	58.48	0.35	F
Stream C-ABD		1.9	4.60	0.37	A		2.1	5.83	0.42	A
	2028 Construction Year + CD									
Stream B-CD	D5	13.2	346.20	1.23	F	D6	16.3	415.07	1.29	F
Stream B-AD		7.3	422.32	1.14	F		9.4	449.54	1.22	F
Stream A-BCD		2.0	5.61	0.39	A		2.3	5.58	0.44	A
Stream D-AB		12.9	379.54	1.26	F		1.1	54.30	0.53	F
Stream D-BC		4.8	459.83	1.12	F		0.5	62.77	0.37	F
Stream C-ABD		2.0	4.64	0.38	A		2.2	5.86	0.43	A
	2028 Construction Year + CD + Proposed Dev (BUS SCENARIO)									
Stream B-CD	D13	13.8	357.57	1.25	F	D14	17.1	432.68	1.31	F
Stream B-AD		7.5	433.10	1.15	F		9.7	469.01	1.23	F
Stream A-BCD		2.0	5.62	0.39	A		2.3	5.60	0.44	A
Stream D-AB		13.2	388.32	1.28	F		1.1	55.16	0.54	F
Stream D-BC		4.8	468.53	1.13	F		0.6	64.38	0.38	F
Stream C-ABD		2.0	4.64	0.38	A		2.2	5.92	0.44	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.

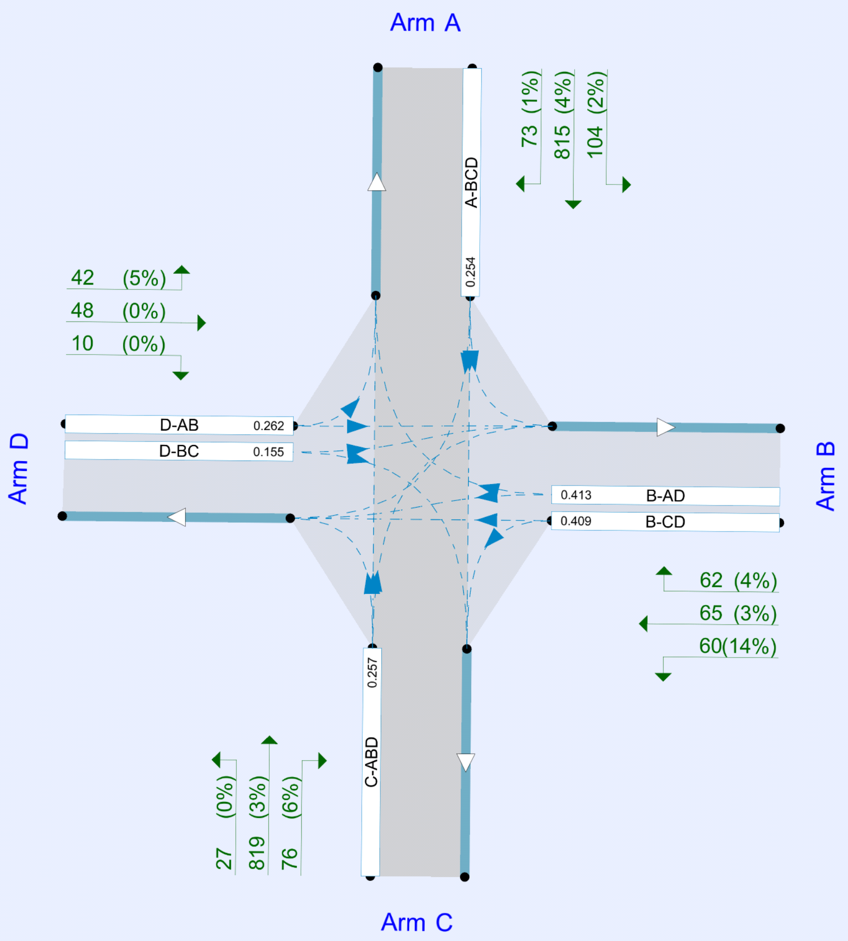
File summary

File Description

Title	A15 / B1202
Location	
Site number	
Date	11/07/2024
Version	
Status	
Identifier	
Client	
Jobnumber	
Enumerator	CC
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



Flows show original traffic demand (PCU/hr).
Streams (downstream end) show RFC ()

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75				✓		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)	Results for central hour only	Run automatically
D1	2024 Baseline	AM	ONE HOUR	07:00	08:30	15	✓	✓
D2	2024 Baseline	PM	ONE HOUR	16:15	17:45	15	✓	✓
D3	2028 Construction Year	AM	ONE HOUR	07:00	08:30	15	✓	✓
D4	2028 Construction Year	PM	ONE HOUR	16:15	17:45	15	✓	✓
D5	2028 Construction Year + CD	AM	ONE HOUR	07:00	08:30	15	✓	✓
D6	2028 Construction Year + CD	PM	ONE HOUR	16:15	17:45	15	✓	✓
D13	2028 Construction Year + CD + Proposed Dev (BUS SCENARIO)	AM	ONE HOUR	07:00	08:30	15	✓	✓
D14	2028 Construction Year + CD + Proposed Dev (BUS SCENARIO)	PM	ONE HOUR	16:15	17:45	15	✓	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2024 Baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D1 - 2024 Baseline, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	A15 / B1202	Crossroads	Two-way	Two-way	Two-way	Two-way		23.70	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	23.70	C

Arms

Arms

Arm	Name	Description	Arm type
A	A15 N		Major
B	B1202 Metheringham Heath Lane		Minor
C	A15 S		Major
D	B1202 Heath Lane		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A	6.18			250.0	✓	0.00
C	6.18			250.0	✓	0.00

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B	One lane plus flare	10.00	10.00	5.65	3.89	3.32	✓	2.00	25	48
D	One lane plus flare	10.00	8.59	5.48	4.34	3.65	✓	2.00	56	51

Slope / Intercept / Capacity

Custom Intercept Adjustments

Custom stream intercept adjustment	Stream	Use adjustment	Reason	Direct intercept adjustment (PCU/hr)
1	B-C	✓	Reduced capacity to match observed queues	-200
2	D-A	✓	Reduced capacity to match observed queues	-240

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	719	-	-	-	-	-	-	0.276	0.395	0.276	-	-	-
B-A	574	0.104	0.262	0.262	-	-	-	0.165	0.375	-	0.262	0.262	0.131
B-C	538	0.112	0.284	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	574	0.104	0.262	0.262	-	-	-	0.165	0.375	0.165	-	-	-
B-D, offside lane	574	0.104	0.262	0.262	-	-	-	0.165	0.375	0.165	-	-	-
C-B	719	0.276	0.276	0.395	-	-	-	-	-	-	-	-	-
D-A	482	-	-	-	-	-	-	0.278	-	0.110	-	-	-
D-B, nearside lane	574	0.165	0.165	0.374	-	-	-	0.262	0.262	0.104	-	-	-
D-B, offside lane	574	0.165	0.165	0.374	-	-	-	0.262	0.262	0.104	-	-	-
D-C	574	-	0.165	0.374	0.131	0.262	0.262	0.262	0.262	0.104	-	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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)	Results for central hour only	Run automatically
D1	2024 Baseline	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	863	100.000
B		ONE HOUR	✓	164	100.000
C		ONE HOUR	✓	1032	100.000
D		ONE HOUR	✓	129	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	72	728	63
	B	52	0	64	48
	C	955	53	0	24
	D	60	52	17	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	1	5	3
	B	30	0	7	4
	C	2	2	0	0
	D	7	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	0.88	139.62	4.1	F	99	99
B-AD	0.84	196.46	3.4	F	65	65
A-BCD	0.35	5.36	1.6	A	292	292
D-AB	0.87	150.65	4.0	F	91	91
D-BC	0.80	226.52	2.2	F	38	38
C-ABD	0.33	4.39	1.6	A	316	316

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	84	21	264	0.319	83	0.3	0.5	21.061	C
B-AD	63	16	196	0.321	62	0.3	0.5	32.485	D
A-BCD	207	52	994	0.208	206	0.4	0.7	4.768	A
D-AB	79	20	212	0.375	78	0.3	0.6	28.552	D
D-BC	37	9	180	0.202	36	0.1	0.3	25.719	D
C-ABD	214	54	1135	0.189	213	0.3	0.6	3.990	A

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	111	28	148	0.752	104	0.5	2.4	76.873	F
B-AD	69	17	93	0.741	62	0.5	2.2	123.630	F
A-BCD	375	94	1085	0.345	371	0.7	1.6	5.290	A
D-AB	102	25	125	0.813	93	0.6	2.8	101.187	F
D-BC	41	10	67	0.608	37	0.3	1.2	113.820	F
C-ABD	413	103	1259	0.328	410	0.6	1.5	4.348	A

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	114	28	128	0.885	107	2.4	4.1	139.616	F
B-AD	67	17	79	0.843	62	2.2	3.4	196.455	F
A-BCD	378	95	1087	0.348	378	1.6	1.6	5.360	A
D-AB	103	26	118	0.872	98	2.8	4.0	150.653	F
D-BC	39	10	49	0.804	36	1.2	2.2	226.523	F
C-ABD	418	104	1261	0.331	417	1.5	1.6	4.395	A

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	86	21	252	0.341	100	4.1	0.6	27.180	D
B-AD	61	15	186	0.330	73	3.4	0.7	42.726	E
A-BCD	210	52	996	0.210	213	1.6	0.8	4.839	A
D-AB	80	20	206	0.388	93	4.0	0.7	37.374	E
D-BC	36	9	172	0.209	43	2.2	0.3	30.489	D
C-ABD	217	54	1137	0.191	221	1.6	0.7	4.034	A

2024 Baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D2 - 2024 Baseline, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	A15 / B1202	Crossroads	Two-way	Two-way	Two-way	Two-way		22.65	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	22.65	C

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)	Results for central hour only	Run automatically
D2	2024 Baseline	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	951	100.000
B		ONE HOUR	✓	180	100.000
C		ONE HOUR	✓	877	100.000
D		ONE HOUR	✓	97	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	100	781	70
	B	60	0	58	62
	C	778	73	0	26
	D	41	46	10	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	2	4	1
	B	4	0	14	3
	C	3	6	0	0
	D	5	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	1.00	209.99	7.0	F	104	104
B-AD	0.97	241.21	5.1	F	76	76
A-BCD	0.39	5.20	1.8	A	349	349
D-AB	0.43	38.63	0.8	E	66	66
D-BC	0.29	42.83	0.4	E	31	31
C-ABD	0.38	5.55	1.8	A	328	328

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	88	22	244	0.359	87	0.3	0.6	24.853	C
B-AD	74	19	203	0.366	73	0.3	0.6	28.627	D
A-BCD	246	61	1069	0.230	244	0.5	0.8	4.509	A
D-AB	59	15	246	0.238	58	0.2	0.3	19.707	C
D-BC	29	7	208	0.138	28	0.1	0.2	20.005	C
C-ABD	235	59	1008	0.233	233	0.5	0.8	4.843	A

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	118	29	126	0.933	103	0.6	4.4	127.913	F
B-AD	80	20	88	0.915	69	0.6	3.4	152.698	F
A-BCD	449	112	1175	0.382	445	0.8	1.8	5.123	A
D-AB	73	18	171	0.426	71	0.3	0.7	36.555	E
D-BC	34	8	122	0.277	33	0.2	0.4	40.066	E
C-ABD	419	105	1100	0.381	415	0.8	1.7	5.483	A

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	121	30	121	0.997	111	4.4	7.0	209.990	F
B-AD	77	19	80	0.970	70	3.4	5.1	241.211	F
A-BCD	454	113	1177	0.385	453	1.8	1.8	5.200	A
D-AB	73	18	169	0.434	73	0.7	0.8	38.626	E
D-BC	33	8	117	0.285	33	0.4	0.4	42.828	E
C-ABD	423	106	1102	0.384	422	1.7	1.8	5.551	A

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	90	23	228	0.396	115	7.0	0.8	41.555	E
B-AD	72	18	191	0.375	90	5.1	0.7	42.302	E
A-BCD	249	62	1071	0.232	253	1.8	0.8	4.586	A
D-AB	59	15	243	0.241	60	0.8	0.3	20.431	C
D-BC	29	7	202	0.142	29	0.4	0.2	20.957	C
C-ABD	238	59	1010	0.235	241	1.8	0.8	4.895	A

2028 Construction Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D3 - 2028 Construction Year, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	A15 / B1202	Crossroads	Two-way	Two-way	Two-way	Two-way		48.40	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	48.40	E

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)	Results for central hour only	Run automatically
D3	2028 Construction Year	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	895	100.000
B		ONE HOUR	✓	170	100.000
C		ONE HOUR	✓	1070	100.000
D		ONE HOUR	✓	134	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	75	755	65
	B	54	0	66	50
	C	990	55	0	25
	D	62	54	18	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	1	5	3
	B	30	0	7	4
	C	2	2	0	0
	D	7	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	1.18	310.05	11.6	F	107	107
B-AD	1.09	385.82	6.7	F	63	63
A-BCD	0.38	5.59	1.9	A	326	326
D-AB	1.20	341.29	11.3	F	97	97
D-BC	1.07	424.36	4.5	F	37	37
C-ABD	0.37	4.60	1.9	A	359	359

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	88	22	249	0.353	87	0.3	0.6	23.405	C
B-AD	65	16	181	0.358	64	0.3	0.6	36.956	E
A-BCD	227	57	1009	0.225	226	0.4	0.8	4.804	A
D-AB	83	21	199	0.414	81	0.4	0.7	32.177	D
D-BC	38	9	165	0.230	37	0.2	0.3	29.110	D
C-ABD	238	60	1154	0.206	237	0.4	0.7	4.011	A

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	119	30	115	1.042	98	0.6	5.8	163.856	F
B-AD	68	17	66	1.023	53	0.6	4.2	243.518	F
A-BCD	421	105	1105	0.381	417	0.8	1.9	5.497	A
D-AB	108	27	102	1.058	88	0.7	5.7	184.321	F
D-BC	40	10	38	1.054	29	0.3	3.0	308.913	F
C-ABD	475	119	1285	0.369	470	0.7	1.9	4.534	A

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	126	32	107	1.179	103	5.8	11.6	310.049	F
B-AD	61	15	56	1.093	51	4.2	6.7	385.819	F
A-BCD	426	107	1108	0.385	426	1.9	1.9	5.590	A
D-AB	113	28	94	1.200	90	5.7	11.3	341.285	F
D-BC	35	9	33	1.071	29	3.0	4.5	424.363	F
C-ABD	481	120	1288	0.373	480	1.9	1.9	4.602	A

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	92	23	215	0.428	135	11.6	0.9	69.266	F
B-AD	61	15	148	0.409	84	6.7	1.0	87.359	F
A-BCD	231	58	1011	0.228	235	1.9	0.9	4.889	A
D-AB	85	21	186	0.456	126	11.3	1.0	93.814	F
D-BC	36	9	130	0.275	52	4.5	0.4	55.840	F
C-ABD	242	61	1158	0.209	247	1.9	0.8	4.069	A

2028 Construction Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D4 - 2028 Construction Year, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	A15 / B1202	Crossroads	Two-way	Two-way	Two-way	Two-way		38.23	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	38.23	E

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)	Results for central hour only	Run automatically
D4	2028 Construction Year	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	988	100.000
B		ONE HOUR	✓	186	100.000
C		ONE HOUR	✓	910	100.000
D		ONE HOUR	✓	100	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	104	811	73
	B	62	0	60	64
	C	808	75	0	27
	D	42	48	10	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	2	4	1
	B	4	0	14	3
	C	3	6	0	0
	D	5	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	1.24	383.88	14.9	F	112	112
B-AD	1.18	417.02	8.8	F	74	74
A-BCD	0.43	5.53	2.2	A	396	396
D-AB	0.52	50.85	1.0	F	68	68
D-BC	0.35	58.48	0.5	F	32	32
C-ABD	0.42	5.83	2.1	A	365	365

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	91	23	229	0.400	90	0.4	0.7	28.136	D
B-AD	76	19	187	0.405	75	0.4	0.7	32.758	D
A-BCD	273	68	1086	0.252	272	0.5	0.9	4.566	A
D-AB	60	15	234	0.258	60	0.2	0.3	21.250	C
D-BC	29	7	194	0.152	29	0.1	0.2	21.784	C
C-ABD	256	64	1023	0.251	255	0.5	0.9	4.886	A

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	126	32	110	1.148	98	0.7	7.8	205.692	F
B-AD	79	20	69	1.135	60	0.7	5.4	253.808	F
A-BCD	513	128	1199	0.428	508	0.9	2.1	5.422	A
D-AB	76	19	153	0.497	74	0.3	0.9	45.673	E
D-BC	34	9	103	0.333	33	0.2	0.5	50.840	F
C-ABD	469	117	1121	0.418	464	0.9	2.0	5.729	A

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	133	33	107	1.245	104	7.8	14.9	383.882	F
B-AD	72	18	61	1.180	58	5.4	8.8	417.025	F
A-BCD	519	130	1202	0.432	519	2.1	2.2	5.534	A
D-AB	77	19	148	0.516	76	0.9	1.0	50.849	F
D-BC	34	8	95	0.355	33	0.5	0.5	58.479	F
C-ABD	474	119	1123	0.422	474	2.0	2.1	5.829	A

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	97	24	192	0.503	151	14.9	1.3	141.267	F
B-AD	70	18	145	0.485	101	8.8	1.1	114.384	F
A-BCD	278	69	1090	0.255	283	2.2	1.0	4.662	A
D-AB	61	15	230	0.263	63	1.0	0.4	22.496	C
D-BC	29	7	183	0.160	31	0.5	0.2	23.754	C
C-ABD	260	65	1026	0.254	265	2.1	0.9	4.957	A

2028 Construction Year + CD, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D5 - 2028 Construction Year + CD, AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	A15 / B1202	Crossroads	Two-way	Two-way	Two-way	Two-way		52.99	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	52.99	F

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)	Results for central hour only	Run automatically
D5	2028 Construction Year + CD	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	904	100.000
B		ONE HOUR	✓	170	100.000
C		ONE HOUR	✓	1075	100.000
D		ONE HOUR	✓	134	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	75	764	65
	B	54	0	66	50
	C	995	55	0	25
	D	62	54	18	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	1	5	3
	B	30	0	7	4
	C	2	2	0	0
	D	7	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	1.23	346.20	13.2	F	107	107
B-AD	1.14	422.32	7.3	F	63	63
A-BCD	0.39	5.61	2.0	A	333	333
D-AB	1.26	379.54	12.9	F	97	97
D-BC	1.12	459.83	4.8	F	37	37
C-ABD	0.38	4.64	2.0	A	365	365

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	88	22	246	0.358	87	0.3	0.6	23.878	C
B-AD	65	16	178	0.363	63	0.3	0.7	37.862	E
A-BCD	231	58	1014	0.228	229	0.4	0.8	4.792	A
D-AB	83	21	197	0.419	81	0.4	0.7	32.711	D
D-BC	38	9	162	0.234	37	0.2	0.3	29.710	D
C-ABD	241	60	1156	0.208	240	0.4	0.8	4.012	A

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	120	30	111	1.081	97	0.6	6.4	178.697	F
B-AD	67	17	63	1.060	52	0.7	4.5	264.551	F
A-BCD	431	108	1112	0.387	426	0.8	1.9	5.517	A
D-AB	108	27	99	1.096	86	0.7	6.2	200.178	F
D-BC	39	10	36	1.092	28	0.3	3.2	333.921	F
C-ABD	483	121	1288	0.375	478	0.8	1.9	4.562	A

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	128	32	104	1.234	100	6.4	13.2	346.202	F
B-AD	59	15	52	1.138	48	4.5	7.3	422.322	F
A-BCD	436	109	1115	0.391	436	1.9	2.0	5.615	A
D-AB	114	29	90	1.263	88	6.2	12.9	379.542	F
D-BC	33	8	30	1.117	27	3.2	4.8	459.829	F
C-ABD	489	122	1291	0.379	489	1.9	2.0	4.636	A

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	93	23	207	0.450	142	13.2	1.0	91.500	F
B-AD	60	15	138	0.433	84	7.3	1.1	107.056	F
A-BCD	234	59	1017	0.230	239	2.0	0.9	4.882	A
D-AB	85	21	182	0.467	132	12.9	1.1	116.805	F
D-BC	35	9	119	0.297	53	4.8	0.5	66.963	F
C-ABD	245	61	1160	0.211	250	2.0	0.8	4.073	A

2028 Construction Year + CD, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D6 - 2028 Construction Year + CD, PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	A15 / B1202	Crossroads	Two-way	Two-way	Two-way	Two-way		40.90	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	40.90	E

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)	Results for central hour only	Run automatically
D6	2028 Construction Year + CD	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	992	100.000
B		ONE HOUR	✓	186	100.000
C		ONE HOUR	✓	919	100.000
D		ONE HOUR	✓	100	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	104	815	73
	B	62	0	60	64
	C	817	75	0	27
	D	42	48	10	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	2	4	1
	B	4	0	14	3
	C	3	6	0	0
	D	5	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	1.29	415.07	16.3	F	113	113
B-AD	1.22	449.54	9.4	F	73	73
A-BCD	0.44	5.58	2.3	A	401	401
D-AB	0.53	54.30	1.1	F	68	68
D-BC	0.37	62.77	0.5	F	32	32
C-ABD	0.43	5.86	2.2	A	372	372

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	92	23	226	0.404	90	0.4	0.7	28.610	D
B-AD	76	19	185	0.409	74	0.4	0.7	33.421	D
A-BCD	276	69	1088	0.254	274	0.5	0.9	4.573	A
D-AB	60	15	231	0.261	60	0.2	0.4	21.571	C
D-BC	29	7	191	0.154	29	0.1	0.2	22.151	C
C-ABD	260	65	1028	0.253	259	0.5	0.9	4.874	A

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	127	32	108	1.179	97	0.7	8.3	218.535	F
B-AD	78	19	67	1.165	58	0.7	5.6	270.510	F
A-BCD	520	130	1201	0.433	515	0.9	2.2	5.460	A
D-AB	76	19	149	0.511	74	0.4	1.0	47.921	E
D-BC	34	9	99	0.344	33	0.2	0.5	53.531	F
C-ABD	479	120	1128	0.424	474	0.9	2.1	5.750	A

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	134	34	104	1.287	102	8.3	16.3	415.069	F
B-AD	70	18	58	1.216	56	5.6	9.4	449.537	F
A-BCD	527	132	1204	0.438	527	2.2	2.3	5.580	A
D-AB	77	19	144	0.533	76	1.0	1.1	54.299	F
D-BC	33	8	90	0.370	33	0.5	0.5	62.773	F
C-ABD	484	121	1130	0.429	484	2.1	2.2	5.859	A

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	97	24	186	0.523	157	16.3	1.5	175.466	F
B-AD	70	17	134	0.520	102	9.4	1.4	147.421	F
A-BCD	281	70	1091	0.257	286	2.3	1.0	4.673	A
D-AB	61	15	228	0.267	64	1.1	0.4	22.954	C
D-BC	29	7	180	0.163	31	0.5	0.2	24.359	C
C-ABD	264	66	1031	0.256	269	2.2	0.9	4.950	A

2028 Construction Year + CD + Proposed Dev (BUS SCENARIO), AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D13 - 2028 Construction Year + CD + Proposed Dev (BUS SCENARIO), AM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	A15 / B1202	Crossroads	Two-way	Two-way	Two-way	Two-way		54.39	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	54.39	F

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)	Results for central hour only	Run automatically
D13	2028 Construction Year + CD + Proposed Dev (BUS SCENARIO)	AM	ONE HOUR	07:00	08:30	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	907	100.000
B		ONE HOUR	✓	171	100.000
C		ONE HOUR	✓	1075	100.000
D		ONE HOUR	✓	134	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	75	767	65
	B	54	0	67	50
	C	995	55	0	25
	D	62	54	18	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	1	5	3
	B	30	0	7	4
	C	2	2	0	0
	D	7	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	1.25	357.57	13.8	F	108	108
B-AD	1.15	433.10	7.5	F	63	63
A-BCD	0.39	5.62	2.0	A	335	335
D-AB	1.28	388.32	13.2	F	98	98
D-BC	1.13	468.53	4.8	F	36	36
C-ABD	0.38	4.64	2.0	A	365	365

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	89	22	246	0.363	88	0.3	0.6	24.069	C
B-AD	65	16	177	0.365	63	0.4	0.7	38.120	E
A-BCD	232	58	1016	0.228	230	0.4	0.8	4.788	A
D-AB	83	21	197	0.419	81	0.4	0.7	32.780	D
D-BC	38	9	161	0.234	37	0.2	0.3	29.844	D
C-ABD	241	60	1156	0.209	240	0.4	0.8	4.015	A

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	122	30	111	1.095	97	0.6	6.6	183.397	F
B-AD	67	17	62	1.073	51	0.7	4.6	271.472	F
A-BCD	433	108	1115	0.389	429	0.8	1.9	5.518	A
D-AB	108	27	98	1.104	86	0.7	6.3	203.527	F
D-BC	39	10	36	1.099	28	0.3	3.2	339.845	F
C-ABD	484	121	1288	0.376	479	0.8	1.9	4.570	A

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	129	32	103	1.249	100	6.6	13.8	357.575	F
B-AD	59	15	52	1.153	48	4.6	7.5	433.102	F
A-BCD	439	110	1118	0.392	438	1.9	2.0	5.617	A
D-AB	115	29	90	1.279	87	6.3	13.2	388.318	F
D-BC	33	8	29	1.128	26	3.2	4.8	468.532	F
C-ABD	490	122	1291	0.380	490	1.9	2.0	4.644	A

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	94	24	205	0.460	145	13.8	1.0	101.016	F
B-AD	60	15	135	0.442	85	7.5	1.2	115.287	F
A-BCD	236	59	1019	0.231	240	2.0	0.9	4.876	A
D-AB	85	21	181	0.469	134	13.2	1.1	122.775	F
D-BC	35	9	117	0.303	53	4.8	0.5	70.304	F
C-ABD	246	61	1160	0.212	250	2.0	0.8	4.077	A

2028 Construction Year + CD + Proposed Dev (BUS SCENARIO), PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Minor arm visibility to right	Arm D - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Demand Sets	D14 - 2028 Construction Year + CD + Proposed Dev (BUS SCENARIO), PM	Time results are shown for central hour only. (Model is run for a 90 minute period.)

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	A15 / B1202	Crossroads	Two-way	Two-way	Two-way	Two-way		42.65	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	42.65	E

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)	Results for central hour only	Run automatically
D14	2028 Construction Year + CD + Proposed Dev (BUS SCENARIO)	PM	ONE HOUR	16:15	17:45	15	✓	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	992	100.000
B		ONE HOUR	✓	187	100.000
C		ONE HOUR	✓	922	100.000
D		ONE HOUR	✓	100	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	104	815	73
	B	62	0	60	65
	C	819	76	0	27
	D	42	48	10	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To			
		A	B	C	D
From	A	0	2	4	1
	B	4	0	14	3
	C	3	6	0	0
	D	5	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-CD	1.31	432.68	17.1	F	114	114
B-AD	1.23	469.01	9.7	F	73	73
A-BCD	0.44	5.60	2.3	A	402	402
D-AB	0.54	55.16	1.1	F	69	69
D-BC	0.38	64.38	0.6	F	31	31
C-ABD	0.44	5.92	2.2	A	378	378

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	92	23	225	0.409	91	0.4	0.7	28.952	D
B-AD	76	19	184	0.413	75	0.4	0.7	33.724	D
A-BCD	276	69	1087	0.254	275	0.5	0.9	4.580	A
D-AB	60	15	231	0.262	60	0.2	0.4	21.652	C
D-BC	29	7	191	0.155	29	0.1	0.2	22.260	C
C-ABD	265	66	1029	0.257	263	0.5	0.9	4.893	A

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	128	32	107	1.196	97	0.7	8.6	225.339	F
B-AD	78	19	66	1.182	57	0.7	5.8	279.568	F
A-BCD	521	130	1201	0.434	516	0.9	2.2	5.474	A
D-AB	76	19	148	0.515	74	0.4	1.0	48.559	E
D-BC	34	9	98	0.348	33	0.2	0.5	54.391	F
C-ABD	487	122	1130	0.431	482	0.9	2.2	5.812	A

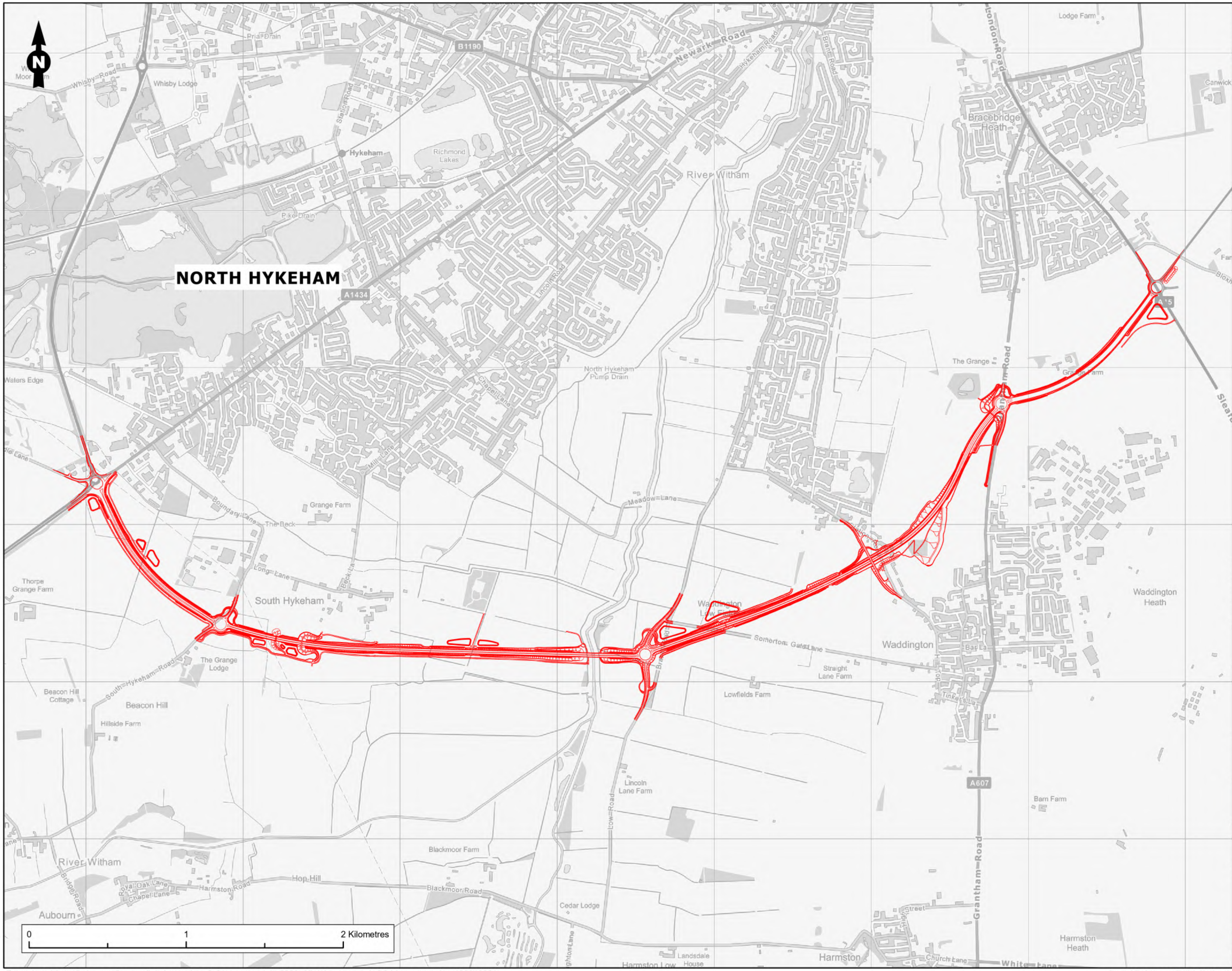
17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	136	34	104	1.311	102	8.6	17.1	432.685	F
B-AD	70	17	57	1.235	54	5.8	9.7	469.007	F
A-BCD	528	132	1204	0.439	528	2.2	2.3	5.597	A
D-AB	77	19	143	0.539	76	1.0	1.1	55.164	F
D-BC	33	8	88	0.376	33	0.5	0.6	64.380	F
C-ABD	493	123	1132	0.435	493	2.2	2.2	5.921	A

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	98	25	183	0.538	160	17.1	1.6	199.239	F
B-AD	70	17	127	0.548	102	9.7	1.6	174.807	F
A-BCD	281	70	1091	0.258	286	2.3	1.0	4.680	A
D-AB	61	15	227	0.268	64	1.1	0.4	23.089	C
D-BC	29	7	178	0.164	31	0.6	0.2	24.594	C
C-ABD	269	67	1033	0.260	274	2.2	1.0	4.972	A

Annex 4 – NHRR Site Plan



Spatial Reference: British National Grid, GCS OSGB 1936, Datum: OSGB 1936

Notes

NHRR route

Rev	Description			
P01	FIRST ISSUE			
	MFT	LR	SW	20/10/2023
	Drawn	Checked	Approved	Date

Suitability: S4

Drawing Status: Suitable For Review And Authorisation

Project Name:

NORTH HYKEHAM RELIEF ROAD

Project Location Plan

Project Client: Lincolnshire County Council – Working for a better future

Project Contractor: Balfour Beatty

Project Designer: RAMBOLL

www.ramboll.co.uk

Drawing Title:

Figure 1.2: The Site

Project No:	Scale (@A3):	Drawn:	Date:
1620013942	1:22,000	MFT	Oct 2023

Drawing No:	Rev:
NHRR-RAM-GEN-HYKE-MP-VT-00074	P01

Annex 5 – Signalised Junction Report

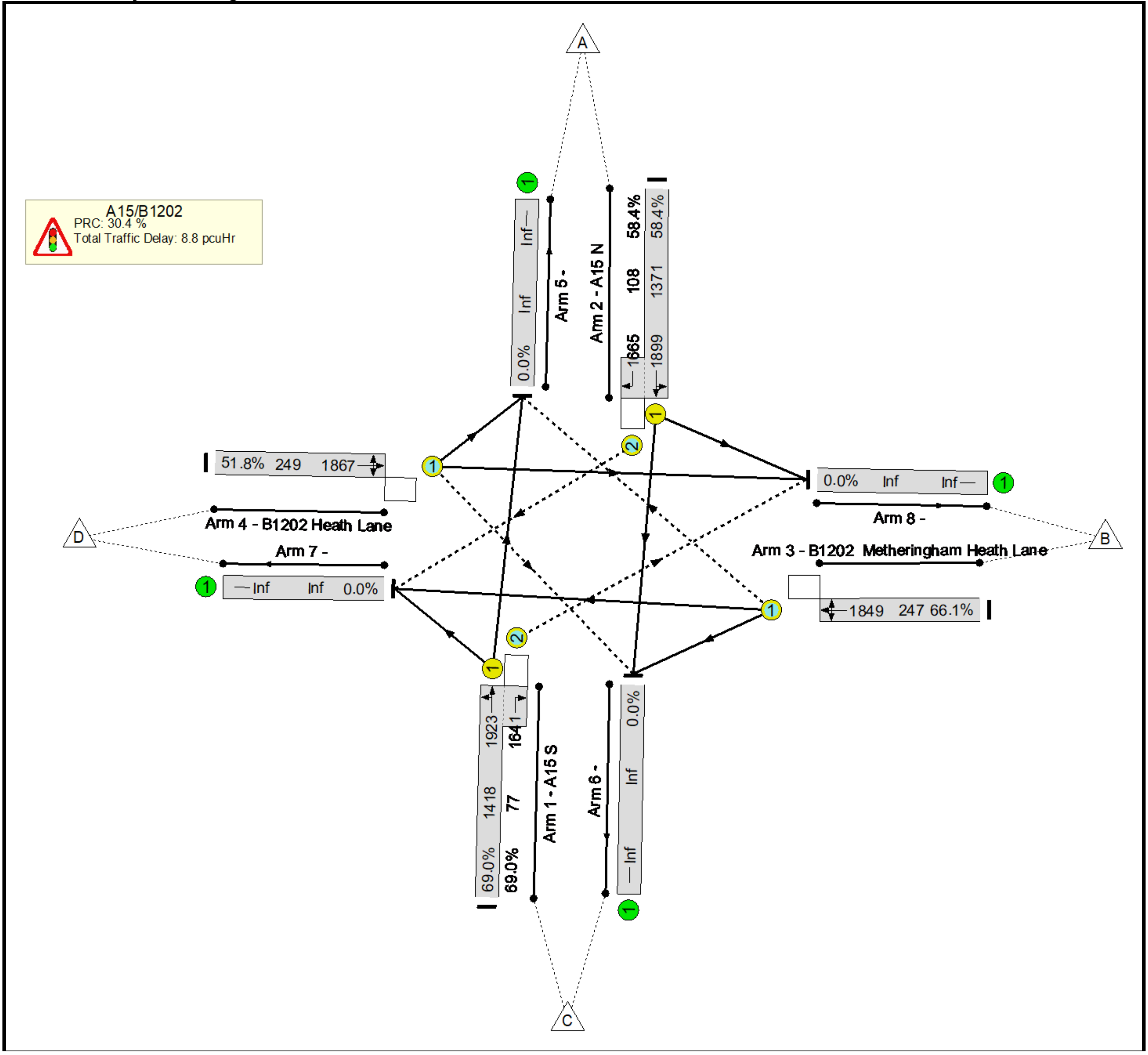
Application Document Ref: EN010149/APP/6.3
Planning Inspectorate Scheme Ref: EN010149

Basic Results Summary
Basic Results Summary

User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	A15_B1202_Signalised Junction.lsg3x
Author:	
Company:	
Address:	

Scenario 1: '2024 Baseline AM Peak' (FG1: '2024 Baseline AM Peak', Plan 1: 'Network Control Plan 1')
Network Layout Diagram



Basic Results Summary

Network Results

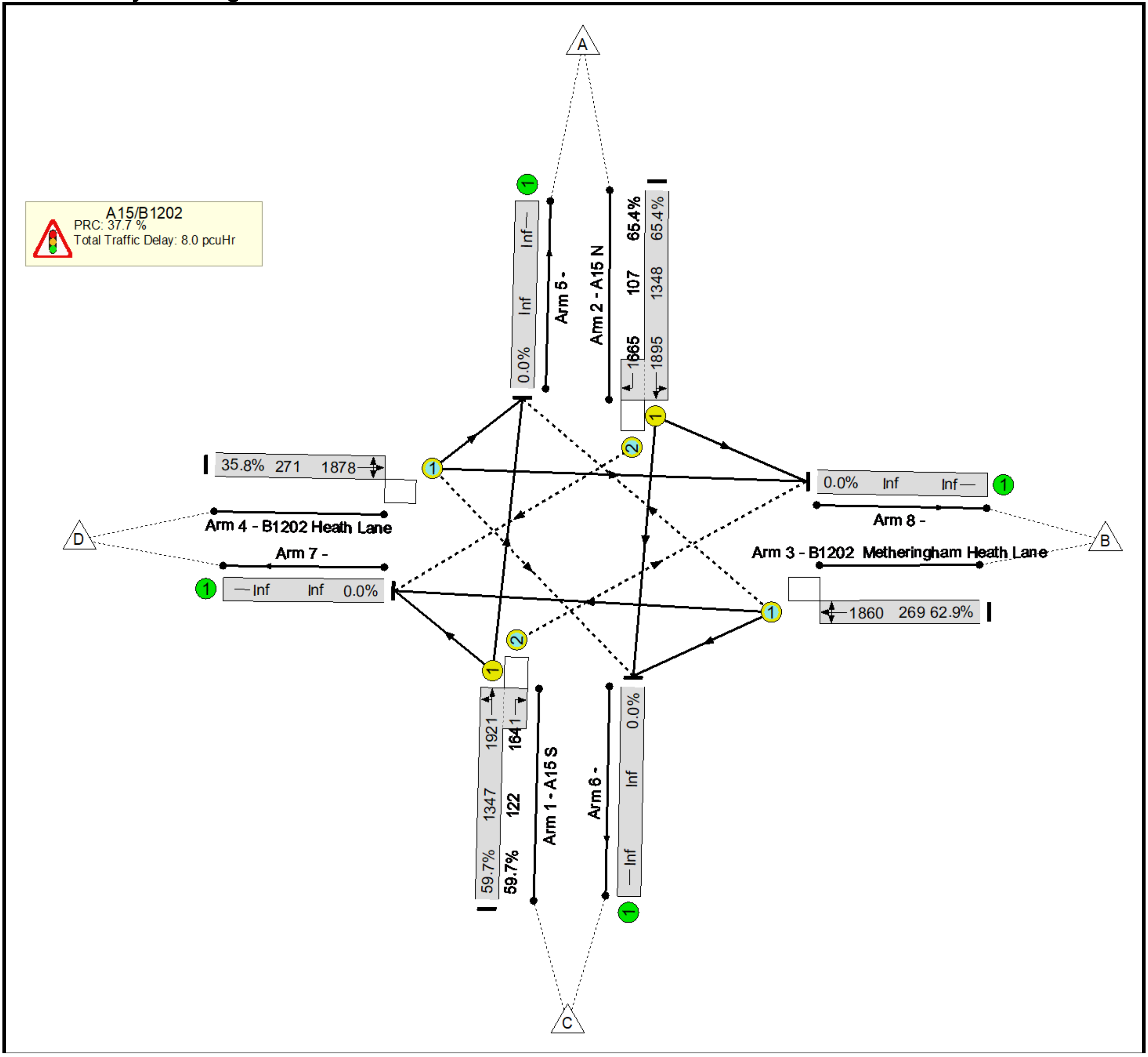
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**69.0%**	**185**	**0**	**0**	**8.8**	**-**	**-**
A15/B1202	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**69.0%**	**185**	**0**	**0**	**8.8**	**-**	**-**
1/1+1/2	A15 S Ahead Left Right	U+O	C	F	1	69	26	1032	1923:1641	1418+77	69.0 : 69.0%	53	0	0	2.5	8.7	13.0
2/1+2/2	A15 N Ahead Right Left	U+O	A	E	1	69	26	863	1899:1665	1371+108	58.4 : 58.4%	63	0	0	1.8	7.4	8.9
3/1	B1202 Metheringham Heath Lane Right Left Ahead	O	B		1	11	-	163	1849	247	66.1%	52	0	0	2.7	59.3	4.8
4/1	B1202 Heath Lane Left Right Ahead	O	D		1	11	-	129	1867	249	51.8%	17	0	0	1.9	51.6	3.5

C1	PRC for Signalled Lanes (%):	30.4	Total Delay for Signalled Lanes (pcuHr):	8.80	Cycle Time (s):	90
	PRC Over All Lanes (%):	30.4	Total Delay Over All Lanes(pcuHr):	8.80		

Basic Results Summary

Scenario 2: '2024 Baseline PM Peak' (FG2: '2024 Baseline PM Peak', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

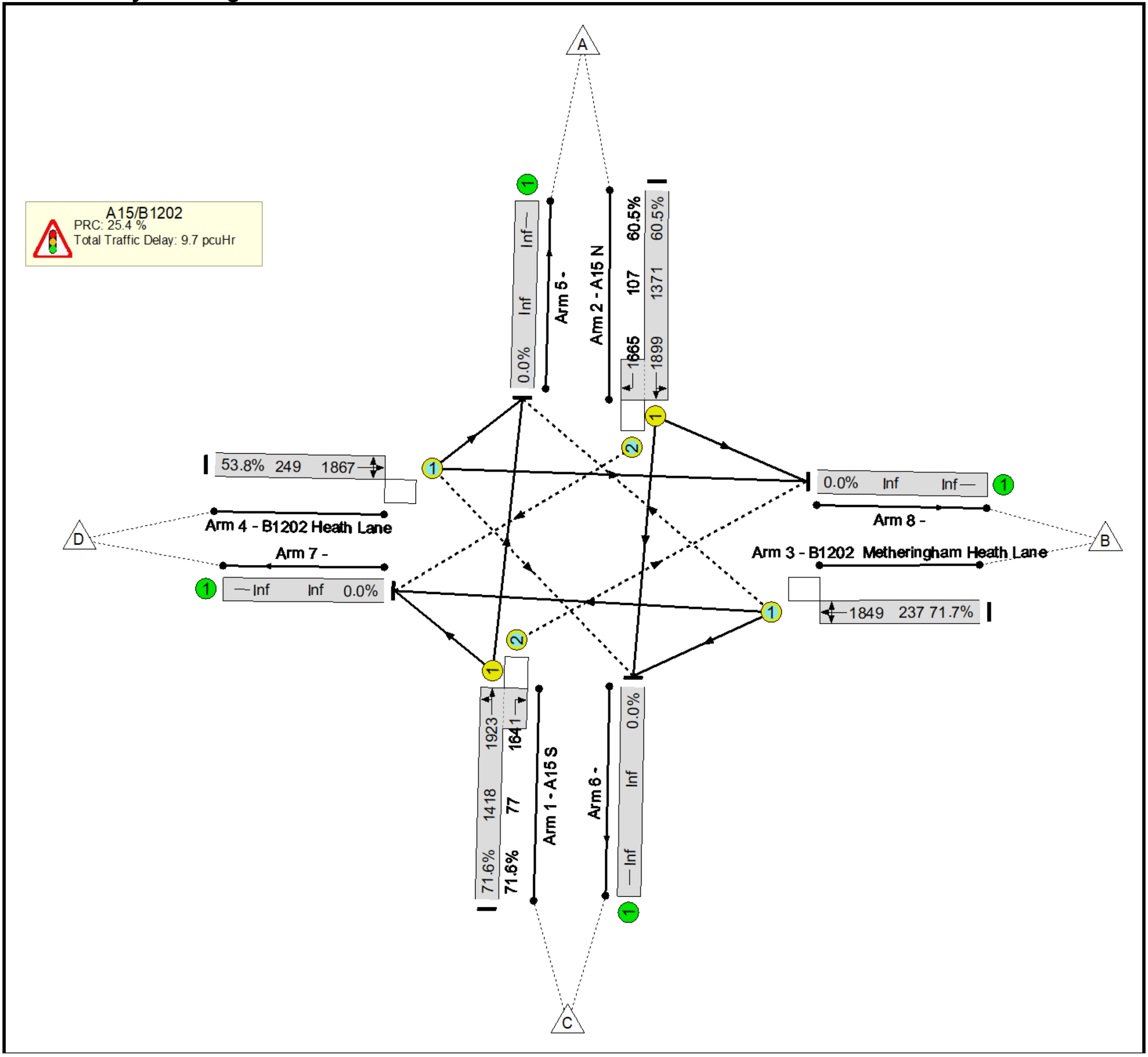
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**65.4%**	**202**	**0**	**0**	**8.0**	**-**	**-**
A15/B1202	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**65.4%**	**202**	**0**	**0**	**8.0**	**-**	**-**
1/1+1/2	A15 S Ahead Left Right	U+O	C	F	1	68	26	877	1921:1641	1347+122	59.7 : 59.7%	73	0	0	1.9	7.9	9.5
2/1+2/2	A15 N Ahead Right Left	U+O	A	E	1	68	26	951	1895:1665	1348+107	65.4 : 65.4%	70	0	0	2.3	8.6	11.3
3/1	B1202 Metheringham Heath Lane Right Left Ahead	O	B		1	12	-	169	1860	269	62.9%	49	0	0	2.6	54.5	4.8
4/1	B1202 Heath Lane Left Right Ahead	O	D		1	12	-	97	1878	271	35.8%	10	0	0	1.2	45.6	2.5

C1 PRC for Signalled Lanes (%): 37.7 Total Delay for Signalled Lanes (pcuHr): 7.98 Cycle Time (s): 90
PRC Over All Lanes (%): 37.7 Total Delay Over All Lanes(pcuHr): 7.98

Basic Results Summary

Scenario 3: '2028 CY AM Peak' (FG3: '2028 CY AM Peak', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

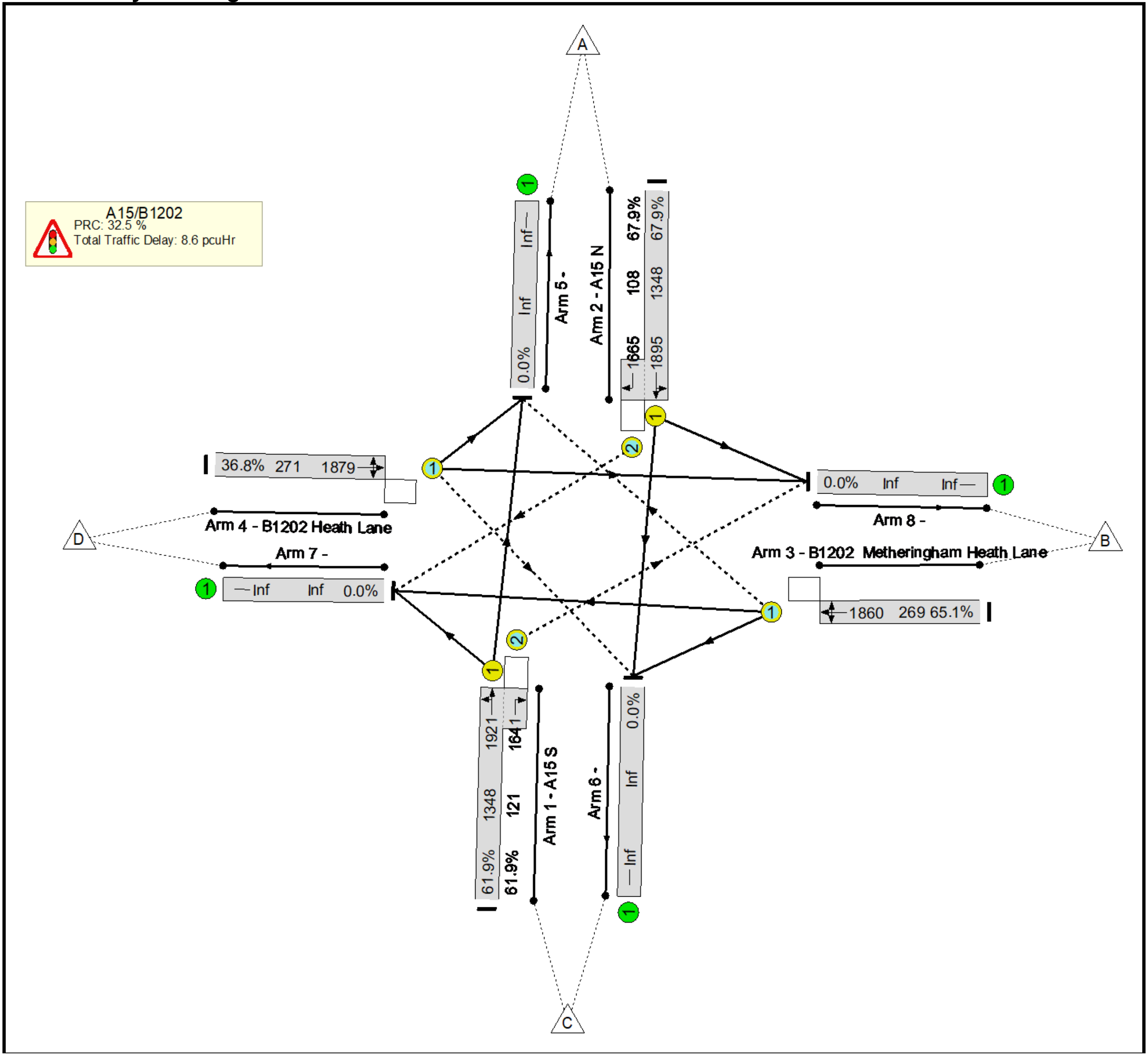
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**71.7%**	**192**	**0**	**0**	**9.7**	**-**	**-**
A15/B1202	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**71.7%**	**192**	**0**	**0**	**9.7**	**-**	**-**
1/1+1/2	A15 S Ahead Left Right	U+O	C	F	1	69	26	1070	1923:1641	1418+77	71.6 : 71.6%	55	0	0	2.7	9.2	14.2
2/1+2/2	A15 N Ahead Right Left	U+O	A	E	1	69	26	895	1899:1665	1371+107	60.5 : 60.5%	65	0	0	1.9	7.8	9.5
3/1	B1202 Metheringham Heath Lane Right Left Ahead	O	B		1	11	-	170	1849	237	71.7%	54	0	0	3.0	64.3	5.2
4/1	B1202 Heath Lane Left Right Ahead	O	D		1	11	-	134	1867	249	53.8%	18	0	0	2.0	52.4	3.7

C1 PRC for Signalled Lanes (%): 25.4 Total Delay for Signalled Lanes (pcuHr): 9.67 Cycle Time (s): 90
PRC Over All Lanes (%): 25.4 Total Delay Over All Lanes(pcuHr): 9.67

Basic Results Summary

Scenario 4: '2028 CY PM Peak' (FG4: '2028 CY PM Peak', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

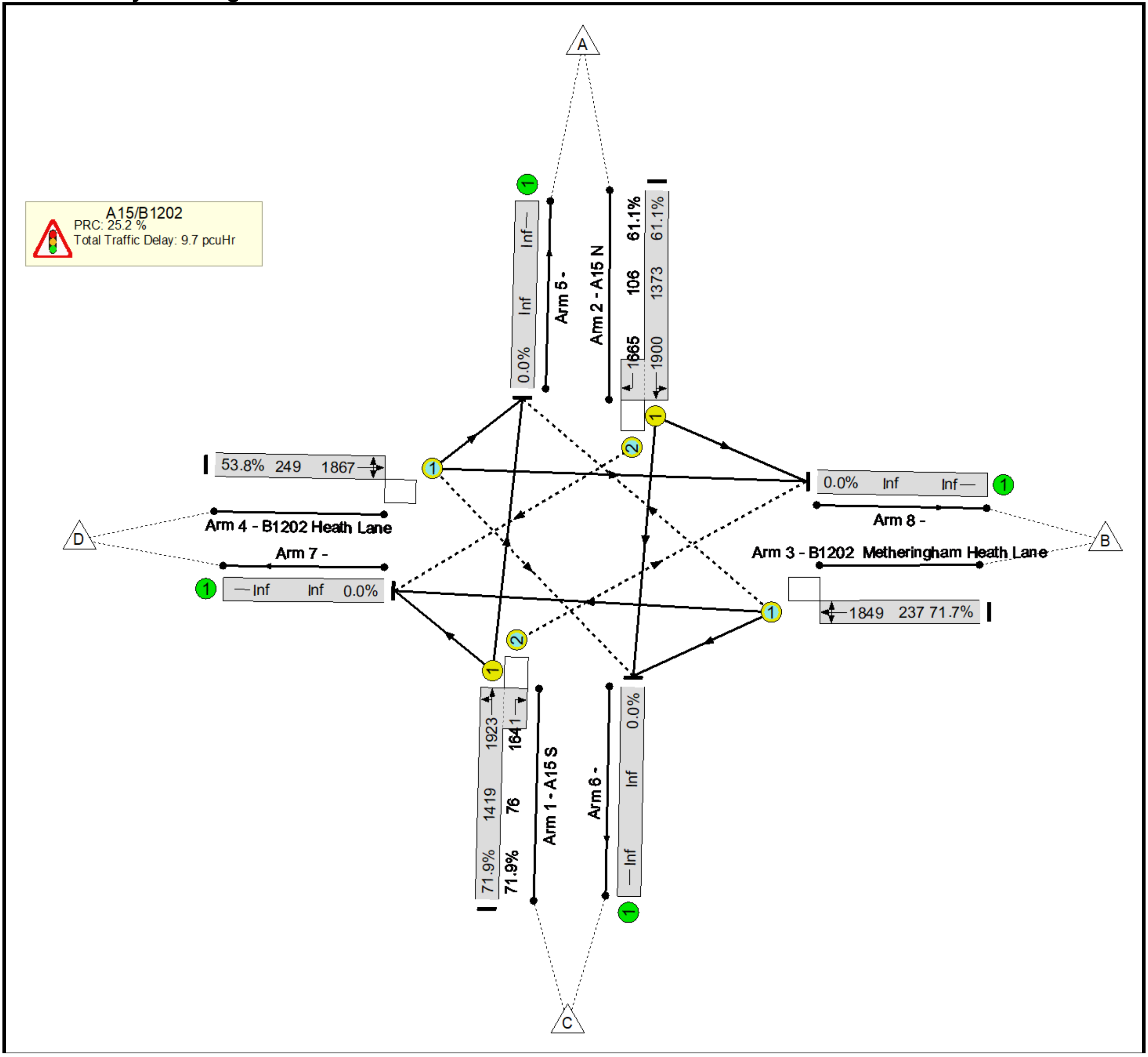
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**67.9%**	**209**	**0**	**0**	**8.6**	**-**	**-**
A15/B1202	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**67.9%**	**209**	**0**	**0**	**8.6**	**-**	**-**
1/1+1/2	A15 S Ahead Left Right	U+O	C	F	1	68	26	910	1921:1641	1348+121	61.9 : 61.9%	75	0	0	2.1	8.3	10.2
2/1+2/2	A15 N Ahead Right Left	U+O	A	E	1	68	26	988	1895:1665	1348+108	67.9 : 67.9%	73	0	0	2.5	9.1	12.4
3/1	B1202 Metheringham Heath Lane Right Left Ahead	O	B		1	12	-	175	1860	269	65.1%	51	0	0	2.7	55.8	5.0
4/1	B1202 Heath Lane Left Right Ahead	O	D		1	12	-	100	1879	271	36.8%	10	0	0	1.3	45.8	2.5

C1 PRC for Signalled Lanes (%): 32.5 Total Delay for Signalled Lanes (pcuHr): 8.57 Cycle Time (s): 90
PRC Over All Lanes (%): 32.5 Total Delay Over All Lanes(pcuHr): 8.57

Basic Results Summary

Scenario 5: '2028 CY + CD AM Peak' (FG5: '2028 CY + CD AM Peak', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

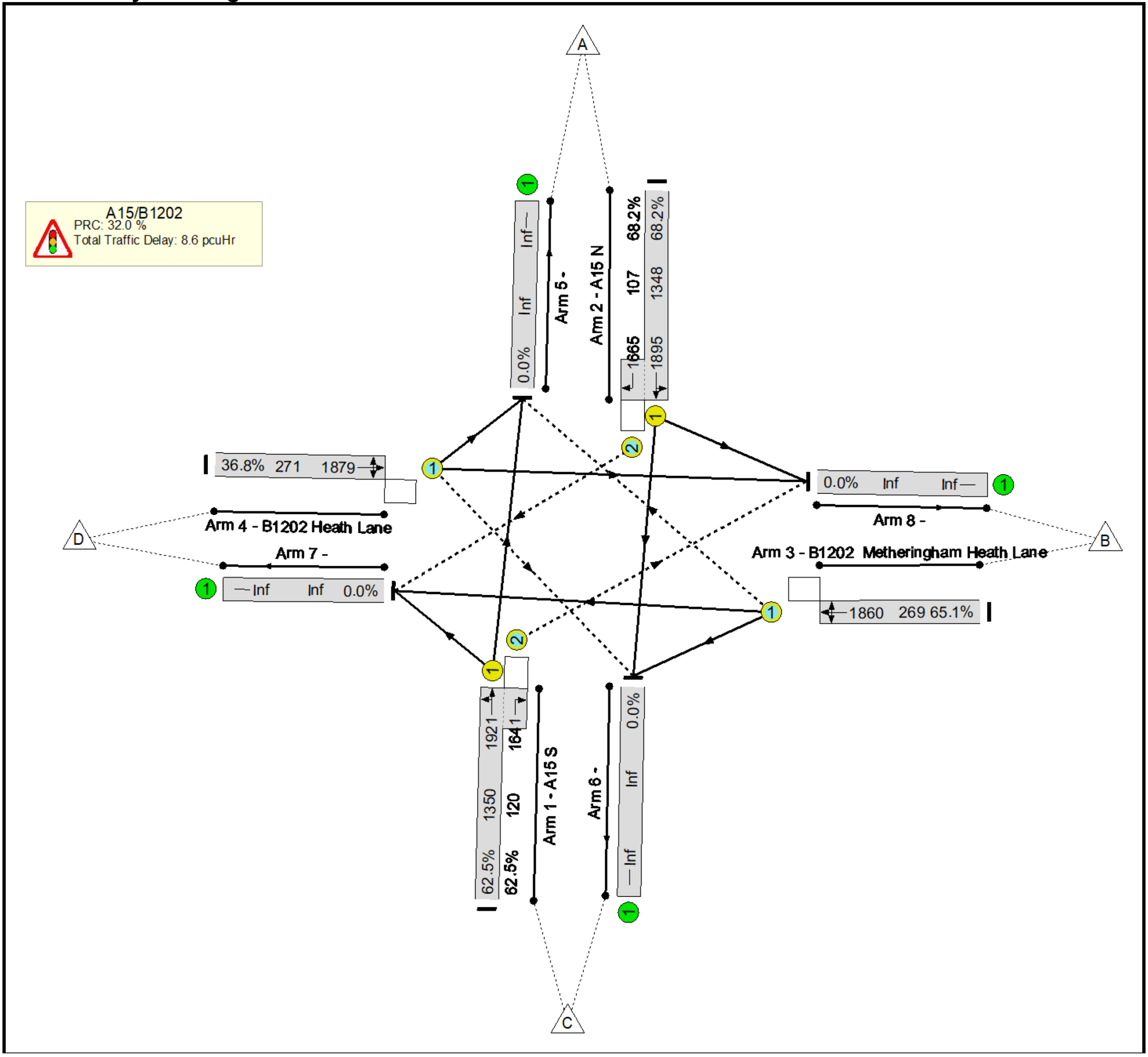
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**71.9%**	**192**	**0**	**0**	**9.7**	**-**	**-**
A15/B1202	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**71.9%**	**192**	**0**	**0**	**9.7**	**-**	**-**
1/1+1/2	A15 S Ahead Left Right	U+O	C	F	1	69	26	1075	1923:1641	1419+76	71.9 : 71.9%	55	0	0	2.8	9.3	14.3
2/1+2/2	A15 N Ahead Right Left	U+O	A	E	1	69	26	904	1900:1665	1373+106	61.1 : 61.1%	65	0	0	2.0	7.9	9.9
3/1	B1202 Metheringham Heath Lane Right Left Ahead	O	B		1	11	-	170	1849	237	71.7%	54	0	0	3.0	64.3	5.2
4/1	B1202 Heath Lane Left Right Ahead	O	D		1	11	-	134	1867	249	53.8%	18	0	0	2.0	52.4	3.7

C1 PRC for Signalled Lanes (%): 25.2 Total Delay for Signalled Lanes (pcuHr): 9.75 Cycle Time (s): 90
PRC Over All Lanes (%): 25.2 Total Delay Over All Lanes(pcuHr): 9.75

Basic Results Summary

Scenario 6: '2028 CY + CD PM Peak' (FG6: '2028 CY + CD PM Peak', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

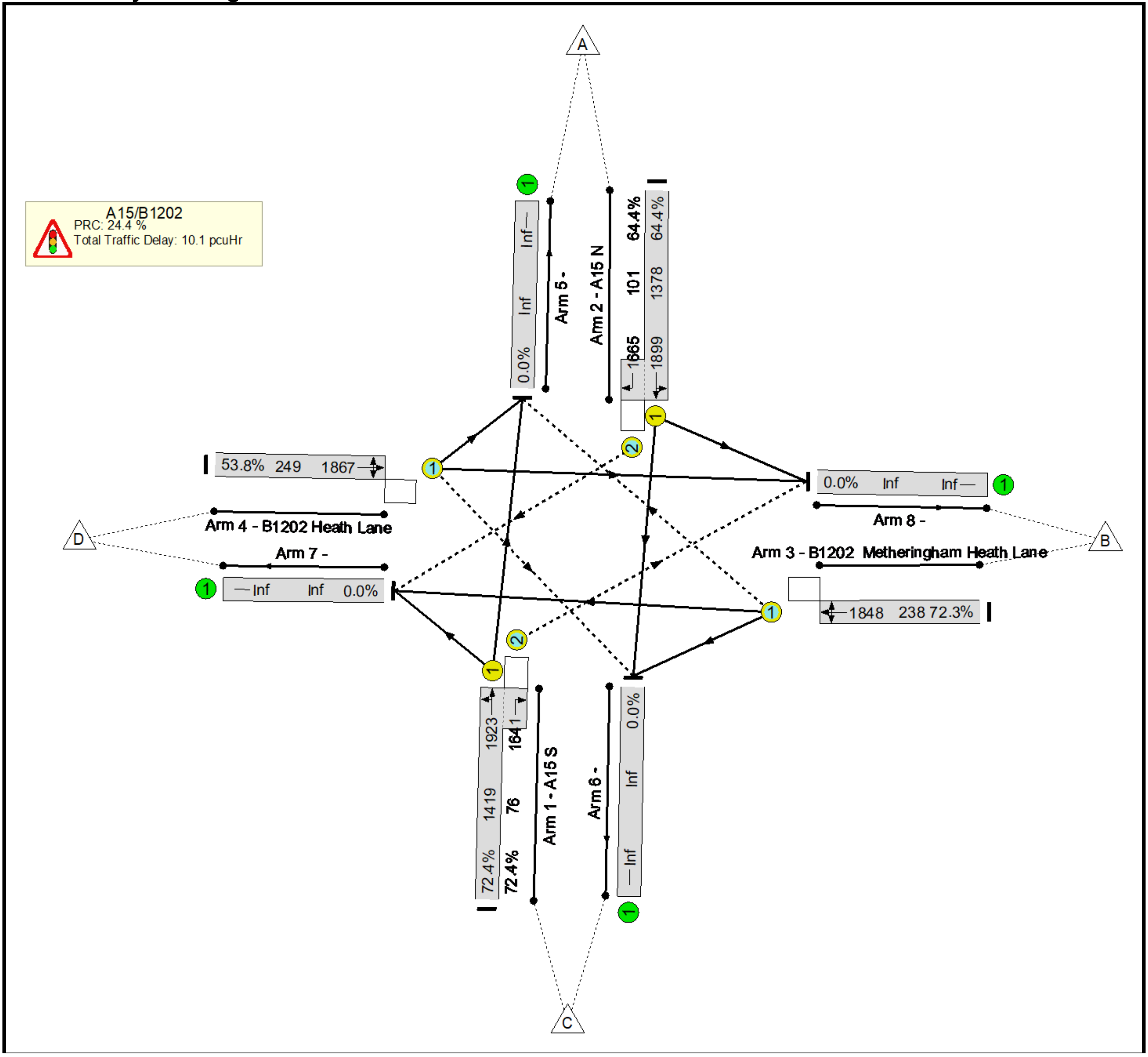
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**68.2%**	**209**	**0**	**0**	**8.6**	-	-
A15/B1202	-	-	-		-	-	-	-	-	-	**68.2%**	**209**	**0**	**0**	**8.6**	-	-
1/1+1/2	A15 S Ahead Left Right	U+O	C	F	1	68	26	919	1921:1641	1350+120	62.5 : 62.5%	75	0	0	2.1	8.4	10.6
2/1+2/2	A15 N Ahead Right Left	U+O	A	E	1	68	26	992	1895:1665	1348+107	68.2 : 68.2%	73	0	0	2.5	9.1	12.4
3/1	B1202 Metheringham Heath Lane Right Left Ahead	O	B		1	12	-	175	1860	269	65.1%	51	0	0	2.7	55.8	5.0
4/1	B1202 Heath Lane Left Right Ahead	O	D		1	12	-	100	1879	271	36.8%	10	0	0	1.3	45.8	2.5

C1 PRC for Signalled Lanes (%): 32.0 Total Delay for Signalled Lanes (pcuHr): 8.64 Cycle Time (s): 90
PRC Over All Lanes (%): 32.0 Total Delay Over All Lanes(pcuHr): 8.64

Basic Results Summary

Scenario 7: '2028 CY + CD + Dev AM Peak' (FG7: '2028 CY + CD + Dev AM Peak', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

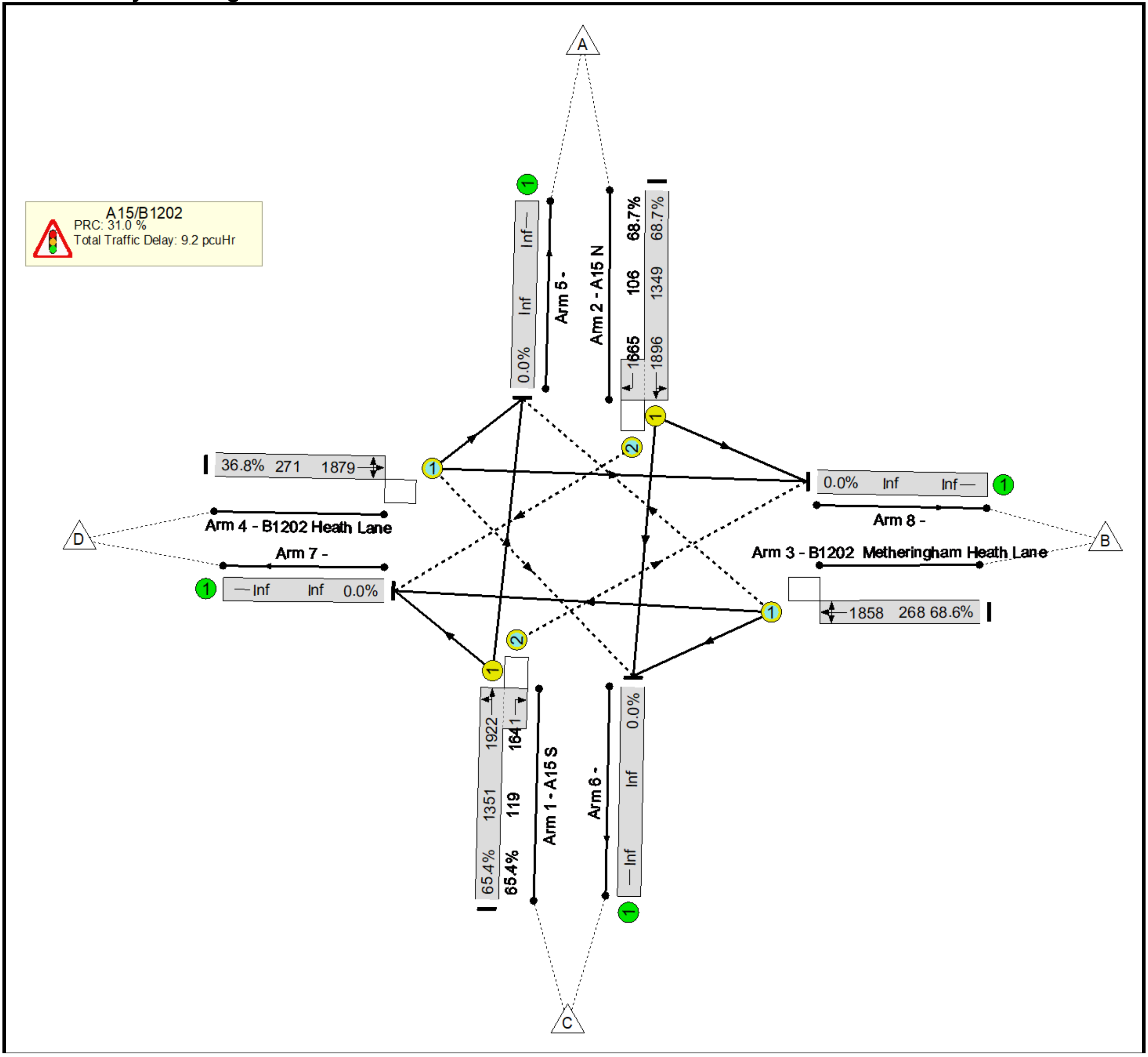
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**72.4%**	**192**	**0**	**0**	**10.1**	**-**	**-**
A15/B1202	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**72.4%**	**192**	**0**	**0**	**10.1**	**-**	**-**
1/1+1/2	A15 S Ahead Left Right	U+O	C	F	1	69	26	1082	1923:1641	1419+76	72.4 : 72.4%	55	0	0	2.8	9.5	14.4
2/1+2/2	A15 N Ahead Right Left	U+O	A	E	1	69	26	953	1899:1665	1378+101	64.4 : 64.4%	65	0	0	2.2	8.3	10.8
3/1	B1202 Metheringham Heath Lane Right Left Ahead	O	B		1	11	-	172	1848	238	72.3%	54	0	0	3.1	64.8	5.4
4/1	B1202 Heath Lane Left Right Ahead	O	D		1	11	-	134	1867	249	53.8%	18	0	0	2.0	52.4	3.7

C1	PRC for Signalled Lanes (%):	24.4	Total Delay for Signalled Lanes (pcuHr):	10.10	Cycle Time (s):	90
	PRC Over All Lanes (%):	24.4	Total Delay Over All Lanes(pcuHr):	10.10		

Basic Results Summary

Scenario 8: '2028 CY + CD + Dev PM Peak' (FG8: '2028 CY + CD + Dev PM Peak', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**68.7%**	**220**	**0**	**0**	**9.2**	**-**	**-**
A15/B1202	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**68.7%**	**220**	**0**	**0**	**9.2**	**-**	**-**
1/1+1/2	A15 S Ahead Left Right	U+O	C	F	1	68	26	961	1922:1641	1351+119	65.4 : 65.4%	78	0	0	2.4	8.9	11.4
2/1+2/2	A15 N Ahead Right Left	U+O	A	E	1	68	26	1000	1896:1665	1349+106	68.7 : 68.7%	73	0	0	2.6	9.3	12.8
3/1	B1202 Metheringham Heath Lane Right Left Ahead	O	B		1	12	-	184	1858	268	68.6%	59	0	0	3.0	58.0	5.4
4/1	B1202 Heath Lane Left Right Ahead	O	D		1	12	-	100	1879	271	36.8%	10	0	0	1.3	45.6	2.5

C1 PRC for Signalled Lanes (%): 31.0 Total Delay for Signalled Lanes (pcuHr): 9.18 Cycle Time (s): 90
PRC Over All Lanes (%): 31.0 Total Delay Over All Lanes(pcuHr): 9.18

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