

Proposed Residential Development
Miles Platting, Manchester

Transport Assessment

Jigsaw Homes North

June 2026

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1. Introduction

1.1. Astute Transport Planning has been appointed by Jigsaw Homes North to provide transport and highways advice to support a planning application for a residential development, consisting of up to 154 affordable homes around land off the A62 Oldham Road within Miles Platting, Manchester.

1.2. The proposed development site is located within the jurisdiction of Manchester City Council (MCC), who act as both the local planning authority (LPA) and local highway authority (LHA).

1.3. This Transport Assessment (TA) provides information on the traffic and transport planning aspects of the development proposals and forms supplementary information to assist in the determination of a planning application.

Site Location

1.4. The proposed development site is located in a residential area to the north of Miles Platting approximately 2km to the northeast of Manchester city centre. The site is split across three separate land parcels owned by Jigsaw Homes as shown in **Figure 1.1**.

Figure 1.1: Proposed Development Site Location (Source: Google Earth)



1.5. As shown in **Figure 1.1,** an area (outlined in blue) of the central parcel is occupied by Baker House, the location of the offices for Jigsaw Homes North, as well as a commercial/retail unit on the ground floor. Baker House will be retained

as part of the development proposals. A large area of car parking is provided to the rear of Baker House. The rest of the central land parcel along with northern and southern parcels are underdeveloped grassland.

1.6. The northern parcel is located on the northeastern corner of the A62 Oldham Road, Collyhurst Street and Varley Street signalised junction. This parcel is bound by railway lines to the north, car parking associated with The Sheridan function room facility to the east, the A62 Oldham Road to the south and Collyhurst Street to the west.

1.7. The central parcel is located on the southeastern corner of the A62 Oldham Road, Collyhurst Street and Varley Street signalised junction. This parcel is bound by the A62 Oldham Road to the north, Giltbrook Avenue to the east, Rosewell Avenue to the south and Varley Street to the west.

1.8. The southern parcel is bound by Rosewell Avenue to the north, residential properties to the east and south and a storage yard to the west.

Development Proposals

1.9. The proposed development is split across three separate land parcels all in proximity of A61 Oldham Road. The proposal is for an affordable housing scheme that will provide 154 dwellings, comprising:

- 50 x 1-bedroom apartments;
- 72 x 2-bedroom apartment;
- 2 x 3-bedroom apartments;
- 14 x 2-bedroom houses;
- 6 x 3-bedroom houses; and;
- 10 x 4-bedroom houses.

1.10. The proposed site plan is shown on **Drawing 1355-Site-102** by DK Architects, included at the rear of this report in **Appendix A**.

1.11. Further details of the proposed development are provided in **Section 5** of this report.

Planning History

1.12. As noted above, the central parcel of land is occupied by Baker House, along with associated car park.

1.13. A planning application for the retail unit on the ground floor of Baker House and the neighbourhood housing association offices (reference 094297/FO/2010/N1) was granted in December 2010.

1.14. A separate application for the existing car park comprising 114 spaces was granted in May 2010 to serve the 'Miles Platting Community Hub Development' under permission reference 092657/VO/2010/N1. Another building was originally proposed next to Baker House labelled as a 'Joint Services Centre' with an associated mobile screening unit.

1.15. Condition 2 of that permission was varied under 099142/JO/2012/N1 in June 2012 to reflect that the additional building had been removed / delayed and the parking layout was reconfigured accordingly consisting of 114 car parking spaces.

1.16. Condition 3 required the car parking on the approved plans to be surfaced, demarcated and made available for use prior to the first phase of the 'Miles Platting Community Hub Development' being occupied and then available at all times through occupation.

1.17. Of the original plan, 65 car parking spaces including five disabled parking bays were designated for Baker House. As no other buildings associated with the 'Miles Platting Community Hub Development' were delivered, Baker House was provided with an oversupply of parking.

Scoping Discussions

1.18. This TA has been prepared in accordance with guidance provided by the Department for Transport's (DfT) 'Travel Plans, Transport Assessment and Statements' (2014) document, as well as paying due notice to the DfT's now superseded 'Guidance on Transport Assessment' document.

1.19. The scope of this report has been informed by pre-application discussions with the Highways team at MCC via a number of scoping emails prepared by Astute starting in June 2025 with subsequent exchanges of email correspondence. The email communications have been included as **Appendix B** of this report.

Report Structure

1.20. Following this introduction, the report provides the following information:

- **Section 2: Policy Context -** presents an overview of relevant national and regional policy, and frames the context in which the proposed development will be appraised and assessed.
- **Section 3: Baseline Conditions** - provides a review of the baseline conditions in the vicinity of the proposed development site, as well as the existing operations of the site.
- **Section 4: Accessibility by Sustainable Modes of Transport -** provides a detailed appraisal of the proposed site's accessibility by sustainable modes of transport, including walking, cycling and public transport.
- **Section 5: Development Proposals** - details the proposed development and its access strategy.

- **Section 6: Traffic Impact Assessment Methodology** - outlines the methodology adopted to undertake a traffic impact assessment of the proposed development.

- **Section 7: Traffic Impact Assessment Results and Discussion -** summarises and discusses the results of the traffic impact assessment undertaken in support of the proposed site.

- **Section 8: Summary and Conclusions** - summarises and concludes the report in the context of relevant policy and guidance.

2. Policy Context

Introduction

2.1. This Section of the report reviews the national planning policy guidance, regional and local guidance relevant in the context of the proposed development.

National Planning Policy Framework (NPPF)

2.2. The current National Planning Policy Framework (NPPF) was published in December 2024 and sets out the government's planning policies for England and how these are expected to be applied. This updated Framework replaces the previous NPPF published in March 2012 and revised in July 2018, February 2019, July 2021, September 2023, and December 2023. At the heart of the Framework is a presumption in favour of sustainable development.

2.3. As part of promoting sustainable transport, paragraph 115 of the updated NPPF outlines requirements when assessing applications for development as it states:

'It should be ensured that:

a) 'sustainable transport modes are prioritised taking account of the vision for the site, 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 through a vision-led approach.'

2.4. Paragraph 116 goes on to state that, *'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, following mitigation, would be severe, taking into account all reasonable future scenarios'*

Manchester Core Strategy (2012 - 2027)

2.5. The Manchester Core Strategy (CS), adopted in 2012, sets out the city's development framework for a 15-year period up to 2027. It is the central component of the Manchester Local Plan, establishing the Council's overarching strategic vision and policies to guide the city's long-term growth and development.

2.6. Since its adoption, certain policies in the Core Strategy have been partially replaced by those in the 'Places for Everyone (PfE) Joint Development Plan (2022–2039) Document for Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford, and Wigan' which was adopted in March 2024. As a result, the Core Strategy should now be read alongside the 2024 Addendum to the Manchester Core Strategy, which outlines these policy changes.

2.7. The long-term strategic policies for development and the framework that planning applications will be assessed against is outlined in the Manchester CS. Within sections 2.29 through to and 2.56 of the document a portion of Miles Platting is identified as part of the 'North Manchester Regeneration Area' and the remainder as part of the 'East Manchester Regeneration Area'.

2.8. Policy SP1 identifies the spatial principles guiding development through to 2027. A key principle is that new development should maximise the use of the city's transport infrastructure, particularly by encouraging walking, cycling, and public transport use.

2.9. Policy T1 addresses sustainable transport and promotes the delivery of a high-quality, integrated transport system that supports a shift away from reliance on private cars. The policy states that the Council will support proposals that:

> "*Improve choice by developing alternatives to the private car*"; and "*Take account of the needs of road users according to a broad hierarchy consisting of, in order of priority*:
>
> - *Pedestrians and disabled people,*
> - *Cyclists, public transport,*
> - *Commercial access,*
> - *General off-peak traffic,*
> - *General peak time traffic."*

2.10. Policy T2 focuses on ensuring development occurs in accessible locations with strong connections to the city's primary economic areas. Manchester City Council commits to managing the pattern of development to ensure good access by walking, cycling, and public transport. For major planning applications, or those with potential access or transport implications, Traffic Impact Assessments and Travel Plans are required.

2.11. Appendix B of the document states the MCC parking standards, although no specific standards in relation to C3 dwellings are provided as developments within the city centre are assessed on a case by case basis.

2.12. It is outlined that all parking standards relating to car parking within the document are maximums, that can be considered for further reduction following assessment from the MCC based on the accessibility of a developments location. Moreover, all the parking standards specified for either cycle parking, or car parking designated for disabled people are minimums.

2.13. In terms of development management, the policies stipulate that all developments must be fully accessible to disabled individuals, and access should be designed to prioritise sustainable modes of transport.

Places for Everyone (2024)

2.14. The Places for Everyone (PfE) Joint Development Plan Document outlines the development strategy for nine of the ten Greater Manchester boroughs for the period 2022 to 2039, supporting their sustainable growth. It establishes a strategic framework to guide local plans and underpins the delivery of essential infrastructure while safeguarding key environmental assets.

2.15. The PfE Joint Development Plan Document sets out to ensure new development supports existing networks or is backed by new infrastructure as well as embeds sustainability and monitoring practices to ensure adaptability and alignment with Greater Manchester Combined Authorities' net-zero ambitions.

2.16. Several policies within this plan supersede parts of the Core Strategy. The policies relevant to this report include:

- Policy JP-P1: Sustainable Places - safeguarding inclusive design within all spaces ensuring places are easy to move around for those of all mobility levels, particularly by walking and cycling.
- Policy JP-C1: An Integrated Network - Making sure that development and transport investments take into account the needs of everyone—while prioritising the most efficient and sustainable use of limited road space—by following a clear hierarchy: pedestrians first, then cyclists, followed by service users and providers (such as taxis, deliveries, and waste collection), and lastly people using private motor vehicles.
- Policy JP-C8: Transport Requirements of New Development - ensures new developments are located where sustainable transport is accessible, and that design layouts that promote walking and cycling.

Active Travel England Standing Advice Note: Active Travel and Sustainable Development (June 2024)

2.17. The Active Travel England (ATE) Standing Advice Note is designed to guide developers, transport and design consultants, and local planning authorities on incorporating walking, wheeling, and cycling into new development applications. It serves as ATE's formal response in cases where a full case review is not carried out, offering practical triage criteria.

2.18. The guidance focuses on key assessment areas of trip generation and assignment, auditing routes for active travel, ensuring cycling accessibility, street layout and design, integrating with transport assessments and travel plans, and providing convenient access to public transport and amenities.

2.19. Through these focus areas, the advice note supports the government's ambition to make active travel the preferred mode for half of urban journeys by 2030 and ensures high-quality, sustainable development that encourages healthier and less car-dependent communities.

Guide to Development in Manchester Supplementary Planning Document (SPD)

2.20. The Guide to Development in Manchester Supplementary Planning Document (SPD) was adopted in April 2007. Paragraph 2.22 highlights the importance of reducing car dependency, stating:

> "*In order to reduce reliance on the car, residents and workers should be within easy walking distance of facilities such as clinics, corner shops, newsagents and public transport*."

2.21. The proposed development supports these objectives by being situated near a wide range of amenities. The SPD also emphasises the importance of Travel Plans in new developments. A Travel Plan is described as a co-ordinated set of actions designed to reduce car use by offering and promoting sustainable alternatives such as walking, cycling and public transport.

2.22. At the planning stage, factors such as proximity to existing transport infrastructure, site layout, appropriate density, cycling and pedestrian facilities, and opportunities for limiting car parking should all be considered.

2.23. These considerations have been fully assessed for this proposed development and are addressed in this TA report.

Greater Manchester Transport Strategy 2040

2.24. Transport for Greater Manchester (TfGM) has created a 2040 Transport Strategy outlining a transformative approach to planning the region's transport system to meet long-term needs and ambitions. The vision is for Greater

Manchester to have, "*world class connections that support long-term, sustainable economic growth and access to opportunity for all*". The Transport Vision aims are as follows:

- Supporting Sustainable Economic Growth.
- Protecting Our Environment.
- Improving Quality of Life for All.
- Developing an Innovative City Region.

2.25. The 2040 Vision is backed by policies and proposals focused on improving the transport network in the medium term, up to 2025, organised around spatial priorities. A central focus is addressing congestion on Manchester's transport networks and reducing the adverse effects of traffic on local communities.

2.26. The proposed development aligns with the objectives of the 2040 Vision by ensuring the site is accessible via a range of sustainable transport options, contributing to a high-quality development that supports environmental enhancement.

City Centre Transport Strategy

2.27. The City Centre Transport Strategy for Manchester was adopted in March 2021. Its primary objective is to achieve an ambitious target: by 2040, 90% of all trips to the city centre during the morning peak will be made on foot, by bicycle, or via public transport.

2.28. To realise this vision, the strategy focuses on reducing the negative impacts of vehicular traffic, enhancing the environment for pedestrians and cyclists, optimising the use of valuable city centre space, and ensuring the city centre remains a vibrant hub for economic growth. Forecasted growth targets include:

- Nearly doubling Rail and Metrolink journeys during the morning peak.
- Increasing bus trips to the city centre by 50% in the morning peak.
- More than doubling the number of people walking and cycling into the city during the morning peak.
- A reduction in car trips.

2.29. Key practical elements of the strategy relevant to the proposed development include prioritising public transport and active travel options for accessing everyday activities. Whilst the site is not located within the City Centre as defined



by the policy document, it is clear that the proposals can help the Council to meet the objectives of the strategy to reduce car use within the City Centre.

Overarching Principles on Travel Plans, Transport Assessments and Statements

2.30. In March 2014 the Department for Housing, Communities and Local Government published guidance on the overarching principles on Travel Plans, Transport Assessments and Statements.

2.31. Within this guidance it is specified that a Travel Plan is a long-term management strategy for integrating proposals for sustainable travel into the planning process.

2.32. It is also detailed that a Travel Plan can positively contribute to a range of benefits, including the below:

- Encouraging sustainable transport;
- Lessening traffic generation and its detrimental impacts;
- Reducing Carbon Emissions and climate impacts;
- Creating accessible, connected, and inclusive communities;
- Improving road safety; and,
- Reducing the need for new development to increase existing road capacity or provide new roads.

Good Practice Guidelines

2.33. The preparation and adoption of a Travel Plan is an important element in managing the demand for travel to all modern developments. The Department for Transport (DfT) issued a guide on the preparation of such Travel Plans in April 2009 in a document entitled “Good Practice Guidelines – Delivering Travel Plans through the Planning Process”.

Summary

2.34. This Section of the report has outlined the transport and planning policy context for the proposed development site. In the following sections of this TA report, we have sought to demonstrate that the development proposals compliance with these policies, and that the transport impacts on the area around the site will not be severe.

2.35. A description of the existing site highlights the central land parcel is grey field land, and the following sections of this report will emphasise the sites great accessibility connections for all modes of travel. The next Section of this report details the baseline highway conditions in the vicinity of the proposed development site.



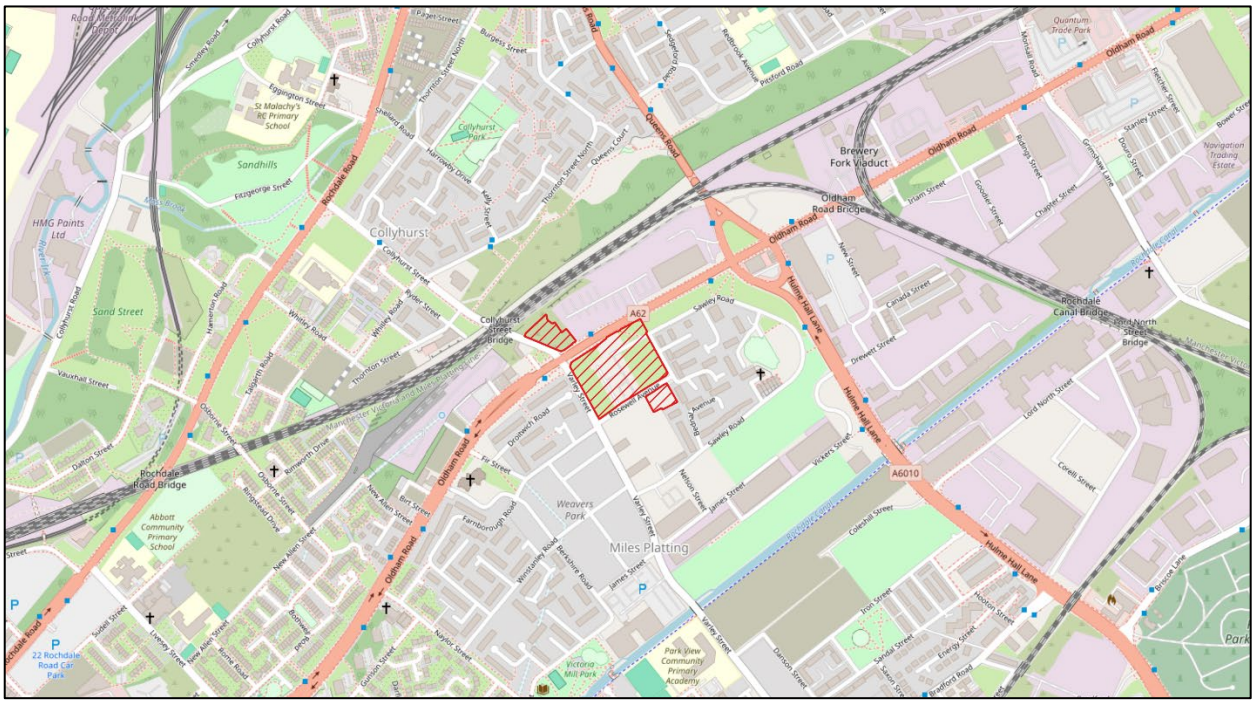
3. Baseline Conditions

3.1. This Section of the report discusses the existing site and its operations, describes the local highway network and reviews the injury accident record on the immediate highway network.

Existing Site

3.2. The proposed site is located to the north of Miles Platting and is located approximately 2km to the northeast of Manchester city centre. The location of the proposed site within the local highway network is provided in **Figure 3.1** and is indicated by an approximate red line boundary and red hatched area.

Figure 3.1: Proposed Site Location within Local Highway Network (Source: OpenStreetMap/QGIS)



3.3. As highlighted in **Figure 3.1**, the central parcel surrounds Baker House including the buildings existing car park, and is located between the A62 Oldham Road, Varley Street, Rosewell Avenue and Giltbrook Avenue.

3.4. The A62 Oldham Road runs between the central and the northern parcels of the proposed site in an approximate east-west alignment and is the key arterial route between Manchester city centre and Oldham.

3.5. Varley Street runs along the western boundary of the central parcel of the proposed site in an approximate north-south alignment providing a link between the A62 Oldham Road / Collyhurst Street / Varley Street signalised junction and Bradford Road to the south.

3.6. Collyhurst Street runs along the western boundary of the northern parcel of the proposed site in an approximate north-south alignment providing a link between the A62 Oldham Road / Collyhurst Street / Varley Street signalised junction and the A664 Rochdale Road to the north.

3.7. Rosewell Avenue runs between the central and southern parcels of land in an approximate east-west alignment providing a link between Varley Street to the west and Giltbrook Avenue to the east.

3.8. The existing site is characterised by a mix of undeveloped land and the existing car park that serves Baker House. The site is surrounded by a mix of commercial and residential developments.

Local Highway Network

3.9. In the vicinity of the site, the A62 Oldham Road is a dual carriageway with a width of circa 17.5m. Footways are provided on both sides of the carriageway and vary in width between approximately 2m-5m. The wider sections of footway are observed to be in the vicinity of bus stops or pedestrian crossings. The A62 Oldham Road is subject to a 30mph speed limit as it passes the site, and street lighting is provided at regular intervals. To the west of the A62 Oldham Road / Collyhurst Street / Varley Street signalised junction, Oldham Road has advisory cycle lanes along both sides of the carriageway.

3.10. As previously detailed, the central parcel of land of the proposed development site is bound by Varley Street to the west, and Rosewell Avenue to the south. Both Varley Street and Rosewell Avenue are single carriageways subject to 20mph speed limits and benefit from footways on both sides of the carriageway with street lighting also provided at regular intervals.

3.11. Varley Street has a Road Traffic Order (TRO) in place in the form of double yellow lines, prohibiting parking to take place along both sides of the carriageway at any time, and prohibiting loading taking place between 8:00am and 9:30am Monday to Saturday, and also between 4:00pm and 6:30pm Monday to Friday.

3.12. Rosewell Avenue has a TRO in place in the form of double yellow lines, prohibiting parking and loading along sections of the carriageway. There are however sections of the carriageway where dedicated on street parking is provided that allows parking for permit holders, or parking for 90 mins, with no return within 4 hours, between midday and 11.00pm.

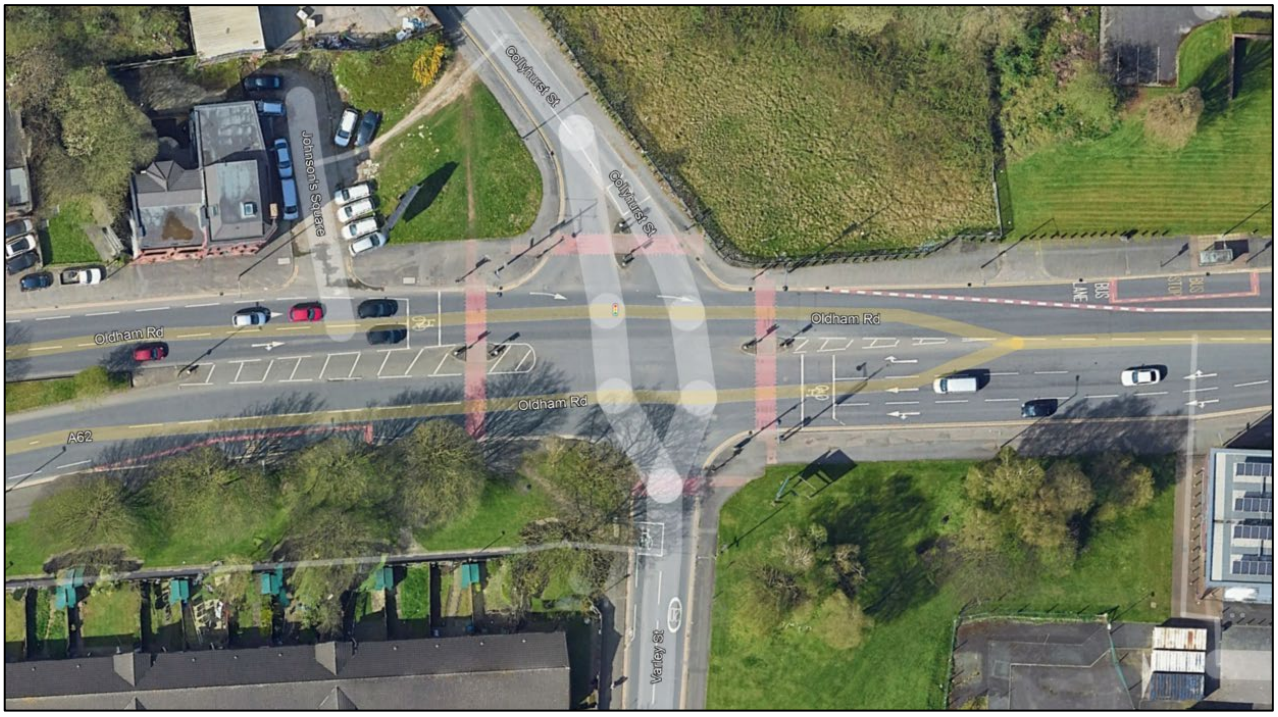
3.13. As previously outlined, the northern parcel of land is bound by Collyhurst Street to the west. Collyhurst Street is a single carriageway subject to a 30mph speed limit and benefits from footways on both sides of the carriageway with street lighting also provided at regular intervals. Collyhurst Street has a TRO in place, in the form of double yellow lines, prohibiting parking and loading taking place along the northwest bound carriageway at any time.

3.14. The existing key junctions on the highway network in the immediate vicinity of the proposed site are detailed below. Further detailed assessment of the existing operation of these junctions is provided as part of the Traffic Impact Assessment presented in later Sections of this report.

A62 Oldham Road / Varley Street / Collyhurst Street Signalised Junction

3.15. This signal-controlled junction is formed of four arms and is located between the northern and central parcels. An aerial image of the junction is shown in **Figure 3.2**.

Figure 3.2: A62 Oldham Road / Varley Street / Collyhurst Street (Source: Google Earth)



3.16. As shown in **Figure 3.2**, the A62 Oldham Road forms the eastern and western arms of the junction, Collyhurst Street forms the northern arm, and Varley Street forms the southern arm. Beyond this junction the A62 Oldham Road continues westward joining with the ring road around Manchester City Centre, and eastwards it provides connections to Failsworth and Oldham. Collyhurst Street continues north linking with the A664 Rochdale Road, and to the south Varley Street runs through a large residential area before linking with Bradford Road.

3.17. Signal controlled pedestrian crossing facilities are provided on all arms of the junction. These include push-button facilities to enable the junction's signal configuration to respond dynamically to demand from pedestrians. The crossing facilities on both the A62 Oldham Road arms, and the Collyhurst Street arm of the junction also benefit from refuge islands for pedestrians. Advanced cycle stop lines are provided on all arms of the junction to assist cyclists to wait ahead of motor vehicles at a red light.

Rosewell Avenue / Varley Street / Farnborough Road Priority Junction

3.18. Rosewell Avenue, Varley Street, and Farnborough Road form a four-arm crossroad junction to the southwest of the central parcel of the proposed site. An aerial image of this junction is shown in **Figure 3.3**.

Figure 3.3: Rosewell Avenue / Varley Street / Farnborough Road (Source: Google Earth)



3.19. As shown in **Figure 3.3**, Rosewell Avenue to the east and Farnborough Road to the west form the minor arms of the junction with priority given to traffic on Varley Street. Pedestrians are assisted in crossing the carriageway on Farnborough Road through the provision of a pedestrian dropped kerbs and tactile paving.

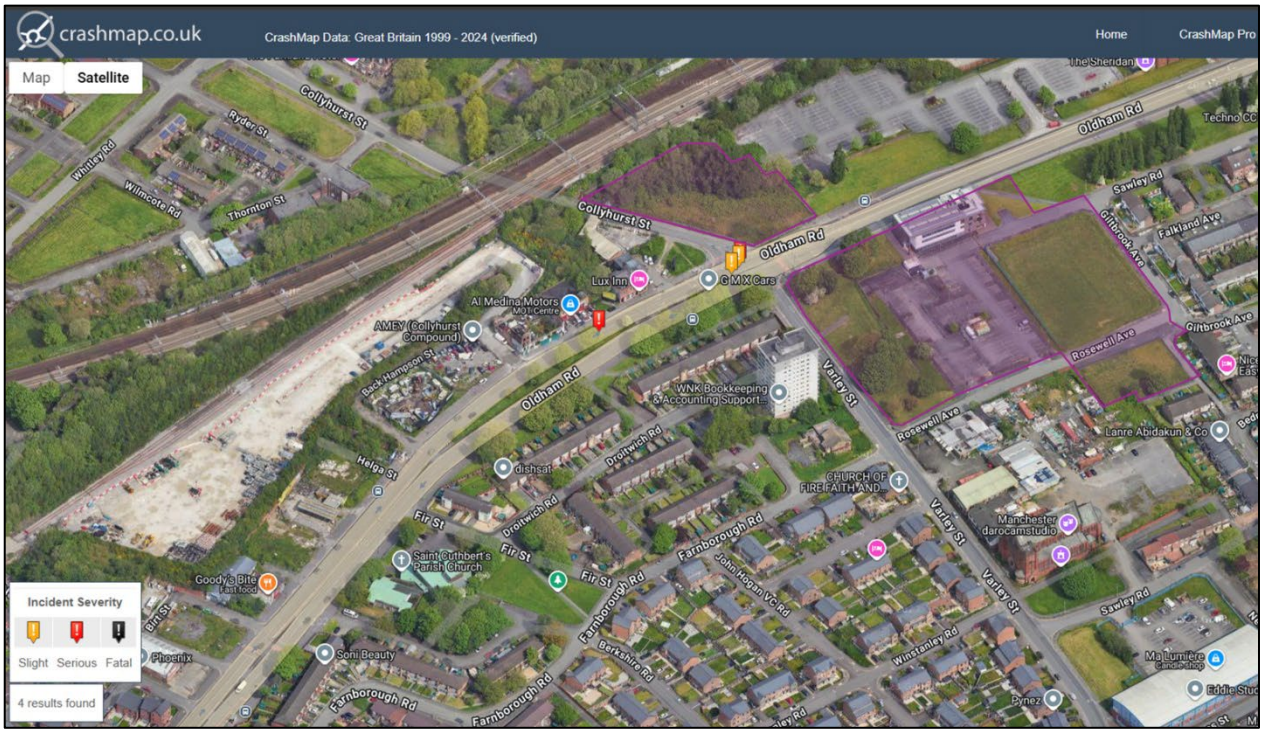
Injury Accident Analysis

3.20. A review of accident records for the local highway network has been undertaken using data available on the Crashmap website. Crashmap uses data collected by the police about road traffic crashes occurring on British roads where someone is injured. This data is approved by the National Statistics Authority and reported on by the Department for Transport each year.

3.21. The Crashmap analysis has been undertaken for the period between 2020 and 2024, which is the most recent five-year period of available data. The study area includes the roads and junctions in the vicinity of the site.

3.22. An extract from the Crashmap website is shown in **Figure 3.4** for the highway network in the vicinity of the site with the location of the proposed site highlighted in purple.

Figure 3.4: Injury Accident Record in the Vicinity of the Site 2020-2024 (Source: Crashmap)



3.23. As shown in **Figure 3.4**, four incidents were recorded in the study area during the most recently available five-year period. Of the four recorded incidents, two were classified as slight in severity and two were classed as serious in severity.

3.24. **Figure 3.4** shows that three incidents have been recorded at the signalised junction of the A62 Oldham Road / Collyhurst Street / Varley Street with two resulting in slight injuries and one resulting in serious injury. Two of the incidents at the junction involved cyclists and the other incident involved vehicle drivers and passengers only.

3.25. The two incidents classified as slight in severity occurred in June 2020 and October 2022. The incident in June 2020 involved a cyclist and a vehicle resulting in a slight injury to the cyclist. The incident in October 2022 involved two vehicles resulting in a slight injury.

3.26. The incident classed as serious in severity occurred in December 2023 and involved a vehicle and a cyclist.

3.27. **Figure 3.4** also shows that an incident classified as serious in severity occurred on the eastbound carriageway of the A62 Oldham Road approximately 80m west of the A62 Oldham Road / Collyhurst Street / Varley Street signalised junction. This incident occurred in June 2021 and involved six vehicles and resulting in one slight injury.

3.28. Whilst four incidents have occurred within the study area, it should be noted that the rate of recorded injury accidents on the highway network adjacent to the proposed development site equates to fewer than one incident a year.

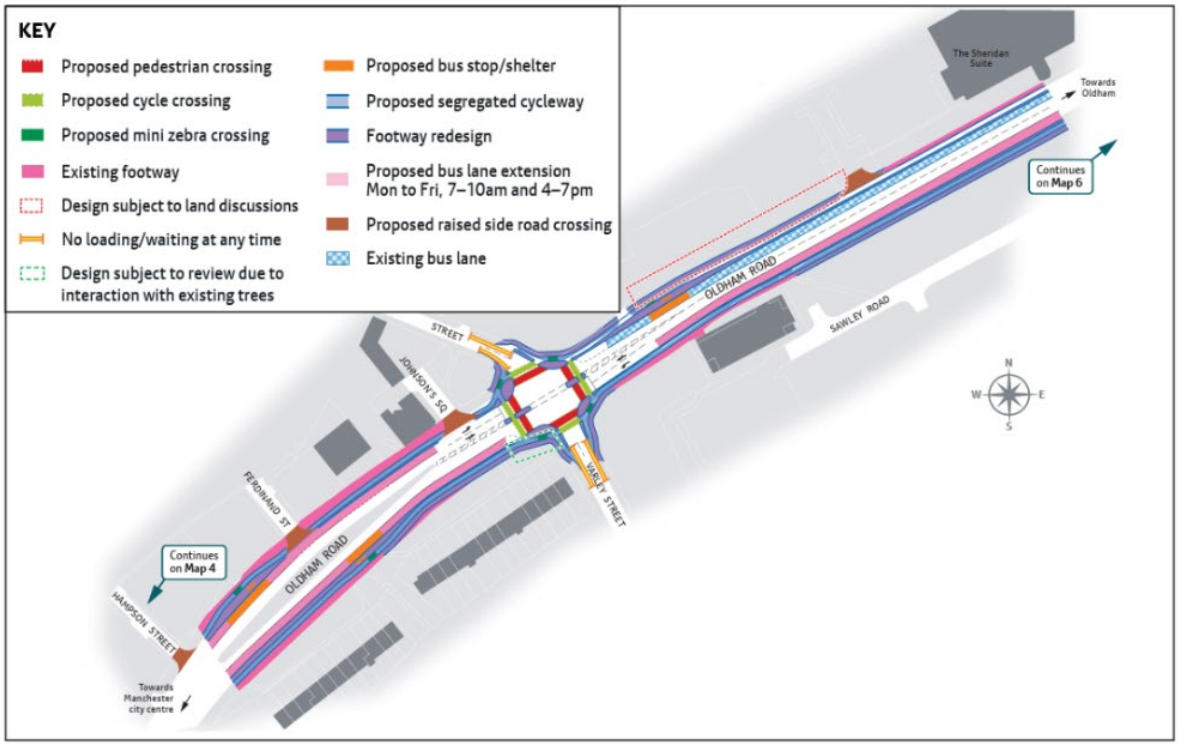
3.29. Whilst all traffic accidents are regrettable, the rate of accidents over the most recent available five-year period is not considered to be indicative of any underlying highway safety issues. Therefore, it is considered that there is no evidence to suggest that the proposed development would have any detrimental impact on highway safety.

3.30. It is therefore concluded that there are no accident black spots in the vicinity of the site.

Planned Highway Improvements

3.31. Manchester City Council have several proposals for improvements along the A62 Oldham Road. They include a planned redesign of the A62 Oldham Road / Collyhurst Street / Varley Street signalised junction along with alterations and enhancements to the infrastructure along the A62 Oldham Road in the vicinity of the site, as shown in **Figure 3.5**.

Figure 3.5: MCC Improving Journeys A62 Oldham Road - Map 5 (Source: www.manchester.gov.uk)



3.32. The proposals for improvements to this section of the A62 Oldham Road include:

- Proposed 'Protected Junction' including pedestrian and cycleway crossings at the junction of the A62 Oldham Road, Collyhurst Street and Varley Street;

- Area of proposed footway redesign on the northern side of the A62 Oldham Road subject to landowner discussions;
- Proposed no loading at any time restrictions on Collyhurst Street and Varley Street;
- Proposed footway redesign, segregated cycle lanes, new bus stop / shelters and extension of the bus lane on the north and south sides of the A62 Oldham Road; and;
- Proposed raised side-road crossings on Hampson Street, Ferdinand Street, and Johnson's Square.

3.33. The layout of our proposed development was produced cognizant of the proposed A62 Oldham Road improvements and as such have been designed to align and integrate with these planned changes.

Summary

3.34. This Section of the report has provided a review of the baseline highway conditions in the vicinity of the proposed development site. The site location benefits from proximity to the A62 Oldham Road, an arterial route running from Oldham into Manchester city centre and will benefit further from the planned improvements to the A62 Oldham Road and signalised junction of the A62 Oldham Road, Collyhurst Street and Varley Street.

3.35. The adjacent road network has a good safety record and there are no underlying incident trends that would be worsened by the proposed development site. An analysis of the injury accident record has been undertaken and on the basis of the available information and the rate of incidents per annum, no existing underlying highway safety issues have been identified. There is therefore no reason to believe that this situation would worsen as a result of the proposed development.

3.36. The next Section of this report will explore this even further with details of the proposed site's accessibility by sustainable modes of transport.

4. Accessibility by Sustainable Modes

Introduction

4.1. Current local and national transport policy states that new developments should be designed to encourage more trips to be made by sustainable modes including walking, wheeling, cycling, multi-modal, or on shared/public transport. This approach maximises social inclusion and helps to minimise the number of single occupancy car journeys. Providing travel choice is policy compliant and critical considering today's progressive and dynamic society, specifically where policy seeks to achieve the Net Zero Carbon target for the UK by 2050.

4.2. One of the primary factors to be considered when considering the suitability of a new development is its proximity, accessibility, and connectivity in relation to key local facilities by non-car modes.

4.3. This section of the report provides a review of the proposed development site's accessibility by sustainable modes, including walking, cycling and public transport.

Walking Accessibility

4.4. The Institution of Highways and Transportation (IHT) document 'Guidelines for Providing for Journeys on Foot' (2000) contains suggested acceptable walking distances for pedestrians, without mobility impairment, traveling to common facilities. The guidelines suggest that an acceptable walking distance for commuting / school purposes is 1km, with a preferred maximum distance of 2km.

4.5. The site is located within an established residential area and benefits from a high level of accessibility to a range of local amenities. The roads in the vicinity of the site benefit from street lighting and footways on both sides of the carriageway. Extensive natural surveillance is provided by existing properties along key pedestrian routes.

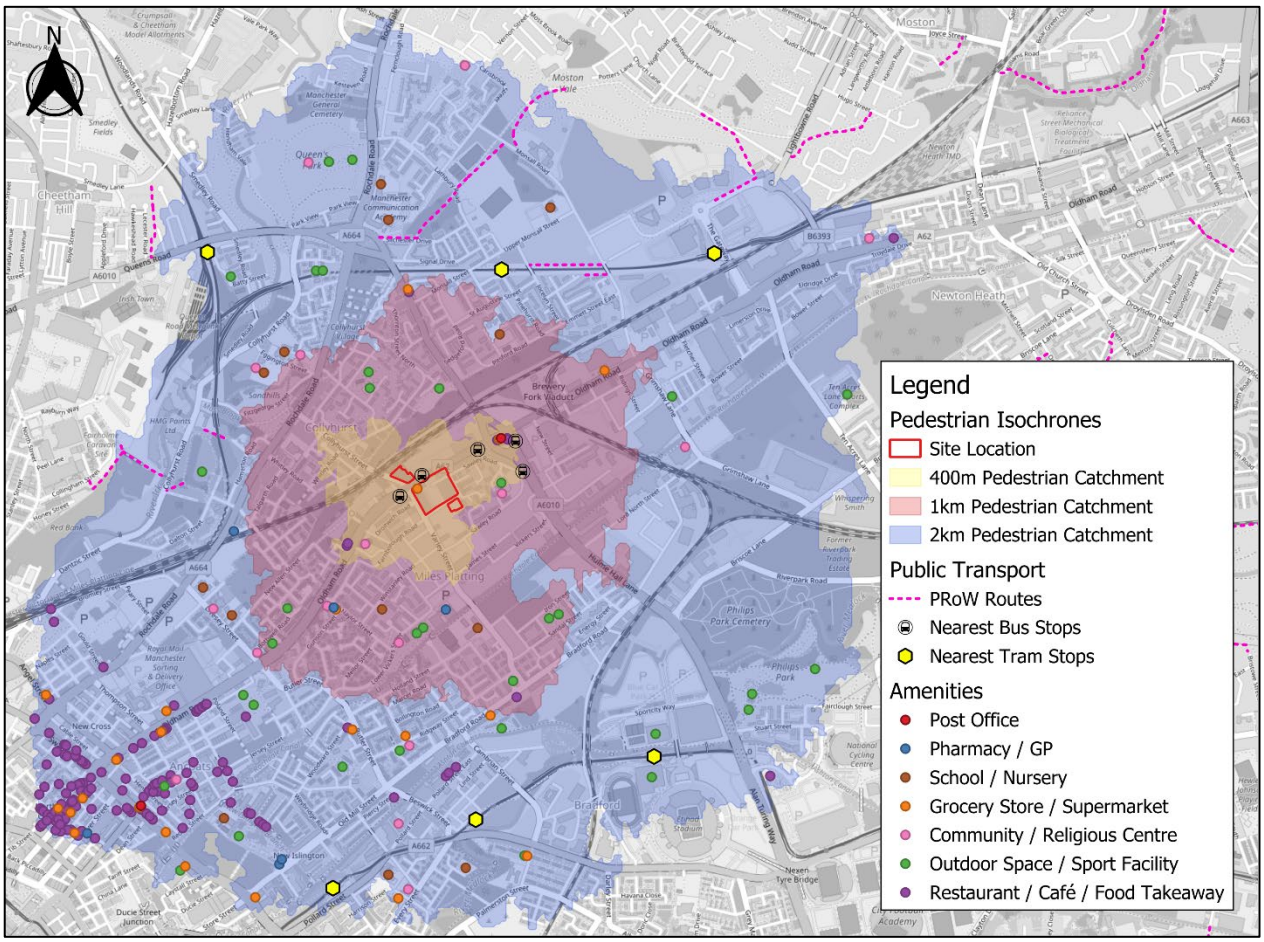
4.6. The site lies in proximity to the A62 Oldham Road / Collyhurst Street / Varley Street junction where a network of signalised pedestrian crossings equipped with the associated controls, dropped kerb, and tactile paving to assist pedestrians is provided.

4.7. The footways on either side of the A62 Oldham Road are paved and well-maintained. In the vicinity of the site, the footways vary in width between approximately 2m and 5m wide, with the wider sections of footway usually in the vicinity of bus stops or pedestrian crossings.

4.8. Routes between the proposed site and Manchester city centre are relatively flat with minimal level differences and gradients. The majority of routes, including the A62 Oldham Road, offer signalised pedestrian crossing facilities at junctions with associated dropped kerbs and tactile paving. Therefore, the pedestrian infrastructure between the site and Manchester will facilitate the option of walking from the proposed site towards the city centre.

4.9. **Figure 4.1** provides 400m, 1km and 2km walking catchments from the proposed development site, which equates to approximately 5, 12 and 25-minute walks respectively. Key amenities have also been included to illustrate the proposed site's accessibility to these facilities.

Figure 4.1: Walking Isochrones Catchment Plan with Amenities (Source: OpenStreetMap/QGIS)



4.10. As shown in **Figure 4.1**, the entirety of Miles Platting is within a short walking distance of the proposed site, which encompasses a wide range of residential and commercial areas. Ancoats and New Islington are also shown to be within a reasonable walking distance of the proposed site where further local amenities and employment opportunities are provided.

4.11. **Figure 4.1** also demonstrates that the site is well connected and accessible by foot to a wide range of local amenities in the local area including bus stops, Metrolink tram stops, local primary and secondary schools, cafes, restaurants, local food shops, supermarkets, a post office, outdoor spaces / parks, medical centres, and pharmacies.

4.12. On the basis the information presented above, the proposed site is well located in relation to local facilities within a convenient walk time based on existing infrastructure. Future residents and users of the site will have the opportunity to access key services via active travel modes.

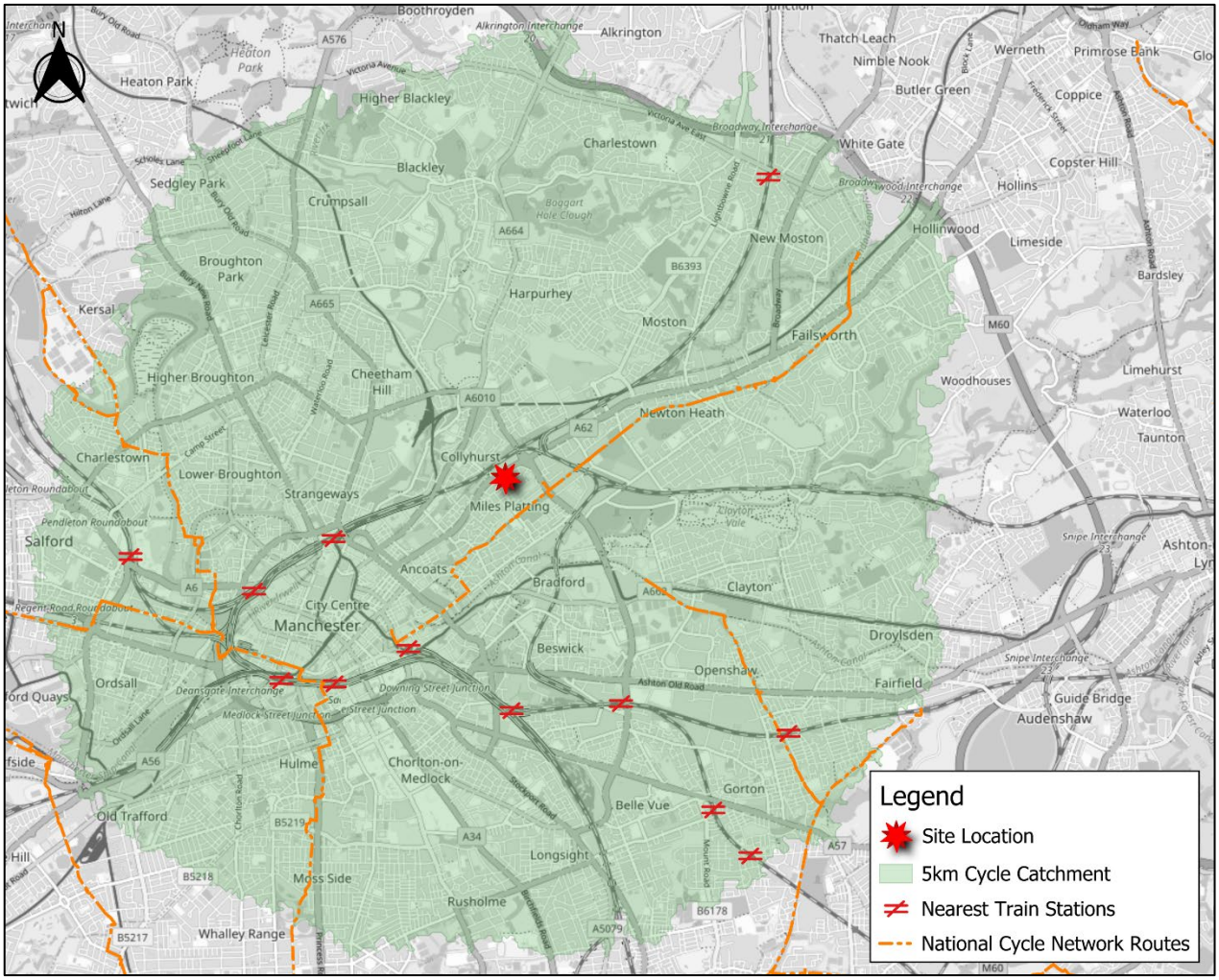
Cycling Accessibility

4.13. An alternative mode of travel to the site would be achieved by bicycle. Cycling is being increasingly recognised as a viable alternative to the car and there has been sustained growth in cycling as both a mode of travel and leisure activity.

4.14. The DfT's Local Transport Note 1/20 Cycle Infrastructure Design notes that many utility cycle journeys are under 3 miles (5km), which equates to a circa 25-minute journey. Consequently, cycling has the potential to replace short car journeys, particularly those under 5km.

4.15. **Figure 4.2** shows the extent of a cycling catchment that can be reached within a 5km isochrone from the centre of the proposed site; at a leisurely cycle speed of 12km per hour this would equate to a journey of around 25 minutes.

Figure 4.2: Cycling Isochrones Catchment Plan (Source: OpenStreetMap/QGIS)

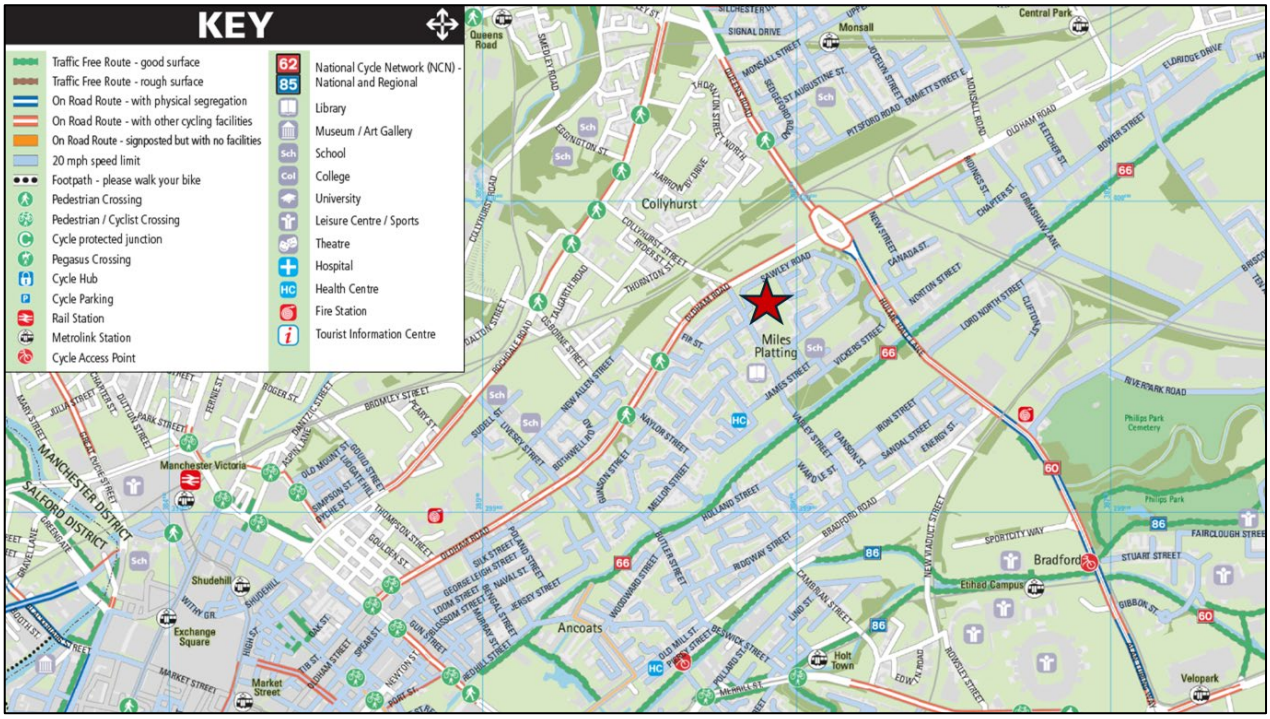


4.16. As shown in **Figure 4.2**, the 5km cycle catchment covers the entirety of Miles Platting, Manchester city centre, Ancoats, Newton Heath, Moston, Harpurhey, Cheetham Hill, Crumpsall, Clayton, Openshaw, Belle Vue, and Longsight demonstrating that cycling to the site is a viable mode for site users.

4.17. It is also noted that Manchester Victoria, Piccadilly, Oxford Road, Deansgate and Salford Central Train Stations are located within a short cycle from the site, facilitating the possibility of multi modal journeys by bicycle and train.

4.18. A network of cycle routes and infrastructure, as identified by Transport for Greater Manchester (TfGM), is present in the vicinity of the site; this is shown in **Figure 4.3**.

Figure 4.3: Local Cycle Infrastructure (Source: tfgm.pindarcreative.co.uk)



4.19. **Figure 4.3** displays that majority of the minor roads surrounding the site are subject to a reduced 20mph speed limit and as such are conducive to a safe cycling environment; this is denoted where roads are filled in with light blue. There are also on road routes with cycle facilities along the A62 Oldham Road and the A6010 Queens Road / Hulme Hall Road as well as a traffic free cycle route with good quality surfacing along the Rochdale Canal Towpath.

4.20. National Cycle Network (NCN) Route 66 is a long-distance route travelling in sections between Manchester and Hull In the vicinity of the site, a traffic free section of the route runs along the Rochdale Canal Towpath, and an access point to the route can be found by heading southeast from the proposed site along Varley Street for approximately 600m.

4.21. The applicant is committed to supporting cycling access for residents, and staff at Baker house. As such the development proposals include on-site cycle parking provision.

4.22. In summary, it is considered that the transport conditions in the vicinity of the site allow cycling to be promoted as a sustainable mode of travel, and that cycling would represent a viable travel option for future residents and employees, and on this basis the site is considered to be highly accessible by bicycle.

Accessibility to Buses

4.23. The nearest bus stops to the site are located on the A62 Oldham Road. The nearest bus stop to the site is adjacent to the southern boundary of the northern parcel on the eastbound side of the A62 Oldham Road. The nearest bus stop on the westbound side of the A62 Oldham Road is located approximately 150m to the west of the site.

4.24. These bus stops are served by the 83, 84, 114, 182, 702, 722 and 726 bus routes providing frequent services into Manchester city centre, Ancoats, Harpurhey Business Park, Monsall, Moston, Royal Oldham Hospital, Royton, and Shaw. Both bus stops benefit from a bus shelter and flagpole arrangement along with seating and a dedicated bay with a raised kerb, and associated road markings.

4.25. Additional bus stops are situated around 400m to the east of the site in the vicinity of the A62 Oldham Road/ A6010 Queens Road / A6010 Hulme Hall Lane signalised gyratory.

4.26. These bus stops are served by the 53 bus route providing frequent services into Cheetham Hill, North Manchester General Hospital, Gorton, Rusholme, Manchester Royal Infirmary, MediaCityUK and Salford Shopping Centre.

4.27. All of these bus stops can be accessed using the pedestrian infrastructure located within the vicinity of the site. To assist in illustrating the available provision, a summary of the services available from the nearest bus stops to the site is presented in **Table 4.1**.

Table 4.1 Public Bus Stops and Frequent Services in the Vicinity of the Site

Bus Stop	Available Bus Services	Weekday Frequency (Average)	Weekend Frequency (Average)
A62 Oldham Road (eastbound)	83 - Piccadilly Gardens - Oldham Interchange 84 - Piccadilly Gardens - Uppermill / Oldham 114 - Manchester - Middleton 182 - Manchester - Shaw	Every 10 mins Every 10 - 20 mins Every 20 mins Every 60 mins	Every 10 - 20 mins Every 10 - 20 mins Every 30 - 60 mins Every 60 mins
A62 Oldham Road (westbound)	83 - Oldham Interchange - Piccadilly Gardens 84 - Uppermill / Oldham - Piccadilly Gardens 114 - Middleton - Manchester 182 - Shaw - Manchester	Every 10 mins Every 10 - 20 mins Every 20 mins Every 60 mins	Every 10 - 20 mins Every 10 - 20 mins Every 30 - 60 mins Every 60 mins
Hulme Hall Lane (southbound)	53 - Cheetham Hill SC - Salford SC	Every 25 - 35 mins	Every 30 - 35 mins
Hulme Hall Lane (northbound)	53 - Salford SC - Cheetham Hill SC	Every 25 - 35 mins	Every 30 - 35 mins

4.28. As shown in **Table 4.1**, the site is well connected to the local bus network. The regular services available within the vicinity of the site provide access to a variety of key employment, leisure and retail destinations within Manchester city centre, and across Greater Manchester.

4.29. There are also several school bus services that operate from the nearby bus stops, the A62 Oldham Road bus stops operate services travelling to and from The East Manchester Academy, All Saints School, and the Co-op Academy North Manchester. Additionally, the Hulme Hall Lane bus stops offer school bus services to and from Wright Robinson College, Our Lady's R.C. High School, The East Manchester Academy, and Whalley Range High School.

4.30. On the basis of the above review, and the relatively short walking distances between the site and the nearby bus stops, the proposed site is considered to be highly accessible by bus.

Accessibility to Trams / Metrolink

4.31. The Monsall Metrolink stop is located approximately 800m to the northeast of the site and is accessible by an estimated 17-minute walk (1.2km) or a 5-minute cycle.

4.32. Between Monday to Thursday the Metrolink Tram services operate from around 06:00 to 00:00 every 12 minutes. On a Friday and Saturday, the Metrolink Tram services operate from around 06:00-00:00 every 12 minutes, and every 24 minutes from 00:00-01:00. The Metrolink Tram services operate from around 07:00-00:00 every 15 minutes on a Sunday.

4.33. The Monsall Metrolink stop is on the East Didsbury to Rochdale Town Centre and the East Didsbury to Shaw and Crompton lines offering direct access to destinations such as Didsbury, Chorlton, Manchester city centre, Manchester Victoria Train Station, Oldham town Centre, and Rochdale town centre.

4.34. All Metrolink stops provide shelter, seating, and real-time journey information. All Metrolink trams and stations also provide disabled access in the form of step-free access, tactile paving and dropped kerbs.

4.35. The site is highly accessible by tram which will offer excellent public transport connectivity for residents to various destinations in Manchester.

Greater Manchester Accessibility Level

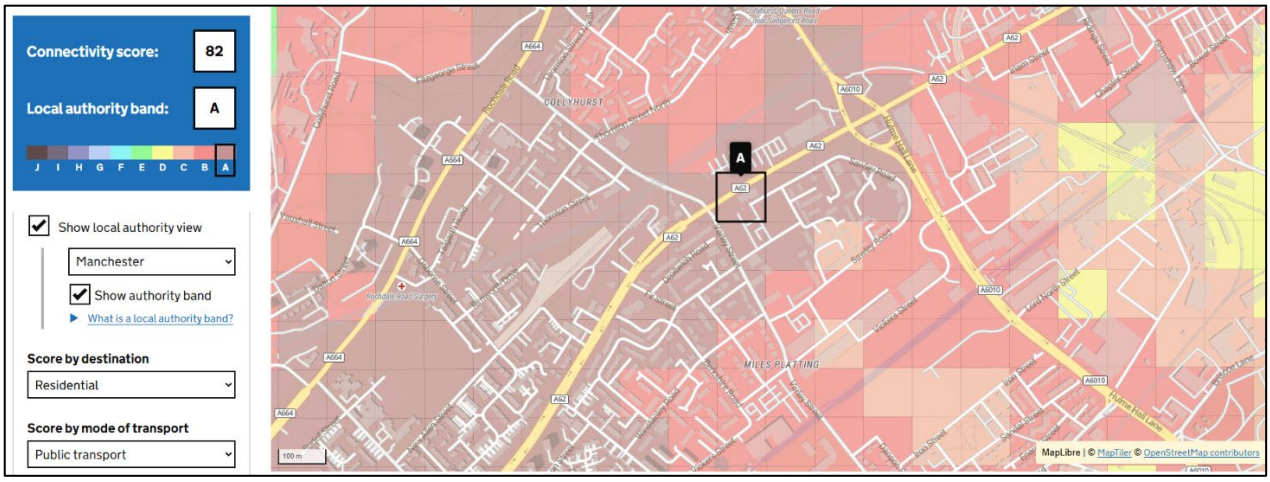
4.36. Greater Manchester Accessibility Levels (GMAL) are a detailed and accurate measure of the accessibility of a point to both the conventional public transport network, taking into account walk access times and service availability. The GMAL range on a scale from very low (1) to very high accessibility (8). The site based on its postcode (M40 8BS), and using the latest GMAL data from March 2026, has an accessibility Level 7, which equates to an area of high public transport accessibility.

DfT Connectivity Tool Assessment

4.37. In addition to the above, the DfT Connectivity Tool has been reviewed. The DfT Connectivity Tool provides information on a site's level of accessibility by mode of transport and journey purpose.

4.38. The database has been accessed, and consideration has been given to the site's accessibility by public transport for residential journey purposes. This assessment compares the site's connectivity with all other areas within Manchester. The output of this assessment is provided in **Figure 4.4**.

Figure 4.4: DfT Connectivity Tool Map for Miles Platting (Source: connectivity-tool.dft.gov.uk/app)



4.39. The connectivity tool gives the site a connectivity score of 82 out of 100 which falls within Band A across Manchester.

4.40. This score and band placement from the Connectivity Tool shows the location for the site is well located for access to destinations such as education, leisure and community, health, shopping, and workplaces as well as highlighting the site has good access to infrastructure for the transport modes of walking, cycling, and public transport.

Summary

4.41. This Section of the report has demonstrated that the proposed development site is located in an area with excellent accessibility to a range of sustainable modes. Having outlined the accessibility of the site, the next Section of this report provides detailed information on the development proposal.

5. Development Proposals

5.1. This Section of the report provides a description of the proposed development and associated access strategy.

Proposed Development

5.2. The site is shown to align with the relevant national and local policies. It is a well-located site with an array of opportunities to integrate itself with the existing surrounding residential areas in terms of active travel and public transport.

5.3. The proposed development is for an affordable housing scheme that will provide 154 units, comprising of:

- 50 x 1-bedroom apartments;
- 72 x 2-bedroom apartment;
- 2 x 3-bedroom apartments;
- 14 x 2-bedroom houses;
- 6 x 3-bedroom houses; and;
- 10 x 4-bedroom houses.

5.4. The proposed site plan is shown on **Drawing 1355-Site-102** by DK Architects, included at the rear of this report in **Appendix A**.

Access Arrangements

5.5. The associated access strategy for each land parcel within the proposed development site is outlined below. It should be noted that the proposals will require alterations to the extent of the adopted highway in the area, with some existing highway requiring stopping up and some requiring dedication as highway. These processes will be undertaken at the relevant time in co-ordination with the Highway Authority.

Northern Parcel

5.6. Vehicle and pedestrian access to the northern parcel will be provided from Collyhurst Street via a new priority-controlled junction. Pedestrians and cyclists will also be able to access the northern parcel from the A62 Oldham Road to the south of the site.

5.7. Drawing **A25047-ATP-HGN-ZZ-DR-CH-00001** in **Appendix C** shows that the proposed junction on Collyhurst Street provides a visibility splay of 2.4 metres x 43 metres which, based on Manual for Streets (MfS) Stopping Sight Distance

guidance, is acceptable for a road subject to a 30mph speed limit. It is proposed that refuse vehicles will serve the site from the roadside along Collyhurst Street.

Central Parcel

5.8. Vehicle access to the central parcel of the proposed site will be provided from Rosewell Avenue via two new priority-controlled junctions. The western junction will provide access to a number of residential units and Baker House and the associated car parking. The eastern junction will provide access to residential units only.

5.9. Drawing **A25047-ATP-HGN-ZZ-DR-CH-00001** in **Appendix C** shows that both junctions from Rosewell Avenue provide a visibility splay of 2.4 metres x 25 metres which, based on MfS Stopping Sight Distance guidance, is acceptable for a road subject to a 20mph speed limit.

5.10. Both the site access junctions will include footways on both sides of the bell mouth which will connect with the existing infrastructure provided on Rosewell Avenue. A road width of 6m will be provided through the site and 2m wide footways will also be provided on both sides of the access road.

5.11. Further pedestrian access to the central parcel will be provided from the A62 Oldham Road to the north, Giltbrook Avenue to the east and Varley Street to the west.

5.12. It is proposed that refuse vehicles will serve the residential units fronting Varley Street and Rosewell Avenue from the roadside. Refuse vehicles will also enter the site from Rosewell Avenue to serve the residential units fronting the internal access roads. As shown in Drawing **A25047-ATP-HGN-ZZ-DR-CH-00101** in **Appendix C**, a refuse vehicle can enter and exit the site and continue routing along Giltbrook Avenue with no conflicts.

Southern Parcel

5.13. Vehicle and pedestrian access to the southern parcel will be provided from Rosewell Avenue to the north of the parcel via a new dropped vehicle crossing. Drawing **34922-SUT-ZZ-XX-DR-C-6600** in **Appendix C** produced by Sutcliffe shows the proposed S278 works for the proposed development, and the design for the dropped vehicle crossing. It is proposed that refuse vehicles will serve the site from the roadside on Rosewell Avenue.

Road Safety Audit

5.14. The applicant, Jigsaw Homes North, commissioned six:TEN Highways and Traffic to carry out a Stage 1 Road Safety Audit of the highway works associated with the proposed development. The Stage 1 Road Safety Audit and Astute's Designer's Response Report are included in **Appendix D.** Together these reports confirm that the proposed access arrangements are satisfactory from a safety perspective.

Parking Arrangements

5.15. Within the Proposed Site Plans included in **Appendix A** is a Block Location References Plan, a Parking Allocation Plan, and a Cycle Parking Allocation Plan. These plans can be used to fully understand the provision of car and cycle parking across the application site.

Social Housing Scheme

5.16. The proposed affordable housing development is spread across three land parcels, and is delivering 30 houses and 124 flats. A total of 97 car parking spaces will be provided across the development; 30 parking spaces for the houses and 67 parking spaces for the flats.

5.17. The parking arrangements planned for the development would provide 100% parking for the socially rented houses and 60% for the proposed socially rented flats.

5.18. To demonstrate that the level of car parking provision is suitable for the proposed development, the 2021 Census database has been reviewed. Specifically looking at car ownership rates for renters of social housing flats, maisonettes or apartments using a custom dataset to select 'Accommodation type', 'Car or van availability', and 'Tenure of household' within the Manchester 061 Middle Super Output Area (MSOA) where the site is located. It was evaluated that an average of 46% of socially rented houses or bungalows, and an average of 29% of socially rented flats, maisonettes or apartments have cars or vans in their households.

5.19. MCC do not have set residential car parking standards and each site is assessed on its own merits. The above paragraph demonstrates that a 50% provision for socially rented flats, maisonettes or apartments, or a 100% provision for socially rented houses or bungalows, will be sufficient to cater for the predicted demand for car parking. As such, this level of car parking has already been agreed with MCC.

5.20. In terms of cycle parking, all houses will be provided with secure cycle storage within lockable garden shed located in the rear garden. For houses within blocks C1 and C2, cycle storage shall be provided by means of wall-mounted bicycle anchors installed within their garage.

5.21. A total of 129 secure bicycle stands will be provided across the development for residents of the socially rented flats, containing:

- Bike Store 1 for Block 2G providing 38 secure cycle storage spaces;
- Bike Store 2 for Block 2B providing 26 secure cycle storage spaces;
- Bike Store 3 for Block 2A providing 33 secure cycle storage spaces;
- Bike Store 4 for Block ofdA providing 4 secure cycle storage spaces;

- Bike Store 5 for Block ofdB providing 6 secure cycle storage spaces;
- Bike Store 6 for Block 2C providing 14 secure cycle storage spaces; and
- Bike Store 7 for Block ofdC & ofdD providing 8 secure cycle storage spaces.

5.22. The provision for cycle parking at the flats is therefore more than 1 cycle parking space per flat.

Parking for Baker House

5.23. As part of the proposals, a new car park for the Jigsaw Homes North office and car parking allocated for the potential occupier of the ground floor retail/commercial space within Baker House will be delivered.

5.24. For the secure car park reserved for use by the Jigsaw Homes North office, a total of 32 car parking spaces will be provided, including 2 dedicated disabled parking spaces. Jigsaw Homes North have confirmed that this level of provision is sufficient to meet demand.

5.25. For the car park reserved for use by the ground floor retail/commercial space a total of 5 car parking spaces will be provided including 2 dedicated disabled parking spaces. This is more than the existing level of provision, with no dedicated parking currently being provided.

Travel Plan

5.26. A Framework Travel Plan (FTP) has been prepared by Astute Transport Planning to accompany this TA in support of the planning application, and is submitted as a separate standalone document. The FTP sets out the proposed measures, targets, and management framework for promoting sustainable travel to and from the development, including provisions for monitoring and review following occupation. It should be read in conjunction with this TA, which provides the supporting analysis of the site's transport context and likely trip generation upon which the Framework Travel Plan's measures and targets have been based.

Summary

5.27. This Section of the report has provided a detailed overview of the proposed development.

5.28. Having set out the proposals for the site in detail, the next Section of this report provides the methodology adopted to assess the impact of traffic from the proposed site on the local highway network.



6. Traffic Impact Assessment Methodology

Introduction

6.1. This Section of the report outlines the methodology used to undertake an assessment of the proposed development's relative impact of the local highway network. The scope of this assessment has been discussed and agreed with MCC.

Study Area

6.2. The following junctions have been included in the study area considered as part of this TA:

- Varley Street / Farnborough Road / Rosewell Avenue priority junction.
- A62 Oldham Road / Collyhurst Street / Varley Street signalised junction.

Baseline Traffic Flows and Network Peak Hours

6.3. The traffic impact assessment included within this TA is informed by traffic surveys undertaken on Wednesday 2nd July 2025 between 07:00-10:00 and 16:00-19:00. The full traffic count data has been included as **Appendix E** of this report which includes manually classified counts at the two junctions.

6.4. For the purposes of this assessment, the typical weekday AM and PM peak hours have been considered to assess the impact of the proposed development on the operation of the local highway network.

6.5. These periods typically experience the greatest level of background traffic demand and as a result these will be the most sensitive to additional vehicles on the network resulting from the proposed development. This approach ensures that the traffic impact assessment has been undertaken on a reasonable worst-case basis.

6.6. Through analysis of the traffic survey data detailed above, the following weekday peak hours have been identified:

- AM Peak Hour – 08:00-09:00.
- PM Peak Hour – 16:00-17:00.

6.7. The traffic count data for these peak hours has been converted to Passenger Car Units (PCUs) for the purposes of this assessment. The resultant 2025 baseline traffic flows for the above peak hours are presented in **Figure 1.**

Assessment Scenarios

6.8. The assessment has adopted a future year scenario in which to assess the relative impact of development traffic on the operation of the local highway network.

6.9. A 2031 Future Year will be adopted for the assessment of junctions located on the local road network within the jurisdiction of MCC. This scenario represents a position five-years post-registration of the planning application for the proposals. Details of the manner in which future background traffic flows for this scenario have been forecast have been provided below.

Committed Development

6.10. As part of the pre-application process, the Highways team at MCC identified a number of committed developments that should be accounted for within the assessment. In order to account for future traffic demand from other developments in the future, we reviewed the traffic generation and distribution of the following nearby committed development:

- Land north of Varley Street (Planning Ref: 143295/FO/2025);
- Site of Former Riverpark Trading Estate (Planning Ref:142464/FO/2025);
- Land off Pitsford Road (Planning Ref: 140311/FO/2024);
- Etihad Stadium North Stand Expansion (Planning Ref: 136763/FO/2023);
- Land off Old Church Street (Planning Ref: 138730/FO/2023);
- Site of Former Jacksons Brickworks (Planning Ref: 133700/FO/2022);
- Land off Thornton Street North (Planning Ref: 129393/VO/2021);
- Land off Grimshaw Lane (Planning Ref: 129444/FO/2021);
- Land off Varley Street (Planning Ref: 125596/FO/2019);
- A local convenience store anticipated to be moving into the vacant ground floor retail space of the Jigsaw Homes North office building (using TRICS for trip rates)

6.11. Having reviewed the transport information submitted within each application, along with guidance from the Highways team at MCC, it was identified that flows generated solely from TEMPro produced the greatest future background traffic demand for the year 2031 within the study area proposed. Therefore, for a robust approach, the future scenarios within the traffic impact assessment are based solely on the TEMPro background traffic growth.

Background Traffic Growth

6.12. In order to uplift the 2025 surveyed traffic flows to a future year, traffic growth factors have been calculated using Version 8.1 of the TEMPRO database and adjusted with NTM. The growth factors have been calculated for the Middle Layer Super Output Area (MSOA) in which the proposed development site is located. The resultant traffic growth factors are presented in **Table 6.1**.

Table 6.1: TEMPRO Growth Factors 2025-2031

Years	Scenario	
	AM Peak (08:00-09:00)	PM Peak (16:00-17:00)
2025 - 2031	1.0908	1.0851

2031 Baseline 'Without Development' Traffic Flow Scenario

6.13. The surveyed traffic flows presented in **Figure 1** have been uplifted using the growth factors presented in **Table 6.1**. These growthed traffic flows were used to generate a 2031 Baseline 'Without Development' traffic scenario. This traffic flow scenario is presented in **Figure 2**.

Proposed Development Trip Generation

6.14. In order to forecast vehicle trips associated with the proposed development site, the industry-standard TRICS database of surveyed sites has been interrogated to find comparable existing sites. Trip rates for the mixed affordable housing (flats and houses) have been used. The full TRICS outputs are included **Appendix F** of this report.

6.15. The trip rates and resultant traffic generation associated with the proposed development are summarised in **Table 6.2** for the typical network AM and PM peak hours.

Table 6.2: Proposed Development Trip Rates and Trip Generation

Proposed Development	AM Peak (08:00-09:00)			PM Peak (16:00-17:00)		
	Arr	Dep	Total	Arr	Dep	Total
Trip Rate	0.13	0.291	0.421	0.197	0.175	0.372
Trip Gen	20	45	65	30	27	57

6.16. Table 6.2 shows that the proposed residential development would generate in the order of 65 two-way (arrivals and departures) vehicle trips in the AM peak hour and 57 two-way vehicle trips in the PM peak hour.

Proposed Development Trip Distribution and Assignment

6.17. The trip distribution utilised 2011 Census workday journey to work data and took into consideration the most convenient route choice. This approach was discussed and approved with the Highways team at MCC as part of the pre-application process. The adopted trip distribution profile used in this assessment is shown in **Figure 3**.

6.18. It should be noted that a number of the proposed units are accessed directly from Varley Street, Rosewell Avenue and Giltbrook Avenue and therefore the trip distribution shown in **Figure 3** accounts for this in the percentage splits at each of the site access locations.

6.19. Using the trip distribution profile, the forecast vehicle movements presented in **Table 6.2** have been assigned to the study network and these flows are presented in **Figure 4**.

'With Development' Traffic Flow Scenarios

6.20. The total proposed development flows have been added to the aforementioned 2031 Baseline 'Without Development' scenario to generate the 2031 Baseline 'With Development' scenario. The resultant traffic flows are shown within **Figure 5**.

Summary

6.21. This Section of the report has outlined the manner in which the 'Without Development' and 'With Development' scenarios have been generated. These scenarios will enable the relative impact of development traffic on the operation of the local highway network to be assessed and understood.

6.22. The next Section of this report presents the results of percentage impact assessment for the identified study network plus a series of supporting detailed capacity assessments.



7. Traffic Impact Assessment Results and Discussion

Introduction

7.1. This Section of the report provides the results of the traffic impact assessment undertaken in support of the proposed development.

Proposed Development Net Traffic Impact

7.2. In considering the traffic impact of development proposals it is important to firstly consider how in practice the increases in traffic would occur across the study network.

7.3. **Table 7.1** provides a summary of total traffic demand at junctions across the identified study network for both the 2031 Baseline 'Without Development' and 'With Development' scenarios. Details of the increases in traffic forecast to occur as a result of the proposed development are also provided.

Table 7.1: Proposed Development Percentage Impact Table

Junction	2031 Baseline 'Without Development'		2031 Baseline 'With Development'		Actual Change in Traffic		Percentage Difference in Traffic	
	AM	PM	AM	PM	AM	PM	AM %	PM %
A62 Oldham Road / Collyhurst Street / Varley Street	2,600	2,564	2,647	2,596	46	32	2%	1%
Varley Street / Farnborough Road / Rosewell Avenue	729	818	778	852	49	34	7%	4%

7.4. As shown in **Table 7.1**, that the forecast traffic from the proposed development would result in only minor relative increases in overall traffic demand at the two junctions included within the study network.

Varley Street / Farnborough Road / Rosewell Avenue priority junction

7.5. The capacity of the Varley Street/ Farnborough Road/ Rosewell Avenue priority crossroads junction has been assessed using the industry standard JUNCTIONS 11 software package.

7.6. The software expresses capacity using a maximum Ratio of Flow (RFC) value for each arm of the junction and a maximum queue value which is given in PCUs. An RFC value of between 0.85-1.00 typically indicates that a junction is at or approaching capacity. A value over 1.00 indicates that traffic demand has exceeded the theoretical capacity of the junction in question. Note that the max RFC may occur in a different time segment than the max queue.

7.7. The Varley Street / Farnborough Road / Rosewell Avenue priority crossroads junction has been modelled using the JUNCTIONS 11 software package. The full results of this assessment are provided in **Appendix G**.

7.8. The junction has firstly been tested using the traffic survey data for the 2025 Baseline scenario. The AM and PM peak hour results for this scenario are summarised in **Table 7.2**.

Table 7.2: Varley Street / Farnborough Road / Rosewell Avenue JUNCTIONS Results Summary - 2025 Baseline

Arm	AM Peak (08:00-09:00)		PM Peak (16:00-17:00)	
	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC
Rosewell Avenue	1	0.08	1	0.08
Varley Street (N)	0	0.03	0	0.03
Farnborough Road	1	0.05	1	0.07
Varley Street (S)	0	0.03	0	0.03

7.9. The results presented in **Table 7.2** demonstrates that the junction operates well within capacity during the AM and PM peak periods with maximum RFC of 0.08 on the Rosewell Avenue arm of the junction.

7.10. The junction has then been tested using the traffic flows forecast for the 2031 Baseline 'Without Development' scenario. The AM and PM peak hour results for this scenario are summarised in **Table 7.3**.

Table 7.3: Varley Street / Farnborough Road / Rosewell Avenue JUNCTIONS Results Summary - 2031 Baseline 'Without Development'

Arm	AM Peak (08:00-09:00)		PM Peak (16:00-17:00)	
	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC
Rosewell Avenue	1	0.09	1	0.09
Varley Street (N)	0	0.03	0	0.04
Farnborough Road	1	0.06	1	0.07
Varley Street (S)	0	0.04	0	0.03

7.11. The results presented in **Table 7.3** demonstrates that the junction is projected to operate well within capacity during the AM and PM peak periods with maximum RFC of 0.09 on the Rosewell Avenue arm of the junction. It also highlights that during the AM and PM peak periods the maximum expected queue is 1 PCU on the Rosewell Avenue and Farnborough Road arms of the junction.

7.12. The junction has also been tested with the 2031 Baseline 'With Development' traffic flows. A summary of this modelling exercise for the AM and PM peak hours is provided in **Table 7.4**.



Table 7.4: Rosewell Avenue / Varley Street / Farnborough Road JUNCTIONS Results Summary - 2031 Baseline 'With Development'

Arm	AM Peak (08:00-09:00)		PM Peak (16:00-17:00)	
	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC
Rosewell Avenue	1	0.16	1	0.17
Varley Street (N)	0	0.03	0	0.04
Farnborough Road	1	0.06	1	0.07
Varley Street (S)	1	0.05	0	0.03

7.13. The results presented in **Table 7.4** demonstrates that the junction is projected to operate well within capacity during the AM and PM peak periods with maximum RFC of 0.16 and 0.17 respectively on the Rosewell Avenue arm of the junction. It also highlights that during the AM and PM peak periods the maximum expected queue is 1 PCU on the Rosewell Avenue and Farnborough Road arms of the junction in both the AM and PM peak and on the Varley Street southern arm in the AM peak only.

7.14. As shown in **Tables 7.3** and **7.4**, the addition of development traffic flows at the junction does not result in any material change in its operation.

A62 Oldham Road / Varley Street / Collyhurst Street Signalised Junction

7.15. The capacity of the A62 Oldham Road / Varley Street / Collyhurst Street signalised crossroad junction has been assessed in the industry standard LinSig software package.

7.16. LinSig expresses capacity using Degree of Saturation (DoS) values and also provides Mean Maximum Queue (MMQ) values for lanes and approaches to a junction. A DoS value in excess of 90% indicates that a lane is at or approaching capacity. LinSig also calculates a Practical Reserve Capacity (PRC) for the junction as a whole to indicate the level of available capacity across the lanes of the junction.

7.17. A Split Cycle Offset Optimisation Technique (SCOOT) traffic control system is in place at the A62 Oldham Road / Varley Street / Collyhurst Street signalised junction. The model has been prepared using traffic signal timing data provided by TfGM.

7.18. The signal timing data demonstrates that there is a dedicated all green phase for pedestrians that is demand dependent. The video footage collected as part of the traffic survey shows that during the AM and PM peak periods the pedestrian phase was called between 20%-33% of the time during each cycle.

7.19. To reflect this in the model, a double cycle has been applied when running the model so that the pedestrian phase was called after every two cycles of signal phases. This is considered a robust approach as observed behaviour found it was only called during every three or four cycles of signal phases.

7.20. The full modelling outputs for the capacity assessment of this junction are included as **Appendix H** of this report.

7.21. A summary of the 2025 Survey scenario capacity test for this junction is provided in **Table 7.5** for both the AM and PM peak hours.

Table 7.5: A62 Oldham Road / Varley Street / Collyhurst Street LinSig Results Summary - 2025 Survey

Arm	AM Peak (08:00-09:00)		PM Peak (16:00-17:00)	
	MMQ (PCU)	DoS (%)	MMQ (PCU)	DoS (%)
A62 Oldham Road (W)	5	29.5%	11	62.8%
Collyhurst Street	11	67.8%	8	47.0%
A62 Oldham Road (E)	13	69.1%	8	54.4%
Varley Street	9	67.8%	10	62.6%
PRC %	30.30%		43.4%	

7.22. The results presented in **Tables 7.5** demonstrates that the junction operates within capacity during the AM and PM peak periods.

7.23. A summary of the 2031 Baseline 'Without Development' scenario capacity test for this junction is provided in **Table 7.6** for both the AM and PM peak hours.

Table 7.6: A62 Oldham Road / Varley Street / Collyhurst Street LinSig Results Summary - 2031 Baseline 'Without Development'

Arm	AM Peak (08:00-09:00)		PM Peak (16:00-17:00)	
	MMQ (PCU)	DoS (%)	MMQ (PCU)	DoS (%)
A62 Oldham Road (W)	6	32.1%	13	69.1%
Collyhurst Street	11	71.3%	9	50.4%
A62 Oldham Road (E)	16	77.4%	9	59.8%
Varley Street	12	77.8%	12	69.2%
PRC %	15.6%		30.1%	

7.24. The results presented in **Tables 7.6** highlights that the junction is projected to operate within capacity during the AM and PM peak periods of 2031 inclusive of expected background growth of traffic.



7.25. The junction has then been tested using the traffic flows generated for the 2031 Baseline 'With Development' scenario. A summary of the AM and PM peak hour results is provided in **Table 7.7**.

Table 7.7: A62 Oldham Road / Varley Street / Collyhurst Street LinSig Results Summary - 2031 Baseline 'With Development'

Arm	AM Peak (08:00-09:00)		PM Peak (16:00-17:00)	
	MMQ (PCU)	DoS (%)	MMQ (PCU)	DoS (%)
A62 Oldham Road (W)	9	47.4%	13	71.5%
Collyhurst Street	14	70.9%	9	50.2%
A62 Oldham Road (E)	18	79.8%	10	61.7%
Varley Street	13	80.0%	13	70.7%
PRC %	12.5%		26%	

7.26. The results presented in **Tables 7.7** highlights that the junction is projected to operate within capacity during the AM and PM peak periods inclusive of expected background growth of traffic, and the proposed development.

7.27. The results presented in **Tables 7.6 and 7.7** demonstrate that the junction will operate within capacity in both the 'Without Development' and 'With Development' traffic scenarios.

Summary

7.28. This Section of the report has considered the relative impact of traffic from the proposed development on the operation of the local highway network. The impact of development traffic on the capacity of key junctions could not reasonably be characterised as 'severe' and as a result the proposed development meets this key policy test as prescribed with the NPPF.

7.29. A net impact assessment and series of detailed capacity assessments have been undertaken to support this conclusion. Furthermore, there is no evidence to suggest that the proposed development would have any negative impact on highway safety.



8. Summary and Conclusions

Summary

8.1. Astute Transport Planning has been appointed by Jigsaw Homes North to provide transport and highways advice to support a planning application for a residential development, consisting of up to 154 affordable homes around land off the A62 Oldham Road within Miles Platting, Manchester.

8.2. This Transport Assessment includes the following principal findings:

- In accordance with planning policy guidance which promotes sustainable development, the site has been demonstrated to be accessible on foot, with safe and convenient access available to a wide range of surrounding services, amenities, and employment opportunities.
- The site is accessible by bicycle, and benefits from good connectivity via local bus, tram, and rail services which provide access to local and regional destinations.
- A review of historical collision data has demonstrated that there are no existing accident blackspots in the vicinity of the site on the A62 Oldham Road, Rosewell Avenue, Varley Street, or Collyhurst Street. Based upon the findings of the traffic impact assessment, it has been concluded that there is no reason to believe highway safety would be worsened as a result of the development proposals.
- The relative impact of traffic from the proposed development on the operation of the local highway network has been considered. The impact of development traffic on the capacity of key junctions could not reasonably be characterised as 'severe' and as a result the proposed development meets this key policy test as prescribed with the NPPF.
- Based upon the results of the traffic impact assessment it was also concluded that the proposed development would not result in any reduction in the safe operation of the surrounding highway network.
- It was therefore concluded that the residual cumulative impact of the development on the local highway network could not be considered severe.

Conclusions

8.3. The NPPF states that, '*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, following mitigation, would be severe, taking into account all reasonable future scenarios*'

8.4. This report has demonstrated that the proposed development would have no material impact on the operation of local highway network. There is also no reason to believe that it will have a detrimental impact upon highway safety. As such the impact of the development cannot be concluded to be severe.

8.5. The site therefore accords with relevant guidance and there are no reasons why the planning application should be refused on highway or transportation grounds.

FIGURES

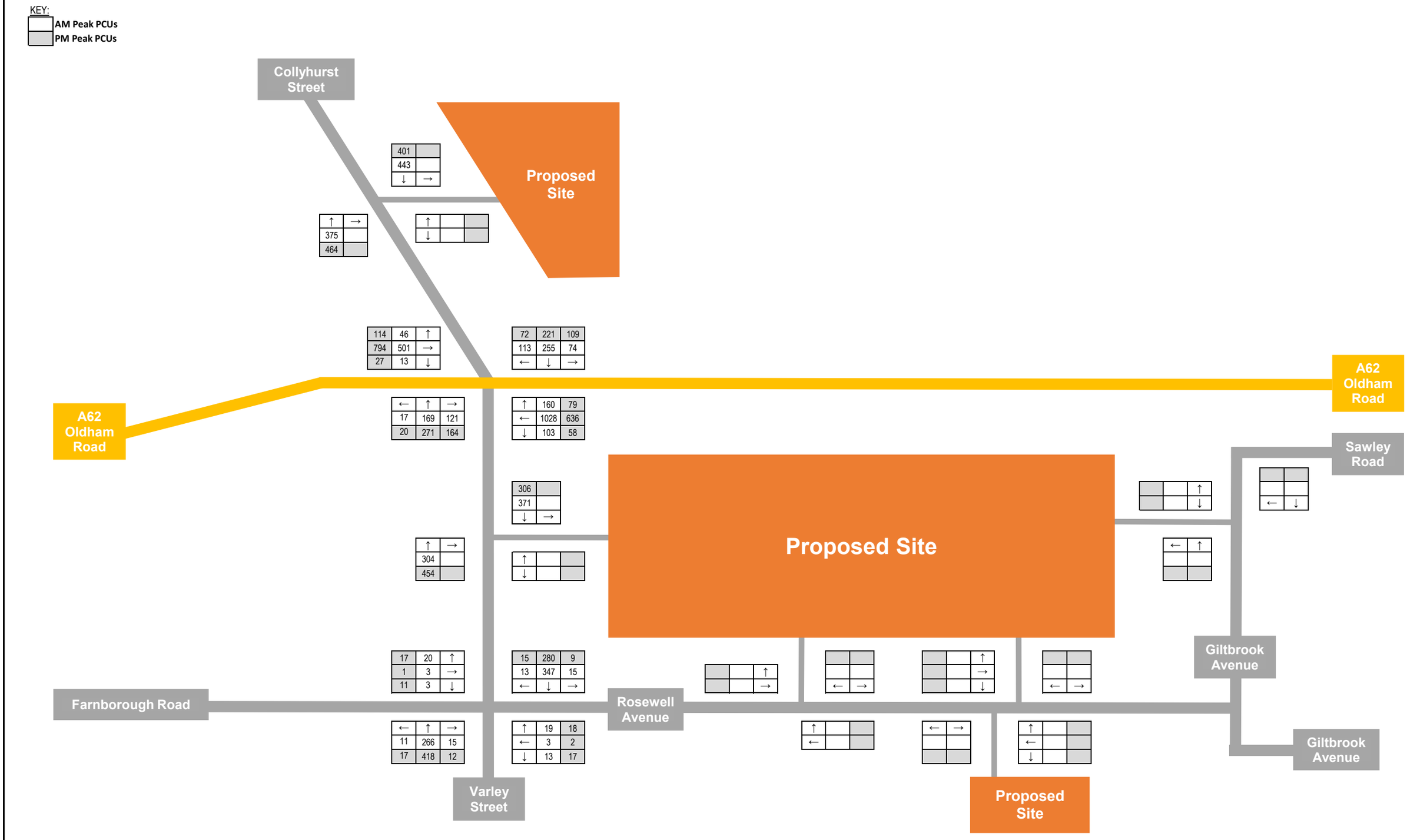
KEY:
AM Peak PCUs
PM Peak PCUs



2025 Traffic Survey Flows

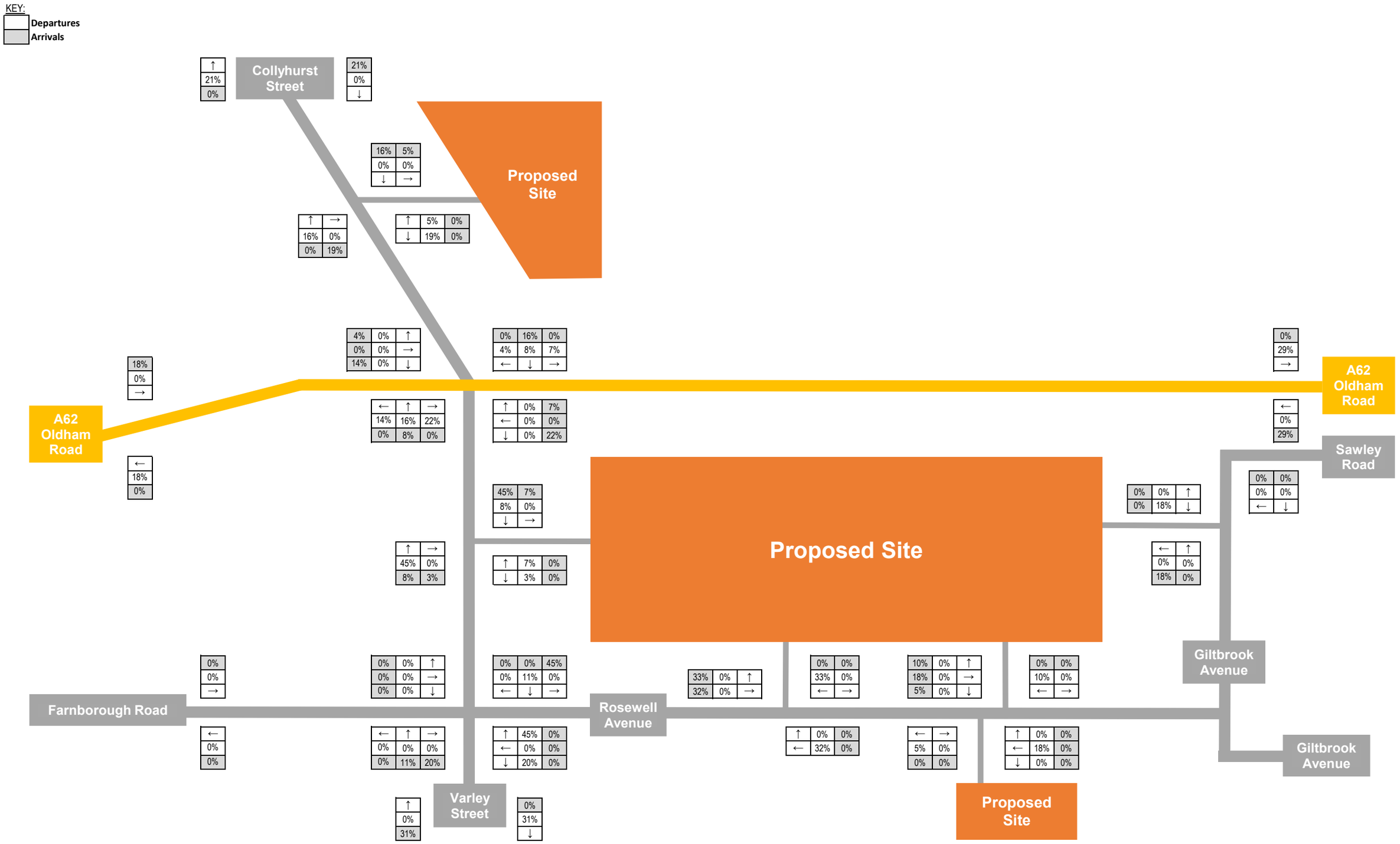
Figure 1

astute



2031 Baseline 'Without Development'

Figure 2



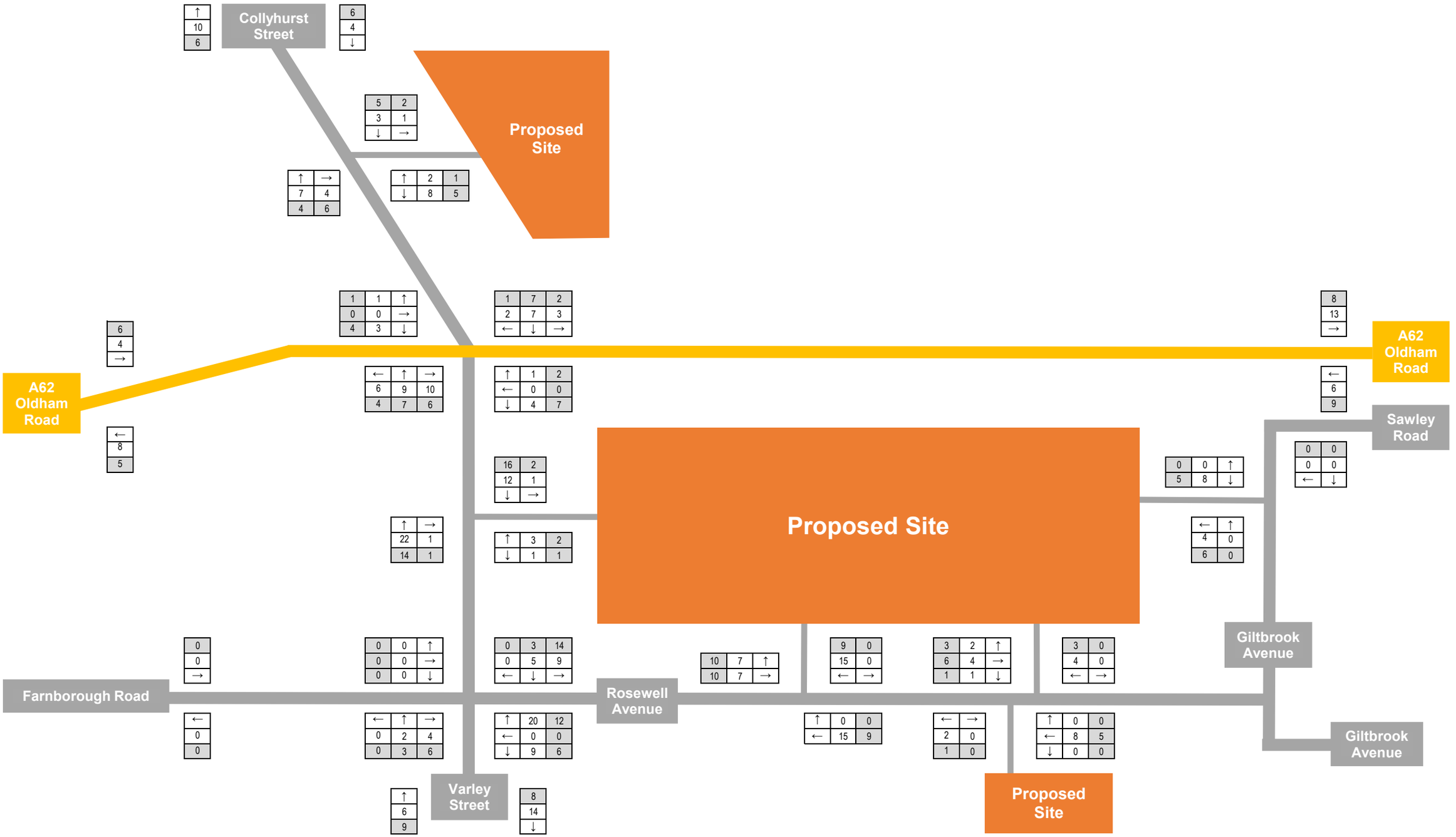
Traffic Distribution

Figure 3

KEY:

AM Peak PCUs

PM Peak PCUs



Development Flows

Figure 4

astute

KEY:

AM Peak PCUs
PM Peak PCUs



2031 Baseline 'With Development'

Figure 5

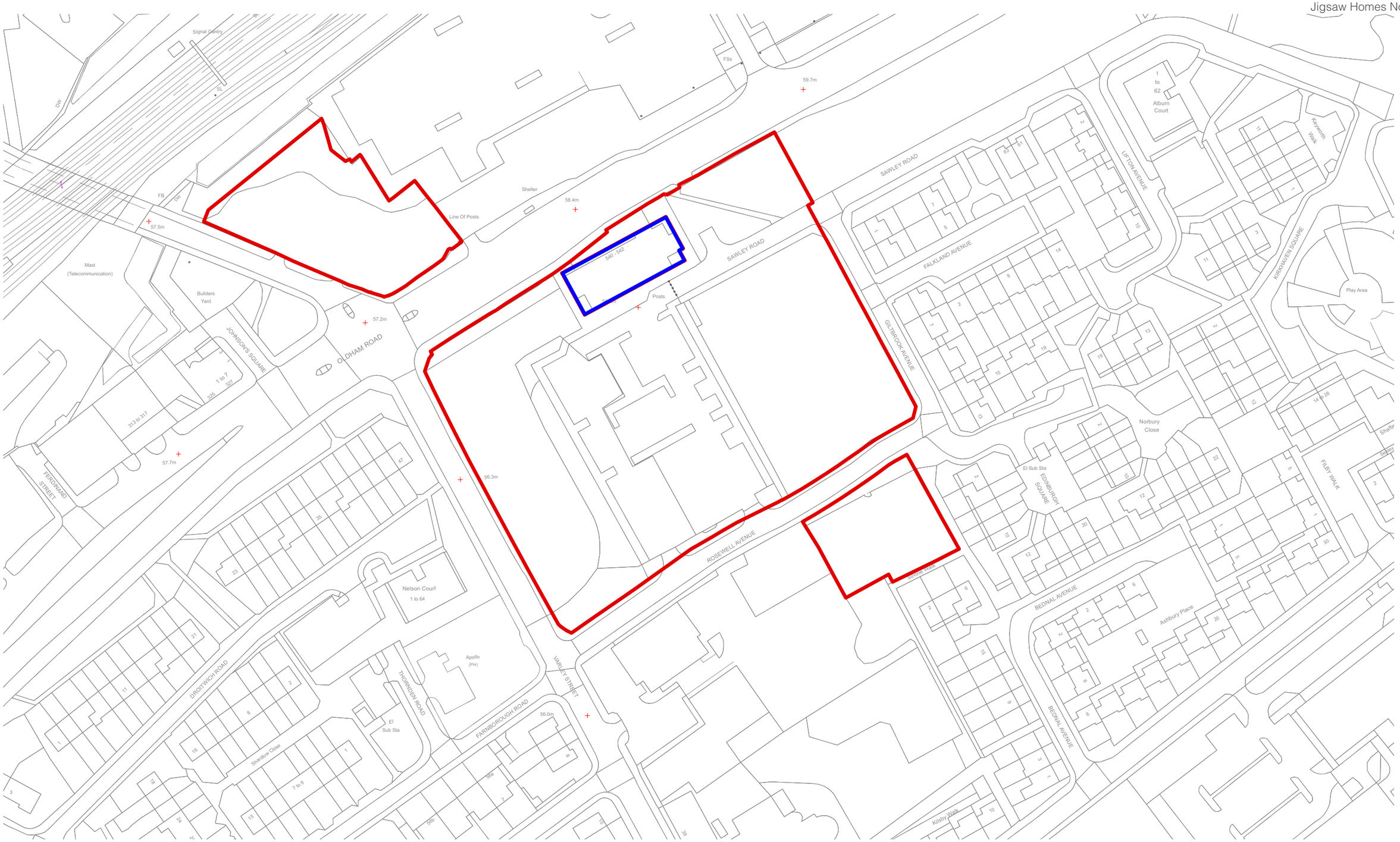
astute

Appendix A

Proposed Development Site Plans

Varley Street Masterplan

Jigsaw Homes North



Drawing Title:	Location Plan
Date:	15.04.2026
Drawing no:	1355-Site-100
Scale:	1:1250 @ A3
Drawn:	NS

revision:
revision notes:

0m 12.5m 25m 62.5m 125m

N

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Liverpool
L1 6ER
0151 231 1209 T
mail@dk-architects.com E
www.dk-architects.com W

Varley Street Masterplan

Jigsaw Homes North



Drawing Title: Block Location References
Date: 15.04.2026
Drawing no: 1355-Site-106
Scale: 1:1000 @ A3
Drawn: NS

revision:
revision notes:

0m 10m 20m 50m 100m

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Varley Street Masterplan
Jigsaw Homes North



Drawing Title: Proposed Site Plan
Date: 02/06/2026
Drawing no: 1355 - Site-102
Scale: 1:500 @ A1
Drawn: NS

revision:
revision notes:

0m 5m 10m 25m 50m

N

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KEY

- Distance travelled by waste collection operatives max. 25m
- Distance travelled by Residents (Apartments)
- Distance travelled by Residents (Houses) max. 30m
- Path of waste collection vehicle
- Collection Point
- Bin store Communal
- Private Bins

Notes:

Houses:

All houses have access to the rear to enable waste bins to be stored within private rear garden and brought to allocated collection points on collection day.

Properties with direct road-side collection access will place bins at the end of driveways for collection.

Allocated collection points have been identified adjacent to the road arrangements within compliant travel distance of all properties and the waste collection vehicle from the main road.

An appropriately-sized lay-off area of suitable hard-standing will be provided in each location as indicated on the proposed site plan.

Residents will be made aware of waste collection arrangements.

Notes:

Apartments:

Each apartment block (communal access and own-front-door) have designated, secure bin storage within compliant travel distance from the entrance door to each residential unit.

Communal bin stores will be secured through a coded or fob access mechanism.

An appropriately sized lay-off area adjacent the nearest highway has been provided to enable collection and all runs between bin stores and road side have been made appropriately wide and unobstructed

Notes:

Bin stores and collection points are designed to comply with the maximum waste operative collection distances set out in Building Regulations Approved Document H - Drainage and Waste Disposal.

Drawing Title:	Waste and Servicing Plan
Date:	02/06/2026
Drawing no:	1355 - Site-104
Scale:	1:500 @ A1
Drawn:	NS

revision:
revision notes:

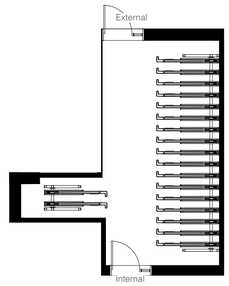
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mail@dk-architects.com E
www.dk-architects.com W



KEY

- Bike storage to houses - lockable garden shed/cycle store to rear gardens
- Communal bike storage to apartments/OFD apartments (one allocation per apartment)
- Private bike storage to OFD Units Bike hoop attached to wall
- Natural Surveillance to cycle stores.
- Route from principle entrance to private store.
- Single bike storage locker

Note:
All houses will be provided with secure cycle storage within lockable garden shed located in the rear garden. For houses within blocks C1 and C2, cycle storage shall be provided by means of wall-mounted bicycle anchors installed within the garage.

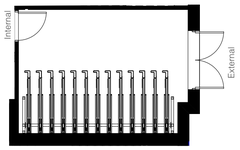


Bike Store 01 (Block G Apartments):

37 no. apartments - Total required 37 no. cycle spaces

Cycle specification: 18 no. Two Tier Racks with Sheffield Stand under
2no. Single bike locker within select GF OFD units to negate distances to cycle store

Total: **38no. cycle storage spaces**

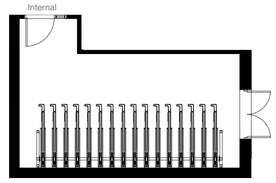


Bike Store 02 (Block B Apartments):

26 no. apartments - Total required 26 no. cycle spaces

Cycle specification: 13 no. Two Tier Racks with Sheffield Stand under

Total: **26 no. cycle storage spaces**



Bike Store 03 (Block A Apartments):

32 no. apartments - Total required 32 no. cycle spaces

Cycle specification: 14 no. Two Tier Racks with Sheffield Stand under
5no. Single bike locker within select GF OFD units to mitigate excessive travel distances to cycle store

Total: **33 no. cycle storage spaces**



Bike Store 04 (OFD Apartments):

3 no. apartments - Total required 3 no. cycle spaces

Cycle specification: 2 no. floor mounted Sheffield Cycle Stands with shelter

Total: **4 no. cycle storage spaces**

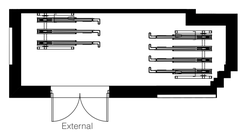


Bike Store 05 (OFD Apartments):

5 no. apartments - Total required 5 no. cycle spaces

Cycle specification: 3 no. floor mounted Sheffield Cycle Stands with shelter Stands

Total: **6 no. cycle storage spaces**

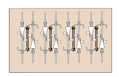


Bike Store 03 (Block 2C Apartments):

14 no. apartments - Total required 14 no. cycle spaces

Cycle specification: 7 no. Two Tier Racks with Sheffield Stand under

Total: **14 no. cycle storage spaces**



Bike Store 07 (OFD Apartments):

7 no. apartments - Total required 7 no. cycle spaces

Cycle specification: 4 no. floor mounted Sheffield Cycle Stands with shelter

Total: **8 no. cycle storage spaces**





KEY

All parking spaces sized to min. 2.5m x 5m

- Allocated Parking - Apartments / OFD Apartments
- Allocated One Bay Parking
- Allocated Parking - Baker House
- Commercial Parking
- Allocated One Bay Parking - Garage

Parking Schedule - Houses

Block A - 6no. Houses
Block D1/D2/D3 - 10no. Houses
Block B1/B2/B3 - 10no. Houses
Block C1/C2 - 4no. Houses

Ratio 1:1 Parking

6no. Allocated Spaces
10no. Allocated Spaces
10no. Allocated Spaces
4no. Allocated Spaces

Total 30no. Allocated Housing Parking

Parking Schedule - OFD Apartments

Block ofdA - 3no. Apartments
Block ofdB - 5no. Apartments
Block ofdC/ofdD - 7no. Apartments

Ratio 1:0.5 Parking

3no. Allocated Spaces
4no. Allocated Spaces
4no. Allocated Spaces

Total 11no. Allocated Apartment Parking

Parking Schedule - Apartments

Block 2A - 32no. Apartments
Block 2B - 26no. Apartments
Block 2C - 14no. Apartments
Block 2G - 37no. Apartments

Ratio 1:0.5 Parking

16no. Allocated Spaces
13no. Allocated Spaces
7no. Allocated Spaces
19no. Allocated Spaces

Total 55no. Allocated Apartment Parking

Parking Schedule - Commercial

5no. Visitor Spaces of which (2no. disabled spaces)

Parking Schedule - Baker House

To serve existing office

32o. Allocated Spaces of which (2no. disabled spaces)

0m 5m 10m 25m 50m

N

Appendix B

Scoping Correspondence

Genna Woods

Subject: RE: Proposed Miles Platting Residential Development - advice regarding traffic assessment

From: Rebecca Hesketh <Rebecca.Hesketh@manchester.gov.uk>
Sent: 06 May 2026 10:20
To: Adam Smith <Adam.Smith@astutetransport.com>
Cc: Syed Rahi <Syed.Rahi@manchester.gov.uk>
Subject: RE: Proposed Miles Platting Residential Development - advice regarding traffic assessment

Sorry for the delay Adam, feedback from HFAS has taken a while. We have pulled together a list of relevant committed developments (below) but have also attached feedback from HFAS:

For our modelling work, we would usually always apply growth using TEMPro and if there are quite a few committed developments (as below) we would cap growth to TEMPro but use the committed developments to figure out the distribution. If the forecast year is going to include full build out for all of these developments and its only about 5 years away, I'd expect the total increase is going to be higher than the TEMPro factor, in which case I'd just add the committed development and not use TEMPro.

List of committed Developments:

- 143295/FO/2025 (Apollo 2 Varley Street – 32 apartments)
- 142464/FO/2025 (Former Riverpark Trading estate – 498 dwellings) under construction
- 140311/FO/2024 (Land Off Pitsford Road Manchester – 88 dwellings) under construction
- 136763/FO/2023 (Etihad Stadium North Stand Expansion) near completion
- 138730/FO/2023 (Land Bounded By Oldham Road (A62), Old Church Street, The Lidl Foodstore – 81apartments + 28 houses)
- 133700/FO/2022 (Former Jacksons Brickworks Site Ten Acres Lane – 378 dwellings)
- 129393/VO/2021 (Land Bound By Rochdale Road, Shellard Road, Harrowby Drive, Johnny King Close, Thornton Street North, Stretton Close & Marston Street Manchester – 168 dwellings) under construction
- 129444/FO/2021 (Grimshaw Lane -12 Industrial Units)
- 125596/FO/2019 (Land Bounded By Hulme Hall Lane, Varley Street, Iron Street, Coleshill Street And Rochdale Canal Manchester – mixed use development comprising 410 dwellings and Class E).

Many thanks

Becky

From: Adam Smith <Adam.Smith@astutetransport.com>
Sent: 06 May 2026 10:11
To: Rebecca Hesketh <Rebecca.Hesketh@manchester.gov.uk>
Cc: Genna Woods <genna.woods@astutetransport.com>
Subject: RE: Proposed Miles Platting Residential Development - advice regarding traffic assessment

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Hi Becky

Have you heard back on this at all? We are seeking to submit the application asap and I need to provide traffic data for the AQA assessment as well as complete our reports.

Many thanks in advance.

Adam

Adam Smith
Director
astute

Adam.Smith@astutetransport.com
07989 088 646
0161 553 0569

astutetransport.com
Adam Smith | LinkedIn



From: Rebecca Hesketh <Rebecca.Hesketh@manchester.gov.uk>
Sent: 29 April 2026 16:38
To: Adam Smith <Adam.Smith@astutetransport.com>
Cc: Genna Woods <genna.woods@astutetransport.com>
Subject: RE: Proposed Miles Platting Residential Development - advice regarding traffic assessment

Hi Adam

There's quite a lot going on in that area in terms of committed development.

I have asked TfGM UTC/HFAS for some feedback on this – in terms of committed development and/or TEMPRO growth. I'll get back to you as soon as I get a response.

Many thanks

Kind Regards,

Becky Hesketh
BSc (Hons) MSc MCIHT MSoRSA
Highways Development Control Team Manager
Manchester City Council

Mob: 07971 384 313
Email: rebecca.hesketh@manchester.gov.uk
Web: http://www.manchester.gov.uk
POSTAL ADDRESS: Manchester City Council, The Highways Service, PO Box 532, Town Hall, Manchester, M60 2LA

From: Adam Smith <Adam.Smith@astutetransport.com>
Sent: 24 April 2026 11:53
To: Rebecca Hesketh <Rebecca.Hesketh@manchester.gov.uk>
Cc: Genna Woods <genna.woods@astutetransport.com>
Subject: Proposed Miles Platting Residential Development - advice regarding traffic assessment

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Hi Becky

Hope you are well.

The planning application material for the Miles Platting site we have previously discussed (affordable residential development for Jigsaw Homes) is now progressing. We have previously discussed and agreed trip generation and distribution, as outlined in the email stream below. However, we have not previously agreed committed development. I am aware of the recent Jigsaw Homes application 143295/FO/2025 on the vacant Apollo pub which was recently approved (32 apartments). Otherwise, I'm not aware of any significant development in the area that should also be included.

Can you advise if there is any further committed development you would like to include?

I look forward to hearing from you.

Kind regards

Adam

Adam Smith
Director

astute

Adam.Smith@astutetransport.com
07989 088 646
0161 553 0569

astutetransport.com
Adam Smith | LinkedIn



From: Rebecca Hesketh <Rebecca.Hesketh@manchester.gov.uk>
Sent: 24 June 2025 16:43
To: Adam Smith <Adam.Smith@astutetransport.com>
Cc: Sue Wills <sue.wills@manchester.gov.uk>; Nicole Roe <nicole@edenplanning.co.uk>; 'Olivia Pemberton' <olivia@edenplanning.co.uk>; Tom Williams <tom.williams@neoprojects.co.uk>
Subject: RE: Proposed Miles Platting Residential Development - advice regarding traffic assessment

Afternoon Adam

Sorry for the delay – I've been awaiting feedback from TfGM/HFAS.

The submitted trip rates and scope of assessment is acceptable, but it would be beneficial for the site access junction(s) to be assessed as well.

Hope this enables you to get on with arranging the surveys – let me know when you're ready to discuss the wider TA scope/site layout proposals.

Kind Regards,

Becky Hesketh
BSc (Hons) MSc MCIHT MSoRSA
Highways Development Control Team Manager
Manchester City Council

Mob: 07971 384 313
Email: rebecca.hesketh@manchester.gov.uk
Web: http://www.manchester.gov.uk
POSTAL ADDRESS: Manchester City Council, The Highways Service, PO Box 532, Town Hall, Manchester, M60 2LA

From: Adam Smith <Adam.Smith@astutetransport.com>
Sent: 23 June 2025 10:37
To: Rebecca Hesketh <Rebecca.Hesketh@manchester.gov.uk>
Cc: Sue Wills <sue.wills@manchester.gov.uk>; Nicole Roe <nicole@edenplanning.co.uk>; 'Olivia Pemberton' <olivia@edenplanning.co.uk>; Tom Williams <tom.williams@neoprojects.co.uk>
Subject: RE: Proposed Miles Platting Residential Development - advice regarding traffic assessment

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Hi Rebecca

Have you had any thought regarding the emails below? I'm keen to get the traffic surveys commissioned and would welcome your feedback regarding scope.

Kind regards

Adam

Adam Smith
Director

astute

Adam.Smith@astutetransport.com
07989 088 646
0161 533 0569

astutetransport.com
Adam Smith | LinkedIn

From: Adam Smith
Sent: 11 June 2025 12:02
To: Rebecca Hesketh <Rebecca.Hesketh@manchester.gov.uk>
Cc: Sue Wills <sue.wills@manchester.gov.uk>; Nicole Roe <nicole@edenplanning.co.uk>; 'Olivia Pemberton' <olivia@edenplanning.co.uk>; Tom Williams <tom.williams@neoprojects.co.uk>
Subject: RE: Proposed Miles Platting Residential Development - advice regarding traffic assessment

Hi Rebecca

Please find attached TRICS output file. There aren't many sites but I consider the results are robust due to the site being very accessible with numerous bus services passing on Oldham Road. The site will also have limited car parking at approx. 50% provision.

Thanks for reviewing.

Regards

Adam

Adam Smith | Adam.Smith@astutetransport.com

Director

astute

07989 088 646
0161 533 0569

astutetransport.com
Adam Smith | LinkedIn

From: Rebecca Hesketh <Rebecca.Hesketh@manchester.gov.uk>
Sent: 11 June 2025 11:54
To: Adam Smith <Adam.Smith@astutetransport.com>
Cc: Sue Wills <sue.wills@manchester.gov.uk>; Nicole Roe <nicole@edenplanning.co.uk>; 'Olivia Pemberton' <olivia@edenplanning.co.uk>; Tom Williams <tom.williams@neoprojects.co.uk>
Subject: RE: Proposed Miles Platting Residential Development - advice regarding traffic assessment

Hi Adam
Could you share a copy of your TRICS output please?
Many thanks

Kind Regards,

Becky Hesketh
BSc (Hons) MSc MCIHT MSoRSA
Highways Development Control Team Manager
Manchester City Council

Mob: 07971 384 313
Email: rebecca.hesketh@manchester.gov.uk
Web: http://www.manchester.gov.uk
POSTAL ADDRESS: Manchester City Council, The Highways Service, PO Box 532, Town Hall, Manchester, M60 2LA



From: Adam Smith <Adam.Smith@astutetransport.com>
Sent: 11 June 2025 11:20
To: Rebecca Hesketh <Rebecca.Hesketh@manchester.gov.uk>
Cc: Sue Wills <sue.wills@manchester.gov.uk>; Nicole Roe <nicole@edenplanning.co.uk>; 'Olivia Pemberton' <olivia@edenplanning.co.uk>; Tom Williams <tom.williams@neoprojects.co.uk>
Subject: RE: Proposed Miles Platting Residential Development - advice regarding traffic assessment

Some people who received this message don't often get email from adam.smith@astutetransport.com. Learn why this is important

ALERT This message originated outside of the Manchester City Council network. **BE CAUTIOUS** before clicking any links or opening any attachments. Please remember your Cyber Training and report anything suspicious.

Hi Rebecca

Following your email below, we have undertaken a traffic generation and trip distribution exercise for your consideration. The proposal is currently for 143 units with slightly more apartments than houses. It is a social housing scheme.

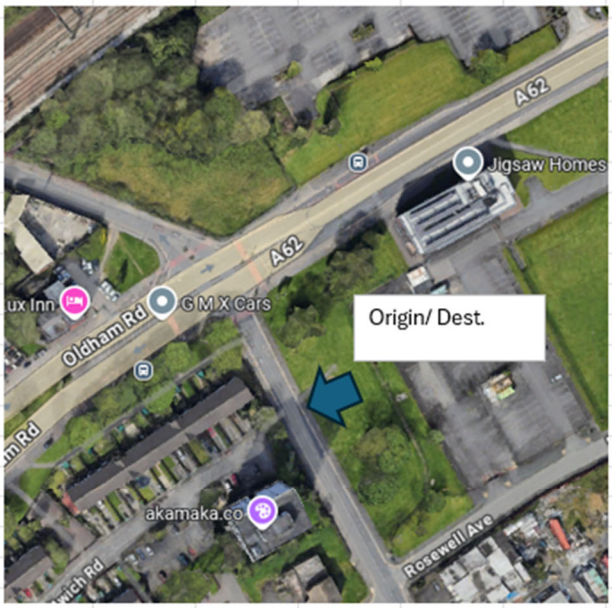
I have taken data from TRICS for mixed social housing schemes which resulted in the weekday peak hour trip rates provided below:

AM Peak 0800-0900
IN 0.130 = 19 vehicles
OUT 0.291 = 42 vehicles

PM Peak 1700-1800
IN 0.220 = 31 vehicles
OUT 0.135 = 19 vehicles

We have then considered the distribution of traffic, using journey to work census data (MSOA) to establish the direction of travel and predicted the routeing of traffic using mapping software.

Row Labels	Sum of %
E	29%
N	21%
S	31%
W	18%
(blank)	0%
Grand Total	**100%**



The assessment showed that a significant proportion of traffic would head south down Varley Street to reach Bradford Road before heading either east to the A6010 or west via Old Mill Street to reach Great Ancoats Street. The above distribution resulted in the following increases in traffic at local junctions.

	AM Peak Hour			PM Peak	
	IN	OUT	TOTAL	IN	OUT
Site Access priority junctions (3) onto Varley Street and Collyhurst Street	19	42	**61**	31	19
Varley Street/Oldham Road/Collyhurst Street signal junction	13	29	**41**	21	13
(East) Oldham Road/A6010/Queens Road gyratory	6	12	18	9	6
(North) Colleyhurst Street/Rochdale Road priority junction	4	9	13	7	4
(West) Oldham Road/Butler Street/Livesey Street	3	8	11	6	3
(South) Varley Street/Bradford Road priority junction	6	13	19	10	6

The biggest increase is of course at the site access junctions, with two junctions currently proposed onto Varley Street (one new junction and the other making use of Rosewell Avenue) and the other onto Collyhurst Street. As a result, it is unlikely that any site access junction will see an increase of 30 trips or more in any hour period.

The only junction therefore that is likely to experience a more than 30 increase in vehicle trips is the Varley Street/Oldham Road/Collyhurst Street signalised junction.

As a result of the above, I propose that we undertake peak hour turning count surveys of this junction, which will also provide traffic flow data for Collyhurst Street and Varley Street which will assist with any further high level qualitative assessment of these routes.

I trust that you are happy with this approach. I am hoping that you can agree to the above in order that we complete these surveys imminently.

Kind regards

Adam

Adam Smith
Director

astute

Adam.Smith@astutetransport.com
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0161 533 0569

astutetransport.com
Adam Smith | LinkedIn

From: Rebecca Hesketh <Rebecca.Hesketh@manchester.gov.uk>
Sent: 04 June 2025 13:25
To: Adam Smith <Adam.Smith@astutetransport.com>
Cc: Sue Wills <sue.wills@manchester.gov.uk>; Nicole Roe <nicole@edenplanning.co.uk>; 'Olivia Pemberton' <olivia@edenplanning.co.uk>; Tom Williams <tom.williams@neoprojects.co.uk>
Subject: RE: Proposed Miles Platting Residential Development - advice regarding traffic assessment

Hi Adam

Thanks for your email.

In terms of the assessment study area, this would need to be informed by the usual trip gen/distribution/assignment exercise – has this been undertaken?

I'd recommend that we (and TfGM) review the supporting methodology beforehand to ensure we all agree on study area/survey requirements.

Kind Regards,

Becky Hesketh
BSc (Hons) MSc MCIHT MSoRSA
Highways Development Control Team Manager
Manchester City Council

Mob: 07971 384 313
Email: rebecca.hesketh@manchester.gov.uk
Web: http://www.manchester.gov.uk
POSTAL ADDRESS: Manchester City Council, The Highways Service, PO Box 532, Town Hall, Manchester, M60 2LA

From: Adam Smith <Adam.Smith@astutetransport.com>
Sent: 03 June 2025 14:08
To: Rebecca Hesketh <Rebecca.Hesketh@manchester.gov.uk>

Cc: Sue Wills <sue.wills@manchester.gov.uk>; Nicole Roe <nicole@edenplanning.co.uk>; 'Olivia Pemberton' <olivia@edenplanning.co.uk>; Tom Williams <tom.williams@neoprojects.co.uk>
Subject: Proposed Miles Platting Residential Development - advice regarding traffic assessment

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ALERT This message originated outside of the Manchester City Council network. **BE CAUTIOUS** before clicking any links or opening any attachments. Please remember your Cyber Training and report anything suspicious.

Dear Rebecca

We are advising Jigsaw Homes in relation to an affordable housing scheme in Miles Platting. I understand that there have already been discussions between the applicant and your Planning colleagues. The proposal is for approx. 140 dwellings (houses and apartments) as shown in Phases 2 and 3 on the attached plan. Phase 1 is being considered separately, and I am not acting for that part of the site.

Phase 2 surrounds Jigsaw's existing office building on Oldham Road and is located between Oldham Road, Varley Street, Rosewell Avenue and Giltbrook Avenue. Phase 3 is on the opposite side of Oldham Road and is proposed to be accessed from Collyhurst Street.

The layout is still fluid and we are currently undertaking a detailed review of the vehicular access locations, road network, parking (about 50% provision currently) and active travel infrastructure. However, I am aware of the forthcoming summer holidays and would like to instruct traffic surveys now in order that our Transport Assessment can progress.

With this in mind, I am proposing to collect peak hour traffic data at the junctions shown below. The junction on the left is the signalised Varley Street/Collyhurst Street junction. The two junctions on the right both form part of a wider gyratory with the A6010. This data will also provide traffic flows on Varley Street, meaning we will be able to assess a proposed site access junction along this road.



Can you please review the above and confirm that this is gong to be sufficient. Alternatively, any comments would be most welcome.

Once the layout has been firmed up, I propose to get back in touch so that we can discuss the proposals in more detail.

Kind regards

Adam

Adam Smith
Director

astute

Adam.Smith@astutetransport.com
07989 088 646
0161 533 0569

astutetransport.com
Adam Smith | LinkedIn

****
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Your personal data is very important to us. Please refer to our privacy notice at: www.manchester.gov.uk/privacy for further information.

This footnote also confirms that this email message has been swept for the presence of computer viruses.
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Appendix C

Proposed Site Access General Arrangement Drawings

GENERAL NOTES

A1.1 THIS DRAWING TO READ IN CONJUNCTION WITH ALL RELEVANT STRUCTURAL AND ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.

A1.2 ALL DIMENSIONS TO BE CHECKED ON SITE BY THE CONTRACTOR / FABRICATOR PRIOR TO COMMENCEMENT OF WORKS.

A1.3 ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.

A1.4 ALL WORKS TO BE CARRIED OUT IN STRICT ACCORDANCE WITH THE ENGINEER'S SPECIFICATIONS, RELEVANT BRITISH STANDARDS AND WHERE APPLICABLE LOCAL AUTHORITIES REQUIREMENTS.

A1.5 ALL MATERIALS TO BE MARKED WITH BSI KITE MARK WHERE APPLICABLE.

DRAWING KEY:

- SITE BOUNDARY
- EXISTING ADOPTED HIGHWAY TO BE STOPPED UP REFER TO SUTCLIFFE DRAWING NO. 34922-SUT-ZZ-XX-DR-C-6500
- PROPOSED ADOPTED HIGHWAY
- PROPOSED ADOPTED FOOTWAY
- PROPOSED ADOPTED VEHICULAR CROSSING
- PROPOSED ADOPTED VERGE
- HB — HALF BATTERED KERB
- BN — BULLNOSE KERB (25mm UPSTAND - VEHICLE CROSSING)
- EK — EDGING KERB
- TK — TRANSITION KERB

EXISTING VEHICULAR ENTRANCE REPLACED WITH NEW FOOTWAY

EXISTING KERBS TO BE REMOVED

PROPOSED NEW FOOTPATH

PROVIDE NEW EDGING KERBS TO BACK OF NEW FOOTPATH/VERGE

EXISTING HIGHWAY TO BE REPLACED WITH NEW GRASS VERGE

PROVIDE NEW HALF-BATTERED KERB (12m RADIUS) TO TIE IN WITH EXISTING KERBS EITHER END

PROVIDE NEW FOOTWAY TO LINK THROUGH TO PROPOSED NEW FOOTPATH

DROPPED VEHICULAR CROSSING FOR ACCESS TO PRIVATE CAR PARKING

EXISTING HIGHWAY TO BE STOPPED UP

EXISTING KERB LINE

EXISTING FOOTWAY

EXISTING CARRIAGEWAY

NEW DROPPED VEHICULAR CROSSING

EXISTING TELEGRAPH POLE TO BE RE-LOCATED

EXISTING SERVICES COVERS TO BE LOWERED AND UPGRADED TO SUIT VEHICLE LOADING IF NECESSARY

EXISTING GULLEY TO BE RE-LOCATED

EXISTING STREET LIGHTING COLUMN TO BE RE-LOCATED

NEW DROPPED VEHICULAR CROSSING

EXISTING STREET LIGHTING COLUMN TO BE RE-LOCATED

EXISTING GULLEY TO BE RE-LOCATED

NEW DROPPED VEHICULAR CROSSING

EXISTING GULLEY TO BE RE-LOCATED

NEW DROPPED VEHICULAR CROSSING

EXISTING KERBS TO BE REMOVED

EXISTING KERBS TO BE REMOVED

EXISTING VEHICULAR ENTRANCE REPLACED WITH NEW FOOTWAY

EXISTING GULLEY TO BE RE-LOCATED

NEW ENTRANCE FORMED AS ADOPTABLE HIGHWAY CONSTRUCTION

NEW DROPPED VEHICULAR CROSSING

NEW DROPPED VEHICULAR CROSSING

EXISTING GULLEY TO BE RE-LOCATED

NEW ENTRANCE FORMED AS ADOPTABLE HIGHWAY CONSTRUCTION

SCALE BAR 1:250

0 5 10 15 20 25

Rev	Description	Date	By	Chkd
P01	PRELIMINARY ISSUE	30.04.26	AJB	AD

Drawing Status: PRELIMINARY DRAWING

Sutcliffe — Structural & Civil Engineering; Geotechnical & Environmental Investigations; Building Surveying; Pre Planning Services

Liverpool Head Office: 0151 227 5155; Manchester Office: 0161 877 5180; North Wales Office: 07978 644 071; London Office: 020 8816 4100

www.sutcliffe.co.uk

Client: JIGSAW HOMES

Project: OLDHAM ROAD MILES PLATTING

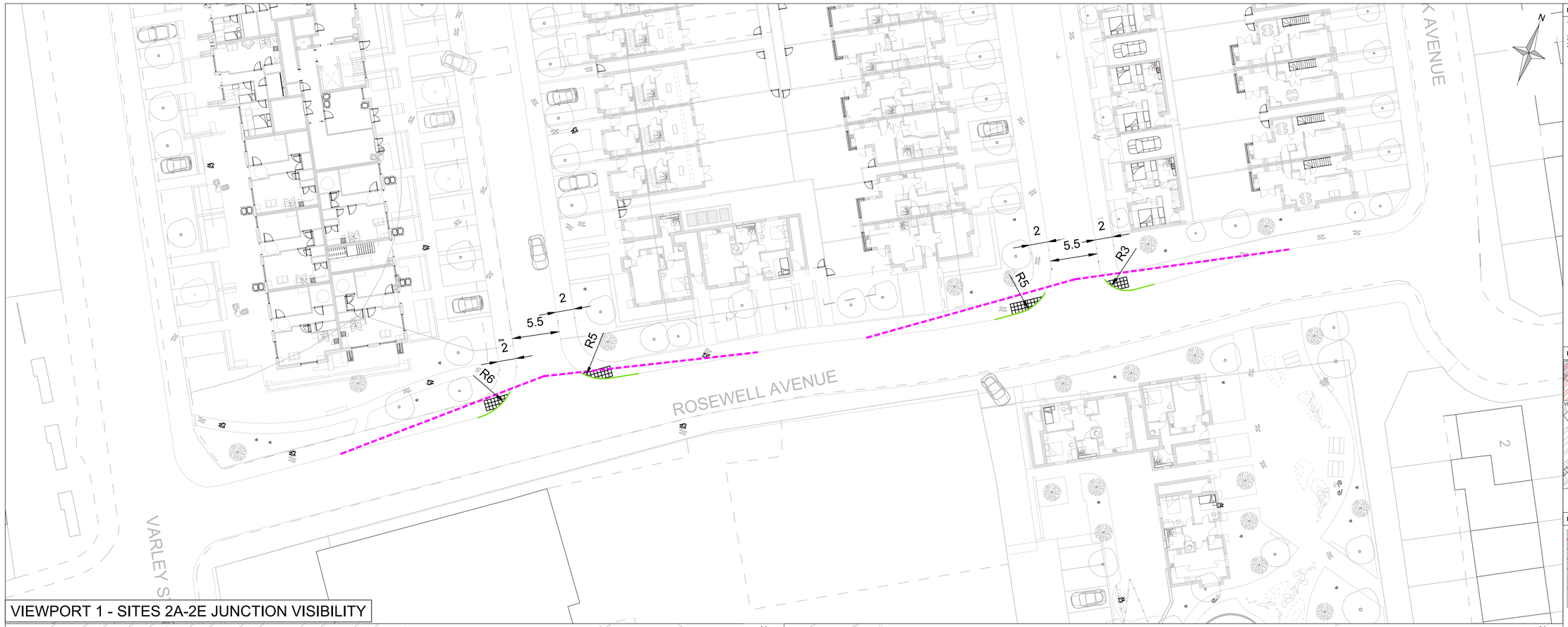
Drawing Title: PROPOSED S278 WORKS

Date	Drawn By	Checked By
APRIL 26	AJB	AD

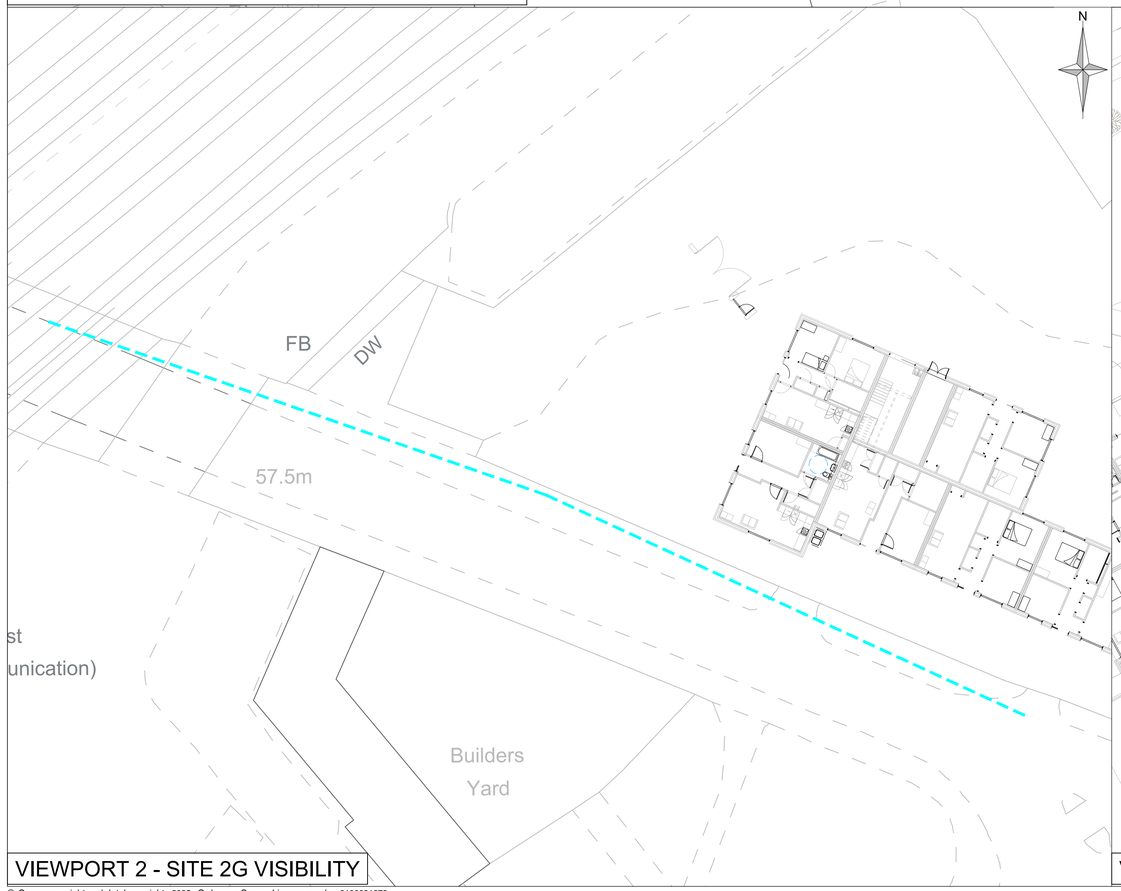
Scale at A1	Project Number	Status	Revision
1:250	34922		P01

Sheet Number: 34922-SUT-ZZ-XX-DR-C-6600

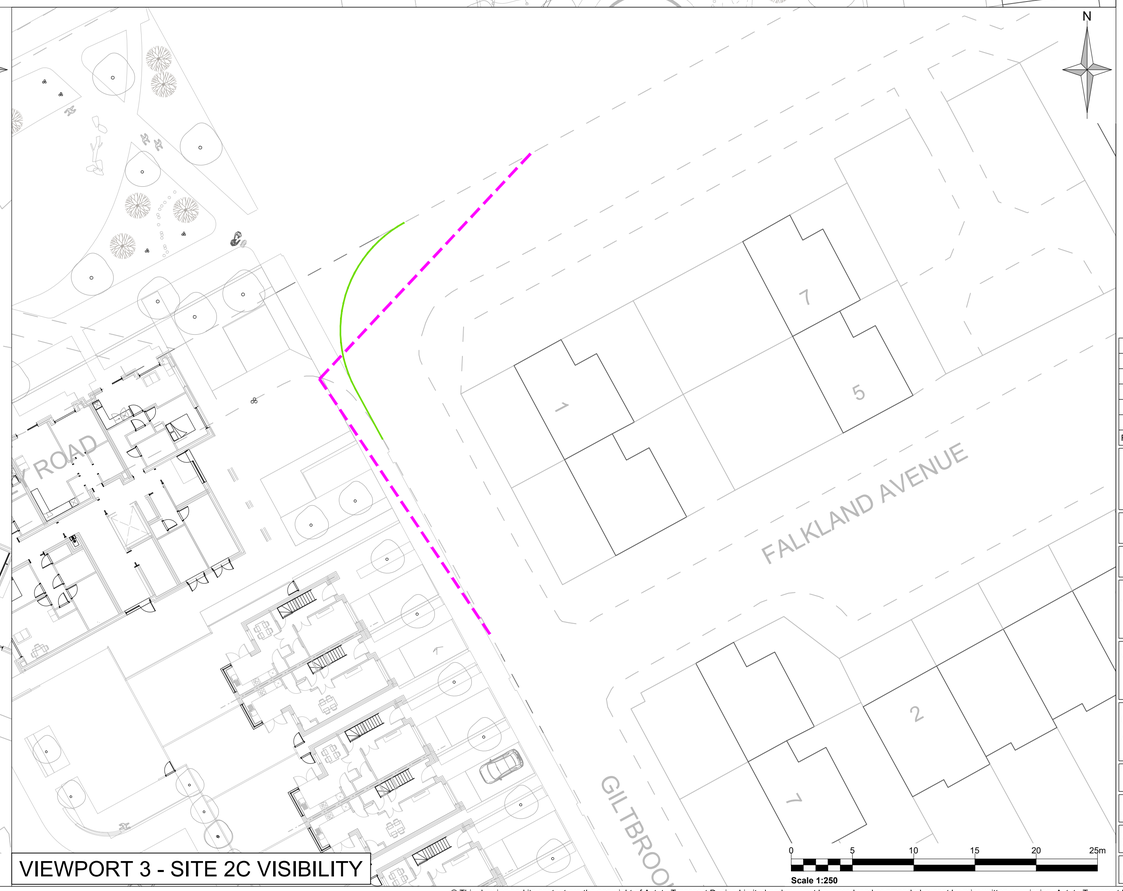
VIEWPORT 1 - SITES 2A-2E JUNCTION VISIBILITY



VIEWPORT 2 - SITE 2G VISIBILITY



VIEWPORT 3 - SITE 2C VISIBILITY



NOTES

1. THIS IS NOT A CONSTRUCTION DRAWING AND IS INTENDED FOR ILLUSTRATIVE PURPOSES ONLY.
2. WHITE LINING IS INDICATIVE ONLY.
3. DIMENSIONS ARE IN METERS, UNLESS STATED OTHERWISE.

Location Plan:



LEGEND

- SCHEME RED LINE BOUNDARY
- VISIBILITY SPLAY 2.4m x 25m IN ACCORDANCE WITH MANUAL FOR STREETS (MfS) 20mph
- VISIBILITY SPLAY 2.4m x 43m IN ACCORDANCE WITH MfS 30mph
- PROPOSED INDICATIVE KERB - PLEASE REFER TO DRAWING 34922-SUT-ZZ-XX-DR-C-6600 FOR DETAILS

Rev	Amendments	Date	By	Chk	Auth
P01	FIRST ISSUE	03/06/26	JA	GW	AS

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Drawing Status & Suitability Code: FOR INFORMATION — S2

Client: JIGSAW HOMES NORTH

Project: VARLEY STREET, MILES PLATTING

Drawing Title: GENERAL ARRANGEMENT AND SITE ACCESS VISIBILITIES

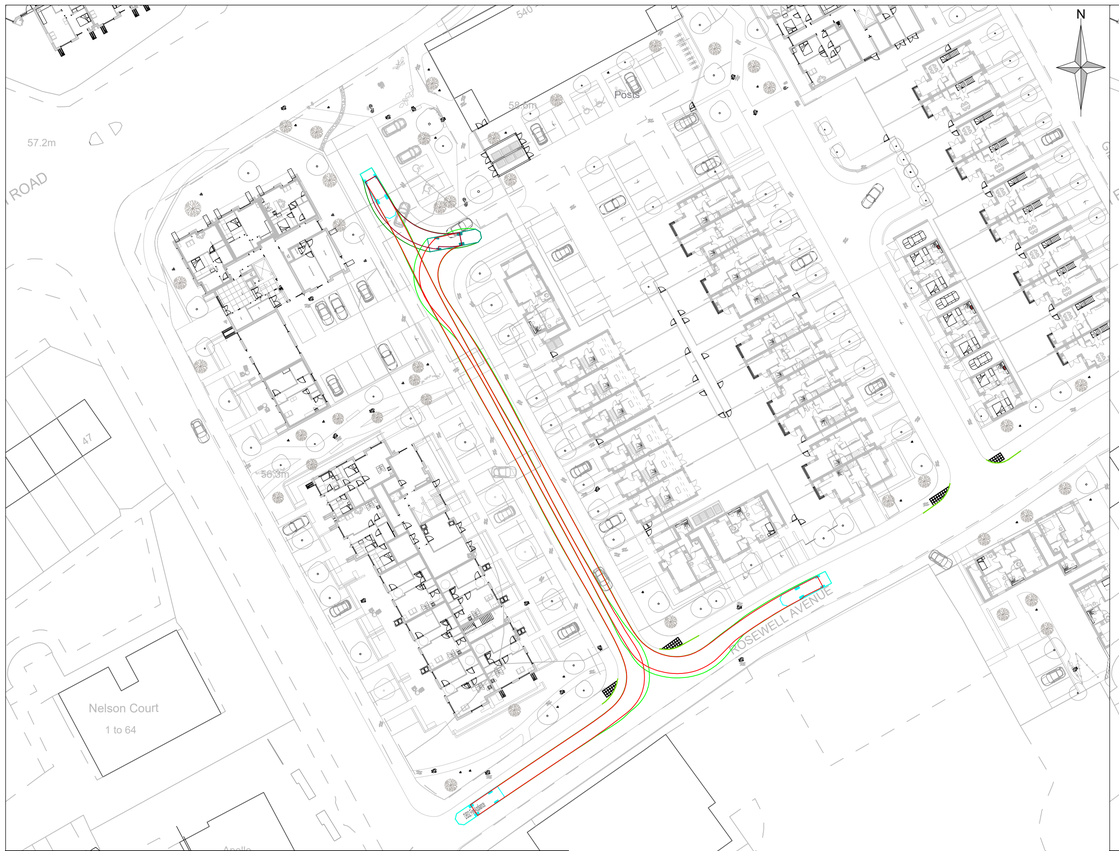
Scale	Project No.
1:250 @ A1	A25047

Designed	Drawn	Checked	Authorised
JA	JA	GW	AS
Date 03/06/26	Date 03/06/26	Date 03/06/26	Date 03/06/26

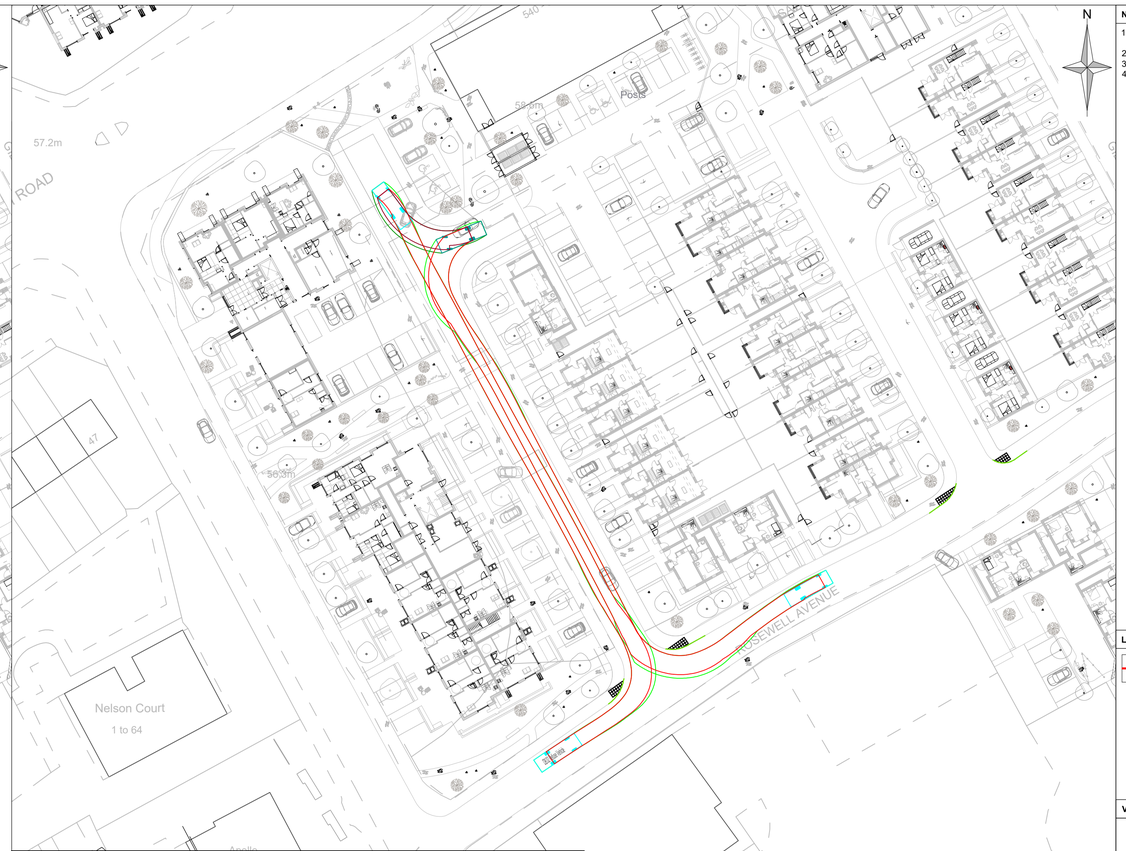
Drawing Number: A25047-ATP-HGN-ZZ-DR-CH-00001 — Rev. P01

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VIEWPORT 1 - FIRE APPLIANCE JUNCTION ACCESS 1



VIEWPORT 2 - REFUSE VEHICLE JUNCTION ACCESS 1



VIEWPORT 3 - FIRE APPLIANCE JUNCTION ACCESS 2



VIEWPORT 4 - REFUSE VEHICLE JUNCTION ACCESS 2

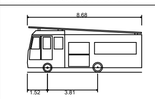
NOTES

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2. WHITE LINING IS INDICATIVE ONLY.
3. DIMENSIONS ARE IN METERS, UNLESS STATED OTHERWISE.
4. THE VEHICLE TRACKING ANALYSIS WAS UNDERTAKEN USING AUTOCAD VEHICLE TRACKING SOFTWARE WITH THE VEHICLE USED DISPLAYED. THE VEHICLE WAS TRACKED AT 5kph FOR FORWARD MOVEMENTS AND 2.5kph FOR REVERSE MOVEMENTS.

LEGEND

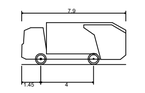
SCHEME RED LINE BOUNDARY

VEHICLE TRACKING PROFILES



DB32 Fire Appliance

Overall Length	8.680m
Overall Width	2.180m
Overall Body Height	3.452m
Min Body Ground Clearance	0.337m
Max Track Width	2.121m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	7.910m



DB32 Refuse Vehicle

Overall Length	7.900m
Overall Width	2.400m
Overall Body Height	3.183m
Min Body Ground Clearance	0.388m
Max Track Width	2.400m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	9.625m

Rev	Amendments	Date	By	Chk	Auth
P01	FIRST ISSUE	03/06/26	JA	GW	AS

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Drawing Status & Suitability Code: FOR INFORMATION — S2

Client: JIGSAW HOMES NORTH

Project: VARLEY STREET, MILES PLATTING

Drawing Title: VEHICLE TRACKING

Scale	Project No.
1:500 @ A1	A25047

Designed	Drawn	Checked	Authorised
JA	JA	GW	AS
Date 03/06/26	Date 03/06/26	Date 03/06/26	Date 03/06/26

Drawing Number: **A25047-ATP-HGN-ZZ-DR-CH-00101** Rev. **P01**

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Appendix D

Stage 1 Road Safety Audit, and

Road Safety Audit Stage 1 Designer's Response Report

OLDHAM ROAD, MILES PLATTING, MANCHESTER
PROPOSED S278 HIGHWAY WORKS

STAGE 1 ROAD SAFETY AUDIT

610/2026/145/01 Rev 1

10 June 2026

six:TEN Highways & Traffic Ltd
Bartle House
9 Oxford Court
Manchester
M2 3WQ

t 0151 216 6421
m 07985 283074
e contact@610traffic.co.uk
www.610traffic.co.uk

Rev:	Issue Status:	Prepared by/Date:	Checked by/Date:	Approved by/Date:
0	DRAFT	Jon Preston 10 June 2026	Tristan Brooks 10 June 2026	
1	FINAL	Jon Preston 10 June 2026	Tristan Brooks 10 June 2026	Jon Preston 10 June 2026

Report Title:	Oldham Road, Miles Platting, Manchester - Proposed S278 Highway Works Stage 1 Road Safety Audit
Date:	10 June 2026
Document Reference & Revision:	610/2026/145/01 Rev 1
Prepared by:	Six Ten Highways & Traffic Ltd
On behalf of:	Astute

Disclaimer note

The client has confirmed that it is entering into the agreement under which this report is being prepared on its own behalf and not on behalf of, or for the benefit of any other party and has agreed that in any event of any claim arising out of or in connection with that agreement and/or the report itself it shall be entitled to recover from six:TEN Highways & Traffic Limited only the losses, if any, it has itself suffered.

This report therefore is for the private and confidential use of the client for whom it was prepared solely for the purposes requested by the client. It should not be reproduced in whole or in part or relied upon by any third party for any use whatsoever without the express written authority of six:TEN Highways & Traffic Limited.

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3.0 ROAD SAFETY AUDIT TEAM STATEMENT 6

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1.0 INTRODUCTION

1.1 This report results from a preliminary design Stage 1 Road Safety Audit (RSA) carried out on the proposed S278 highway works associated with a proposed residential development on land to the south of Oldham Road, Miles Platting, Manchester, at the request of Astute, the designer of the scheme who provided the Audit information, and although there was no formal 'audit brief' the RSA team has accepted that sufficient information has been provided to undertake the Stage 1 RSA. The audit team has been approved by the Overseeing Organisation Manchester City Council to carry out Road Safety Audits on their highway network.

1.2 The Road Safety Audit Team was as follows:

Jon Preston MCIHT MSoRSA
Audit Team Leader

Tristan Brooks* Bsc (Hons), MBA, CMILT, MCIHT, MSoRSA, NH RSA Cert of Comp
Audit Team Member

1.3 Audit Team members marked with an asterisk above hold a National Highways approved Certificate of Competency (CoC) in Road Safety Audit, in accordance with Article (1–3) of EC Directive 2008/96/EC.

1.4 The audit took place at the Manchester office of six:TEN Highways and Traffic between 1 June 2026 and 10 June 2026. The Road Safety Audit was undertaken in accordance with the Road Safety Audit information provided. The audit comprised an examination of the documents provided as detailed in Appendix One.

1.5 The Audit Team visited the site together during the afternoon of Wednesday 3 June 2026 between 13:00hrs and 13:35hrs and comprised a walk and drive-throughs (where available) of the area covered by the scheme. During the site visit the weather was overcast and the carriageway surface was damp. At the time of the site visit traffic movements in the vicinity of the proposed scheme were low with some pedestrian and no cyclist movements observed.

1.6 All roads in the vicinity of the proposed highway works is subject to a 20mph speed limit and there is street lighting throughout.

1.7 The terms of reference of the audit are as described in the Design Manual for Roads and Bridges (DMRB) GG 119 Rev.2 *Road Safety Audit*. The team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the designs to any other criteria. This Road Safety Audit has been undertaken based on the Road Safety Audit Team's previous experience and knowledge in undertaking Collision Investigation, Road Safety Engineering and Road Safety Audits.

1.8 The proposed S278 highway works are associated with a proposed residential development on land to the south of Oldham Road as shown in Appendix Two and in summary includes:

- Provision of two major/minor priority-controlled T-junctions on the northern side of Rosewell Avenue incorporating uncontrolled pedestrian crossings;
- Provision of a footway crossover vehicular access to a car park on the western side of Giltbrook Avenue and the north-eastern side of Collyhurst Street; and
- Provision of footway crossover vehicle accesses to private driveways on Varley Street, Rosewell Avenue and Giltbrook Avenue.

1.9 The Audit Team have not been informed of any Departures from Standard for the proposed scheme nor have they been made aware of any previous RSA's undertaken on the scheme.

1.10 Personal injury collision data from the online Transport for Greater Manchester database shows that no personal injury collisions have occurred on in the vicinity of the proposed S278 highway works during the most recent five-year period (up to 30 June 2025) for which data is available.

1.11 The scheme has been examined and this report compiled only regarding the safety implications for road users of the scheme as presented. It has not been examined or verified for compliance with any other Standards or criteria. However, to clearly explain a safety problem or the recommendation to resolve a problem, the Audit Team may on occasion have referred to a design standard for information only. Any audit comments should not be construed as implying that a technical audit has been undertaken in any respect.

1.12 Any recommendations included within this report should not be regarded as being prescriptive design solutions to the problems raised. They are intended only to indicate a proportionate and viable means of eliminating or mitigating the identified problem, in accordance with GG 119 Rev 2, and in no way, imply that a formal design process has been undertaken. There may be alternative methods of addressing a problem which would be equally acceptable in achieving the desired elimination or mitigation and these should be considered when responding to this report.

2.0 ITEMS RAISED AT THIS STAGE 1 ROAD SAFETY AUDIT

2.1 General

2.1.1 No road safety issues identified at this stage.

2.2 Local Alignment

2.2.1 No road safety issues identified at this stage.

2.3 Junctions

2.3.1 No road safety issues identified at this stage.

2.4 Walking, Cycling and Horse Riding

2.4.1 Location: At the proposed uncontrolled pedestrian crossings on Rosewell Avenue

Problem

Summary: Proposed location of uncontrolled pedestrian crossings may result in increased risk of collisions between visually impaired pedestrians and motorised vehicles

There is a limited offset between the proposed uncontrolled pedestrian crossing points at the proposed junctions on Rosewell Avenue and the kerb radii. This could result in the potential for pedestrians with visual impairments walking towards the crossing from the side roads mistaking the crossings for a road it does not correspond with and could result in an increased risk of pedestrian/vehicle collisions.

Additionally, the proposed uncontrolled pedestrian crossings at the proposed junctions on Rosewell Avenue are located relatively close to the channel line of Rosewell Avenue. This may result in visually impaired pedestrians inadvertently entering the carriageway of Rosewell Avenue if they veer off course slightly when crossing the new development access roads, which may increase the risk of vehicle/pedestrian collisions.

Recommendation

It is recommended that the proposed uncontrolled pedestrian crossings are relocated further into the development access roads, noting that this should not be to the detriment of the likely pedestrian desire line or the driver/pedestrian intervisibility to/from the proposed uncontrolled pedestrian crossings.

2.5 Traffic Signs, Carriageway Markings and Lighting

2.5.1 No road safety issues identified at this stage.

3.0 ROAD SAFETY AUDIT TEAM STATEMENT

We certify that the audit has been carried out in accordance with DMRB GG119 Rev 2.

AUDIT TEAM LEADER

Jon Preston MCIHT MSoRSA

Director — Signed: 

six:TEN Highways & Traffic Ltd — Date: 10 June 2026

AUDIT TEAM MEMBER

Tristan Brooks Bsc (Hons), MBA, CMILT, MCIHT, MSoRSA, NH RSA Cert of Comp

Traffic & Road Safety Engineer — Signed: 

six:TEN Highways & Traffic Ltd — Date: 10 June 2026

APPENDIX ONE

4.0 LIST OF DRAWINGS AND DOCUMENTS SUPPLIED BY THE DESIGN ORGANISATION

- 34922-SUT-ZZ-XX-DR-C-6600-P01 Proposed S278 Works
- A25047-ATP-HGN-ZZ-DR-CH-00001_P01 Visibility Splay
- A25047-ATP-HGN-ZZ-DR-CH-00101_P01 Vehicle Tracking
- 1355-110 Rev A Masterplan
- A25047-TA Draft Transport Assessment
- Forecast 2031 Traffic Flows
- Latest five-year (up to 30 June 2025) personal injury collision data from TfGM

APPENDIX TWO

5.0 PROBLEM LOCATION PLAN



APPENDIX THREE

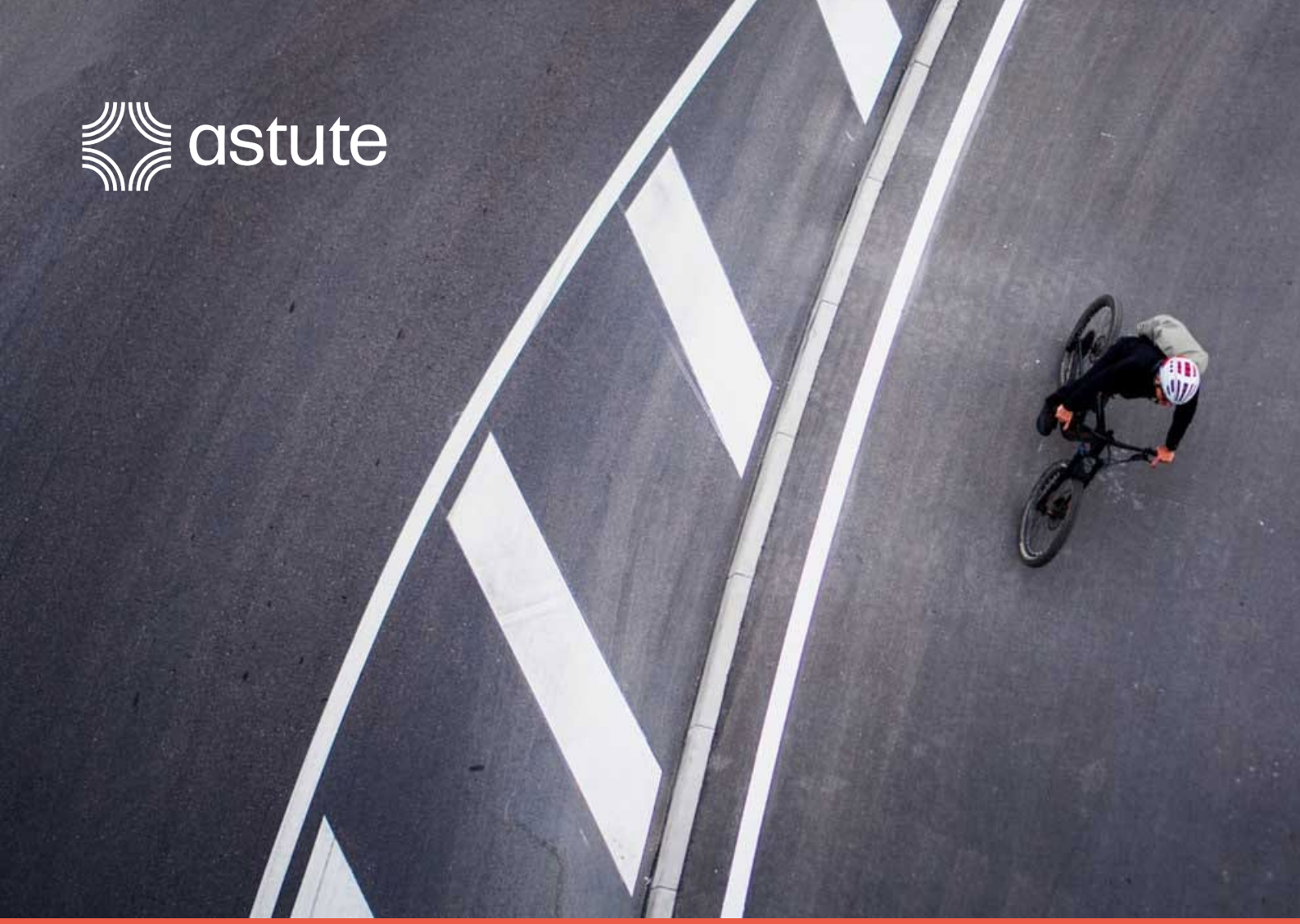
6.0 PHOTOGRAPHS



6.1 General view looking west on Rosewell Avenue.



6.2 General view looking north on Giltbrook Avenue.



Road Safety Audit Stage 1

Designer's Response Report

Miles Platting, Manchester

Jigsaw Homes North

11 June 2026

Report Control

Document	Road Safety Audit Stage 1 Designer's Response Report
Project	Miles Platting, Manchester
Client	Jigsaw Homes North
Job Number	A25047

Document Checking

Primary Author	Lewis Brimmell	Initialled	LB

Review by	Adam Smith	Initialled	AS

Issue	Date	Status	Prepared	Checked
P01	11/06/2026	First Issue	LB	AS

Contents

1. Project Details 3
2. Introduction 4
3. Key Personnel 4
4. Road Safety Audit Decision Log 5
5. Design Organisation Statement 6

1. Report Details

1.1. The report and authorisation details have been summarised in the table below.

Table 1 - Report Details

Title	Information
Report Title	Road Safety Audit Stage 1 Designer's Response Report, Miles Platting, Manchester
Date	11/06/2026
Document Reference and Revision	A25047 - Miles Platting, Manchester - RSA Stage 1 Designer's Response
Prepared By	Astute Transport
On Behalf of	Jigsaw Homes North
Overseeing Organisation	Manchester City Council

Table 2 - Authorisation Details

Title	Information
Prepared By	
Name	Lewis Brimmell
Position	Engineer
Signed	
Organisation	Astute Transport
Date	11/06/2026
Approved By	
Name	Adam Smith
Position	Director
Signed	
Organisation	Astute Transport
Date	11/06/2026

2. Introduction

2.1. Scheme Details

2.1.1. Jigsaw Homes North, as the Scheme Promoter, has commissioned six:TEN Highways and Traffic to carry out a Stage 1 Road Safety Audit of the Section 278 (S278) highway works associated with the proposed S278 highway works associated with the residential development on land to the south of Oldham Road. As the Highway Authority, Manchester City Council is the Overseeing Organisation.

2.1.2. The works which are subject to this Road Safety Audit include:

- Scheme scope Provision of two major/minor priority-controlled T-junctions on the northern side of Rosewell Avenue incorporating uncontrolled pedestrian crossings;
- Provision of a footway crossover vehicular access to a car park on the western side of Giltbrook Avenue and the north-eastern side of Collyhurst Street; and
- Provision of footway crossover vehicle accesses to private driveways on Varley Street, Rosewell Avenue and Giltbrook Avenue.

2.2. Stage of RSA

2.2.1. A Stage 1 Road Safety Audit was completed by Jon Preston on 03/06/2026.

2.3. RSA Details

2.3.1. The Audit was carried out with reference to 'GG 119 Road Safety Audit' (National Highways, 2025) and summarised within the report 610/2026/145/01 Rev 1. Within the Road Safety Audit 1No. problem was raised.

2.3.2. The Audit Team comprised the following people:

- Jon Preston (Audit Team Leader)
- Tristan Brooks (Audit Team Member)

3. Key Personnel

3.1. The key personnel details have been summarised in the table below.

Table 3 - Key Personnel

Title	Information
Overseeing Organisation	Manchester City Council
RSA Team Member 1	Jon Preston MCIHT MSoRSA
RSA Team Member 2	Tristan Brooks Bsc (Hons), MBA, CMILT, MCIHT, MSoRSA, NH RSA Cert of Comp
Commissioned by	Jigsaw Homes North

4. Road Safety Audit Decision Log

4.1. The Road Safety Audit Stage 1 report and response details have been summarised in the table below.

Table 4 - RSA Report and Response Details

Title	Information
Problem 1	
RSA Problem	Summary: Proposed location of uncontrolled pedestrian crossings may result in increased risk of collisions between visually impaired pedestrians and motorised vehicles There is a limited offset between the proposed uncontrolled pedestrian crossing points at the proposed junctions on Rosewell Avenue and the kerb radii. This could result in the potential for pedestrians with visual impairments walking towards the crossing from the side roads mistaking the crossings for a road it does not correspond with and could result in an increased risk of pedestrian/vehicle collisions. Additionally, the proposed uncontrolled pedestrian crossings at the proposed junctions on Rosewell Avenue are located relatively close to the channel line of Rosewell Avenue. This may result in visually impaired pedestrians inadvertently entering the carriageway of Rosewell Avenue if they veer off course slightly when crossing the new development access roads, which may increase the risk of vehicle/pedestrian collisions.
RSA Recommendation	It is recommended that the proposed uncontrolled pedestrian crossings are relocated further into the development access roads, noting that this should not be to the detriment of the likely pedestrian desire line or the driver/pedestrian intervisibility to/from the proposed uncontrolled pedestrian crossings.
RSA Problem Accepted	N
RSA Recommendation Accepted	N
Design Organisation Response	The proposed crossings are deemed suitable arrangements and do not need to me amended to the recommendation. The crossings are proposed as inline uncontrolled crossings positioned to be across the pedestrian desire line. From the centre of each crossing they measure 10m and 9m which meets the requirements of maximum crossing widths detailed within LTN 2/95. The crossings are also positioned within the proposed adopted highway, if moved north as inset crossing points as per the recommendation they would move outside of the proposed adopted highway.

5. Design Organisation Statement

5.1. On behalf of the design organisation, I certify that the RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation. Confirmation and details of this statement are provided in the table below.

Table 5 - Designer Organisation Statement

Title	Information
Name	Lewis Brimmell
Signed	
Position	Engineer
Organisation	Astute Transport
Date	11/06/2026

Appendix E

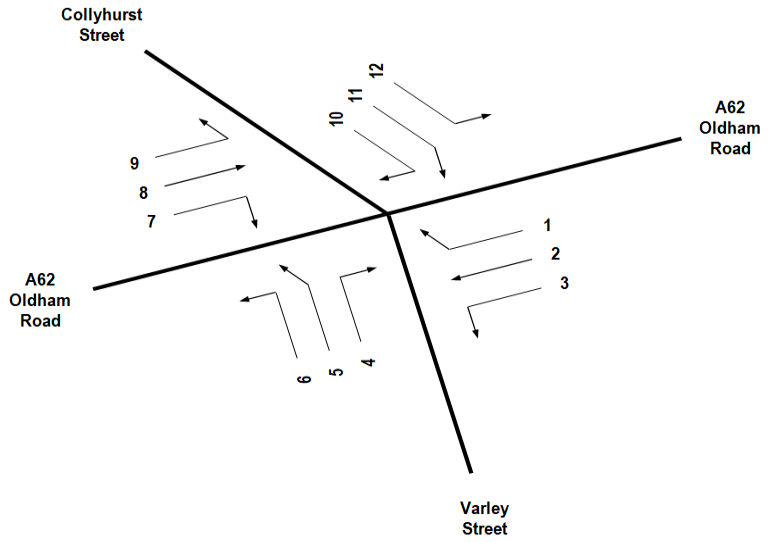
Traffic Survey Data

SURVEY CONTROL

Client:	Astute
Client Contact:	Adam Smith
Survey Location:	Miles Platting, Manchester
Date(s) of Survey:	Wednesday 2nd July 2025
Notes:	
On Site Supervisor:	David Cheng
Data Checking:	David Cheng
Survey Reference:	25.082 Miles Platting
Status:	Final
Date of Issue:	9th July 2025

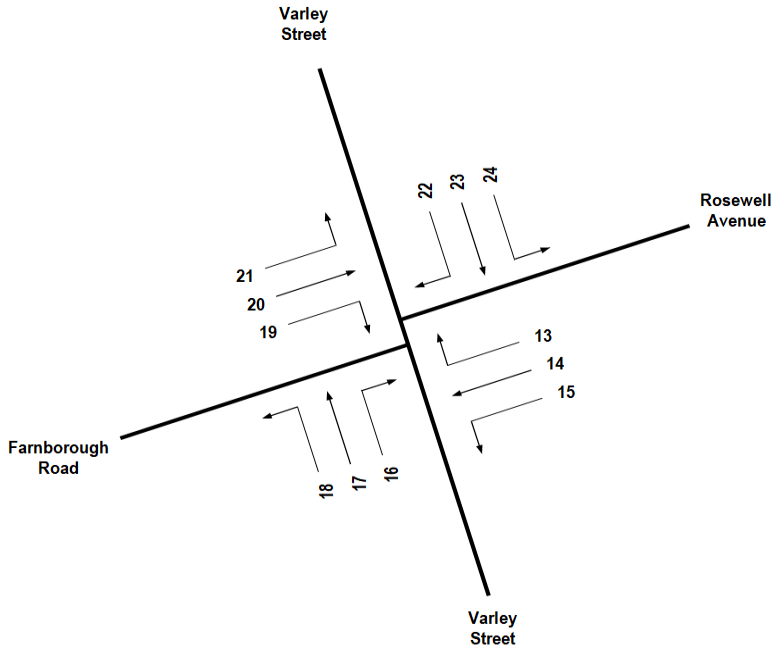
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JUNCTION 1



N

JUNCTION 2

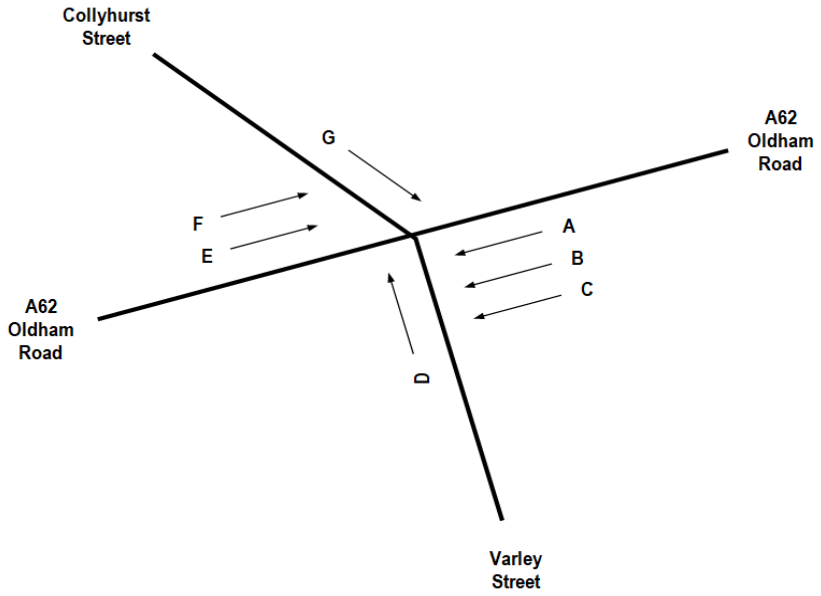


DRAWING TITLE: TRAFFIC MOVEMENT REFERENCE			
JOB TITLE: 25.082 MILES PLATTING			
DRAWN BY: CC	DATE: JUL 2025	SCALE: NTS	REF: FIGURE 1

Transport Data Specialists Ltd
W: www.transportds.co.uk
E: enquiries@transportds.co.uk
T: 0777 625 2475 T: 0794 007 1260

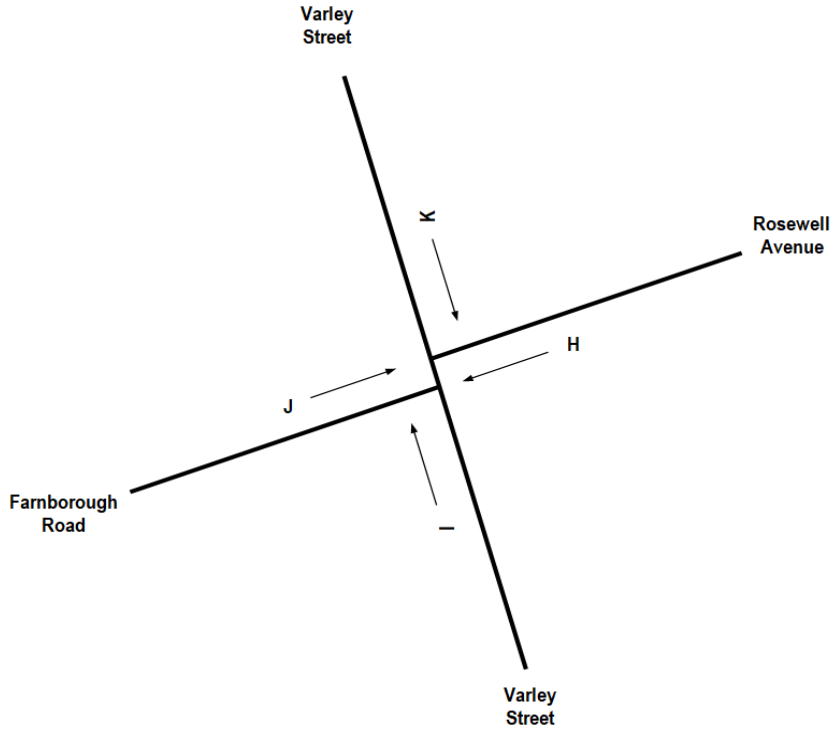
N

JUNCTION 1



N

JUNCTION 2



DRAWING TITLE: QUEUE REFERENCE			
JOB TITLE: 25.082 MILES PLATTING			
DRAWN BY: CC	DATE: JUL 2025	SCALE: NTS	REF: FIGURE 2

Transport Data Specialists Ltd
W: www.transportds.co.uk
E: enquiries@transportds.co.uk
T: 0777 625 2475 T: 0794 007 1260

Time Beginning	Collyhurst Street/A62 Oldham Road/Varley Street - Wednesday 2nd July 2025																					
	1		2		3		4		5		6		7		8		9		10		11		12	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
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Time Beginning	Collyhurst Street/A62 Oldham Road/Varley Street - Wednesday 2nd July 2025																					
	1		2		3		4		5		6		7		8		9		10		11		12	
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Time Beginning	Varley Street/Rosewell Avenue/Farnborough Road - Wednesday 2nd July 2025																					
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Time Beginning	Varley Street/Rosewell Avenue/Farnborough Road - Wednesday 2nd July 2025																					
	13		14		15		16		17		18		19		20		21		22		23		24	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
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Time Beginning	Collyhurst Street/A62 Oldham Road/Varley Street, Queues (vehs) - Wednesday 2nd July 2025						
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Time Beginning	Collyhurst Street/A62 Oldham Road/Varley Street, Queues (vehs) - Wednesday 2nd July 2025						
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1610	3	6	8	10	10	9	7
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1650	2	13	19	11	9	4	4
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1810	1	3	4	1	11	8	8
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1835	0	2	3	7	6	6	8
1840	1	3	5	5	5	4	4
1845	0	6	3	5	0	0	4
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1900	0	2	1	5	4	1	4

Time Beginning	Varley Street/Rosewell Avenue/Farnborough Road, Queues (vehs) - Wednesday 2nd July 2025			
	H	I	J	K
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0705	0	0	0	0
0710	0	0	0	0
0715	0	0	0	0
0720	0	0	0	0
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0835	0	0	0	0
0840	0	0	0	0
0845	0	0	0	0
0850	0	0	0	0
0855	0	0	0	0
0900	0	0	0	0
0905	0	0	0	0
0910	0	0	0	0
0915	0	0	0	0
0920	0	0	0	0
0925	0	0	0	0
0930	0	0	0	0
0935	0	0	0	0
0940	0	0	0	0
0945	0	0	0	0
0950	0	0	0	0
0955	0	0	0	0
1000	0	0	0	0

Time Beginning	Varley Street/Rosewell Avenue/Farnborough Road, Queues (vehs) - Wednesday 2nd July 2025			
	H	I	J	K
1600	0	0	0	0
1605	0	0	0	0
1610	0	0	0	0
1615	0	0	0	0
1620	0	0	0	0
1625	0	0	0	0
1630	0	0	0	0
1635	0	0	0	0
1640	0	0	0	0
1645	0	0	0	0
1650	0	0	0	0
1655	0	0	0	0
1700	0	0	0	0
1705	0	0	0	0
1710	0	0	0	0
1715	0	0	0	0
1720	0	0	0	0
1725	0	0	0	0
1730	0	0	0	0
1735	0	0	0	0
1740	0	0	0	0
1745	0	0	0	0
1750	0	0	0	0
1755	0	0	0	0
1800	0	0	1	0
1805	0	0	0	0
1810	0	0	0	0
1815	0	0	0	0
1820	0	0	1	0
1825	0	0	0	0
1830	0	0	0	0
1835	1	0	1	0
1840	0	0	0	0
1845	0	0	0	0
1850	0	0	1	0
1855	0	0	0	0
1900	0	0	0	0

Appendix F

TRICS Output Files

Calculation Reference: AUDIT-725101-250610-0615

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : L - MIXED AFFORD HOUS (FLATS AND HOUSES)
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	1 days
	HC	HAMPSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	LS	LEEDS	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
Actual Range: 51 to 94 (units:)
Range Selected by User: 50 to 150 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/16 to 25/03/24

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Tuesday	1 days
Wednesday	1 days
Thursday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	3 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	2
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	2 days - Selected
Servicing vehicles Excluded	4 days - Selected

Secondary Filtering selection:

Use Class:

C3	3 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

25,001 to 50,000	3 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

100,001 to 125,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	3 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	2 days
No	1 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	3 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 ES-03-L-03 HOUSES & FLATS EAST SUSSEX
HUGHENDEN ROAD
HASTINGS
ORE VALLEY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 51
Survey date: TUESDAY 26/06/18 Survey Type: MANUAL

2 HC-03-L-04 MIXED FLATS & HOUSES HAMPSHIRE
WOODSIDE AVENUE
EASTLEIGH

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total No of Dwellings: 94
Survey date: THURSDAY 16/11/23 Survey Type: MANUAL

3 LS-03-L-01 FLATS & HOUSES LEEDS
STATION ROAD
LEEDS
HORSFORTH
Edge of Town
Residential Zone
Total No of Dwellings: 78
Survey date: WEDNESDAY 21/09/16 Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/L - MIXED AFFORD HOUS (FLATS AND HOUSES)
TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	74	0.045	3	74	0.197	3	74	0.242
08:00 - 09:00	3	74	0.130	3	74	0.291	3	74	0.421
09:00 - 10:00	3	74	0.170	3	74	0.148	3	74	0.318
10:00 - 11:00	3	74	0.121	3	74	0.130	3	74	0.251
11:00 - 12:00	3	74	0.112	3	74	0.103	3	74	0.215
12:00 - 13:00	3	74	0.103	3	74	0.067	3	74	0.170
13:00 - 14:00	3	74	0.099	3	74	0.143	3	74	0.242
14:00 - 15:00	3	74	0.117	3	74	0.094	3	74	0.211
15:00 - 16:00	3	74	0.211	3	74	0.161	3	74	0.372
16:00 - 17:00	3	74	0.197	3	74	0.175	3	74	0.372
17:00 - 18:00	3	74	0.220	3	74	0.135	3	74	0.355
18:00 - 19:00	3	74	0.170	3	74	0.063	3	74	0.233
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.695			1.707			3.402

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

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Parameter summary

Trip rate parameter range selected:	51 - 94 (units:)
Survey date date range:	01/01/16 - 25/03/24
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Appendix G

Rosewell Avenue / Varley Street / Farnborough Road

JUNCTIONS Modelling Outputs

Junctions 11

PICADY 11 - Priority Intersection Module

Version: 11.0.0.2177
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Filename: Jct 2 - Rosewell Av. - Varley Str. - Farnborough Rd..j11
Path: C:\Users\GennaWoods\Astute Transport\Astute Transport - Shared Drive\Jobs\2025\A25047 Miles Platting, Manchester\Analysis\JUNCTIONS
Report generation date: 14/05/2026 17:08:54

»2025 | Base | AM
»2025 | Base | PM
»2031 | Base | AM
»2031 | Base | PM
»2031 | Base + Dev | AM
»2031 | Base + Dev | PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)	Set ID	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)
	2025 - Base									
Stream B-ACD	D1	0.1	9.28	0.08	1.03	D2	0.1	8.99	0.08	0.99
Stream A-BCD		0.0	4.91	0.03			0.0	4.98	0.03	
Stream D-ABC		0.1	7.68	0.05			0.1	8.57	0.07	
Stream C-ABD		0.0	5.50	0.03			0.0	4.93	0.03	
	2031 - Base									
Stream B-ACD	D3	0.1	9.64	0.09	1.06	D4	0.1	9.26	0.09	1.01
Stream A-BCD		0.0	4.85	0.03			0.0	4.95	0.04	
Stream D-ABC		0.1	7.75	0.06			0.1	8.88	0.07	
Stream C-ABD		0.1	5.45	0.04			0.0	4.85	0.03	
	2031 - Base + Dev									
Stream B-ACD	D5	0.2	10.75	0.16	1.49	D6	0.2	10.60	0.17	1.42
Stream A-BCD		0.0	4.81	0.03			0.0	4.94	0.04	
Stream D-ABC		0.1	7.79	0.06			0.1	8.96	0.07	
Stream C-ABD		0.1	5.50	0.05			0.0	4.85	0.03	

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. Junction LOS and Junction Delay are demand-weighted averages.

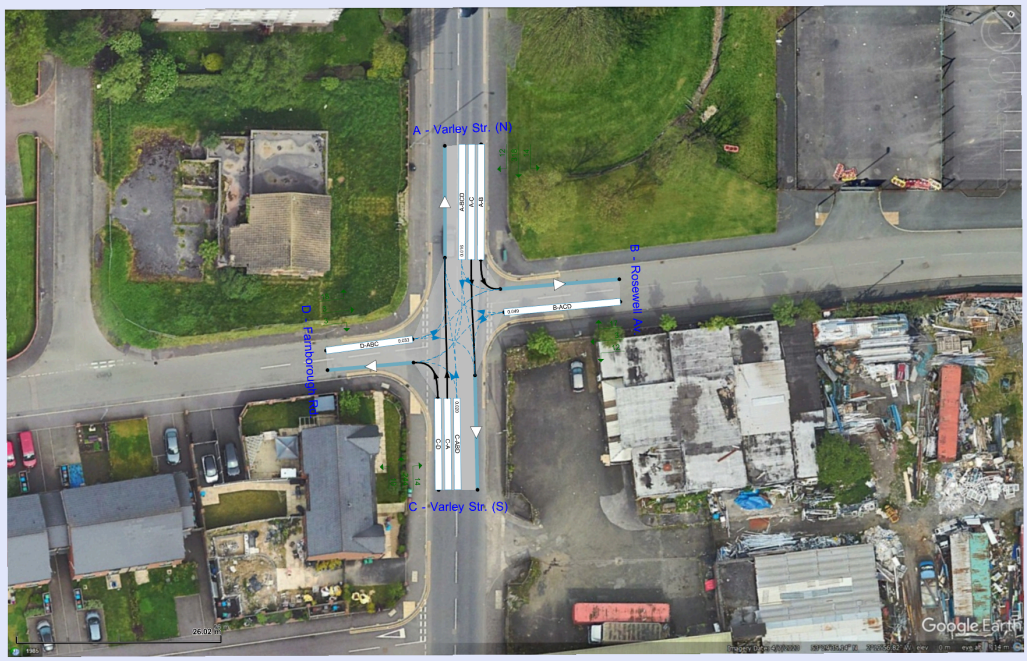
File summary

File Description

Title	Rosewell Avenue / Varley Street /Farnborough Road
Location	Miles Platting, Manchester
Site number	
Date	28/04/2026
Version	v1
Status	(new file)
Identifier	
Client	
Jobnumber	A25047
Enumerator	AzureAD\GennaWoods
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	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2025	Base	PM	ONE HOUR	15:45	17:15	15	✓
D3	2031	Base	AM	ONE HOUR	07:45	09:15	15	✓
D4	2031	Base	PM	ONE HOUR	15:45	17:15	15	✓
D5	2031	Base + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2031	Base + Dev	PM	ONE HOUR	15:45	17:15	15	✓

Analysis Set Details

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

2025 | Base | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue Variations cannot be calculated for crossroads.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	Rosewell Av / Varley Str / Farnborough Rd	Crossroads	Two-way	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

Arms

Arms

Arm	Name	Description	Arm type
A	Varley Str. (N)		Major
B	Rosewell Av.		Minor
C	Varley Str. (S)		Major
D	Farnborough Rd.		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 - Varley Str. (N)	7.50			200.0	✓	0.00
C - Varley Str. (S)	7.50			120.0	✓	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 - Rosewell Av.	One lane	3.40	20	40
D - Farnborough Rd.	One lane	3.00	45	30

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-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	690	-	-	-	-	-	-	0.250	0.357	0.250	-	-	-
B-A	524	0.089	0.225	0.225	-	-	-	0.142	0.322	-	0.225	0.225	0.113
B-C	675	0.097	0.245	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	524	0.089	0.225	0.225	-	-	-	0.142	0.322	0.142	-	-	-
B-D, offside lane	524	0.089	0.225	0.225	-	-	-	0.142	0.322	0.142	-	-	-
C-B	643	0.233	0.233	0.333	-	-	-	-	-	-	-	-	-
D-A	643	-	-	-	-	-	-	0.233	-	0.092	-	-	-
D-B, nearside lane	507	0.137	0.137	0.312	-	-	-	0.218	0.218	0.086	-	-	-
D-B, offside lane	507	0.137	0.137	0.312	-	-	-	0.218	0.218	0.086	-	-	-
D-C	507	-	0.137	0.312	0.109	0.218	0.218	0.218	0.218	0.086	-	-	-

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	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	Base	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Varley Str. (N)		ONE HOUR	✓	344	100.000
B - Rosewell Av.		ONE HOUR	✓	32	100.000
C - Varley Str. (S)		ONE HOUR	✓	268	100.000
D - Farnborough Rd.		ONE HOUR	✓	24	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	0	14	318	12
	B - Rosewell Av.	17	0	12	3
	C - Varley Str. (S)	244	14	0	10
	D - Farnborough Rd.	18	3	3	0

Proportions

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	0.00	0.04	0.92	0.03
	B - Rosewell Av.	0.53	0.00	0.38	0.09
	C - Varley Str. (S)	0.91	0.05	0.00	0.04
	D - Farnborough Rd.	0.75	0.13	0.13	0.00

Vehicle Mix

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

Heavy Vehicle %

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	0	0	4	9
	B - Rosewell Av.	6	0	9	0
	C - Varley Str. (S)	3	8	0	0
	D - Farnborough Rd.	0	50	0	0

Average PCU Per Veh

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	1.000	1.000	1.040	1.090
	B - Rosewell Av.	1.060	1.000	1.090	1.000
	C - Varley Str. (S)	1.030	1.080	1.000	1.000
	D - Farnborough Rd.	1.000	1.500	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A - Varley Str. (N)	259	259
	B - Rosewell Av.	24	24
	C - Varley Str. (S)	202	202
	D - Farnborough Rd.	18	18
08:00-08:15	A - Varley Str. (N)	309	309
	B - Rosewell Av.	29	29
	C - Varley Str. (S)	241	241
	D - Farnborough Rd.	22	22
08:15-08:30	A - Varley Str. (N)	379	379
	B - Rosewell Av.	35	35
	C - Varley Str. (S)	295	295
	D - Farnborough Rd.	26	26
08:30-08:45	A - Varley Str. (N)	379	379
	B - Rosewell Av.	35	35
	C - Varley Str. (S)	295	295
	D - Farnborough Rd.	26	26
08:45-09:00	A - Varley Str. (N)	309	309
	B - Rosewell Av.	29	29
	C - Varley Str. (S)	241	241
	D - Farnborough Rd.	22	22
09:00-09:15	A - Varley Str. (N)	259	259
	B - Rosewell Av.	24	24
	C - Varley Str. (S)	202	202
	D - Farnborough Rd.	18	18

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.08	9.28	0.1	0.5	A	29	44
A-BCD	0.03	4.91	0.0	0.5	A	18	27
A-B						13	19
A-C						285	428
D-ABC	0.05	7.68	0.1	0.5	A	22	33
C-ABD	0.03	5.50	0.0	0.5	A	19	29
C-D						9	13
C-A						218	327

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	24	6	0.00	488	0.049	24	0.0	0.1	8.255	A
A-BCD	13	3	0.00	800	0.016	13	0.0	0.0	4.912	A
A-B	10	3	0.00			10				
A-C	235	59	0.00			235				
D-ABC	18	5	0.00	544	0.033	18	0.0	0.0	7.141	A
C-ABD	14	4	0.00	712	0.020	14	0.0	0.0	5.502	A
C-D	7	2	0.00			7				
C-A	180	45	0.00			180				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	29	7	0.00	472	0.061	29	0.1	0.1	8.657	A
A-BCD	17	4	0.00	823	0.021	17	0.0	0.0	4.789	A
A-B	12	3	0.00			12				
A-C	280	70	0.00			280				
D-ABC	22	5	0.00	532	0.041	22	0.0	0.0	7.358	A
C-ABD	18	5	0.00	726	0.025	18	0.0	0.0	5.412	A
C-D	9	2	0.00			9				
C-A	214	53	0.00			214				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	35	9	0.00	448	0.079	35	0.1	0.1	9.274	A
A-BCD	23	6	0.00	855	0.027	23	0.0	0.0	4.623	A
A-B	15	4	0.00			15				
A-C	341	85	0.00			341				
D-ABC	26	7	0.00	516	0.051	26	0.0	0.1	7.678	A
C-ABD	25	6	0.00	747	0.033	25	0.0	0.0	5.286	A
C-D	11	3	0.00			11				
C-A	260	65	0.00			260				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	35	9	0.00	448	0.079	35	0.1	0.1	9.278	A
A-BCD	23	6	0.00	855	0.027	23	0.0	0.0	4.619	A
A-B	15	4	0.00			15				
A-C	341	85	0.00			341				
D-ABC	26	7	0.00	516	0.051	26	0.1	0.1	7.678	A
C-ABD	25	6	0.00	747	0.033	25	0.0	0.0	5.282	A
C-D	11	3	0.00			11				
C-A	260	65	0.00			260				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	29	7	0.00	471	0.061	29	0.1	0.1	8.663	A
A-BCD	17	4	0.00	823	0.021	17	0.0	0.0	4.775	A
A-B	12	3	0.00			12				
A-C	280	70	0.00			280				
D-ABC	22	5	0.00	532	0.041	22	0.1	0.0	7.362	A
C-ABD	18	5	0.00	726	0.025	18	0.0	0.0	5.400	A
C-D	9	2	0.00			9				
C-A	214	53	0.00			214				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	24	6	0.00	488	0.049	24	0.1	0.1	8.265	A
A-BCD	13	3	0.00	800	0.016	13	0.0	0.0	4.906	A
A-B	10	3	0.00			10				
A-C	235	59	0.00			235				
D-ABC	18	5	0.00	544	0.033	18	0.0	0.0	7.148	A
C-ABD	14	4	0.00	712	0.020	14	0.0	0.0	5.496	A
C-D	7	2	0.00			7				
C-A	180	45	0.00			180				

Queue Variation Results for each time segment

07:45 - 08:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.05	0.00	0.00	0.05	0.05			N/A	N/A
A-BCD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
D-ABC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-ABD	0.03	0.00	0.00	0.03	0.03			N/A	N/A

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.07	0.03	0.27	0.48	0.51			N/A	N/A
A-BCD	0.03	0.03	0.27	0.48	0.51			N/A	N/A
D-ABC	0.04	0.03	0.26	0.47	0.50			N/A	N/A
C-ABD	0.03	0.03	0.27	0.48	0.51			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.09	0.03	0.28	0.50	0.53			N/A	N/A
A-BCD	0.04	0.00	0.00	0.04	0.04			N/A	N/A
D-ABC	0.06	0.03	0.27	0.48	0.51			N/A	N/A
C-ABD	0.05	0.00	0.00	0.05	0.05			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.09	0.03	0.27	0.48	0.51			N/A	N/A
A-BCD	0.04	0.00	0.00	0.04	0.04			N/A	N/A
D-ABC	0.06	0.00	0.00	0.06	0.06			N/A	N/A
C-ABD	0.05	0.00	0.00	0.05	0.05			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.07	0.00	0.00	0.07	0.07			N/A	N/A
A-BCD	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-ABC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-ABD	0.03	0.00	0.00	0.03	0.03			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.06	0.00	0.00	0.06	0.06			N/A	N/A
A-BCD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
D-ABC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-ABD	0.03	0.00	0.00	0.03	0.03			N/A	N/A

2025 | Base | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue Variations cannot be calculated for crossroads.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	Rosewell Av / Varley Str / Farnborough Rd	Crossroads	Two-way	Two-way	Two-way	Two-way		0.99	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.99	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2025	Base	PM	ONE HOUR	15:45	17:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Varley Str. (N)		ONE HOUR	✓	280	100.000
B - Rosewell Av.		ONE HOUR	✓	35	100.000
C - Varley Str. (S)		ONE HOUR	✓	412	100.000
D - Farnborough Rd.		ONE HOUR	✓	27	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	0	8	258	14
	B - Rosewell Av.	17	0	16	2
	C - Varley Str. (S)	385	11	0	16
	D - Farnborough Rd.	16	1	10	0

Proportions

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	0.00	0.03	0.92	0.05
	B - Rosewell Av.	0.49	0.00	0.46	0.06
	C - Varley Str. (S)	0.93	0.03	0.00	0.04
	D - Farnborough Rd.	0.59	0.04	0.37	0.00

Vehicle Mix

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

Heavy Vehicle %

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	0	0	3	0
	B - Rosewell Av.	13	0	0	0
	C - Varley Str. (S)	3	10	0	0
	D - Farnborough Rd.	0	0	0	0

Average PCU Per Veh

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	1.000	1.000	1.030	1.000
	B - Rosewell Av.	1.130	1.000	1.000	1.000
	C - Varley Str. (S)	1.030	1.100	1.000	1.000
	D - Farnborough Rd.	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
15:45-16:00	A - Varley Str. (N)	211	211
	B - Rosewell Av.	26	26
	C - Varley Str. (S)	310	310
	D - Farnborough Rd.	20	20
16:00-16:15	A - Varley Str. (N)	252	252
	B - Rosewell Av.	31	31
	C - Varley Str. (S)	370	370
	D - Farnborough Rd.	24	24
16:15-16:30	A - Varley Str. (N)	308	308
	B - Rosewell Av.	39	39
	C - Varley Str. (S)	454	454
	D - Farnborough Rd.	30	30
16:30-16:45	A - Varley Str. (N)	308	308
	B - Rosewell Av.	39	39
	C - Varley Str. (S)	454	454
	D - Farnborough Rd.	30	30
16:45-17:00	A - Varley Str. (N)	252	252
	B - Rosewell Av.	31	31
	C - Varley Str. (S)	370	370
	D - Farnborough Rd.	24	24
17:00-17:15	A - Varley Str. (N)	211	211
	B - Rosewell Av.	26	26
	C - Varley Str. (S)	310	310
	D - Farnborough Rd.	20	20

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.08	8.99	0.1	0.5	A	32	48
A-BCD	0.03	4.98	0.0	0.5	A	19	29
A-B						7	11
A-C						231	346
D-ABC	0.07	8.57	0.1	0.5	A	25	37
C-ABD	0.03	4.93	0.0	0.5	A	19	28
C-D						14	22
C-A						345	518

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	26	7	0.00	502	0.052	26	0.0	0.1	8.007	A
A-BCD	14	4	0.00	744	0.019	14	0.0	0.0	4.974	A
A-B	6	1	0.00			6				
A-C	190	48	0.00			190				
D-ABC	20	5	0.00	492	0.041	20	0.0	0.0	7.632	A
C-ABD	13	3	0.00	796	0.017	13	0.0	0.0	4.931	A
C-D	12	3	0.00			12				
C-A	285	71	0.00			285				

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	31	8	0.00	486	0.065	31	0.1	0.1	8.391	A
A-BCD	18	5	0.00	756	0.024	18	0.0	0.0	4.920	A
A-B	7	2	0.00			7				
A-C	226	57	0.00			226				
D-ABC	24	6	0.00	474	0.051	24	0.0	0.1	7.997	A
C-ABD	18	4	0.00	827	0.021	18	0.0	0.0	4.755	A
C-D	14	4	0.00			14				
C-A	339	85	0.00			339				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	39	10	0.00	463	0.083	38	0.1	0.1	8.983	A
A-BCD	25	6	0.00	774	0.032	25	0.0	0.0	4.850	A
A-B	9	2	0.00			9				
A-C	275	69	0.00			275				
D-ABC	30	7	0.00	450	0.066	30	0.1	0.1	8.565	A
C-ABD	25	6	0.00	872	0.028	25	0.0	0.0	4.524	A
C-D	17	4	0.00			17				
C-A	412	103	0.00			412				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	39	10	0.00	463	0.083	39	0.1	0.1	8.987	A
A-BCD	25	6	0.00	774	0.032	25	0.0	0.0	4.856	A
A-B	9	2	0.00			9				
A-C	275	69	0.00			275				
D-ABC	30	7	0.00	450	0.066	30	0.1	0.1	8.567	A
C-ABD	25	6	0.00	872	0.028	25	0.0	0.0	4.515	A
C-D	17	4	0.00			17				
C-A	412	103	0.00			412				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	31	8	0.00	486	0.065	32	0.1	0.1	8.397	A
A-BCD	18	5	0.00	756	0.024	19	0.0	0.0	4.931	A
A-B	7	2	0.00			7				
A-C	226	57	0.00			226				
D-ABC	24	6	0.00	474	0.051	24	0.1	0.1	8.003	A
C-ABD	18	4	0.00	827	0.021	18	0.0	0.0	4.736	A
C-D	14	4	0.00			14				
C-A	339	85	0.00			339				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	26	7	0.00	502	0.052	26	0.1	0.1	8.018	A
A-BCD	14	4	0.00	744	0.019	14	0.0	0.0	4.980	A
A-B	6	1	0.00			6				
A-C	190	48	0.00			190				
D-ABC	20	5	0.00	492	0.041	20	0.1	0.0	7.637	A
C-ABD	13	3	0.00	796	0.017	13	0.0	0.0	4.921	A
C-D	12	3	0.00			12				
C-A	285	71	0.00			285				

Queue Variation Results for each time segment

15:45 - 16:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.06	0.00	0.00	0.06	0.06			N/A	N/A
A-BCD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
D-ABC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-ABD	0.02	0.00	0.00	0.02	0.02			N/A	N/A

16:00 - 16:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.07	0.03	0.27	0.48	0.51			N/A	N/A
A-BCD	0.03	0.03	0.25	0.46	0.48			N/A	N/A
D-ABC	0.05	0.03	0.25	0.45	0.48			N/A	N/A
C-ABD	0.03	0.03	0.27	0.48	0.51			N/A	N/A

16:15 - 16:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.10	0.03	0.28	0.50	0.52			N/A	N/A
A-BCD	0.04	0.00	0.00	0.04	0.04			N/A	N/A
D-ABC	0.07	0.03	0.26	0.47	0.49			N/A	N/A
C-ABD	0.04	0.00	0.00	0.04	0.04			N/A	N/A

16:30 - 16:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.10	0.03	0.26	0.48	0.50			N/A	N/A
A-BCD	0.04	0.00	0.00	0.04	0.04			N/A	N/A
D-ABC	0.07	0.00	0.00	0.07	0.07			N/A	N/A
C-ABD	0.04	0.00	0.00	0.04	0.04			N/A	N/A

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.07	0.00	0.00	0.07	0.07			N/A	N/A
A-BCD	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-ABC	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C-ABD	0.03	0.00	0.00	0.03	0.03			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.06	0.00	0.00	0.06	0.06			N/A	N/A
A-BCD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
D-ABC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-ABD	0.02	0.00	0.00	0.02	0.02			N/A	N/A

2031 | Base | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue Variations cannot be calculated for crossroads.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	Rosewell Av / Varley Str / Farnborough Rd	Crossroads	Two-way	Two-way	Two-way	Two-way		1.06	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.06	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2031	Base	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Varley Str. (N)		ONE HOUR	✓	375	100.000
B - Rosewell Av.		ONE HOUR	✓	35	100.000
C - Varley Str. (S)		ONE HOUR	✓	292	100.000
D - Farnborough Rd.		ONE HOUR	✓	26	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	0	15	347	13
	B - Rosewell Av.	19	0	13	3
	C - Varley Str. (S)	266	15	0	11
	D - Farnborough Rd.	20	3	3	0

Proportions

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	0.00	0.04	0.93	0.03
	B - Rosewell Av.	0.54	0.00	0.37	0.09
	C - Varley Str. (S)	0.91	0.05	0.00	0.04
	D - Farnborough Rd.	0.77	0.12	0.12	0.00

Vehicle Mix

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

Heavy Vehicle %

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	0	0	4	9
	B - Rosewell Av.	6	0	9	0
	C - Varley Str. (S)	3	8	0	0
	D - Farnborough Rd.	0	50	0	0

Average PCU Per Veh

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	1.000	1.000	1.040	1.090
	B - Rosewell Av.	1.060	1.000	1.090	1.000
	C - Varley Str. (S)	1.030	1.080	1.000	1.000
	D - Farnborough Rd.	1.000	1.500	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A - Varley Str. (N)	282	282
	B - Rosewell Av.	26	26
	C - Varley Str. (S)	220	220
	D - Farnborough Rd.	20	20
08:00-08:15	A - Varley Str. (N)	337	337
	B - Rosewell Av.	31	31
	C - Varley Str. (S)	263	263
	D - Farnborough Rd.	23	23
08:15-08:30	A - Varley Str. (N)	413	413
	B - Rosewell Av.	39	39
	C - Varley Str. (S)	321	321
	D - Farnborough Rd.	29	29
08:30-08:45	A - Varley Str. (N)	413	413
	B - Rosewell Av.	39	39
	C - Varley Str. (S)	321	321
	D - Farnborough Rd.	29	29
08:45-09:00	A - Varley Str. (N)	337	337
	B - Rosewell Av.	31	31
	C - Varley Str. (S)	263	263
	D - Farnborough Rd.	23	23
09:00-09:15	A - Varley Str. (N)	282	282
	B - Rosewell Av.	26	26
	C - Varley Str. (S)	220	220
	D - Farnborough Rd.	20	20

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.09	9.64	0.1	0.5	A	32	48
A-BCD	0.03	4.85	0.0	0.5	A	20	30
A-B						13	20
A-C						311	466
D-ABC	0.06	7.75	0.1	0.5	A	24	36
C-ABD	0.04	5.45	0.1	0.5	A	21	32
C-D						10	15
C-A						237	355

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	26	7	0.00	480	0.055	26	0.0	0.1	8.448	A
A-BCD	15	4	0.00	810	0.018	15	0.0	0.0	4.850	A
A-B	11	3	0.00			11				
A-C	256	64	0.00			256				
D-ABC	20	5	0.00	542	0.036	19	0.0	0.0	7.157	A
C-ABD	16	4	0.00	718	0.022	16	0.0	0.0	5.455	A
C-D	8	2	0.00			8				
C-A	196	49	0.00			196				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	31	8	0.00	462	0.068	31	0.1	0.1	8.913	A
A-BCD	19	5	0.00	836	0.023	19	0.0	0.0	4.719	A
A-B	13	3	0.00			13				
A-C	305	76	0.00			305				
D-ABC	23	6	0.00	530	0.044	23	0.0	0.0	7.393	A
C-ABD	20	5	0.00	735	0.028	20	0.0	0.0	5.357	A
C-D	10	2	0.00			10				
C-A	232	58	0.00			232				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	39	10	0.00	436	0.088	38	0.1	0.1	9.635	A
A-BCD	26	7	0.00	872	0.030	26	0.0	0.0	4.544	A
A-B	16	4	0.00			16				
A-C	370	93	0.00			370				
D-ABC	29	7	0.00	512	0.056	29	0.0	0.1	7.744	A
C-ABD	28	7	0.00	758	0.037	28	0.0	0.1	5.223	A
C-D	12	3	0.00			12				
C-A	282	71	0.00			282				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	39	10	0.00	436	0.088	39	0.1	0.1	9.640	A
A-BCD	26	7	0.00	872	0.030	26	0.0	0.0	4.540	A
A-B	16	4	0.00			16				
A-C	370	93	0.00			370				
D-ABC	29	7	0.00	512	0.056	29	0.1	0.1	7.746	A
C-ABD	28	7	0.00	758	0.037	28	0.1	0.1	5.216	A
C-D	12	3	0.00			12				
C-A	282	71	0.00			282				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	31	8	0.00	462	0.068	32	0.1	0.1	8.919	A
A-BCD	19	5	0.00	836	0.023	19	0.0	0.0	4.705	A
A-B	13	3	0.00			13				
A-C	305	76	0.00			305				
D-ABC	23	6	0.00	530	0.044	23	0.1	0.0	7.395	A
C-ABD	20	5	0.00	735	0.028	21	0.1	0.0	5.343	A
C-D	10	2	0.00			10				
C-A	232	58	0.00			232				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	26	7	0.00	480	0.055	26	0.1	0.1	8.462	A
A-BCD	15	4	0.00	810	0.018	15	0.0	0.0	4.846	A
A-B	11	3	0.00			11				
A-C	256	64	0.00			256				
D-ABC	20	5	0.00	542	0.036	20	0.0	0.0	7.162	A
C-ABD	16	4	0.00	718	0.022	16	0.0	0.0	5.448	A
C-D	8	2	0.00			8				
C-A	196	49	0.00			196				

Queue Variation Results for each time segment

07:45 - 08:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.06	0.00	0.00	0.06	0.06			N/A	N/A
A-BCD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
D-ABC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-ABD	0.03	0.00	0.00	0.03	0.03			N/A	N/A

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.08	0.03	0.27	0.48	0.51			N/A	N/A
A-BCD	0.03	0.03	0.27	0.48	0.51			N/A	N/A
D-ABC	0.05	0.03	0.26	0.47	0.50			N/A	N/A
C-ABD	0.04	0.03	0.27	0.48	0.51			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.10	0.03	0.28	0.50	0.53			N/A	N/A
A-BCD	0.04	0.00	0.00	0.04	0.04			N/A	N/A
D-ABC	0.06	0.03	0.27	0.48	0.51			N/A	N/A
C-ABD	0.05	0.03	0.27	0.48	0.50			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.10	0.03	0.27	0.48	0.51			N/A	N/A
A-BCD	0.04	0.00	0.00	0.04	0.04			N/A	N/A
D-ABC	0.06	0.00	0.00	0.06	0.06			N/A	N/A
C-ABD	0.05	0.00	0.00	0.05	0.05			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.08	0.00	0.00	0.08	0.08			N/A	N/A
A-BCD	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-ABC	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C-ABD	0.04	0.00	0.00	0.04	0.04			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.06	0.00	0.00	0.06	0.06			N/A	N/A
A-BCD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
D-ABC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-ABD	0.03	0.00	0.00	0.03	0.03			N/A	N/A

2031 | Base | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue Variations cannot be calculated for crossroads.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	Rosewell Av / Varley Str / Farnborough Rd	Crossroads	Two-way	Two-way	Two-way	Two-way		1.01	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.01	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2031	Base	PM	ONE HOUR	15:45	17:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Varley Str. (N)		ONE HOUR	✓	304	100.000
B - Rosewell Av.		ONE HOUR	✓	37	100.000
C - Varley Str. (S)		ONE HOUR	✓	447	100.000
D - Farnborough Rd.		ONE HOUR	✓	29	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	0	9	280	15
	B - Rosewell Av.	18	0	17	2
	C - Varley Str. (S)	418	12	0	17
	D - Farnborough Rd.	17	1	11	0

Proportions

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	0.00	0.03	0.92	0.05
	B - Rosewell Av.	0.49	0.00	0.46	0.05
	C - Varley Str. (S)	0.94	0.03	0.00	0.04
	D - Farnborough Rd.	0.59	0.03	0.38	0.00

Vehicle Mix

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

Heavy Vehicle %

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	0	0	3	0
	B - Rosewell Av.	13	0	0	0
	C - Varley Str. (S)	3	10	0	0
	D - Farnborough Rd.	0	0	0	0

Average PCU Per Veh

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	1.000	1.000	1.030	1.000
	B - Rosewell Av.	1.130	1.000	1.000	1.000
	C - Varley Str. (S)	1.030	1.100	1.000	1.000
	D - Farnborough Rd.	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
15:45-16:00	A - Varley Str. (N)	229	229
	B - Rosewell Av.	28	28
	C - Varley Str. (S)	337	337
	D - Farnborough Rd.	22	22
16:00-16:15	A - Varley Str. (N)	273	273
	B - Rosewell Av.	33	33
	C - Varley Str. (S)	402	402
	D - Farnborough Rd.	26	26
16:15-16:30	A - Varley Str. (N)	335	335
	B - Rosewell Av.	41	41
	C - Varley Str. (S)	492	492
	D - Farnborough Rd.	32	32
16:30-16:45	A - Varley Str. (N)	335	335
	B - Rosewell Av.	41	41
	C - Varley Str. (S)	492	492
	D - Farnborough Rd.	32	32
16:45-17:00	A - Varley Str. (N)	273	273
	B - Rosewell Av.	33	33
	C - Varley Str. (S)	402	402
	D - Farnborough Rd.	26	26
17:00-17:15	A - Varley Str. (N)	229	229
	B - Rosewell Av.	28	28
	C - Varley Str. (S)	337	337
	D - Farnborough Rd.	22	22

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.09	9.26	0.1	0.5	A	34	51
A-BCD	0.04	4.95	0.0	0.5	A	21	32
A-B						8	12
A-C						250	374
D-ABC	0.07	8.88	0.1	0.5	A	27	40
C-ABD	0.03	4.85	0.0	0.5	A	21	32
C-D						15	23
C-A						374	560

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	28	7	0.00	495	0.056	28	0.0	0.1	8.147	A
A-BCD	16	4	0.00	749	0.021	16	0.0	0.0	4.949	A
A-B	7	2	0.00			7				
A-C	206	52	0.00			206				
D-ABC	22	5	0.00	483	0.045	22	0.0	0.0	7.798	A
C-ABD	15	4	0.00	809	0.019	15	0.0	0.0	4.850	A
C-D	13	3	0.00			13				
C-A	309	77	0.00			309				

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	33	8	0.00	478	0.070	33	0.1	0.1	8.581	A
A-BCD	20	5	0.00	763	0.027	20	0.0	0.0	4.891	A
A-B	8	2	0.00			8				
A-C	245	61	0.00			245				
D-ABC	26	7	0.00	464	0.056	26	0.0	0.1	8.218	A
C-ABD	20	5	0.00	844	0.024	20	0.0	0.0	4.665	A
C-D	15	4	0.00			15				
C-A	367	92	0.00			367				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	41	10	0.00	453	0.090	41	0.1	0.1	9.256	A
A-BCD	28	7	0.00	784	0.036	28	0.0	0.0	4.814	A
A-B	10	2	0.00			10				
A-C	297	74	0.00			297				
D-ABC	32	8	0.00	437	0.073	32	0.1	0.1	8.878	A
C-ABD	29	7	0.00	893	0.032	29	0.0	0.0	4.426	A
C-D	18	5	0.00			18				
C-A	445	111	0.00			445				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	41	10	0.00	452	0.090	41	0.1	0.1	9.261	A
A-BCD	28	7	0.00	784	0.036	28	0.0	0.0	4.820	A
A-B	10	2	0.00			10				
A-C	297	74	0.00			297				
D-ABC	32	8	0.00	437	0.073	32	0.1	0.1	8.880	A
C-ABD	29	7	0.00	893	0.032	29	0.0	0.0	4.419	A
C-D	18	5	0.00			18				
C-A	445	111	0.00			445				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	33	8	0.00	478	0.070	33	0.1	0.1	8.587	A
A-BCD	21	5	0.00	763	0.027	21	0.0	0.0	4.900	A
A-B	8	2	0.00			8				
A-C	245	61	0.00			245				
D-ABC	26	7	0.00	464	0.056	26	0.1	0.1	8.223	A
C-ABD	20	5	0.00	844	0.024	20	0.0	0.0	4.646	A
C-D	15	4	0.00			15				
C-A	367	92	0.00			367				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	28	7	0.00	495	0.056	28	0.1	0.1	8.160	A
A-BCD	16	4	0.00	749	0.021	16	0.0	0.0	4.954	A
A-B	7	2	0.00			7				
A-C	206	52	0.00			206				
D-ABC	22	5	0.00	483	0.045	22	0.1	0.0	7.809	A
C-ABD	15	4	0.00	809	0.019	15	0.0	0.0	4.839	A
C-D	13	3	0.00			13				
C-A	309	77	0.00			309				

Queue Variation Results for each time segment

15:45 - 16:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.06	0.00	0.00	0.06	0.06			N/A	N/A
A-BCD	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-ABC	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C-ABD	0.02	0.00	0.00	0.02	0.02			N/A	N/A

16:00 - 16:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.08	0.03	0.27	0.48	0.51			N/A	N/A
A-BCD	0.03	0.03	0.25	0.46	0.48			N/A	N/A
D-ABC	0.06	0.03	0.25	0.45	0.48			N/A	N/A
C-ABD	0.03	0.03	0.27	0.48	0.51			N/A	N/A

16:15 - 16:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.10	0.03	0.28	0.50	0.52			N/A	N/A
A-BCD	0.05	0.03	0.25	0.46	0.48			N/A	N/A
D-ABC	0.08	0.03	0.26	0.47	0.49			N/A	N/A
C-ABD	0.04	0.00	0.00	0.04	0.04			N/A	N/A

16:30 - 16:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.10	0.03	0.26	0.48	0.50			N/A	N/A
A-BCD	0.05	0.00	0.00	0.05	0.05			N/A	N/A
D-ABC	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C-ABD	0.05	0.00	0.00	0.05	0.05			N/A	N/A

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.08	0.00	0.00	0.08	0.08			N/A	N/A
A-BCD	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-ABC	0.06	0.00	0.00	0.06	0.06			N/A	N/A
C-ABD	0.03	0.00	0.00	0.03	0.03			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.06	0.00	0.00	0.06	0.06			N/A	N/A
A-BCD	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-ABC	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C-ABD	0.02	0.00	0.00	0.02	0.02			N/A	N/A

2031 | Base + Dev | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue Variations cannot be calculated for crossroads.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	Rosewell Av / Varley Str / Farnborough Rd	Crossroads	Two-way	Two-way	Two-way	Two-way		1.49	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.49	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2031	Base + Dev	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Varley Str. (N)		ONE HOUR	✓	389	100.000
B - Rosewell Av.		ONE HOUR	✓	64	100.000
C - Varley Str. (S)		ONE HOUR	✓	298	100.000
D - Farnborough Rd.		ONE HOUR	✓	26	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	0	24	352	13
	B - Rosewell Av.	39	0	22	3
	C - Varley Str. (S)	268	19	0	11
	D - Farnborough Rd.	20	3	3	0

Proportions

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	0.00	0.06	0.90	0.03
	B - Rosewell Av.	0.61	0.00	0.34	0.05
	C - Varley Str. (S)	0.90	0.06	0.00	0.04
	D - Farnborough Rd.	0.77	0.12	0.12	0.00

Vehicle Mix

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

Heavy Vehicle %

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	0	0	4	9
	B - Rosewell Av.	6	0	9	0
	C - Varley Str. (S)	3	8	0	0
	D - Farnborough Rd.	0	50	0	0

Average PCU Per Veh

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	1.000	1.000	1.040	1.090
	B - Rosewell Av.	1.060	1.000	1.090	1.000
	C - Varley Str. (S)	1.030	1.080	1.000	1.000
	D - Farnborough Rd.	1.000	1.500	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
07:45-08:00	A - Varley Str. (N)	293	293
	B - Rosewell Av.	48	48
	C - Varley Str. (S)	224	224
	D - Farnborough Rd.	20	20
08:00-08:15	A - Varley Str. (N)	350	350
	B - Rosewell Av.	58	58
	C - Varley Str. (S)	268	268
	D - Farnborough Rd.	23	23
08:15-08:30	A - Varley Str. (N)	428	428
	B - Rosewell Av.	70	70
	C - Varley Str. (S)	328	328
	D - Farnborough Rd.	29	29
08:30-08:45	A - Varley Str. (N)	428	428
	B - Rosewell Av.	70	70
	C - Varley Str. (S)	328	328
	D - Farnborough Rd.	29	29
08:45-09:00	A - Varley Str. (N)	350	350
	B - Rosewell Av.	58	58
	C - Varley Str. (S)	268	268
	D - Farnborough Rd.	23	23
09:00-09:15	A - Varley Str. (N)	293	293
	B - Rosewell Av.	48	48
	C - Varley Str. (S)	224	224
	D - Farnborough Rd.	20	20

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.16	10.75	0.2	0.6	B	59	88
A-BCD	0.03	4.81	0.0	0.5	A	21	31
A-B						21	32
A-C						315	472
D-ABC	0.06	7.79	0.1	0.5	A	24	36
C-ABD	0.05	5.50	0.1	0.5	A	27	41
C-D						10	15
C-A						237	355

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	48	12	0.00	473	0.102	48	0.0	0.1	9.028	A
A-BCD	15	4	0.00	816	0.018	15	0.0	0.0	4.814	A
A-B	18	4	0.00			18				
A-C	260	65	0.00			260				
D-ABC	20	5	0.00	541	0.036	19	0.0	0.0	7.179	A
C-ABD	20	5	0.00	717	0.028	20	0.0	0.0	5.497	A
C-D	8	2	0.00			8				
C-A	196	49	0.00			196				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	58	14	0.00	454	0.127	57	0.1	0.2	9.685	A
A-BCD	20	5	0.00	842	0.023	20	0.0	0.0	4.678	A
A-B	21	5	0.00			21				
A-C	309	77	0.00			309				
D-ABC	23	6	0.00	528	0.044	23	0.0	0.0	7.422	A
C-ABD	26	7	0.00	733	0.035	26	0.0	0.1	5.408	A
C-D	10	2	0.00			10				
C-A	232	58	0.00			232				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	70	18	0.00	428	0.165	70	0.2	0.2	10.738	B
A-BCD	27	7	0.00	880	0.031	27	0.0	0.0	4.498	A
A-B	26	6	0.00			26				
A-C	376	94	0.00			376				
D-ABC	29	7	0.00	509	0.056	29	0.0	0.1	7.785	A
C-ABD	35	9	0.00	757	0.047	35	0.1	0.1	5.287	A
C-D	12	3	0.00			12				
C-A	281	70	0.00			281				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	70	18	0.00	428	0.165	70	0.2	0.2	10.752	B
A-BCD	27	7	0.00	880	0.031	27	0.0	0.0	4.491	A
A-B	26	6	0.00			26				
A-C	376	94	0.00			376				
D-ABC	29	7	0.00	509	0.056	29	0.1	0.1	7.787	A
C-ABD	35	9	0.00	757	0.047	35	0.1	0.1	5.281	A
C-D	12	3	0.00			12				
C-A	281	70	0.00			281				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	58	14	0.00	454	0.127	58	0.2	0.2	9.704	A
A-BCD	20	5	0.00	842	0.023	20	0.0	0.0	4.664	A
A-B	21	5	0.00			21				
A-C	309	77	0.00			309				
D-ABC	23	6	0.00	528	0.044	23	0.1	0.0	7.424	A
C-ABD	26	7	0.00	734	0.036	26	0.1	0.1	5.396	A
C-D	10	2	0.00			10				
C-A	232	58	0.00			232				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	48	12	0.00	473	0.102	48	0.2	0.1	9.057	A
A-BCD	15	4	0.00	816	0.018	15	0.0	0.0	4.809	A
A-B	18	4	0.00			18				
A-C	260	65	0.00			260				
D-ABC	20	5	0.00	541	0.036	20	0.0	0.0	7.184	A
C-ABD	20	5	0.00	717	0.028	20	0.1	0.0	5.492	A
C-D	8	2	0.00			8				
C-A	196	49	0.00			196				

Queue Variation Results for each time segment

07:45 - 08:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.12	0.00	0.00	0.12	0.12			N/A	N/A
A-BCD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
D-ABC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-ABD	0.04	0.00	0.00	0.04	0.04			N/A	N/A

08:00 - 08:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.15	0.00	0.00	0.15	0.15			N/A	N/A
A-BCD	0.03	0.03	0.27	0.48	0.51			N/A	N/A
D-ABC	0.05	0.03	0.26	0.47	0.50			N/A	N/A
C-ABD	0.05	0.03	0.27	0.48	0.51			N/A	N/A

08:15 - 08:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.21	0.03	0.28	0.50	0.52			N/A	N/A
A-BCD	0.04	0.00	0.00	0.04	0.04			N/A	N/A
D-ABC	0.06	0.03	0.27	0.48	0.51			N/A	N/A
C-ABD	0.07	0.03	0.27	0.49	0.52			N/A	N/A

08:30 - 08:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.21	0.03	0.28	0.51	0.64			N/A	N/A
A-BCD	0.04	0.00	0.00	0.04	0.04			N/A	N/A
D-ABC	0.06	0.00	0.00	0.06	0.06			N/A	N/A
C-ABD	0.07	0.00	0.00	0.07	0.07			N/A	N/A

08:45 - 09:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.16	0.00	0.00	0.16	0.16			N/A	N/A
A-BCD	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-ABC	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C-ABD	0.05	0.00	0.00	0.05	0.05			N/A	N/A

09:00 - 09:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.12	0.00	0.00	0.12	0.12			N/A	N/A
A-BCD	0.02	0.00	0.00	0.02	0.02			N/A	N/A
D-ABC	0.04	0.00	0.00	0.04	0.04			N/A	N/A
C-ABD	0.04	0.00	0.00	0.04	0.04			N/A	N/A

2031 | Base + Dev | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue Variations cannot be calculated for crossroads.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

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	Rosewell Av / Varley Str / Farnborough Rd	Crossroads	Two-way	Two-way	Two-way	Two-way		1.42	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.42	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2031	Base + Dev	PM	ONE HOUR	15:45	17:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Varley Str. (N)		ONE HOUR	✓	309	100.000
B - Rosewell Av.		ONE HOUR	✓	68	100.000
C - Varley Str. (S)		ONE HOUR	✓	447	100.000
D - Farnborough Rd.		ONE HOUR	✓	29	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	0	9	285	15
	B - Rosewell Av.	39	0	27	2
	C - Varley Str. (S)	418	12	0	17
	D - Farnborough Rd.	17	1	11	0

Proportions

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	0.00	0.03	0.92	0.05
	B - Rosewell Av.	0.57	0.00	0.40	0.03
	C - Varley Str. (S)	0.94	0.03	0.00	0.04
	D - Farnborough Rd.	0.59	0.03	0.38	0.00

Vehicle Mix

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

Heavy Vehicle %

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	0	0	3	0
	B - Rosewell Av.	13	0	0	0
	C - Varley Str. (S)	3	10	0	0
	D - Farnborough Rd.	0	0	0	0

Average PCU Per Veh

		To			
		A - Varley Str. (N)	B - Rosewell Av.	C - Varley Str. (S)	D - Farnborough Rd.
From	A - Varley Str. (N)	1.000	1.000	1.030	1.000
	B - Rosewell Av.	1.130	1.000	1.000	1.000
	C - Varley Str. (S)	1.030	1.100	1.000	1.000
	D - Farnborough Rd.	1.000	1.000	1.000	1.000

Detailed Demand Data

Demand for each time segment

Time Segment	Arm	Demand (PCU/hr)	Demand in PCU (PCU/hr)
15:45-16:00	A - Varley Str. (N)	233	233
	B - Rosewell Av.	51	51
	C - Varley Str. (S)	337	337
	D - Farnborough Rd.	22	22
16:00-16:15	A - Varley Str. (N)	278	278
	B - Rosewell Av.	61	61
	C - Varley Str. (S)	402	402
	D - Farnborough Rd.	26	26
16:15-16:30	A - Varley Str. (N)	340	340
	B - Rosewell Av.	75	75
	C - Varley Str. (S)	492	492
	D - Farnborough Rd.	32	32
16:30-16:45	A - Varley Str. (N)	340	340
	B - Rosewell Av.	75	75
	C - Varley Str. (S)	492	492
	D - Farnborough Rd.	32	32
16:45-17:00	A - Varley Str. (N)	278	278
	B - Rosewell Av.	61	61
	C - Varley Str. (S)	402	402
	D - Farnborough Rd.	26	26
17:00-17:15	A - Varley Str. (N)	233	233
	B - Rosewell Av.	51	51
	C - Varley Str. (S)	337	337
	D - Farnborough Rd.	22	22

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max 95th percentile Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.17	10.60	0.2	0.9	B	62	94
A-BCD	0.04	4.94	0.0	0.5	A	22	32
A-B						8	12
A-C						254	381
D-ABC	0.07	8.96	0.1	0.5	A	27	40
C-ABD	0.03	4.85	0.0	0.5	A	21	32
C-D						15	23
C-A						374	560

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	51	13	0.00	483	0.106	51	0.0	0.1	8.906	A
A-BCD	16	4	0.00	752	0.021	16	0.0	0.0	4.933	A
A-B	7	2	0.00			7				
A-C	210	52	0.00			210				
D-ABC	22	5	0.00	481	0.045	22	0.0	0.0	7.836	A
C-ABD	15	4	0.00	809	0.019	15	0.0	0.0	4.854	A
C-D	13	3	0.00			13				
C-A	309	77	0.00			309				

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	61	15	0.00	465	0.132	61	0.1	0.2	9.549	A
A-BCD	21	5	0.00	766	0.027	21	0.0	0.0	4.872	A
A-B	8	2	0.00			8				
A-C	249	62	0.00			249				
D-ABC	26	7	0.00	461	0.057	26	0.0	0.1	8.270	A
C-ABD	20	5	0.00	843	0.024	20	0.0	0.0	4.670	A
C-D	15	4	0.00			15				
C-A	367	92	0.00			367				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	75	19	0.00	439	0.171	75	0.2	0.2	10.582	B
A-BCD	28	7	0.00	787	0.036	28	0.0	0.0	4.792	A
A-B	10	2	0.00			10				
A-C	303	76	0.00			303				
D-ABC	32	8	0.00	434	0.074	32	0.1	0.1	8.952	A
C-ABD	29	7	0.00	892	0.032	29	0.0	0.0	4.431	A
C-D	18	5	0.00			18				
C-A	445	111	0.00			445				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	75	19	0.00	439	0.171	75	0.2	0.2	10.595	B
A-BCD	28	7	0.00	787	0.036	28	0.0	0.0	4.798	A
A-B	10	2	0.00			10				
A-C	303	76	0.00			303				
D-ABC	32	8	0.00	434	0.074	32	0.1	0.1	8.958	A
C-ABD	29	7	0.00	892	0.032	29	0.0	0.0	4.424	A
C-D	18	5	0.00			18				
C-A	445	111	0.00			445				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	61	15	0.00	464	0.132	61	0.2	0.2	9.568	A
A-BCD	21	5	0.00	766	0.027	21	0.0	0.0	4.882	A
A-B	8	2	0.00			8				
A-C	249	62	0.00			249				
D-ABC	26	7	0.00	461	0.057	26	0.1	0.1	8.276	A
C-ABD	20	5	0.00	843	0.024	20	0.0	0.0	4.651	A
C-D	15	4	0.00			15				
C-A	367	92	0.00			367				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	51	13	0.00	483	0.106	51	0.2	0.1	8.935	A
A-BCD	16	4	0.00	752	0.021	16	0.0	0.0	4.939	A
A-B	7	2	0.00			7				
A-C	210	52	0.00			210				
D-ABC	22	5	0.00	481	0.045	22	0.1	0.0	7.847	A
C-ABD	15	4	0.00	809	0.019	15	0.0	0.0	4.843	A
C-D	13	3	0.00			13				
C-A	309	77	0.00			309				

Queue Variation Results for each time segment

15:45 - 16:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.13	0.00	0.00	0.13	0.13			N/A	N/A
A-BCD	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-ABC	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C-ABD	0.02	0.00	0.00	0.02	0.02			N/A	N/A

16:00 - 16:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.16	0.00	0.00	0.16	0.16			N/A	N/A
A-BCD	0.03	0.03	0.25	0.46	0.48			N/A	N/A
D-ABC	0.06	0.03	0.25	0.45	0.48			N/A	N/A
C-ABD	0.03	0.03	0.27	0.48	0.51			N/A	N/A

16:15 - 16:30

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.22	0.03	0.28	0.50	0.52			N/A	N/A
A-BCD	0.05	0.03	0.25	0.46	0.48			N/A	N/A
D-ABC	0.08	0.03	0.26	0.47	0.49			N/A	N/A
C-ABD	0.05	0.00	0.00	0.05	0.05			N/A	N/A

16:30 - 16:45

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.22	0.03	0.29	0.52	0.87			N/A	N/A
A-BCD	0.05	0.00	0.00	0.05	0.05			N/A	N/A
D-ABC	0.08	0.00	0.00	0.08	0.08			N/A	N/A
C-ABD	0.05	0.00	0.00	0.05	0.05			N/A	N/A

16:45 - 17:00

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.16	0.00	0.00	0.16	0.16			N/A	N/A
A-BCD	0.04	0.00	0.00	0.04	0.04			N/A	N/A
D-ABC	0.06	0.00	0.00	0.06	0.06			N/A	N/A
C-ABD	0.03	0.00	0.00	0.03	0.03			N/A	N/A

17:00 - 17:15

Stream	Mean (PCU)	Q05 (PCU)	Q50 (PCU)	Q90 (PCU)	Q95 (PCU)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-ACD	0.13	0.00	0.00	0.13	0.13			N/A	N/A
A-BCD	0.03	0.00	0.00	0.03	0.03			N/A	N/A
D-ABC	0.05	0.00	0.00	0.05	0.05			N/A	N/A
C-ABD	0.02	0.00	0.00	0.02	0.02			N/A	N/A

Appendix H

A62 Oldham Road / Varley Street / Collyhurst Street

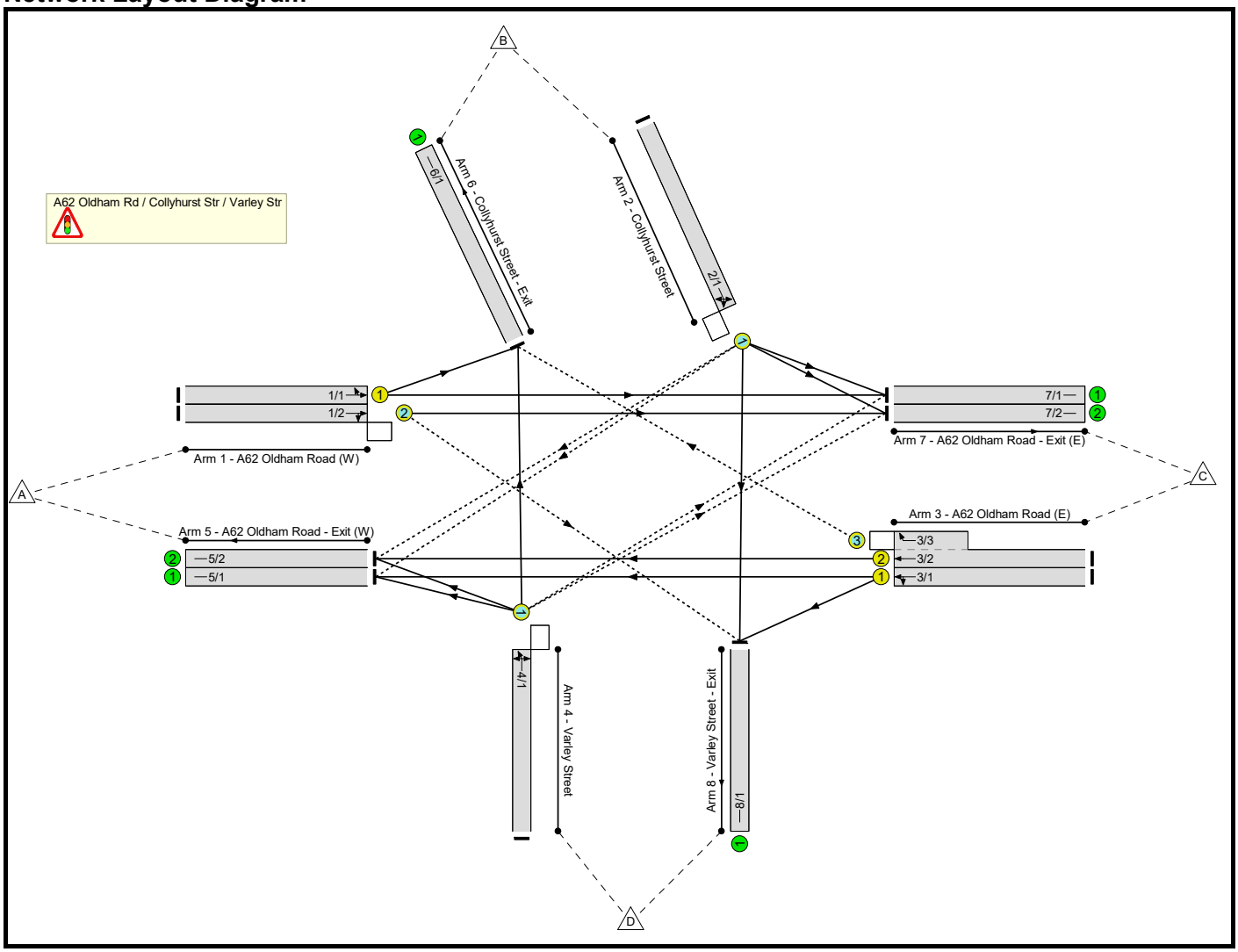
LinSig Modelling Outputs

Detailed Input Data And Results

User and Project Details

Project:	**A25047 Miles Platting, Manchester**
Title:	**A62 Oldham Rd / Collyhurst Str / Varley Str**
Location:	A62 Oldham Rd / Collyhurst Str / Varley Str, Miles Platting, Manchester
Design Layout Ref:	v1
Date Started:	01/05/2026
Date Completed:	18/05/2026
Checked By:	Mark Loveridge (ML)
Checked By Date:	18/05/2026
Additional detail:	
File name:	A62 Oldham Rd - Collyhurst Str - Varley Str.lsg3x
Author:	Genna Woods (GW)
Company:	Astute Transport Planning & Infrastructure Design
Address:	
LinSig Version:	3, 3, 0, 6

Network Layout Diagram



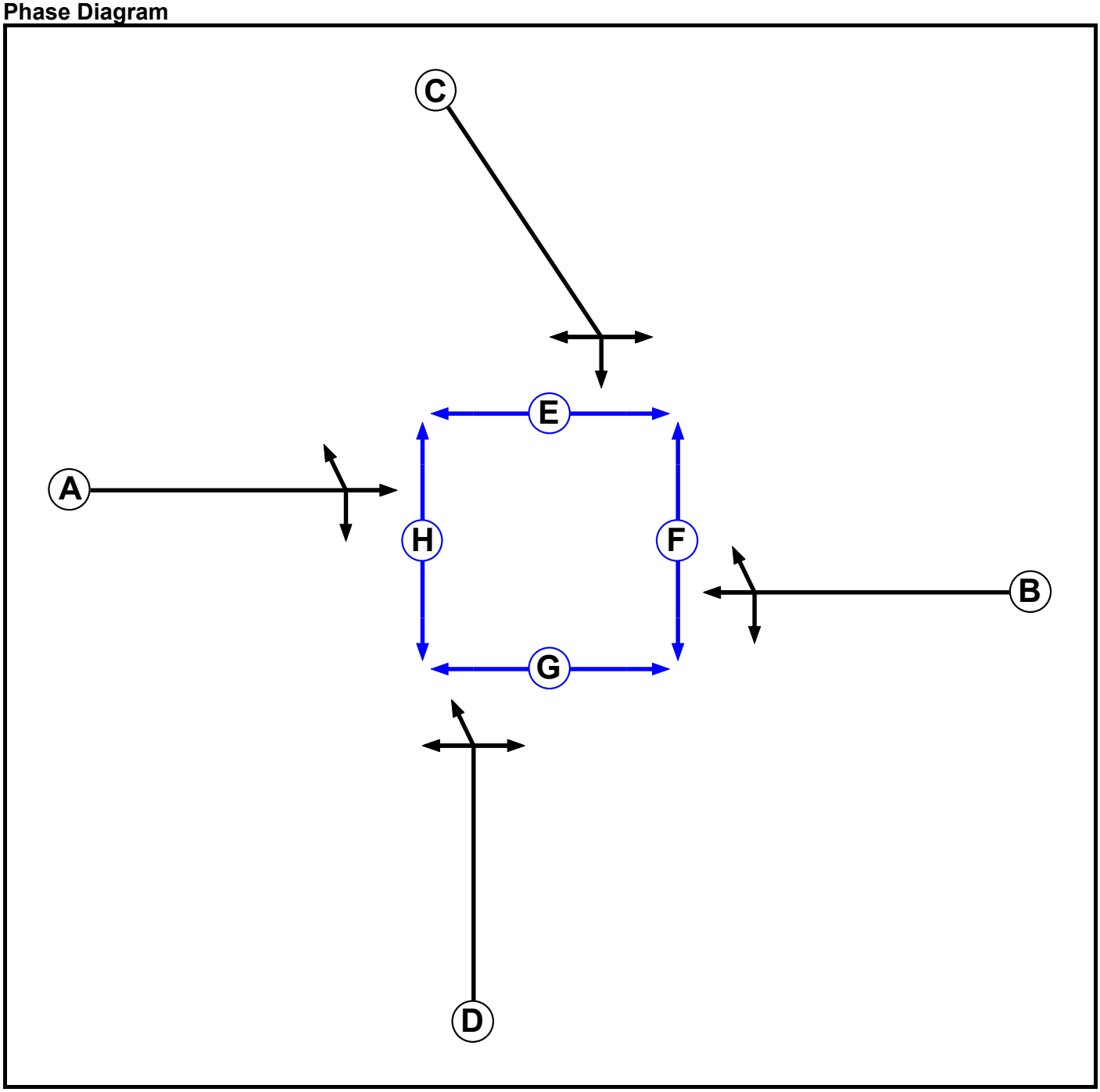
Scenarios

Number	Scenario Name	Flow Group	Network Control Plan	Time	Cycle Time (s)	PRC (%)	Delay (pcuHr)
1	2025 Survey AM	2025 Survey AM	SCOOT - Double Cycle	08:00 - 09:00	180	30.3	18.83
2	2025 Survey PM	2025 Survey PM	SCOOT - Double Cycle	16:00 - 17:00	180	43.4	19.39
3	2031 Growth AM	2031 Base AM	SCOOT - Double Cycle	08:00 - 09:00	180	15.6	23.14
4	2031 Growth PM	2031 Base PM	SCOOT - Double Cycle	16:00 - 17:00	180	30.1	22.50
5	2031 Growth + Dev AM	2031 Base + Dev AM	SCOOT - Double Cycle	08:00 - 09:00	180	12.5	25.69
6	2031 Growth + Dev PM	2031 Base + Dev PM	SCOOT - Double Cycle	16:00 - 17:00	180	26.0	23.45

Controller Summary

Controller	Type	SCN	Stage Stream	Num Phases	Num Stages	Controls Junctions	Controller Notes
C1	Gen		Stage Stream 1	8	3	A62 Oldham Rd / Collyhurst Str / Varley Str	

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Pedestrian		10	10
F	Pedestrian		10	10
G	Pedestrian		6	6
H	Pedestrian		10	10

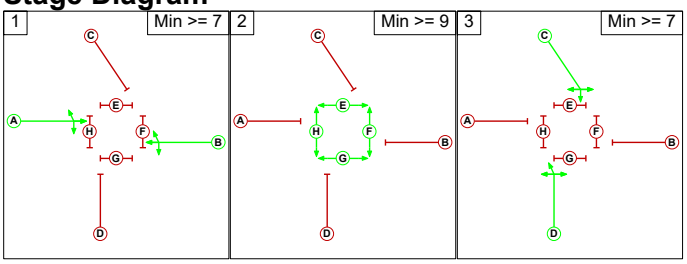
Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H
A		-	6	8	8	9	11	5
B	-		6	6	10	5	8	9
C	5	6		-	5	8	9	11
D	6	6	-		9	10	5	9
E	8	8	7	7		-	-	-
F	8	8	8	8	-		-	-
G	9	9	9	9	-	-		-
H	8	8	8	8	-	-	-	

Phases in Stage

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

Stage Diagram



Phase Delays

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

Prohibited Stage Change

	To Stage			
From Stage		1	2	3
	1		11	8
	2	9		9
	3	6	11	

Lane Input Data

Junction: A62 Oldham Rd / Collyhurst Str / Varley Str												
Lane	**Lane Type**	**Phases**	**Start Disp. (s)**	**End Disp. (s)**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient (%)**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
1/1 (A62 Oldham Road (W))	U	A	2	3	78.3	Geom	-	3.50	0.00	Y	Arm 6 Left	Inf
											Arm 7 Ahead	Inf
1/2 (A62 Oldham Road (W))	O	A	2	3	78.3	Geom	-	3.50	0.00	N	Arm 7 Ahead	Inf
											Arm 8 Right	Inf
2/1 (Collyhurst Street)	O	C	2	3	40.0	Geom	-	2.75	0.00	Y	Arm 5 Right	Inf
											Arm 7 Left	Inf
											Arm 8 Ahead	Inf
3/1 (A62 Oldham Road (E))	U	B	2	3	52.2	Geom	-	3.00	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	Inf
3/2 (A62 Oldham Road (E))	U	B	2	3	52.2	Geom	-	3.00	0.00	N	Arm 5 Ahead	Inf
3/3 (A62 Oldham Road (E))	O	B	2	3	6.1	Geom	-	3.00	0.00	N	Arm 6 Right	Inf
4/1 (Varley Street)	O	D	2	3	15.7	Geom	-	3.00	0.00	Y	Arm 5 Left	Inf
											Arm 6 Ahead	Inf
											Arm 7 Right	Inf
5/1 (A62 Oldham Road - Exit (W))	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2 (A62 Oldham Road - Exit (W))	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Collyhurst Street - Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (A62 Oldham Road - Exit (E))	U		2	3	60.0	Inf	-	-	-	-	-	-

7/2 (A62 Oldham Road - Exit (E))	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (Varley Street - Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Give-Way Lane Input Data

Junction: A62 Oldham Rd / Collyhurst Str / Varley Str

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/2 (A62 Oldham Road (W))	8/1 (Right)	1439	0	3/1	1.09	All	2.00	2.00	0.50	2	2.00
				3/2	1.09	All					
				3/3	1.09	All					
2/1 (Collyhurst Street)	5/1 (Right)	1439	0	4/1	1.09	To 5/1 (Left) To 5/2 (Left) To 6/1 (Ahead)	2.00	2.00	0.50	2	2.00
	5/2 (Right)	1439	0	4/1	1.09	To 5/1 (Left) To 6/1 (Ahead)					
3/3 (A62 Oldham Road (E))	6/1 (Right)	1439	0	1/1	1.09	To 7/1 (Ahead)	2.00	-	0.50	2	2.00
				1/2	1.09	All					
4/1 (Varley Street)	7/1 (Right)	1439	0	2/1	1.09	To 7/1 (Left) To 7/2 (Left) To 8/1 (Ahead)	2.00	2.00	0.50	2	2.00
	7/2 (Right)	1439	0	2/1	1.09	To 7/1 (Left) To 7/2 (Left) To 8/1 (Ahead)					

Lane Connector Input Data

Junction: A62 Oldham Rd / Collyhurst Str / Varley Str				
Org Lane	Dest Lane	Junction	Modelled Mean Cruise Time (s)	Platoon Dispersion
1/1	6/1	Internal	5	35
1/1	7/1	Internal	5	35
1/2	7/2	Internal	5	35
1/2	8/1	Internal	5	35
2/1	5/1	Internal	5	35
2/1	5/2	Internal	5	35
2/1	7/1	Internal	5	35
2/1	7/2	Internal	5	35
2/1	8/1	Internal	5	35
3/1	5/1	Internal	5	35
3/1	8/1	Internal	5	35
3/2	5/2	Internal	5	35
3/3	6/1	Internal	5	35
4/1	5/1	Internal	5	35
4/1	5/2	Internal	5	35
4/1	6/1	Internal	5	35
4/1	7/1	Internal	5	35
4/1	7/2	Internal	5	35

Scenario 1: '2025 Survey AM' (FG1: '2025 Survey AM', Plan 3: 'SCOOT - Double Cycle')

Lane Saturation Flows

Junction: A62 Oldham Rd / Collyhurst Str / Varley Str

Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A62 Oldham Road (W))	3.50	0.00	Y	Arm 6 Left	Inf	17.7 %	1965	1965
				Arm 7 Ahead	Inf	82.3 %		
1/2 (A62 Oldham Road (W))	3.50	0.00	N	Arm 7 Ahead	Inf	95.7 %	2105	2105
				Arm 8 Right	Inf	4.3 %		
2/1 (Collyhurst Street)	2.75	0.00	Y	Arm 5 Right	Inf	25.6 %	1890	1890
				Arm 7 Left	Inf	16.7 %		
				Arm 8 Ahead	Inf	57.6 %		
3/1 (A62 Oldham Road (E))	3.00	0.00	Y	Arm 5 Ahead	Inf	81.6 %	1915	1915
				Arm 8 Left	Inf	18.4 %		
3/2 (A62 Oldham Road (E))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A62 Oldham Road (E))	3.00	0.00	N	Arm 6 Right	Inf	100.0 %	2055	2055
4/1 (Varley Street)	3.00	0.00	Y	Arm 5 Left	Inf	5.7 %	1915	1915
				Arm 6 Ahead	Inf	55.0 %		
				Arm 7 Right	Inf	39.4 %		
5/1 (A62 Oldham Road - Exit (W) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A62 Oldham Road - Exit (W) Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Collyhurst Street - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A62 Oldham Road - Exit (E) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A62 Oldham Road - Exit (E) Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Varley Street - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 1

Scenario 2: '2025 Survey PM' (FG2: '2025 Survey PM', Plan 3: 'SCOOT - Double Cycle')

Lane Saturation Flows

Junction: A62 Oldham Rd / Collyhurst Str / Varley Str

Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A62 Oldham Road (W))	3.50	0.00	Y	Arm 6 Left	Inf	25.8 %	1965	1965
				Arm 7 Ahead	Inf	74.2 %		
1/2 (A62 Oldham Road (W))	3.50	0.00	N	Arm 7 Ahead	Inf	94.5 %	2105	2105
				Arm 8 Right	Inf	5.5 %		
2/1 (Collyhurst Street)	2.75	0.00	Y	Arm 5 Right	Inf	17.8 %	1890	1890
				Arm 7 Left	Inf	27.0 %		
				Arm 8 Ahead	Inf	55.1 %		
3/1 (A62 Oldham Road (E))	3.00	0.00	Y	Arm 5 Ahead	Inf	82.5 %	1915	1915
				Arm 8 Left	Inf	17.5 %		
3/2 (A62 Oldham Road (E))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A62 Oldham Road (E))	3.00	0.00	N	Arm 6 Right	Inf	100.0 %	2055	2055
4/1 (Varley Street)	3.00	0.00	Y	Arm 5 Left	Inf	4.3 %	1915	1915
				Arm 6 Ahead	Inf	59.7 %		
				Arm 7 Right	Inf	36.0 %		
5/1 (A62 Oldham Road - Exit (W) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A62 Oldham Road - Exit (W) Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Collyhurst Street - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A62 Oldham Road - Exit (E) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A62 Oldham Road - Exit (E) Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Varley Street - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 2

Scenario 3: '2031 Growth AM' (FG3: '2031 Base AM', Plan 3: 'SCOOT - Double Cycle')

Lane Saturation Flows

Junction: A62 Oldham Rd / Collyhurst Str / Varley Str

Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A62 Oldham Road (W))	3.50	0.00	Y	Arm 6 Left	Inf	17.2 %	1965	1965
				Arm 7 Ahead	Inf	82.8 %		
1/2 (A62 Oldham Road (W))	3.50	0.00	N	Arm 7 Ahead	Inf	95.6 %	2105	2105
				Arm 8 Right	Inf	4.4 %		
2/1 (Collyhurst Street)	2.75	0.00	Y	Arm 5 Right	Inf	25.6 %	1890	1890
				Arm 7 Left	Inf	16.7 %		
				Arm 8 Ahead	Inf	57.7 %		
3/1 (A62 Oldham Road (E))	3.00	0.00	Y	Arm 5 Ahead	Inf	81.5 %	1915	1915
				Arm 8 Left	Inf	18.5 %		
3/2 (A62 Oldham Road (E))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A62 Oldham Road (E))	3.00	0.00	N	Arm 6 Right	Inf	100.0 %	2055	2055
4/1 (Varley Street)	3.00	0.00	Y	Arm 5 Left	Inf	5.5 %	1915	1915
				Arm 6 Ahead	Inf	55.0 %		
				Arm 7 Right	Inf	39.4 %		
5/1 (A62 Oldham Road - Exit (W) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A62 Oldham Road - Exit (W) Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Collyhurst Street - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A62 Oldham Road - Exit (E) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A62 Oldham Road - Exit (E) Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Varley Street - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 3

Scenario 4: '2031 Growth PM' (FG4: '2031 Base PM', Plan 3: 'SCOOT - Double Cycle')

Lane Saturation Flows

Junction: A62 Oldham Rd / Collyhurst Str / Varley Str

Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A62 Oldham Road (W))	3.50	0.00	Y	Arm 6 Left	Inf	25.8 %	1965	1965
				Arm 7 Ahead	Inf	74.2 %		
1/2 (A62 Oldham Road (W))	3.50	0.00	N	Arm 7 Ahead	Inf	94.5 %	2105	2105
				Arm 8 Right	Inf	5.5 %		
2/1 (Collyhurst Street)	2.75	0.00	Y	Arm 5 Right	Inf	17.9 %	1890	1890
				Arm 7 Left	Inf	27.1 %		
				Arm 8 Ahead	Inf	55.0 %		
3/1 (A62 Oldham Road (E))	3.00	0.00	Y	Arm 5 Ahead	Inf	82.4 %	1915	1915
				Arm 8 Left	Inf	17.6 %		
3/2 (A62 Oldham Road (E))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A62 Oldham Road (E))	3.00	0.00	N	Arm 6 Right	Inf	100.0 %	2055	2055
4/1 (Varley Street)	3.00	0.00	Y	Arm 5 Left	Inf	4.4 %	1915	1915
				Arm 6 Ahead	Inf	59.6 %		
				Arm 7 Right	Inf	36.0 %		
5/1 (A62 Oldham Road - Exit (W) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A62 Oldham Road - Exit (W) Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Collyhurst Street - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A62 Oldham Road - Exit (E) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A62 Oldham Road - Exit (E) Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Varley Street - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 4

Scenario 5: '2031 Growth + Dev AM' (FG5: '2031 Base + Dev AM', Plan 3: 'SCOOT - Double Cycle')

Lane Saturation Flows

Junction: A62 Oldham Rd / Collyhurst Str / Varley Str

Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A62 Oldham Road (W))	3.50	0.00	Y	Arm 6 Left	Inf	12.0 %	1965	1965
				Arm 7 Ahead	Inf	88.0 %		
1/2 (A62 Oldham Road (W))	3.50	0.00	N	Arm 7 Ahead	Inf	90.6 %	2105	2105
				Arm 8 Right	Inf	9.4 %		
2/1 (Collyhurst Street)	2.75	0.00	Y	Arm 5 Right	Inf	25.3 %	1890	1890
				Arm 7 Left	Inf	17.0 %		
				Arm 8 Ahead	Inf	57.7 %		
3/1 (A62 Oldham Road (E))	3.00	0.00	Y	Arm 5 Ahead	Inf	80.8 %	1915	1915
				Arm 8 Left	Inf	19.2 %		
3/2 (A62 Oldham Road (E))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A62 Oldham Road (E))	3.00	0.00	N	Arm 6 Right	Inf	100.0 %	2055	2055
4/1 (Varley Street)	3.00	0.00	Y	Arm 5 Left	Inf	7.2 %	1915	1915
				Arm 6 Ahead	Inf	53.5 %		
				Arm 7 Right	Inf	39.3 %		
5/1 (A62 Oldham Road - Exit (W) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A62 Oldham Road - Exit (W) Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Collyhurst Street - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A62 Oldham Road - Exit (E) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A62 Oldham Road - Exit (E) Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Varley Street - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 5

Scenario 6: '2031 Growth + Dev PM' (FG6: '2031 Base + Dev PM', Plan 3: 'SCOOT - Double Cycle')

Lane Saturation Flows

Junction: A62 Oldham Rd / Collyhurst Str / Varley Str

Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A62 Oldham Road (W))	3.50	0.00	Y	Arm 6 Left	Inf	25.8 %	1965	1965
				Arm 7 Ahead	Inf	74.2 %		
1/2 (A62 Oldham Road (W))	3.50	0.00	N	Arm 7 Ahead	Inf	94.5 %	2105	2105
				Arm 8 Right	Inf	5.5 %		
2/1 (Collyhurst Street)	2.75	0.00	Y	Arm 5 Right	Inf	18.0 %	1890	1890
				Arm 7 Left	Inf	27.3 %		
				Arm 8 Ahead	Inf	54.7 %		
3/1 (A62 Oldham Road (E))	3.00	0.00	Y	Arm 5 Ahead	Inf	82.4 %	1915	1915
				Arm 8 Left	Inf	17.6 %		
3/2 (A62 Oldham Road (E))	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
3/3 (A62 Oldham Road (E))	3.00	0.00	N	Arm 6 Right	Inf	100.0 %	2055	2055
4/1 (Varley Street)	3.00	0.00	Y	Arm 5 Left	Inf	5.4 %	1915	1915
				Arm 6 Ahead	Inf	58.2 %		
				Arm 7 Right	Inf	36.3 %		
5/1 (A62 Oldham Road - Exit (W) Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A62 Oldham Road - Exit (W) Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (Collyhurst Street - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/1 (A62 Oldham Road - Exit (E) Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A62 Oldham Road - Exit (E) Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (Varley Street - Exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Bonus Green Times

No Bonus Greens are defined For Scenario 6

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2025 Survey AM'	08:00	09:00	01:00	
2: '2025 Survey PM'	16:00	17:00	01:00	
3: '2031 Base AM'	08:00	09:00	01:00	
4: '2031 Base PM'	16:00	17:00	01:00	
5: '2031 Base + Dev AM'	08:00	09:00	01:00	
6: '2031 Base + Dev PM'	16:00	17:00	01:00	

Traffic Flows, Desired

FG1: '2025 Survey AM'

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	42	459	12	513
	B	104	0	68	234	406
	C	942	147	0	94	1183
	D	16	155	111	0	282
	Tot.	1062	344	638	340	2384

FG2: '2025 Survey PM'

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	105	732	25	862
	B	66	0	100	204	370
	C	586	73	0	53	712
	D	18	250	151	0	419
	Tot.	670	428	983	282	2363

FG3: '2031 Base AM'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	46	501	13	560
	B	113	0	74	255	442
	C	1028	160	0	103	1291
	D	17	169	121	0	307
	Tot.	1158	375	696	371	2600

FG4: '2031 Base PM'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	114	794	27	935
	B	72	0	109	221	402
	C	636	79	0	58	773
	D	20	271	164	0	455
	Tot.	728	464	1067	306	2565

FG5: '2031 Base + Dev AM'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	47	501	16	564
	B	115	0	77	262	454
	C	1028	162	0	107	1297
	D	24	178	131	0	333
	Tot.	1167	387	709	385	2648

FG6: '2031 Base + Dev PM'
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	114	794	27	935
	B	74	0	112	225	411
	C	636	79	0	58	773
	D	26	279	174	0	479
	Tot.	736	472	1080	310	2598

Scenario 1: '2025 Survey AM' (FG1: '2025 Survey AM', Plan 3: 'SCOOT - Double Cycle')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	42	459	12	513
	B	104	0	68	234	406
	C	942	147	0	94	1183
	D	16	155	111	0	282
	Tot.	1062	344	638	340	2384

Traffic Flows, Difference

Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 2: '2025 Survey PM' (FG2: '2025 Survey PM', Plan 3: 'SCOOT - Double Cycle')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	105	732	25	862
	B	66	0	100	204	370
	C	586	73	0	53	712
	D	18	250	151	0	419
	Tot.	670	428	983	282	2363

Traffic Flows, Difference

Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 3: '2031 Growth AM' (FG3: '2031 Base AM', Plan 3: 'SCOOT - Double Cycle')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	46	501	13	560
	B	113	0	74	255	442
	C	1028	160	0	103	1291
	D	17	169	121	0	307
	Tot.	1158	375	696	371	2600

Traffic Flows, Difference

Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 4: '2031 Growth PM' (FG4: '2031 Base PM', Plan 3: 'SCOOT - Double Cycle')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	114	794	27	935
	B	72	0	109	221	402
	C	636	79	0	58	773
	D	20	271	164	0	455
	Tot.	728	464	1067	306	2565

Traffic Flows, Difference

Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 5: '2031 Growth + Dev AM' (FG5: '2031 Base + Dev AM', Plan 3: 'SCOOT - Double Cycle')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	47	501	16	564
	B	115	0	77	262	454
	C	1028	162	0	107	1297
	D	24	178	131	0	333
	Tot.	1167	387	709	385	2648

Traffic Flows, Difference

Difference :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Scenario 6: '2031 Growth + Dev PM' (FG6: '2031 Base + Dev PM', Plan 3: 'SCOOT - Double Cycle')

Traffic Flows, Actual

Actual Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	114	794	27	935
	B	74	0	112	225	411
	C	636	79	0	58	773
	D	26	279	174	0	479
	Tot.	736	472	1080	310	2598

Traffic Flows, Difference

Difference :

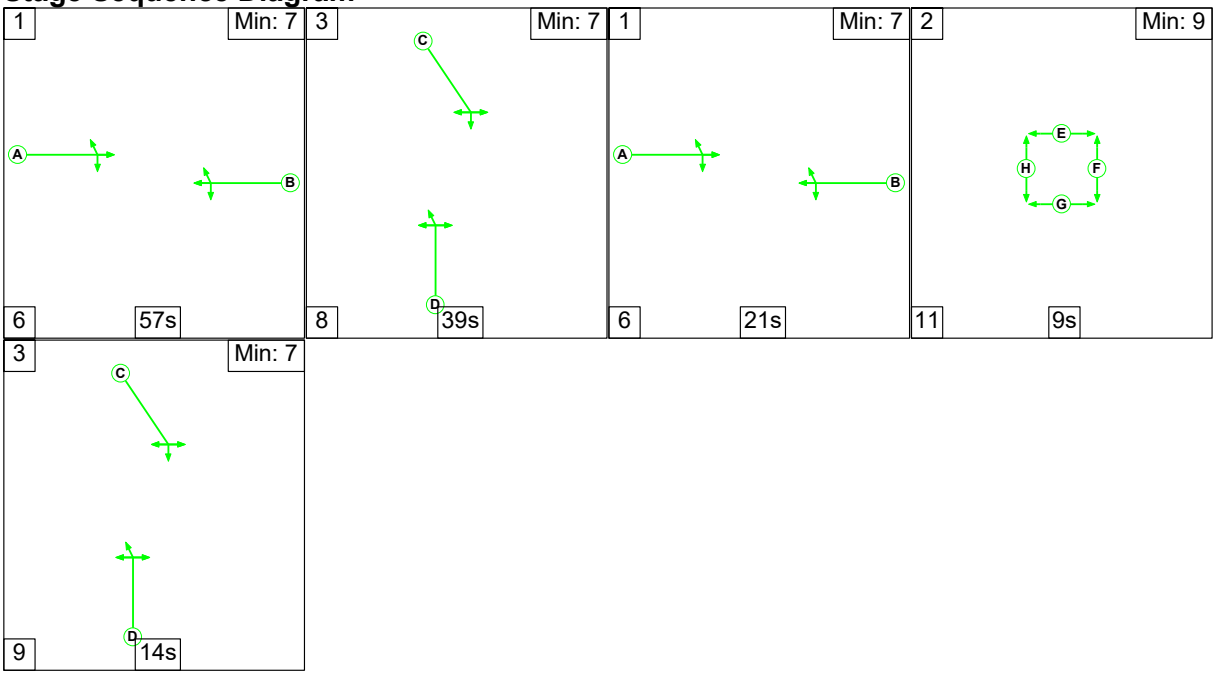
		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	0	0	0
	B	0	0	0	0	0
	C	0	0	0	0	0
	D	0	0	0	0	0
	Tot.	0	0	0	0	0

Traffic Lane Flows

Lane	Scenario 1: 2025 Survey AM	Scenario 2: 2025 Survey PM	Scenario 3: 2031 Growth AM	Scenario 4: 2031 Growth PM	Scenario 5: 2031 Growth + Dev AM	Scenario 6: 2031 Growth + Dev PM
Junction: A62 Oldham Rd / Collyhurst Str / Varley Str						
1/1	237	407	267	442	393	442
1/2	276	455	293	493	171	493
2/1	406	370	442	402	454	411
3/1	511	303	556	330	557	330
3/2 (with short)	672(In) 525(Out)	409(In) 336(Out)	735(In) 575(Out)	443(In) 364(Out)	740(In) 578(Out)	443(In) 364(Out)
3/3 (short)	147	73	160	79	162	79
4/1	282	419	307	455	333	479
5/1	477	292	517	318	519	322
5/2	585	378	641	410	648	414
6/1	344	428	375	464	387	472
7/1	285	428	319	464	450	471
7/2	353	555	377	603	259	609
8/1	340	282	371	306	385	310

Scenario 1: '2025 Survey AM' (FG1: '2025 Survey AM', Plan 3: 'SCOOT - Double Cycle')

Stage Sequence Diagram



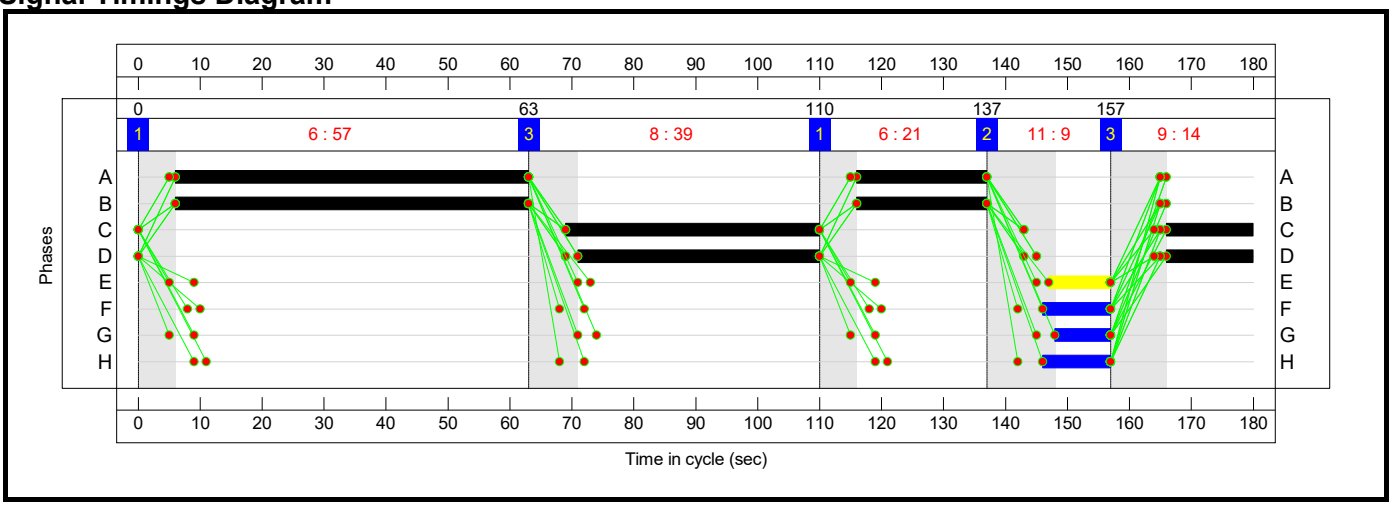
Stage Timings

Stage	1	3	1	2	3
Duration	57	39	21	9	14
Change Point	0	63	110	137	157

Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A62 Oldham Road (W) Left Ahead Right	Traffic	57	6	63	21	116	137
B	A62 Oldham Road (E) Ahead Right Left	Traffic	57	6	63	21	116	137
C	Collyhurst Street Right Left Ahead	Traffic	41	69	110	14	166	0
D	Varley Street Left Ahead Right	Traffic	39	71	110	14	166	0
E	Pedestrians across	Pedestrian	10	147	157			
F	Pedestrians across	Pedestrian	11	146	157			
G	Pedestrians across	Pedestrian	9	148	157			
H	Pedestrians across	Pedestrian	11	146	157			

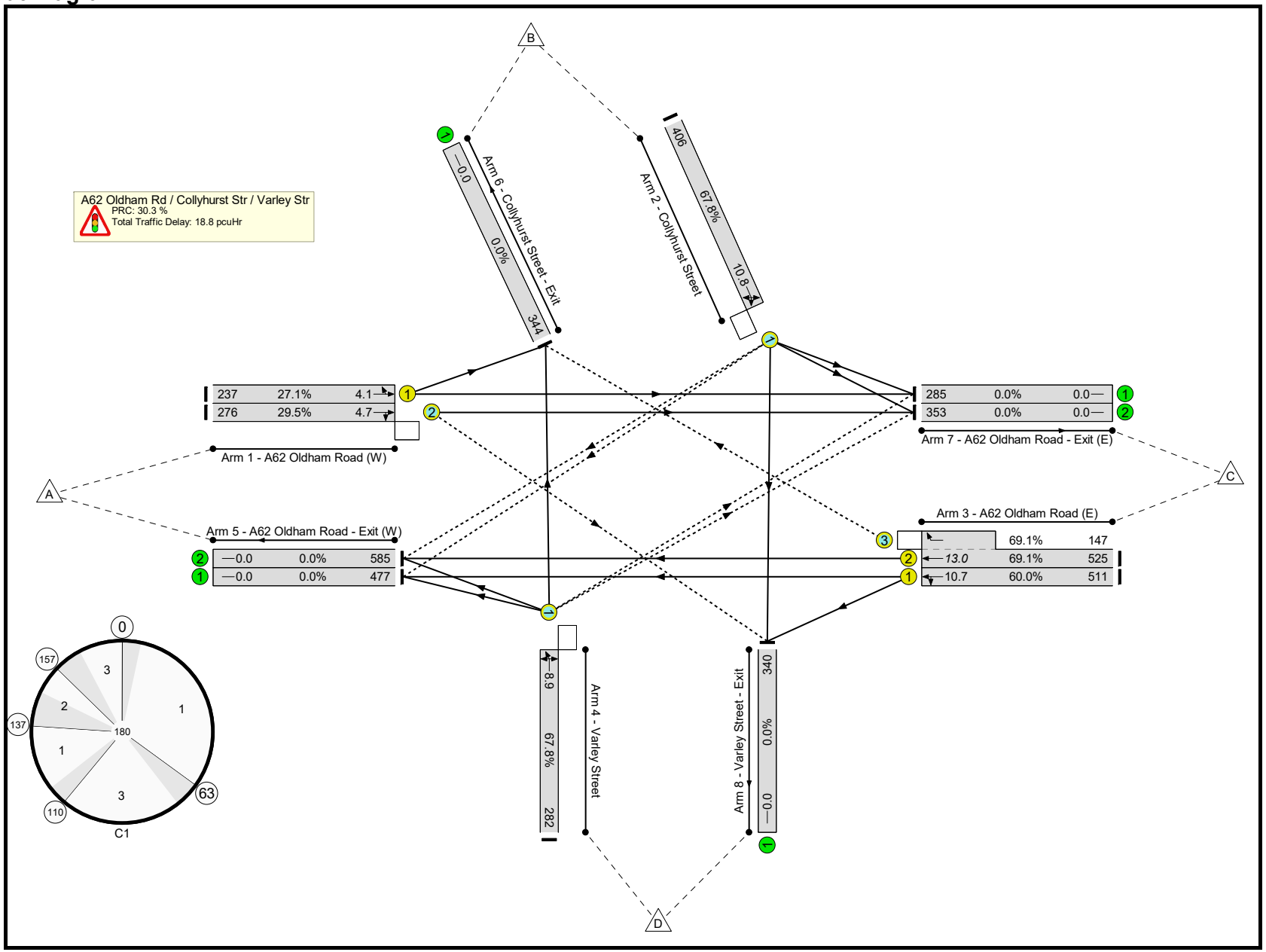
Signal Timings Diagram



Lane Green Times

Junction: A62 Oldham Rd / Collyhurst Str / Varley Str					
Lane	**Description**	**Type**	**Phases**	**Start Green**	**End Green**
1/1	A62 Oldham Road (W) Left Ahead	U	A	6	63
				116	137
1/2	A62 Oldham Road (W) Ahead Right	O	A	6	63
				116	137
2/1	Collyhurst Street Right Left Ahead	O	C	69	110
				166	0
3/1	A62 Oldham Road (E) Ahead Left	U	B	6	63
				116	137
3/2	A62 Oldham Road (E) Ahead	U	B	6	63
				116	137
3/3	A62 Oldham Road (E) Right	O	B	6	63
				116	137
4/1	Varley Street Left Ahead Right	O	D	71	110
				166	0

Network Layout Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A62 Oldham Rd / Collyhurst Str / Varley Str	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**69.1%**
A62 Oldham Rd / Collyhurst Str / Varley Str	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**69.1%**
1/1	A62 Oldham Road (W) Left Ahead	U	N/A	N/A	A		2	78	-	-	237	1965	873	27.1%
1/2	A62 Oldham Road (W) Ahead Right	O	N/A	N/A	A		2	78	-	-	276	2105	936	29.5%
2/1	Collyhurst Street Right Left Ahead	O	N/A	N/A	C		2	55	-	-	406	1890	599	67.8%
3/1	A62 Oldham Road (E) Ahead Left	U	N/A	N/A	B		2	78	-	-	511	1915	851	60.0%
3/2+3/3	A62 Oldham Road (E) Ahead Right	U+O	N/A	N/A	B		2	78	-	-	672	2055:2055	760+213	69.1 : 69.1%
4/1	Varley Street Left Ahead Right	O	N/A	N/A	D		2	53	-	-	282	1915	416	67.8%
5/1	A62 Oldham Road - Exit (W)	U	N/A	N/A	-		-	-	-	-	477	Inf	Inf	0.0%
5/2	A62 Oldham Road - Exit (W)	U	N/A	N/A	-		-	-	-	-	585	Inf	Inf	0.0%
6/1	Collyhurst Street - Exit	U	N/A	N/A	-		-	-	-	-	344	Inf	Inf	0.0%
7/1	A62 Oldham Road - Exit (E)	U	N/A	N/A	-		-	-	-	-	285	Inf	Inf	0.0%
7/2	A62 Oldham Road - Exit (E)	U	N/A	N/A	-		-	-	-	-	353	Inf	Inf	0.0%

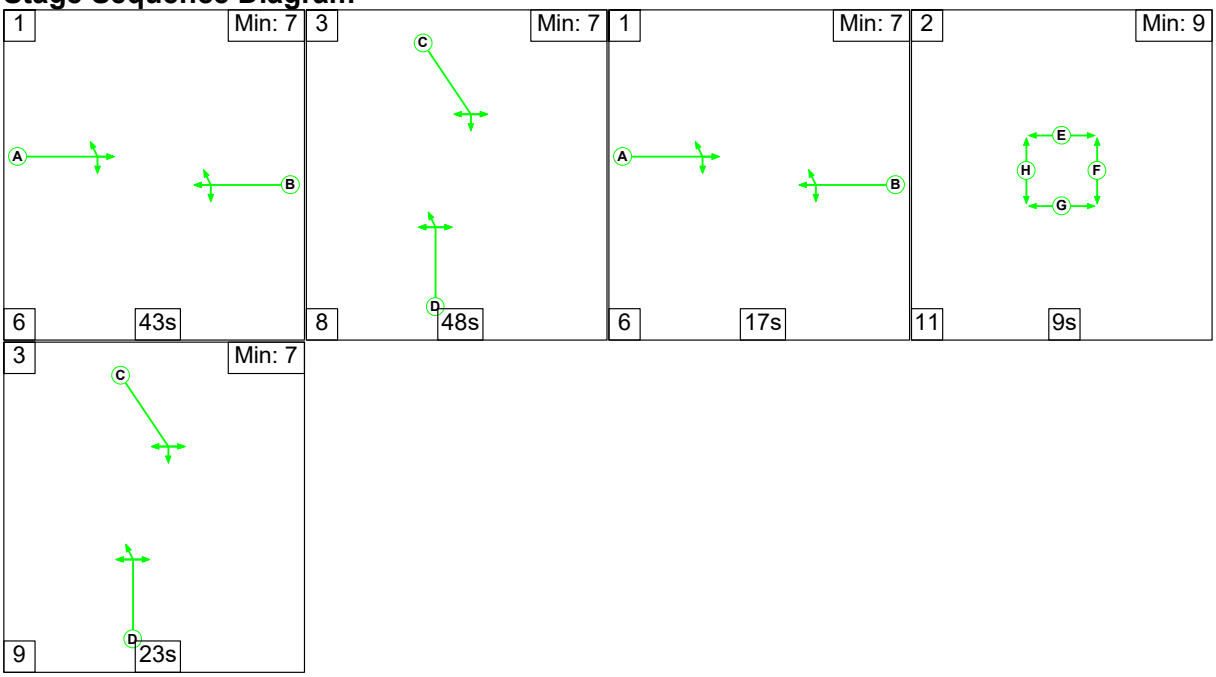
8/1	Varley Street - Exit	U	N/A	N/A	-		-	-	-	-	340	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network: A62 Oldham Rd / Collyhurst Str / Varley Str	**-**	**-**	**329**	**0**	**45**	**13.9**	**4.3**	**0.6**	**18.8**	**-**	**-**	**-**	**-**	
A62 Oldham Rd / Collyhurst Str / Varley Str	**-**	**-**	**329**	**0**	**45**	**13.9**	**4.3**	**0.6**	**18.8**	**-**	**-**	**-**	**-**	
1/1	237	237	-	-	-	1.0	0.2	-	1.2	18.7	3.9	0.2	4.1	
1/2	276	276	7	0	5	1.2	0.2	0.0	1.5	19.4	4.5	0.2	4.7	
2/1	406	406	104	0	0	3.1	1.0	0.1	4.2	37.0	9.7	1.0	10.8	
3/1	511	511	-	-	-	2.7	0.7	-	3.4	24.2	9.9	0.7	10.7	
3/2+3/3	672	672	147	0	0	3.5	1.1	0.2	4.8	25.7	11.9	1.1	13.0	
4/1	282	282	71	0	40	2.3	1.0	0.3	3.7	47.3	7.8	1.0	8.9	
5/1	477	477	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	585	585	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	344	344	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	285	285	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/2	353	353	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	340	340	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

C1 PRC for Signalled Lanes (%): 30.3 Total Delay for Signalled Lanes (pcuHr): 18.83 Cycle Time (s): 180
PRC Over All Lanes (%): 30.3 Total Delay Over All Lanes(pcuHr): 18.83

Scenario 2: '2025 Survey PM' (FG2: '2025 Survey PM', Plan 3: 'SCOOT - Double Cycle')

Stage Sequence Diagram



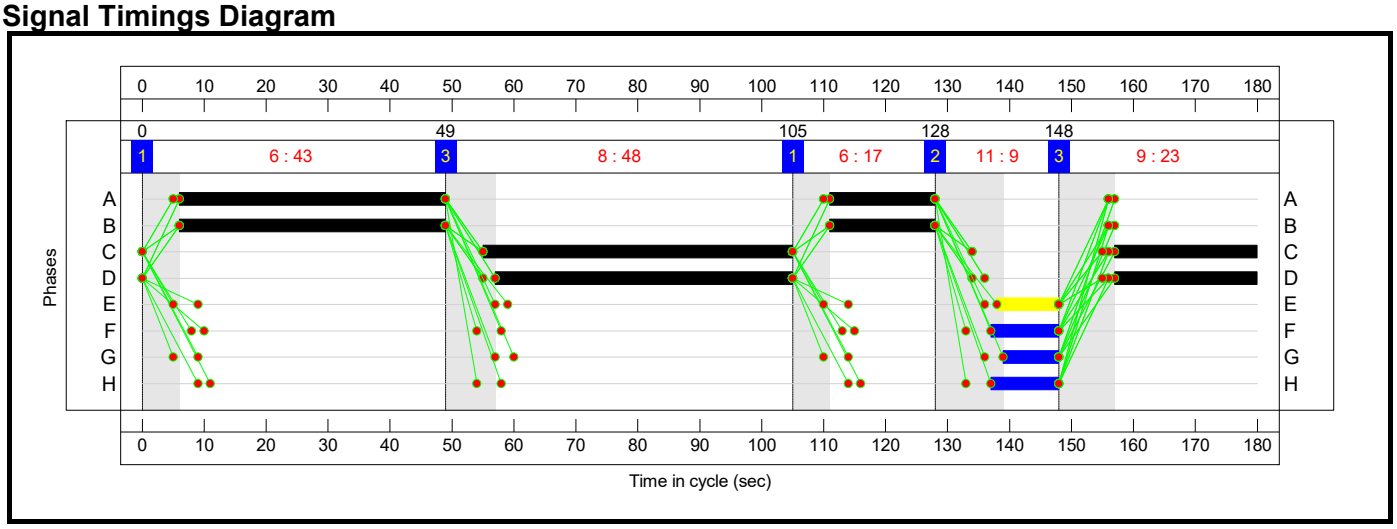
Stage Timings

Stage	1	3	1	2	3
Duration	43	48	17	9	23
Change Point	0	49	105	128	148

Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A62 Oldham Road (W) Left Ahead Right	Traffic	43	6	49	17	111	128
B	A62 Oldham Road (E) Ahead Right Left	Traffic	43	6	49	17	111	128
C	Collyhurst Street Right Left Ahead	Traffic	50	55	105	23	157	0
D	Varley Street Left Ahead Right	Traffic	48	57	105	23	157	0
E	Pedestrians across	Pedestrian	10	138	148			
F	Pedestrians across	Pedestrian	11	137	148			
G	Pedestrians across	Pedestrian	9	139	148			
H	Pedestrians across	Pedestrian	11	137	148			

Signal Timings Diagram

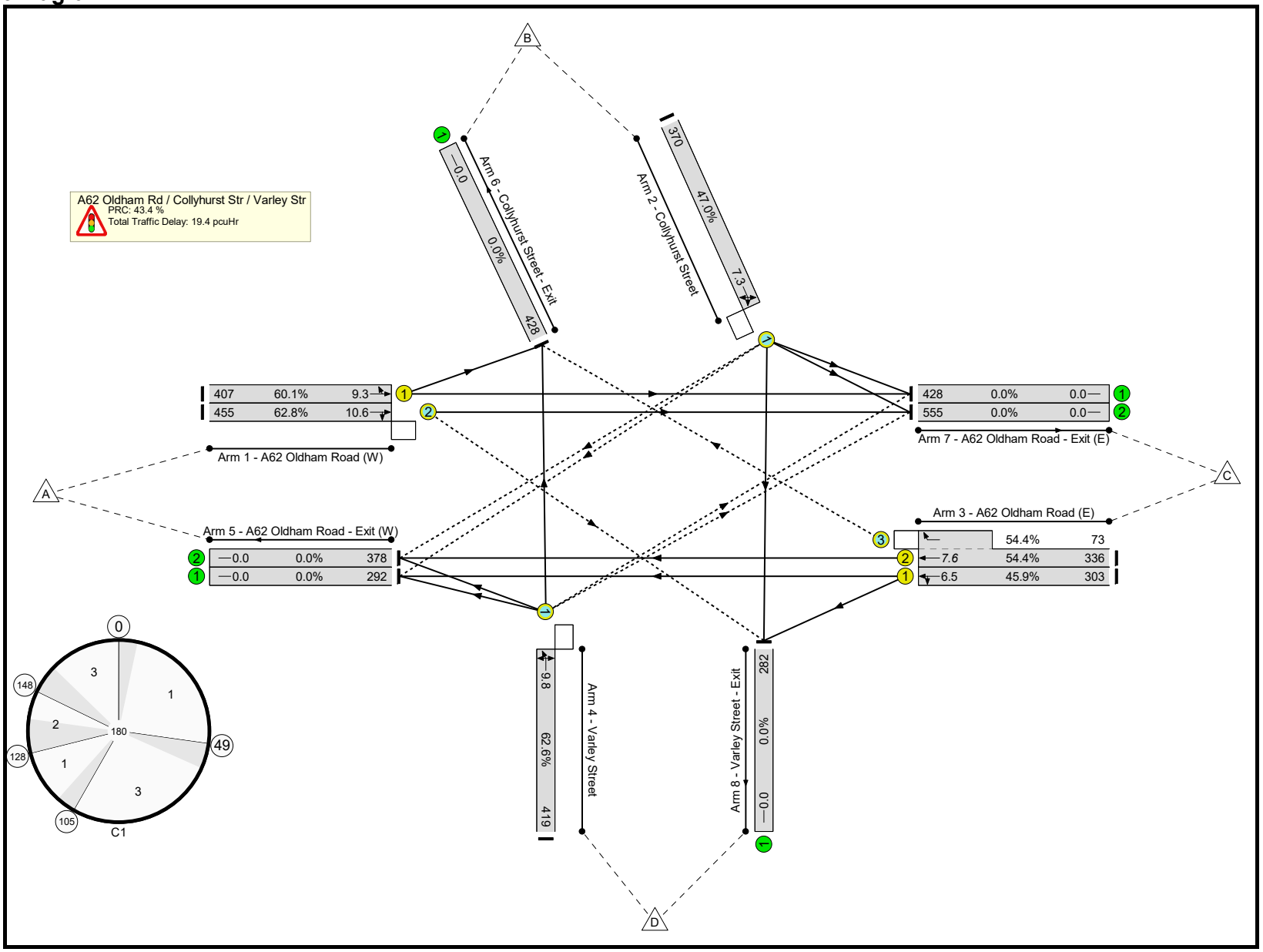


Lane Green Times

Junction: A62 Oldham Rd / Collyhurst Str / Varley Str

Lane	Description	Type	Phases	Start Green	End Green
1/1	A62 Oldham Road (W) Left Ahead	U	A	6	49
				111	128
1/2	A62 Oldham Road (W) Ahead Right	O	A	6	49
				111	128
2/1	Collyhurst Street Right Left Ahead	O	C	55	105
				157	0
3/1	A62 Oldham Road (E) Ahead Left	U	B	6	49
				111	128
3/2	A62 Oldham Road (E) Ahead	U	B	6	49
				111	128
3/3	A62 Oldham Road (E) Right	O	B	6	49
				111	128
4/1	Varley Street Left Ahead Right	O	D	57	105
				157	0

Network Layout Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A62 Oldham Rd / Collyhurst Str / Varley Str	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**62.8%**
A62 Oldham Rd / Collyhurst Str / Varley Str	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**62.8%**
1/1	A62 Oldham Road (W) Left Ahead	U	N/A	N/A	A		2	60	-	-	407	1965	677	60.1%
1/2	A62 Oldham Road (W) Ahead Right	O	N/A	N/A	A		2	60	-	-	455	2105	725	62.8%
2/1	Collyhurst Street Right Left Ahead	O	N/A	N/A	C		2	73	-	-	370	1890	788	47.0%
3/1	A62 Oldham Road (E) Ahead Left	U	N/A	N/A	B		2	60	-	-	303	1915	660	45.9%
3/2+3/3	A62 Oldham Road (E) Ahead Right	U+O	N/A	N/A	B		2	60	-	-	409	2055:2055	618+134	54.4 : 54.4%
4/1	Varley Street Left Ahead Right	O	N/A	N/A	D		2	71	-	-	419	1915	669	62.6%
5/1	A62 Oldham Road - Exit (W)	U	N/A	N/A	-		-	-	-	-	292	Inf	Inf	0.0%
5/2	A62 Oldham Road - Exit (W)	U	N/A	N/A	-		-	-	-	-	378	Inf	Inf	0.0%
6/1	Collyhurst Street - Exit	U	N/A	N/A	-		-	-	-	-	428	Inf	Inf	0.0%
7/1	A62 Oldham Road - Exit (E)	U	N/A	N/A	-		-	-	-	-	428	Inf	Inf	0.0%
7/2	A62 Oldham Road - Exit (E)	U	N/A	N/A	-		-	-	-	-	555	Inf	Inf	0.0%

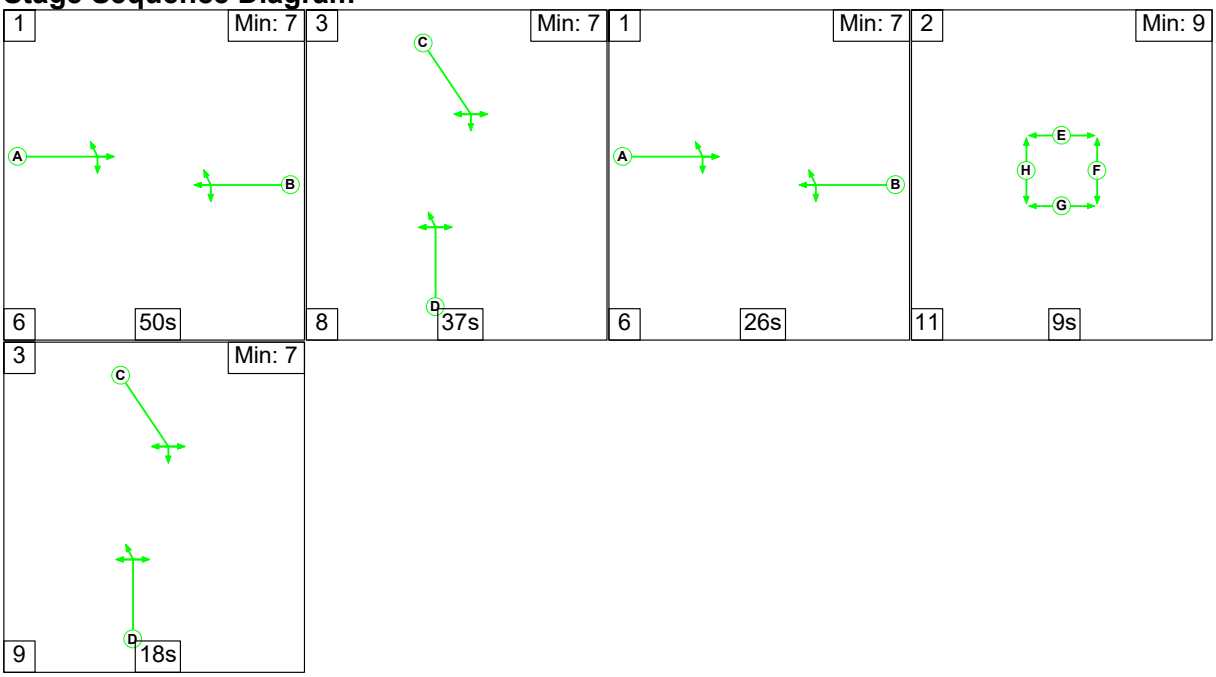
8/1	Varley Street - Exit	U	N/A	N/A	-		-	-	-	-	282	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network: A62 Oldham Rd / Collyhurst Str / Varley Str	**-**	**-**	**284**	**0**	**31**	**14.9**	**3.9**	**0.6**	**19.4**	**-**	**-**	**-**	**-**	
A62 Oldham Rd / Collyhurst Str / Varley Str	**-**	**-**	**284**	**0**	**31**	**14.9**	**3.9**	**0.6**	**19.4**	**-**	**-**	**-**	**-**	
1/1	407	407	-	-	-	2.8	0.8	-	3.5	31.1	8.6	0.8	9.3	
1/2	455	455	25	0	0	3.1	0.8	0.0	4.0	31.6	9.7	0.8	10.6	
2/1	370	370	66	0	0	2.0	0.4	0.1	2.5	23.9	6.9	0.4	7.3	
3/1	303	303	-	-	-	1.9	0.4	-	2.4	28.0	6.1	0.4	6.5	
3/2+3/3	409	409	42	0	31	2.6	0.6	0.3	3.5	30.5	7.0	0.6	7.6	
4/1	419	419	151	0	0	2.5	0.8	0.2	3.6	31.0	9.0	0.8	9.8	
5/1	292	292	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	378	378	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	428	428	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	428	428	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/2	555	555	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	282	282	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

C1 PRC for Signalled Lanes (%): 43.4 Total Delay for Signalled Lanes (pcuHr): 19.39 Cycle Time (s): 180
PRC Over All Lanes (%): 43.4 Total Delay Over All Lanes(pcuHr): 19.39

Scenario 3: '2031 Growth AM' (FG3: '2031 Base AM', Plan 3: 'SCOOT - Double Cycle')

Stage Sequence Diagram



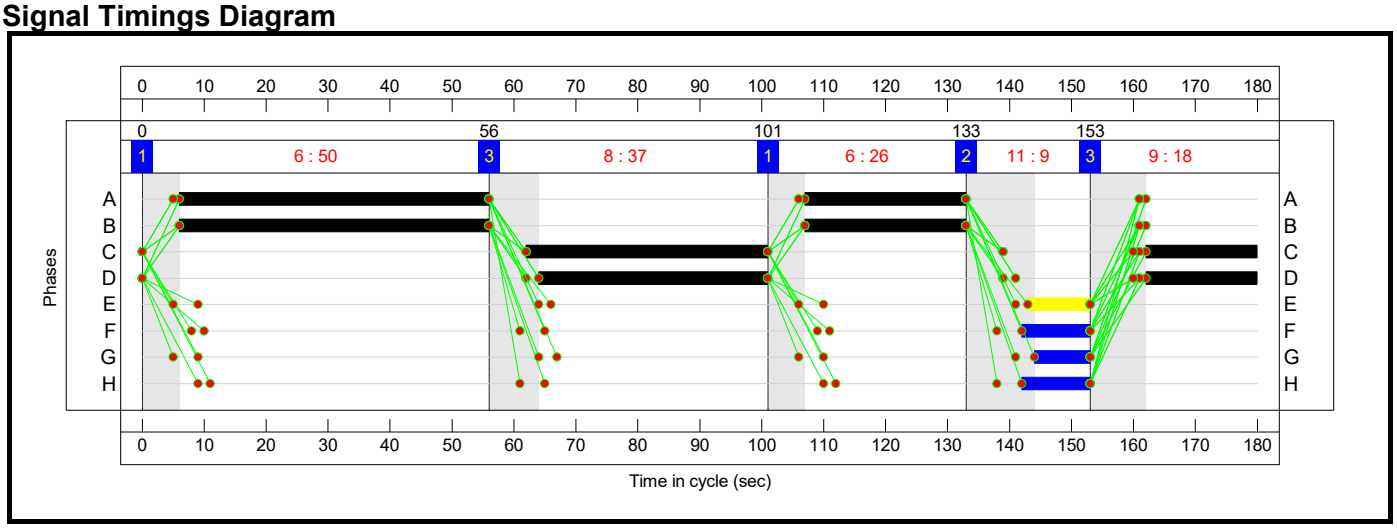
Stage Timings

Stage	1	3	1	2	3
Duration	50	37	26	9	18
Change Point	0	56	101	133	153

Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A62 Oldham Road (W) Left Ahead Right	Traffic	50	6	56	26	107	133
B	A62 Oldham Road (E) Ahead Right Left	Traffic	50	6	56	26	107	133
C	Collyhurst Street Right Left Ahead	Traffic	39	62	101	18	162	0
D	Varley Street Left Ahead Right	Traffic	37	64	101	18	162	0
E	Pedestrians across	Pedestrian	10	143	153			
F	Pedestrians across	Pedestrian	11	142	153			
G	Pedestrians across	Pedestrian	9	144	153			
H	Pedestrians across	Pedestrian	11	142	153			

Signal Timings Diagram

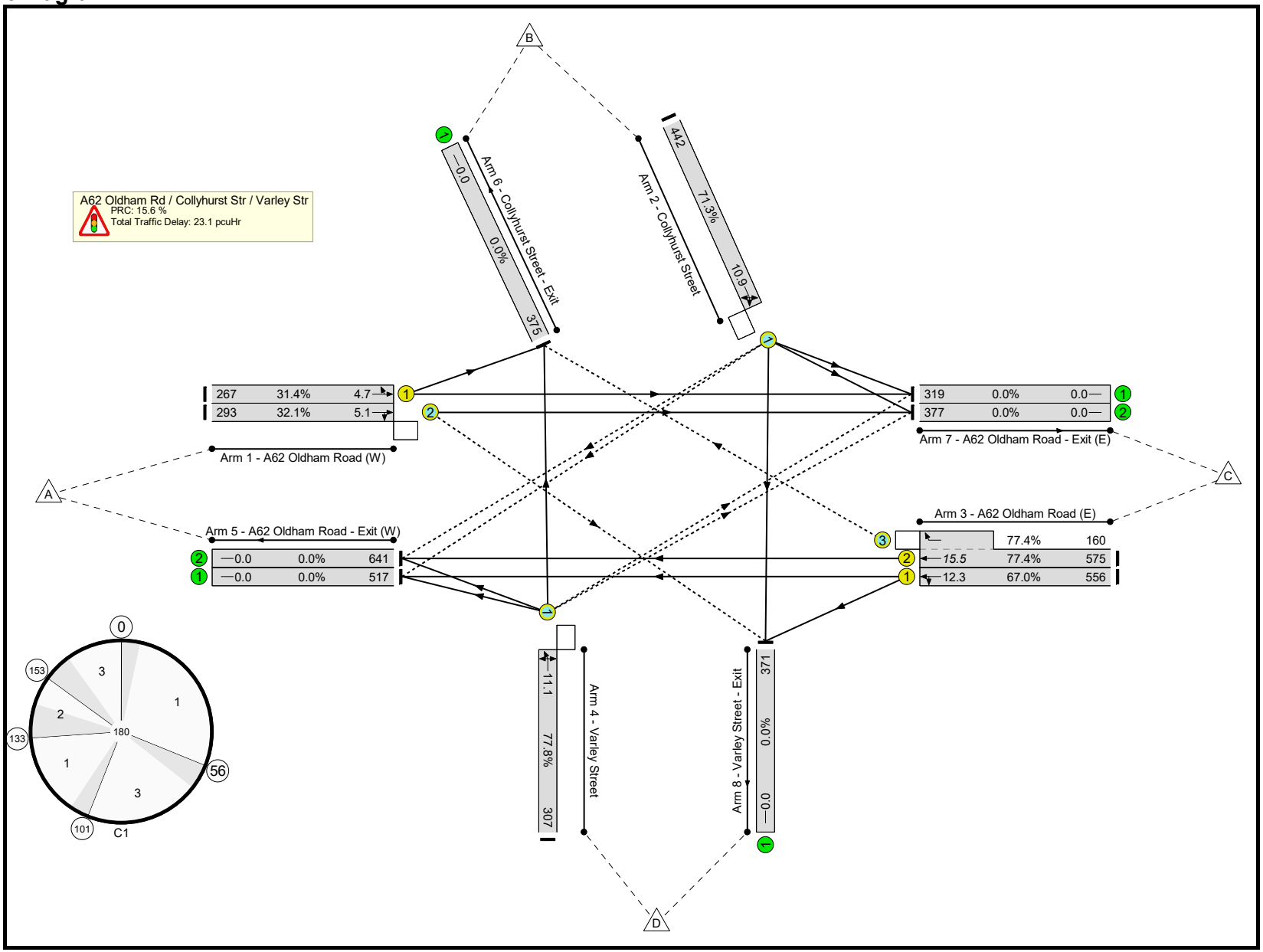


Lane Green Times

Junction: A62 Oldham Rd / Collyhurst Str / Varley Str

Lane	Description	Type	Phases	Start Green	End Green
1/1	A62 Oldham Road (W) Left Ahead	U	A	6	56
				107	133
1/2	A62 Oldham Road (W) Ahead Right	O	A	6	56
				107	133
2/1	Collyhurst Street Right Left Ahead	O	C	62	101
				162	0
3/1	A62 Oldham Road (E) Ahead Left	U	B	6	56
				107	133
3/2	A62 Oldham Road (E) Ahead	U	B	6	56
				107	133
3/3	A62 Oldham Road (E) Right	O	B	6	56
				107	133
4/1	Varley Street Left Ahead Right	O	D	64	101
				162	0

Network Layout Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A62 Oldham Rd / Collyhurst Str / Varley Str	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**77.8%**
A62 Oldham Rd / Collyhurst Str / Varley Str	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**77.8%**
1/1	A62 Oldham Road (W) Left Ahead	U	N/A	N/A	A		2	76	-	-	267	1965	852	31.4%
1/2	A62 Oldham Road (W) Ahead Right	O	N/A	N/A	A		2	76	-	-	293	2105	912	32.1%
2/1	Collyhurst Street Right Left Ahead	O	N/A	N/A	C		2	57	-	-	442	1890	620	71.3%
3/1	A62 Oldham Road (E) Ahead Left	U	N/A	N/A	B		2	76	-	-	556	1915	830	67.0%
3/2+3/3	A62 Oldham Road (E) Ahead Right	U+O	N/A	N/A	B		2	76	-	-	735	2055:2055	743+207	77.4 : 77.4%
4/1	Varley Street Left Ahead Right	O	N/A	N/A	D		2	55	-	-	307	1915	394	77.8%
5/1	A62 Oldham Road - Exit (W)	U	N/A	N/A	-		-	-	-	-	517	Inf	Inf	0.0%
5/2	A62 Oldham Road - Exit (W)	U	N/A	N/A	-		-	-	-	-	641	Inf	Inf	0.0%
6/1	Collyhurst Street - Exit	U	N/A	N/A	-		-	-	-	-	375	Inf	Inf	0.0%
7/1	A62 Oldham Road - Exit (E)	U	N/A	N/A	-		-	-	-	-	319	Inf	Inf	0.0%
7/2	A62 Oldham Road - Exit (E)	U	N/A	N/A	-		-	-	-	-	377	Inf	Inf	0.0%

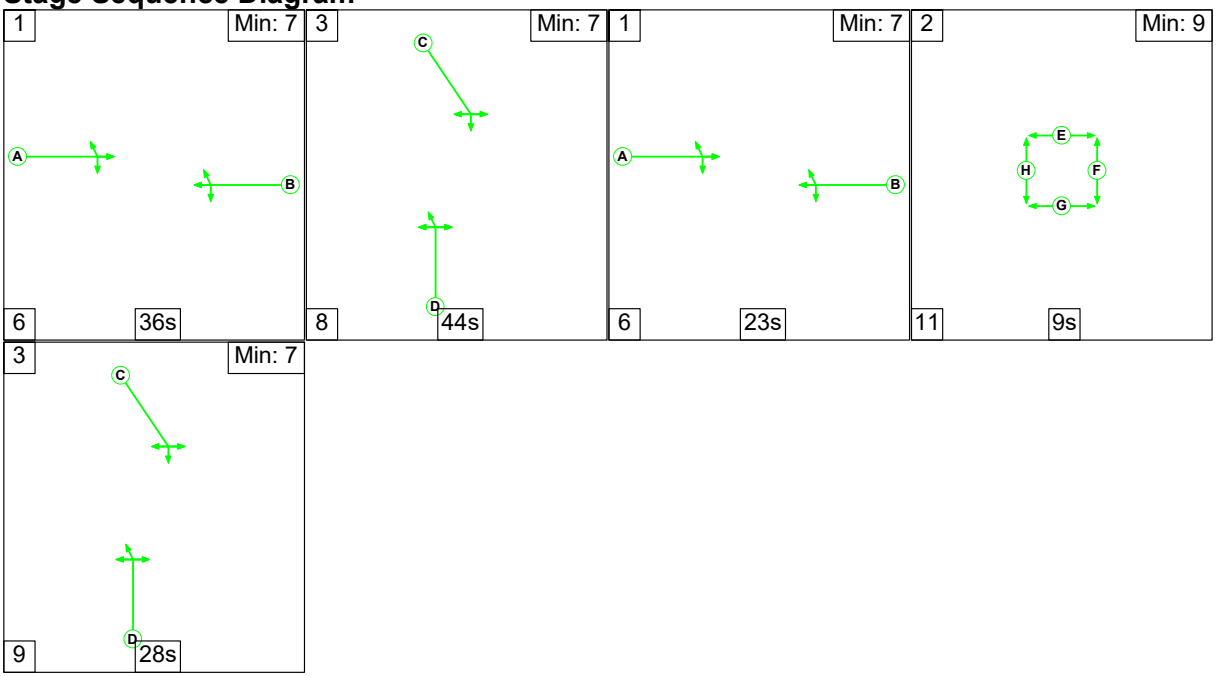
8/1	Varley Street - Exit	U	N/A	N/A	-		-	-	-	-	371	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network: A62 Oldham Rd / Collyhurst Str / Varley Str	**-**	**-**	**363**	**0**	**44**	**16.3**	**6.1**	**0.8**	**23.1**	**-**	**-**	**-**	**-**	
A62 Oldham Rd / Collyhurst Str / Varley Str	**-**	**-**	**363**	**0**	**44**	**16.3**	**6.1**	**0.8**	**23.1**	**-**	**-**	**-**	**-**	
1/1	267	267	-	-	-	1.2	0.2	-	1.5	19.8	4.5	0.2	4.7	
1/2	293	293	5	0	8	1.4	0.2	0.1	1.7	20.8	4.9	0.2	5.1	
2/1	442	442	113	0	0	3.3	1.2	0.1	4.6	37.1	9.7	1.2	10.9	
3/1	556	556	-	-	-	3.1	1.0	-	4.2	26.9	11.3	1.0	12.3	
3/2+3/3	735	735	160	0	0	4.2	1.7	0.2	6.1	29.8	13.8	1.7	15.5	
4/1	307	307	85	0	36	3.1	1.7	0.4	5.2	60.8	9.4	1.7	11.1	
5/1	517	517	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	641	641	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	375	375	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	319	319	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/2	377	377	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	371	371	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

C1 PRC for Signalled Lanes (%): 15.6 Total Delay for Signalled Lanes (pcuHr): 23.14 Cycle Time (s): 180
PRC Over All Lanes (%): 15.6 Total Delay Over All Lanes(pcuHr): 23.14

Scenario 4: '2031 Growth PM' (FG4: '2031 Base PM', Plan 3: 'SCOOT - Double Cycle')

Stage Sequence Diagram



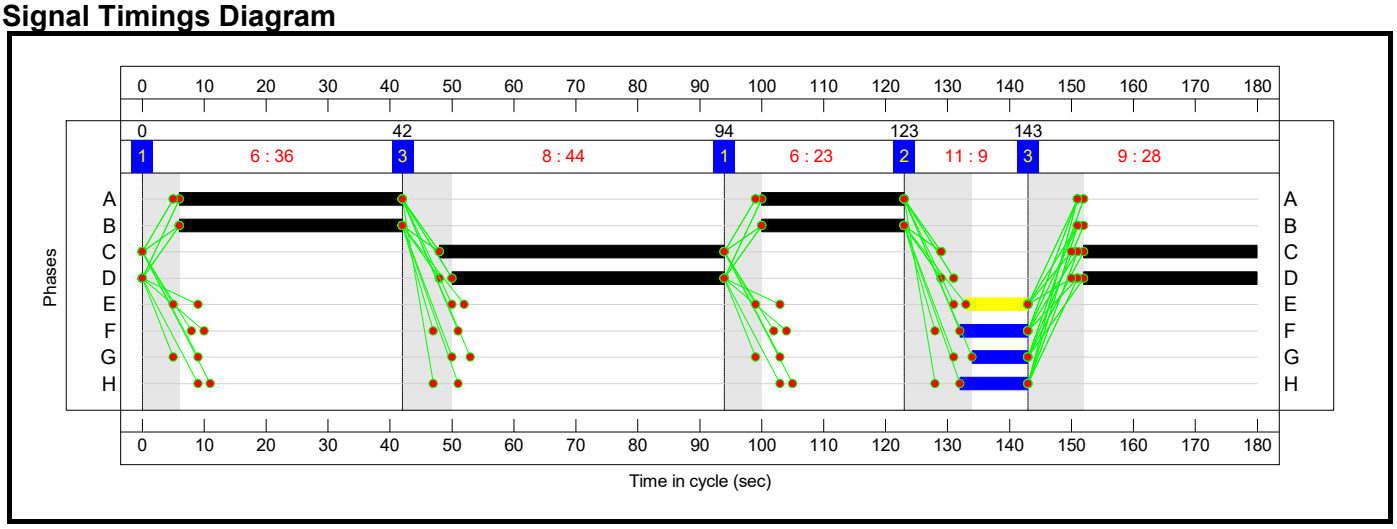
Stage Timings

Stage	1	3	1	2	3
Duration	36	44	23	9	28
Change Point	0	42	94	123	143

Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A62 Oldham Road (W) Left Ahead Right	Traffic	36	6	42	23	100	123
B	A62 Oldham Road (E) Ahead Right Left	Traffic	36	6	42	23	100	123
C	Collyhurst Street Right Left Ahead	Traffic	46	48	94	28	152	0
D	Varley Street Left Ahead Right	Traffic	44	50	94	28	152	0
E	Pedestrians across	Pedestrian	10	133	143			
F	Pedestrians across	Pedestrian	11	132	143			
G	Pedestrians across	Pedestrian	9	134	143			
H	Pedestrians across	Pedestrian	11	132	143			

Signal Timings Diagram

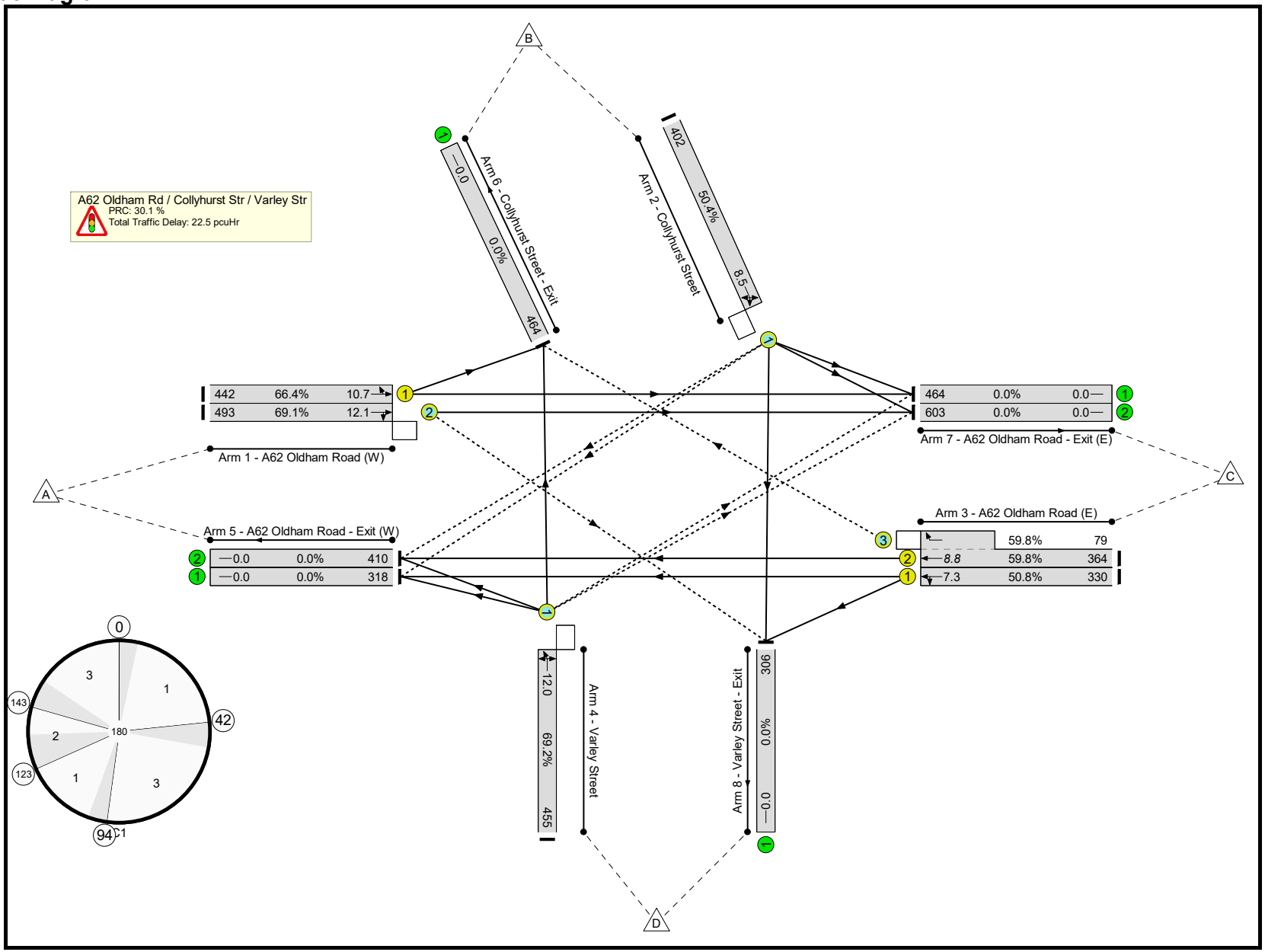


Lane Green Times

Junction: A62 Oldham Rd / Collyhurst Str / Varley Str

Lane	Description	Type	Phases	Start Green	End Green
1/1	A62 Oldham Road (W) Left Ahead	U	A	6	42
				100	123
1/2	A62 Oldham Road (W) Ahead Right	O	A	6	42
				100	123
2/1	Collyhurst Street Right Left Ahead	O	C	48	94
				152	0
3/1	A62 Oldham Road (E) Ahead Left	U	B	6	42
				100	123
3/2	A62 Oldham Road (E) Ahead	U	B	6	42
				100	123
3/3	A62 Oldham Road (E) Right	O	B	6	42
				100	123
4/1	Varley Street Left Ahead Right	O	D	50	94
				152	0

Network Layout Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A62 Oldham Rd / Collyhurst Str / Varley Str	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**69.2%**
A62 Oldham Rd / Collyhurst Str / Varley Str	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**69.2%**
1/1	A62 Oldham Road (W) Left Ahead	U	N/A	N/A	A		2	59	-	-	442	1965	666	66.4%
1/2	A62 Oldham Road (W) Ahead Right	O	N/A	N/A	A		2	59	-	-	493	2105	713	69.1%
2/1	Collyhurst Street Right Left Ahead	O	N/A	N/A	C		2	74	-	-	402	1890	798	50.4%
3/1	A62 Oldham Road (E) Ahead Left	U	N/A	N/A	B		2	59	-	-	330	1915	649	50.8%
3/2+3/3	A62 Oldham Road (E) Ahead Right	U+O	N/A	N/A	B		2	59	-	-	443	2055:2055	608+132	59.8 : 59.8%
4/1	Varley Street Left Ahead Right	O	N/A	N/A	D		2	72	-	-	455	1915	658	69.2%
5/1	A62 Oldham Road - Exit (W)	U	N/A	N/A	-		-	-	-	-	318	Inf	Inf	0.0%
5/2	A62 Oldham Road - Exit (W)	U	N/A	N/A	-		-	-	-	-	410	Inf	Inf	0.0%
6/1	Collyhurst Street - Exit	U	N/A	N/A	-		-	-	-	-	464	Inf	Inf	0.0%
7/1	A62 Oldham Road - Exit (E)	U	N/A	N/A	-		-	-	-	-	464	Inf	Inf	0.0%
7/2	A62 Oldham Road - Exit (E)	U	N/A	N/A	-		-	-	-	-	603	Inf	Inf	0.0%

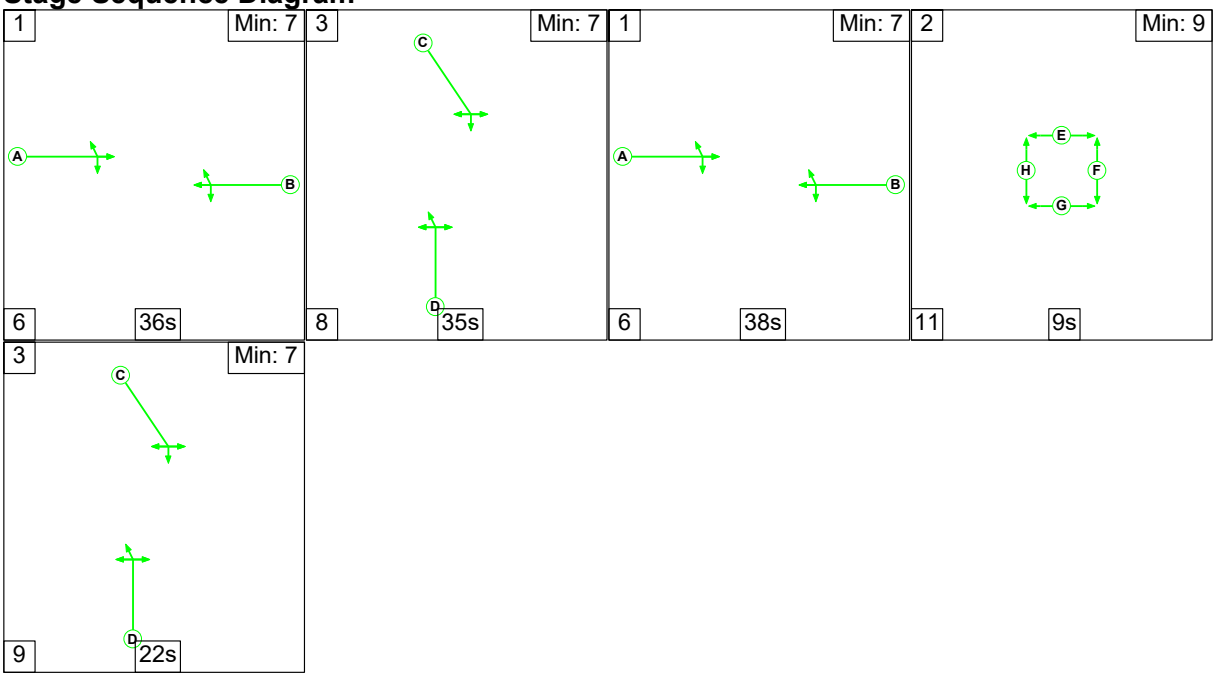
8/1	Varley Street - Exit	U	N/A	N/A	-		-	-	-	-	306	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network: A62 Oldham Rd / Collyhurst Str / Varley Str	**-**	**-**	**323**	**0**	**19**	**16.8**	**5.0**	**0.8**	**22.5**	**-**	**-**	**-**	**-**	
A62 Oldham Rd / Collyhurst Str / Varley Str	**-**	**-**	**323**	**0**	**19**	**16.8**	**5.0**	**0.8**	**22.5**	**-**	**-**	**-**	**-**	
1/1	442	442	-	-	-	3.1	1.0	-	4.1	33.4	9.7	1.0	10.7	
1/2	493	493	27	0	0	3.5	1.1	0.0	4.7	34.1	11.0	1.1	12.1	
2/1	402	402	72	0	0	2.2	0.5	0.1	2.7	24.3	8.0	0.5	8.5	
3/1	330	330	-	-	-	2.2	0.5	-	2.7	29.4	6.8	0.5	7.3	
3/2+3/3	443	443	60	0	19	2.9	0.7	0.4	4.0	32.9	8.0	0.7	8.8	
4/1	455	455	164	0	0	2.9	1.1	0.3	4.3	33.8	10.9	1.1	12.0	
5/1	318	318	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	410	410	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	464	464	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	464	464	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/2	603	603	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	306	306	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

C1 PRC for Signalled Lanes (%): 30.1 Total Delay for Signalled Lanes (pcuHr): 22.50 Cycle Time (s): 180
PRC Over All Lanes (%): 30.1 Total Delay Over All Lanes(pcuHr): 22.50

Scenario 5: '2031 Growth + Dev AM' (FG5: '2031 Base + Dev AM', Plan 3: 'SCOOT - Double Cycle')

Stage Sequence Diagram



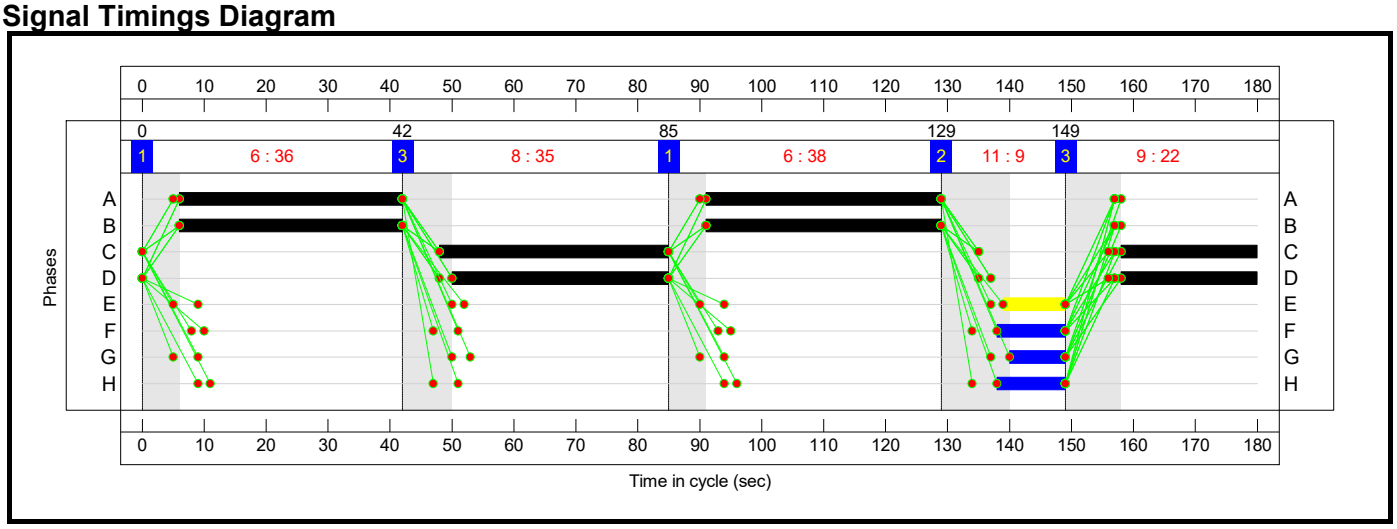
Stage Timings

Stage	1	3	1	2	3
Duration	36	35	38	9	22
Change Point	0	42	85	129	149

Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A62 Oldham Road (W) Left Ahead Right	Traffic	36	6	42	38	91	129
B	A62 Oldham Road (E) Ahead Right Left	Traffic	36	6	42	38	91	129
C	Collyhurst Street Right Left Ahead	Traffic	37	48	85	22	158	0
D	Varley Street Left Ahead Right	Traffic	35	50	85	22	158	0
E	Pedestrians across	Pedestrian	10	139	149			
F	Pedestrians across	Pedestrian	11	138	149			
G	Pedestrians across	Pedestrian	9	140	149			
H	Pedestrians across	Pedestrian	11	138	149			

Signal Timings Diagram

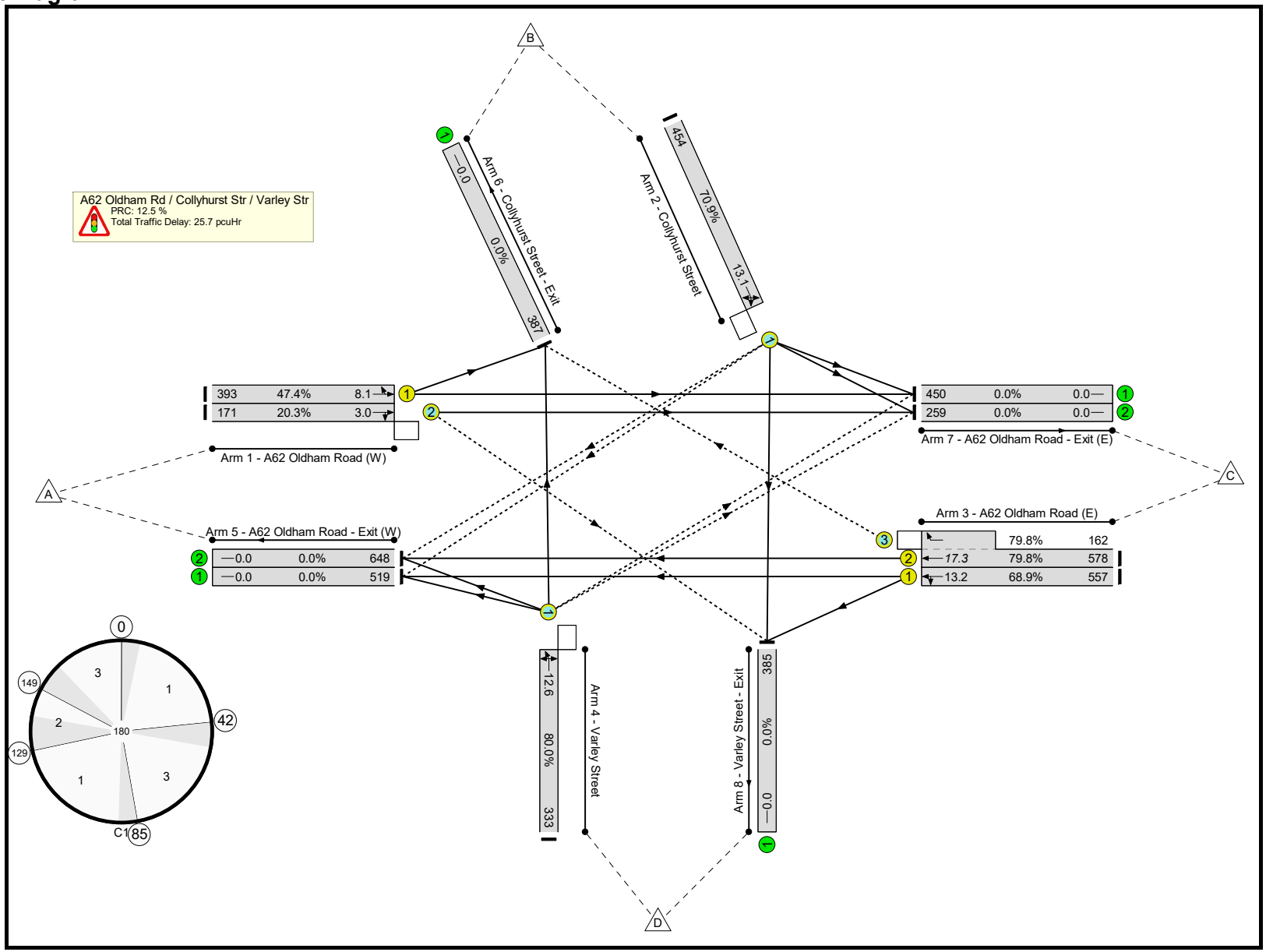


Lane Green Times

Junction: A62 Oldham Rd / Collyhurst Str / Varley Str

Lane	Description	Type	Phases	Start Green	End Green
1/1	A62 Oldham Road (W) Left Ahead	U	A	6	42
				91	129
1/2	A62 Oldham Road (W) Ahead Right	O	A	6	42
				91	129
2/1	Collyhurst Street Right Left Ahead	O	C	48	85
				158	0
3/1	A62 Oldham Road (E) Ahead Left	U	B	6	42
				91	129
3/2	A62 Oldham Road (E) Ahead	U	B	6	42
				91	129
3/3	A62 Oldham Road (E) Right	O	B	6	42
				91	129
4/1	Varley Street Left Ahead Right	O	D	50	85
				158	0

Network Layout Diagram



Network Results

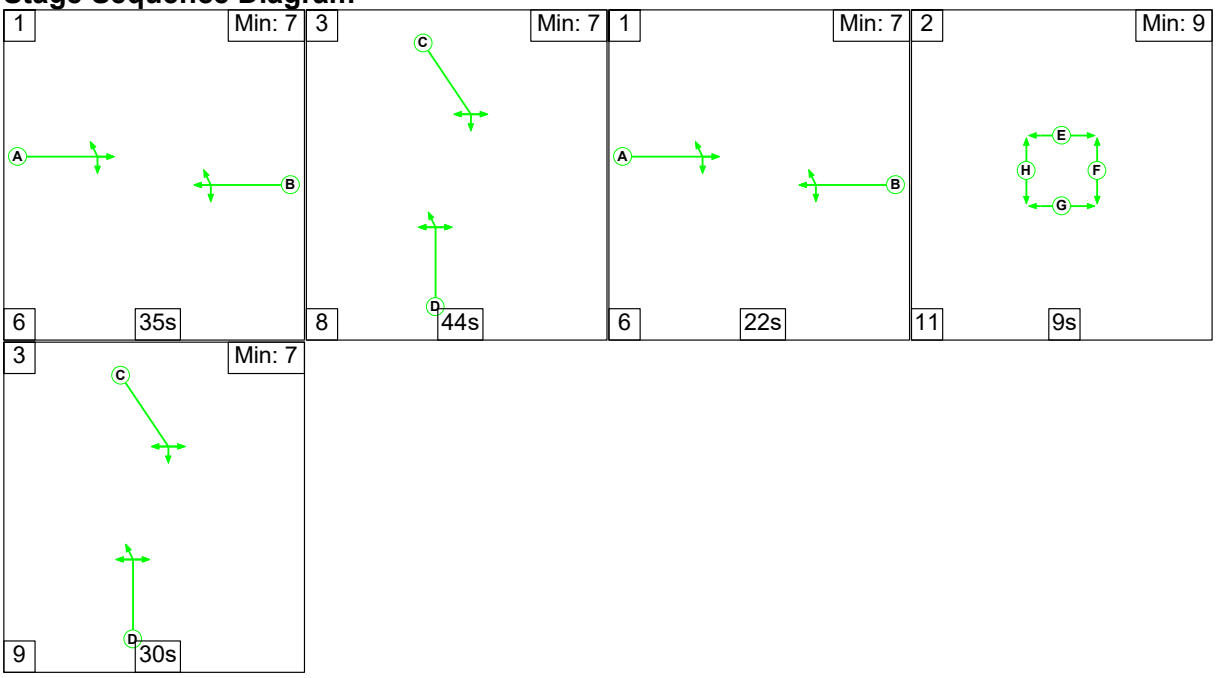
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A62 Oldham Rd / Collyhurst Str / Varley Str	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**80.0%**
A62 Oldham Rd / Collyhurst Str / Varley Str	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**80.0%**
1/1	A62 Oldham Road (W) Left Ahead	U	N/A	N/A	A		2	74	-	-	393	1965	830	47.4%
1/2	A62 Oldham Road (W) Ahead Right	O	N/A	N/A	A		2	74	-	-	171	2105	842	20.3%
2/1	Collyhurst Street Right Left Ahead	O	N/A	N/A	C		2	59	-	-	454	1890	641	70.9%
3/1	A62 Oldham Road (E) Ahead Left	U	N/A	N/A	B		2	74	-	-	557	1915	809	68.9%
3/2+3/3	A62 Oldham Road (E) Ahead Right	U+O	N/A	N/A	B		2	74	-	-	740	2055:2055	724+203	79.8 : 79.8%
4/1	Varley Street Left Ahead Right	O	N/A	N/A	D		2	57	-	-	333	1915	416	80.0%
5/1	A62 Oldham Road - Exit (W)	U	N/A	N/A	-		-	-	-	-	519	Inf	Inf	0.0%
5/2	A62 Oldham Road - Exit (W)	U	N/A	N/A	-		-	-	-	-	648	Inf	Inf	0.0%
6/1	Collyhurst Street - Exit	U	N/A	N/A	-		-	-	-	-	387	Inf	Inf	0.0%
7/1	A62 Oldham Road - Exit (E)	U	N/A	N/A	-		-	-	-	-	450	Inf	Inf	0.0%
7/2	A62 Oldham Road - Exit (E)	U	N/A	N/A	-		-	-	-	-	259	Inf	Inf	0.0%

8/1	Varley Street - Exit	U	N/A	N/A	-		-	-	-	-	385	Inf	Inf	0.0%
Item	**Arriving (pcu)**	**Leaving (pcu)**	**Turners In Gaps (pcu)**	**Turners When Unopposed (pcu)**	**Turners In Intergreen (pcu)**	**Uniform Delay (pcuHr)**	**Rand + Oversat Delay (pcuHr)**	**Storage Area Uniform Delay (pcuHr)**	**Total Delay (pcuHr)**	**Av. Delay Per PCU (s/pcu)**	**Max. Back of Uniform Queue (pcu)**	**Rand + Oversat Queue (pcu)**	**Mean Max Queue (pcu)**	
Network: A62 Oldham Rd / Collyhurst Str / Varley Str	**-**	**-**	**372**	**0**	**52**	**18.0**	**6.7**	**0.9**	**25.7**	**-**	**-**	**-**	**-**	
A62 Oldham Rd / Collyhurst Str / Varley Str	**-**	**-**	**372**	**0**	**52**	**18.0**	**6.7**	**0.9**	**25.7**	**-**	**-**	**-**	**-**	
1/1	393	393	-	-	-	2.1	0.4	-	2.5	23.0	7.6	0.4	8.1	
1/2	171	171	3	0	13	0.8	0.1	0.1	1.0	21.7	2.9	0.1	3.0	
2/1	454	454	115	0	0	3.4	1.2	0.1	4.7	37.1	11.9	1.2	13.1	
3/1	557	557	-	-	-	3.3	1.1	-	4.4	28.4	12.1	1.1	13.2	
3/2+3/3	740	740	162	0	0	4.4	1.9	0.4	6.7	32.8	15.4	1.9	17.3	
4/1	333	333	92	0	39	4.0	1.9	0.4	6.3	68.5	10.6	1.9	12.6	
5/1	519	519	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	648	648	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	387	387	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	450	450	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/2	259	259	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	385	385	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

C1 PRC for Signalled Lanes (%): 12.5 Total Delay for Signalled Lanes (pcuHr): 25.69 Cycle Time (s): 180
PRC Over All Lanes (%): 12.5 Total Delay Over All Lanes(pcuHr): 25.69

Scenario 6: '2031 Growth + Dev PM' (FG6: '2031 Base + Dev PM', Plan 3: 'SCOOT - Double Cycle')

Stage Sequence Diagram



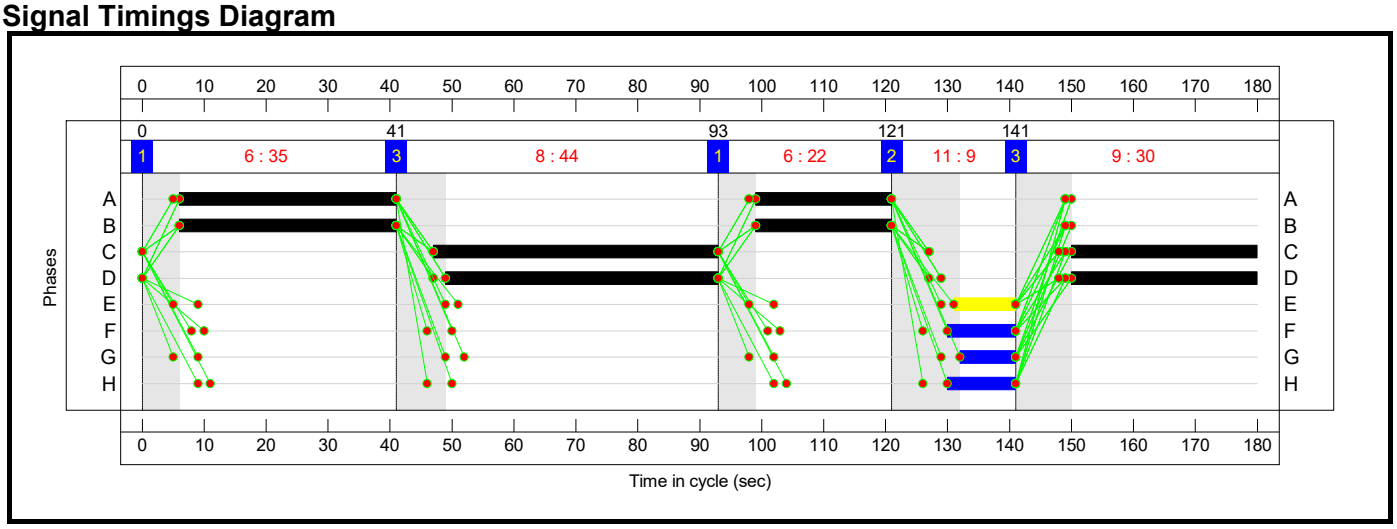
Stage Timings

Stage	1	3	1	2	3
Duration	35	44	22	9	30
Change Point	0	41	93	121	141

Phase Timings

Phase Name	Description	Phase	Green Period 1			Green Period 2		
			Total Green	Start Time	End Time	Total Green	Start Time	End Time
A	A62 Oldham Road (W) Left Ahead Right	Traffic	35	6	41	22	99	121
B	A62 Oldham Road (E) Ahead Right Left	Traffic	35	6	41	22	99	121
C	Collyhurst Street Right Left Ahead	Traffic	46	47	93	30	150	0
D	Varley Street Left Ahead Right	Traffic	44	49	93	30	150	0
E	Pedestrians across	Pedestrian	10	131	141			
F	Pedestrians across	Pedestrian	11	130	141			
G	Pedestrians across	Pedestrian	9	132	141			
H	Pedestrians across	Pedestrian	11	130	141			

Signal Timings Diagram

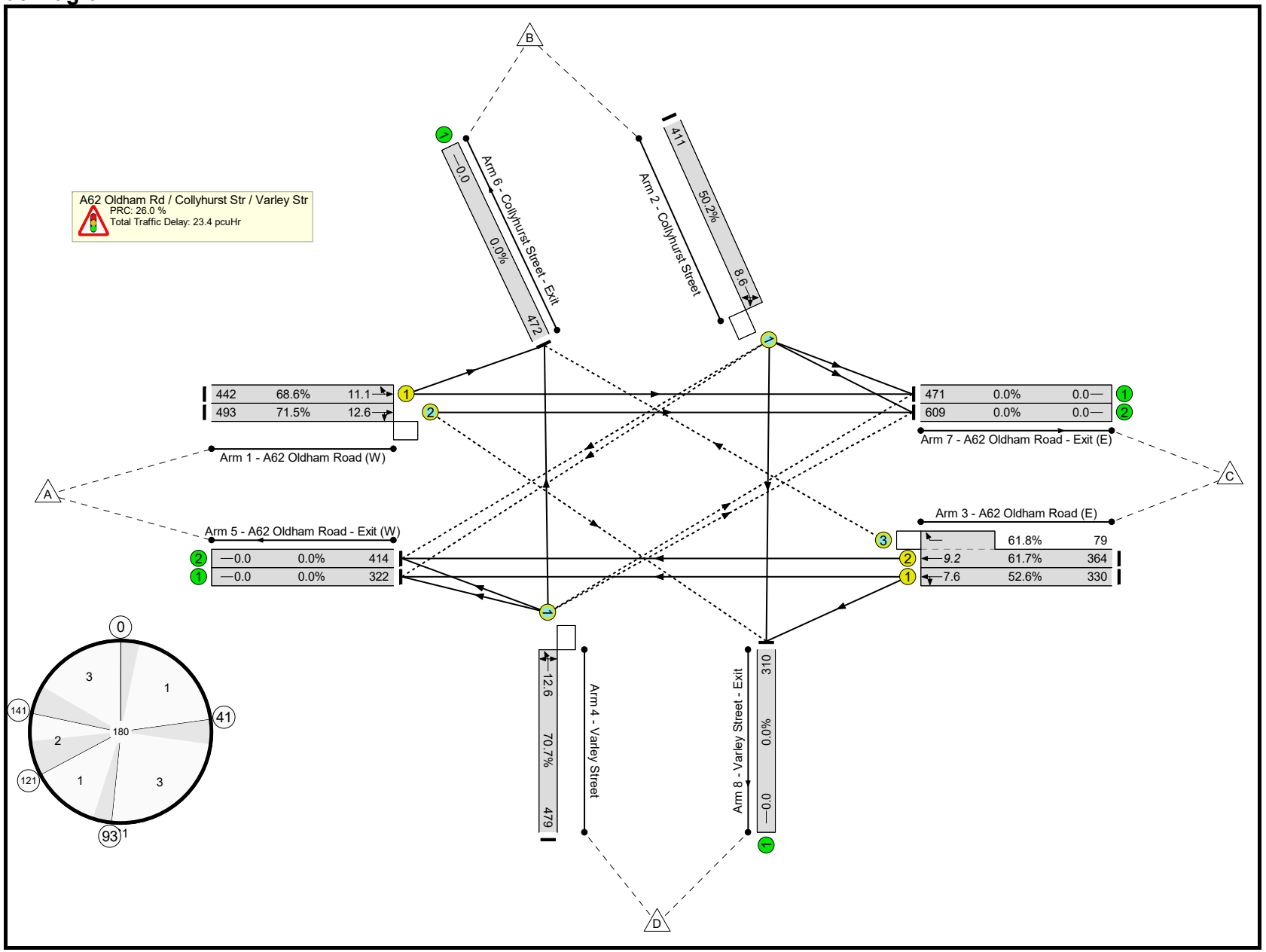


Lane Green Times

Junction: A62 Oldham Rd / Collyhurst Str / Varley Str

Lane	Description	Type	Phases	Start Green	End Green
1/1	A62 Oldham Road (W) Left Ahead	U	A	6	41
				99	121
1/2	A62 Oldham Road (W) Ahead Right	O	A	6	41
				99	121
2/1	Collyhurst Street Right Left Ahead	O	C	47	93
				150	0
3/1	A62 Oldham Road (E) Ahead Left	U	B	6	41
				99	121
3/2	A62 Oldham Road (E) Ahead	U	B	6	41
				99	121
3/3	A62 Oldham Road (E) Right	O	B	6	41
				99	121
4/1	Varley Street Left Ahead Right	O	D	49	93
				150	0

Network Layout Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Bonus Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A62 Oldham Rd / Collyhurst Str / Varley Str	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**71.5%**
A62 Oldham Rd / Collyhurst Str / Varley Str	-	-	**N/A**	-	-		-	-	-	-	-	-	-	**71.5%**
1/1	A62 Oldham Road (W) Left Ahead	U	N/A	N/A	A		2	57	-	-	442	1965	644	68.6%
1/2	A62 Oldham Road (W) Ahead Right	O	N/A	N/A	A		2	57	-	-	493	2105	690	71.5%
2/1	Collyhurst Street Right Left Ahead	O	N/A	N/A	C		2	76	-	-	411	1890	819	50.2%
3/1	A62 Oldham Road (E) Ahead Left	U	N/A	N/A	B		2	57	-	-	330	1915	628	52.6%
3/2+3/3	A62 Oldham Road (E) Ahead Right	U+O	N/A	N/A	B		2	57	-	-	443	2055:2055	590+128	61.7 : 61.8%
4/1	Varley Street Left Ahead Right	O	N/A	N/A	D		2	74	-	-	479	1915	678	70.7%
5/1	A62 Oldham Road - Exit (W)	U	N/A	N/A	-		-	-	-	-	322	Inf	Inf	0.0%
5/2	A62 Oldham Road - Exit (W)	U	N/A	N/A	-		-	-	-	-	414	Inf	Inf	0.0%
6/1	Collyhurst Street - Exit	U	N/A	N/A	-		-	-	-	-	472	Inf	Inf	0.0%
7/1	A62 Oldham Road - Exit (E)	U	N/A	N/A	-		-	-	-	-	471	Inf	Inf	0.0%
7/2	A62 Oldham Road - Exit (E)	U	N/A	N/A	-		-	-	-	-	609	Inf	Inf	0.0%

8/1	Varley Street - Exit	U	N/A	N/A	-		-	-	-	-	310	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network: A62 Oldham Rd / Collyhurst Str / Varley Str	**-**	**-**	**333**	**0**	**21**	**17.3**	**5.4**	**0.8**	**23.4**	**-**	**-**	**-**	**-**	
A62 Oldham Rd / Collyhurst Str / Varley Str	**-**	**-**	**333**	**0**	**21**	**17.3**	**5.4**	**0.8**	**23.4**	**-**	**-**	**-**	**-**	
1/1	442	442	-	-	-	3.2	1.1	-	4.3	35.1	10.1	1.1	11.1	
1/2	493	493	27	0	0	3.6	1.2	0.0	4.9	36.0	11.4	1.2	12.6	
2/1	411	411	74	0	0	2.1	0.5	0.1	2.7	23.5	8.1	0.5	8.6	
3/1	330	330	-	-	-	2.3	0.6	-	2.8	30.7	7.1	0.6	7.6	
3/2+3/3	443	443	58	0	21	3.0	0.8	0.4	4.2	34.3	8.4	0.8	9.2	
4/1	479	479	174	0	0	3.0	1.2	0.3	4.5	33.7	11.4	1.2	12.6	
5/1	322	322	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/2	414	414	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	472	472	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	471	471	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/2	609	609	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	310	310	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	

C1 PRC for Signalled Lanes (%): 26.0 Total Delay for Signalled Lanes (pcuHr): 23.45 Cycle Time (s): 180
PRC Over All Lanes (%): 26.0 Total Delay Over All Lanes(pcuHr): 23.45