

Ancoats Mobility Hub

Transport Assessment

For Manchester Life Strategic Development Company Limited

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Prepared by		Chris Rushton BA (Hons), CMILT
Checked by		Sam Denby BA (Hons), MSc, CMILT
Approved by		Sam Denby BA (Hons), MSc, CMILT

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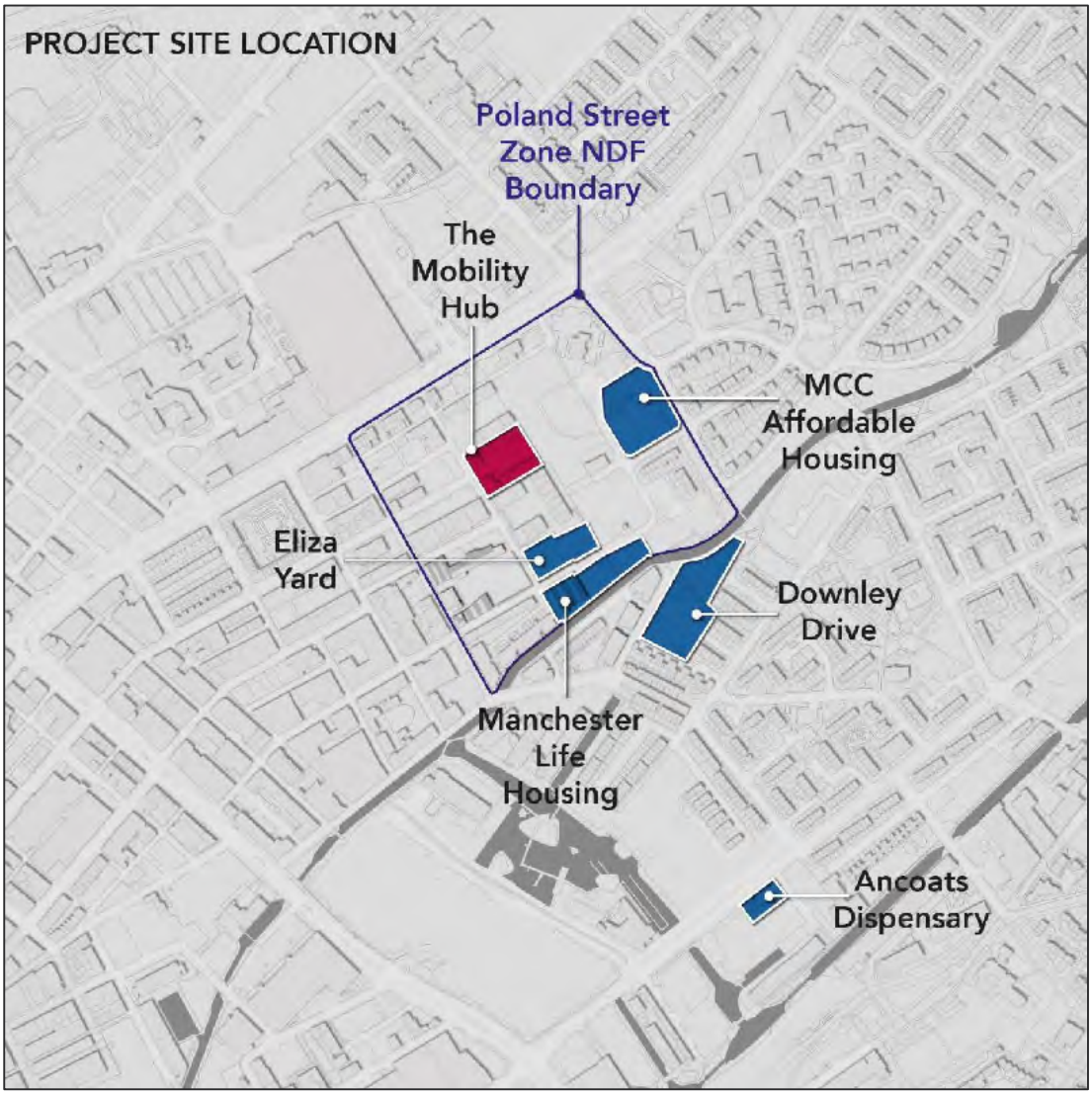
1. INTRODUCTION

1.1.1 Hydrock have been instructed by Manchester Life Strategic Development Company Limited [MLSDCL] to prepare a Transport Assessment [TA] in support of a planning application for The Ancoats Mobility Hub development, Manchester.

1.1.2 The proposed Mobility Hub development is located within the area of Manchester City Centre known as 'Ancoats'.

1.1.3 The proposed site is located along Poland Street, to the north east of the A665 Great Ancoats Street, and to the south east of the A62 Oldham Road, as shown in Figure 1.1.

Figure 1.1: Site Location



Source: Buttress

1.1.4 The Site is bounded by Poland Street to the west, the City Court Trading Estate to the south, Crown Industrial Estate to the north and Ancoats Green to the east. The Site can be accessed by pedestrians and vehicles via Poland Street.

1.1.5 The Site is currently occupied by low-rise, multi-tenanted industrial estate units and hardstanding. The Site can be accessed by pedestrians and vehicles via Poland Street. Security fencing runs along the eastern boundary where the Site meets Ancoats Green.

1.1.6 Modern industrial units lie to the north and south of the Site with the residential neighbourhood of Miles Platting further beyond to the east. The Rochdale Canal is located 0.2km south of the Site.

1.1.7 The Ancoats Mobility Hub ("the Hub") is being brought forward to support the next phase of the redevelopment of the Ancoats area of Manchester which will be focused on the Poland Street Zone as defined by Poland Street Zone NDF endorsed by Manchester City Council (MCC) in July 2020. It is anticipated that 1616 new homes and up to 31,000sft of commercial space will come forward within the Poland Street Zone NDF area.

1.1.8 The Hub is a key component of a place-based regeneration strategy for the area that will support and prioritise local communities as well as play a vital role in supporting place creation, improved mobility at a neighbourhood scale, and contributing to Manchester's journey towards achieving Net Zero Carbon. This approach builds on the area's transformation into one of the most sought-after residential neighbourhoods in the City. The Hub is not about slamming the brake on cars or simply delivering a car park under another name. It is as about providing the tools and encouragement for people to change habits and contribute towards a more sustainable and inclusive world.

1.1.9 The proposals for the Hub seek to support the growth of a resilient, future-ready neighbourhood by embedding sustainable transport choices, smart logistics, and shared services into the heart of an emerging and sustainable neighbourhood. This innovative project is proposed to meet the parking requirements of residents and businesses in Ancoats, removing parking from individual schemes and promoting a shift away from car ownership by providing the infrastructure to offer sustainable alternatives. In accordance with priorities set out both in the NDF and the City Centre Transport Strategy, the Hub will provide sustainable transport solutions and respond to the community's desire to prioritise people over vehicles in the local area.

1.1.10 The Hub is more than "just a car park" and will deliver a wide range of publicly accessible uses that will benefit the wider neighbourhood and its community. A suite of documentation has been submitted as part of this planning application which fully explains the benefits that will arise as a result of the Proposed Development. These documents principally include the Strategic Case for the Hub prepared by Hillbreak, the Planning Statement prepared by Deloitte, the Technical Case for the Hub prepared by Deloitte, and the Design & Access Statement prepared by Buttress.

1.1.11 It should also be noted that this development represents an opportunity to reduce vehicle trips in the local area. This is covered in detail within section 8.6 and Appendix F of this document. In summary the Hub is forecast to reduce the number of peak hour car journeys within the Poland Street Zone redevelopment area by more than 200 per day. This will reduce the distances travelled by 1,197km every 24 hours and that circa the straight-line distance as travelling from Ancoats to Munich in Germany – avoiding almost 50 tonnes of CO_2 emissions every year.

1.1.12 The Hub also offers the opportunity to transform how residential parking is provided on a neighbourhood basis, facilitating and enabling the transition away from petrol/diesel cars and to alternative, active modes of transport and consists of the following components:

- Cycle Hub – 150 cycle spaces with lockers and shower provision. Tiered memberships will be available aimed at encouraging cycle commuting into the area. This is in addition to the cycle

storage provided at individual developments and will enable people working in and visiting the area to use cycling as their preferred mode of transport;

- Delivery Hub – 750sqm area designated for aggregated deliveries to the residential addresses in the area so that the last mile of that delivery can be completed by sustainable means (electric vehicle or cargo bike) or offer collection via lockers;
- Commercial Unit – 220sqm commercial unit, targeting businesses who can enhance the amenity of the facility and Ancoats Green;
- 408 car parking spaces comprising:
  - 378 parking spaces (including 24 disabled spaces) designed to support future residential developments;
  - 20 Car Club spaces - 20 spaces initially and room to grow, the car club will look to provide a mobility provision other than car ownership to facilitate sustainable choices;
  - 10 car sharing spaces (Rideshare) – up to 10 spaces available initially and room to grow, the ridesharing spaces will facilitate residents with electric vehicles offering their vehicle for private hire via a car-sharing platform;
- Electric Vehicle Charging Points – 25% provision (102 points) with electrical capacity secured to grow with demand up to 100%;
  - 7 x rapid charge points (50kw) for visitors;
  - 95 x standard charge points (7kw) for residents;
- A Photo Voltaic [PV] array with a projected total generation of 97.6MWh. The electricity generated will support landlord functions with sufficient excess to support 7 car club spaces;
- Digital Platform – a platform will be delivered with the Mobility Hub which will make the services available at the Hub accessible to individuals and families in the neighbourhood via their smartphones;
- A tenure model for car parking provision which breaks the link between homes and car parking spaces and allows spaces to be recycled by being sold back to the operator as residents choose not to own a car and to make use of car clubs and other modes of transport; and
- The Mobility Hub Operators will be asked to develop a parking season ticket which prioritises existing residents without parking provision followed by workers commuting into existing business premises in the Ancoats and New Islington area via a combination of postcode indexed and season ticket length pricing incentives.

1.1.13 This TA has been developed in accordance with the now superseded Department for Transport's ([DfT's] March 2007 "Guidance on Transport Assessment" document and gives due regard to the National Planning Practice Guidance (NPPG) "Transport Evidence in Plan Making" document.

1.1.14 This report seeks to conclude that the proposed development can be accommodated without detriment to the operational capacity or safety of the local highway network and that it can be suitably accessed on foot, by bicycle and by local public transport services.

1.2 Scoping

1.2.1 Hydrock have undertaken extensive pre-application scoping discussions via meetings, emails and telephone conversations with both MCC highways and planning teams, and Transport for Greater Manchester [TfGM].

1.2.2 Those scoping discussions concluded the following:

- Transport Assessment structure;
- Junction Assessment criteria;
- Junctions' assessment methodology, including the data set to be used given the impact of the COVID-19 pandemic on traffic flows and junctions to be assessed;
- Development trip generation methodology;
- The committed developments traffic flows to be incorporated into the assessment; and
- Approach to establishing appropriate TROs in support of the development.

Junction Assessment Scoping

1.2.3 Hydrock proposed the following 5 junctions immediately surrounding the site that they anticipated would be required as part of any capacity assessments to support the application;

- Poland Street / A62 Oldham Road;
- Poland Street / Jersey Street;
- Jersey Street / A665 Great Ancoats Street;
- A665 Great Ancoats Street / A62 Oldham Road / Oldham Street / Swan Street; and
- Bengal Street / A62 Oldham Street.

1.2.4 TfGM confirmed they agreed with the above 5 junctions to be assessed. However, requested Hydrock present a wider junction impact assessment.

1.2.5 Following agreement with TfGM, Hydrock undertook percentage impact assessments for the 19 junctions listed below. It was agreed that a detailed capacity assessment should be conducted for any junction showing impact greater than 5% in addition to the 5 junctions identified above;

- A56 Bury New Road / A6042 Trinity Way;
- A665 Cheetham Hill Road / A6042 Trinity Way;
- A665 Miller Street / A664 Angel Street;
- A664 Angel Street / Dantzic Street;
- A664 Angel Street / A664 Rochdale Road;
- A665 Miller Street / A664 Rochdale Road;
- A665 Addington Street / A62 Oldham Road;
- A664 Rochdale Road / Livesey Street;
- A62 Oldham Road / Livesey Street;
- A62 Oldham Road / Collyhurst Street;
- A665 Great Ancoats Street / Old Mill Street;
- A665 Great Ancoats Street / A662 Pollard Street;
- A665 Great Ancoats Street / Every Street;
- A665 Great Ancoats Street / A635 Pin Mill Brow;

- A665 Great Ancoats Street / Fairfield Street;
- A665 Great Ancoats Street / A635 Ashton Old Road;
- A665 Great Ancoats Street / Redhill Street;
- A665 Great Ancoats Street / Newton Street; and
- A665 Great Ancoats Street / George Leigh Street.

1.2.6 Following the percentage impact assessments, three additional junctions were identified and agreed with TfGM as junctions that would be included within the detailed capacity assessments, as discussed in more detail within Section 8.

- A62 Oldham Road / Collyhurst Street (max 7% impact);
- A62 Oldham Road / Livesey Street (max 10% impact); and
- A664 Rochdale Road / Livesey Street (max 9% impact).

1.2.7 Percentage impact greater than 5% were also noted on the below 3 junctions already proposed for detailed assessment.

- A62 Oldham Road / Bengal Street;
- A62 Oldham Road / Poland Street; and
- Poland Street / Jersey Street.

1.2.8 To conclude, the following 8 junctions were agreed as requiring detailed capacity assessments via the process outlined above;

- Poland Street / A62 Oldham Road;
- Poland Street / Jersey Street;
- Jersey Street / A665 Great Ancoats Street;
- A665 Great Ancoats Street / A62 Oldham Road / Oldham Street / Swan Street;
- Bengal Street / A62 Oldham Street;
- A62 Oldham Road / Collyhurst Street;
- A62 Oldham Road / Livesey Street; and
- A664 Rochdale Road / Livesey Street.

1.2.9 A copy of all email correspondence between Hydrock, MCC highways and TfGM is presented in **Appendix A** of this TA.

1.3 Scope of this report

1.3.1 The report comprises nine sections, including this introduction, and is set out as follows:

- **Section two** examines the site location, existing conditions, and accident analysis;
- **Section three** summarises the national and regional transport policies;
- **Section four** presents the sustainable accessibility, connectivity, and parking restrictions of the site;
- **Section five** discusses the development proposals;
- **Section six** describes the future baseline traffic conditions on the local highway network;

- Section seven estimates the number of vehicle trips generated by the development, and presents an impact assessment of the development trips upon the network;
- Section eight presents a capacity assessment of the proposed development vehicle trips upon the network; and
- Section nine sets out the summary and conclusions.

2. EXISTING CONDITIONS

2.1 Site Description

2.1.1 The Site is located within the Ancoats Conservation Area; however, the quality is severely degraded in this part of the conservation area. The nearest listed building to the development Site is the Grade II* Listed Beehive Mill, located approximately 121.9m to the west of the Site. The Site is located within Flood Zone 1 which means that there is less than 0.1% chance of flooding per annum. It falls within a Critical Drainage Area as prescribed by the Manchester, Salford and Trafford Strategic Flood Risk Assessment.

2.1.2 The Site is located within the Ancoats and New Islington area. The regeneration and development that has taken place so far has been guided by the Ancoats and New Islington Development Framework which was originally endorsed by MCC in October 2014.

2.1.3 In July 2020, MCC endorsed a refreshed Neighbourhood Development Framework which focused on the Poland Street Zone in Ancoats and was prepared to ensure future development preserved the character of the area whilst meeting future housing, sustainability and community needs. The Neighbourhood Development Framework states that the development will be a welcoming residential area with a range and mix of accommodation befitting a neighbourhood of choice within a low car use area with high levels of cycle parking.

2.1.4 The site benefits from its location on the north eastern edge of Manchester City Centre, the principal economic driver for the City Region and a focus for employment, leisure, retail and cultural facilities. In addition, it benefits from excellent connections to public transport. In this regard, the site is located within walking distance of Manchester Piccadilly Station and Victoria Station which provide national and regional rail links, as well as acting as transport interchanges for local rail services and Metrolink services across Greater Manchester. In addition, Shudehill Bus Station and Metrolink Station and Market Street Metrolink station are within walking distance of the site, providing connectivity to all lines on the Metrolink network and a number of regional bus services. The public transport services are discussed in more detail within Section 4 of this TA.

2.2 Highway Network

2.2.1 The main sections of the local highway network immediately surrounding the site comprise of the following:

- Poland Street;
- Jersey Street; and
- George Leigh Street.

2.2.2 All of the above are residential / small employment land use roads and comprise of various historic constraints due to the existing building types, character and environment within the Ancoats and New Islington district area.

2.3 Poland Street

2.3.1 Poland Street is single carriageway road, featuring a circa 4.5m wide carriageway with pedestrian footways on both sides of the carriageway. The road currently provides a link from the A62 Oldham Road in the north to meet with Jersey Street in the south.

2.3.2 The road extends for circa 250m in a north/south direction. The road is governed by a 20mph traffic calming speed limit, effective across the whole of the Ancoats controlled zone area. Poland Street has parking restrictions in the form of a single yellow line which prohibit parking within the controlled zone area between the hours of 08:00-18:00 Monday-Saturday.

2.3.3 **Figure 2.1** below shows the location of Poland Street from a southernly approach.

Figure 2.1: Local Highway Network – Poland Street



Source: Google Images ©

2.4 Jersey Street

2.4.1 Jersey Street is a single carriageway road to the south of the site, extending from Rodney Street to the east to meet with the A665 Great Ancoats Street to the west. Poland Street is located off Jersey Street. Jersey Street has a limited amount of Pay and Display (P&D) parking.

2.4.2 Due to being within the 'Ancoats controlled traffic calming zone', Jersey Street is governed by a 20mph speed limit. Pedestrian movements are aided through wide, lit footways, tactile paving and low kerbs. Jersey Street is illustrated in **Figure 2.2** below.

2.4.3 **Figure 2.2** shows the Jersey Street from a westerly approach.

Figure 2.2: Local Highway Network – Jersey Street



Source: Google Images ©

2.5 George Leigh Street

2.5.1 George Leigh Street is a single carriageway road that leads to the proposed Mobility Hub from Great Ancoats Street in the south west. George Leigh Street is to host street pay and display parking bays and no waiting traffic regulation orders.

2.5.2 George Leigh Street is governed by a 20mph speed restriction and benefits from wide footways, street lighting, and raised tables at crossing points to aid pedestrian movement. George Leigh Street to the south west of Radium Street benefits from improved public realm, street furniture and planting.

2.5.3 **Figure 2.3** illustrates George Leigh Street from a south northern direction within proximity to the proposed Mobility Hub.

Figure 2.3: Local Highway Network – George Leigh Street



Source: Google Images ©

2.5.4 In addition to the above, the following sections of the local highway network are located within close proximity to the site, and provide greater linkages to areas further-a-field:

- A62 Oldham Road; and
- A665 Great Ancoats Street.

2.5.5 The A62 Oldham Road is a primary distributor road that links Manchester City Centre to Oldham town centre in the north east via Failsworth and the M60 Junction 22.

2.5.6 In proximity of the site, the A62 Oldham Road is a dual carriageway, and has a carriageway width of approximately 18.0m, which includes a 2.0m wide central reserve, and a bus lane on the southern side of the carriageway (operating 07:00-10:00 & 16:00-19:00 (Mon-Fri)). The road also benefits from cycle lanes (discussed in more detail within Section 4).

2.5.7 The A665 Great Ancoats Street is a primary distributor road that forms part of the Manchester and Salford Inner Ring Road (MSIRR) orbital route along the north-eastern edge of Manchester city centre.

2.5.8 To the north the route offers connections to the A62 Oldham Road, A664 Rochdale Road, A665 Cheetham Hill Road and A6042 Trinity Way into Salford. To the south it provides connectivity to the A635 Ashton Old Road, A57 Hyde Road, A6 Stockport Road and the A57(M) Mancunian Way.

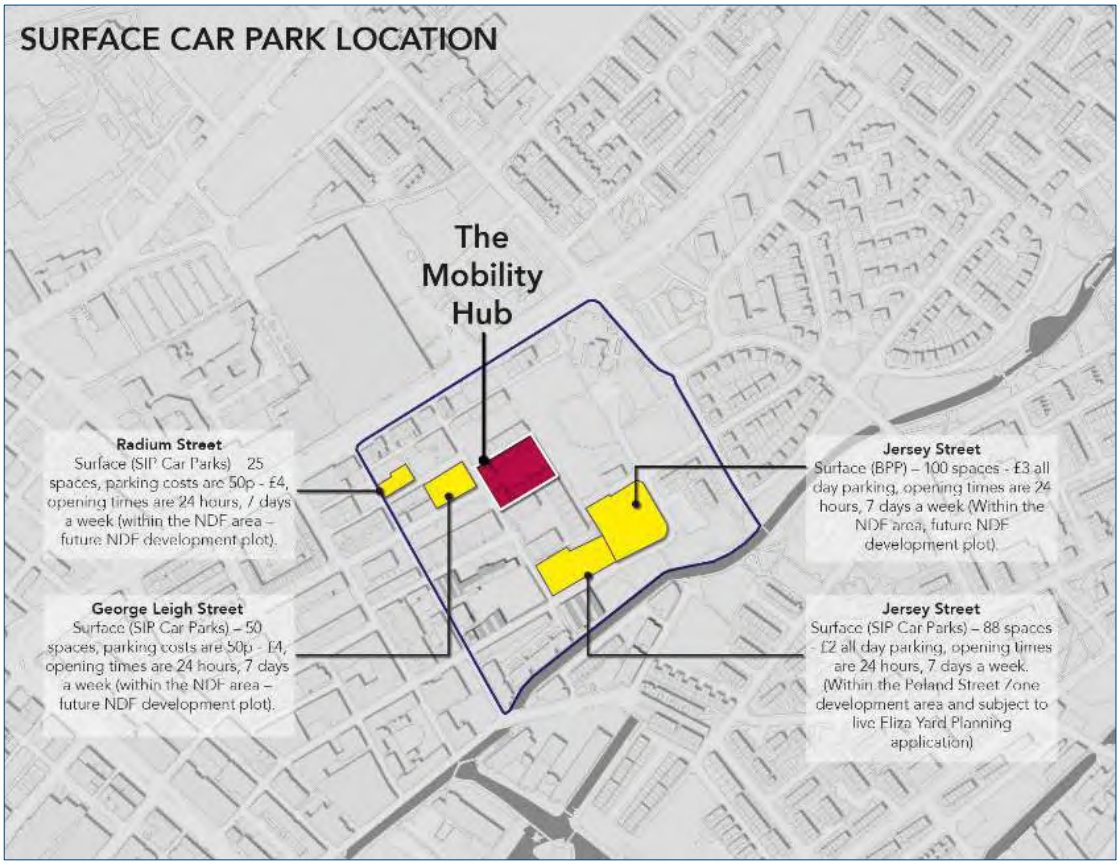
2.5.9 There are a number of surface car parks operating on sites in the neighbourhood which are proposed by the Poland Street Zone NDF for re-development.

2.5.10 In addition to the above, pre-application engagement with local councillors has highlighted the issues that existing residents of Ancoats and New Islington already face with a lack of resident parking. The minutes of the relevant meeting are included at Appendix A.

2.5.11 Hydrock have provided the following detailed summary and plan (shown in **Figure 2.4** below) of the existing surface car parking facilities located within the Poland Street Zone closest to Mobility Hub that are earmarked for future development within the Poland Street Zone NDF.

- George Leigh Street – surface (SIP Car Parks) – 50 spaces, parking costs are 50p - £4, opening times are 24 hours, 7 days a week (within the NDF area – future NDF development plot);
- Radium Street – surface (SIP Car Parks) – 25 spaces, parking costs are 50p - £4, opening times are 24 hours, 7 days a week (within the NDF area – future NDF development plot);
- Jersey Street – surface (SIP Car Parks) – 88 spaces, (Within the Poland Street Zone development area and subject to live Eliza Yard Planning application); and
- Jersey Street – surface (BPP) – 100 spaces - £3 all day parking, opening times are 24 hours, 7 days a week (Within the NDF area, future NDF development plot).

Figure 2.4: Existing Car Parking Facilities



Source:Buttress

2.5.12 As shown in **Figure 2.4**, in total, the Poland Street Zone NDF identifies sites containing 263 surface car parking spaces for redevelopment. The 88 spaces within the Jersey Street SIP car park are subject to a live planning application for a residential development (Eliza Yard). With the exception of the Eliza Yard site, the timing of these developments coming forward and these car parking spaces being lost is unknown but early developments are expected to create confidence in the area generating momentum for developments being brought forward.

2.5.13 In addition to new developments removing surface car parking spaces, Hydrock are aware that MCC intend to bring forward a Public Realm and TRO strategy for the area which will consolidate existing parking (both regulated and unregulated) into the Hub. The Public Realm and TRO strategy will provide the local regulatory context within which the Hub can operate.

2.5.14 It is anticipated that re-development of the Poland Street Zone will happen incrementally. As such, capacity will exist in the Mobility Hub to accommodate existing residents without parking or existing displaced commuters from the lost surface car parks until the Hub reaches capacity with residential parking provision.

2.6 Traffic Flows

2.6.1 Given the COVID-19 restrictions on movement, alternative approaches have been undertaken in order to provide a robust data set to establish the baseline situation.

2.6.2 Prior to the conclusion of the formal scoping discussions referenced within Section 1 and **Appendix A**, Hydrock commissioned traffic surveys of the following 5 junctions on 22nd October and 3rd November 2020.

- Poland Street / A62 Oldham Road;
- Poland Street / Jersey Street;
- Jersey Street / A665 Great Ancoats Street;
- A665 Great Ancoats Street / A62 Oldham Road / Oldham Street / Swan Street; and
- Bengal Street / A62 Oldham Street.

2.6.3 Hydrock conducted these surveys during a window of time between COVID-19 related lockdown and Tier 3 restrictions. It was this window which prompted Hydrock to conduct the surveys prior to conclusion of the formal scoping discussions.

2.6.4 The full results of the traffic surveys can be found at **Appendix B**.

2.6.5 During the formal scoping discussions, TfGM requested the survey data was augmented using existing historic data to match recorded 2019 levels from an ATC link situated along the A62 Oldham Road to the south of Poland Street. The growthing details are provided in more detail within Section 6 of this report.

2.6.6 As detailed earlier in Section 1, TfGM requested the junction impact assessment area was widened to cover an additional 19 junctions during the formal scoping discussions. Due the limitations of the COVID-19 imposed national lockdown at the time of the scoping discussions, surveys could not be relied upon and existing data was used as baseline data for the traffic flows at these junctions.

2.6.7 TfGM provided existing traffic flow data for all 24 junctions comprising the wider study area. The full detail of this traffic data can be found at **Appendix B** and the additional 19 junctions are re-listed below for completeness.

- A56 Bury New Road / A6042 Trinity Way;
- A665 Cheetham Hill Road / A6042 Trinity Way;
- A665 Miller Street / A664 Angel Street;
- A664 Angel Street / Dantzic Street;

- A664 Angel Street / A664 Rochdale Road;
- A665 Miller Street / A664 Rochdale Road;
- A665 Addington Street / A62 Oldham Road;
- A664 Rochdale Road / Livesey Street;
- A62 Oldham Road / Livesey Street;
- A62 Oldham Road / Collyhurst Street;
- A665 Great Ancoats Street / Old Mill Street;
- A665 Great Ancoats Street / A662 Pollard Street;
- A665 Great Ancoats Street / Every Street;
- A665 Great Ancoats Street / A635 Pin Mill Brow;
- A665 Great Ancoats Street / Fairfield Street;
- A665 Great Ancoats Street / A635 Ashton Old Road;
- A665 Great Ancoats Street / Redhill Street;
- A665 Great Ancoats Street / Newton Street; and
- A665 Great Ancoats Street / George Leigh Street.

2.6.8 Analysis of the observed traffic flows indicate that the weekday AM peak hour occurs between 08:30-09:30, and the PM peak hour occurs between 17:00-18:00

2.6.9 The nature of the proposed development use (residential with visitor and limited commercial) dictates weekday AM and PM peak hours. The impact on the local highway highlighted within this TA is measured during these peak hours.

2.6.10 To conclude, due to COVID-19 imposed movement restrictions, a combination of traffic survey data augmented with existing historic data have been used to assess the effect of the development proposals on the local transport network

2.6.11 This assessment includes a specific impact study that considers the impact on the network 'with' or 'without' the proposed Mobility Hub, and is discussed in more detail within Sections 4 and 7 of this report.

2.7 Accident Analysis

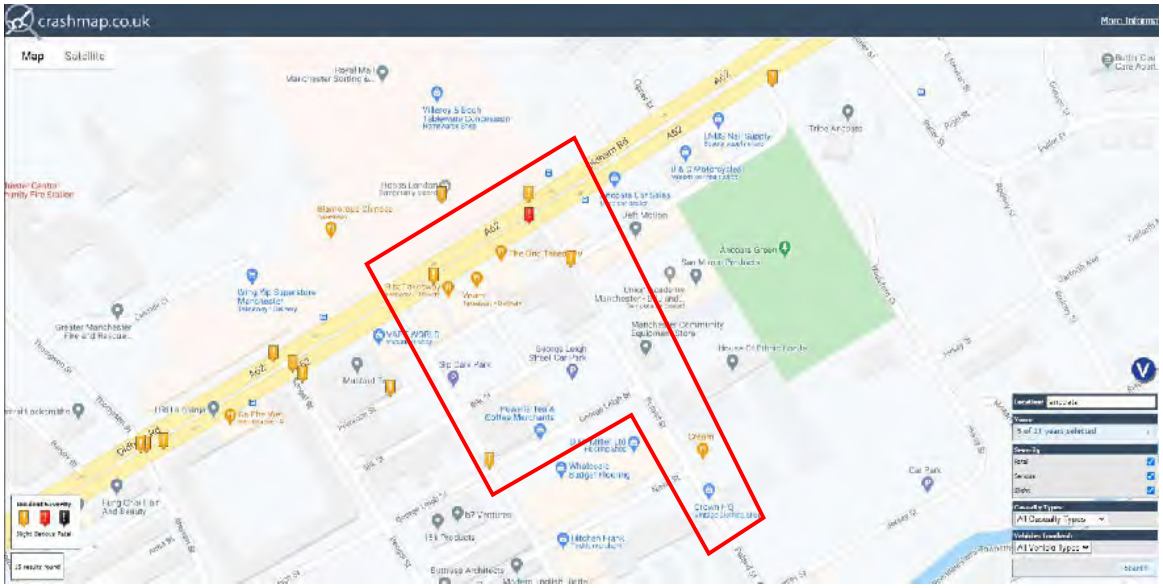
2.7.1 The DfT document “Guidance on Transport Assessment” states that:

> *“Critical locations on the road network with poor accident records should be identified. This is to determine if the proposed development will exacerbate existing problems or, if proposed, whether highway mitigation works or traffic management measures will help to alleviate the problems”.*

2.7.2 Hydrock have undertaken a review of the Personal-Injury Accidents (PIAs), which provides the most recently available data over a five-year period (1st January 2015 - 31st December 2019).

2.7.3 Examination of the PIA data revealed that there have been 5 accidents recorded within the study area over this five-year period, as shown in **Figure 2.5** below.

Figure 2.5: Accident Data



Source: Crashmap.co.uk

2.7.4 Of the 5 accidents recorded, it is noted that 4 were recorded as resulting in slight injuries, with the remaining accident recorded resulting in serious injuries, as shown in **Table 2.1** below.

Table 2.1: Accident Data Summary

Injury	2019	2018	2017	2016	2015
Slight	0	0	1	3	0
Serious	0	0	0	0	1
Fatal	0	0	0	0	0
TOTAL	0	0	1	3	1

2.7.5 Although all accidents are regrettable, the number of incidents is within the typical threshold of a busy urban environment, and it should be noted that the number of accidents has reduced to zero in the last couple of years demonstrating an improvement to the area.

2.7.6 Furthermore, from our review we have not established evidence to indicate specific highway issues. As a consequence, the existing road safety record is not considered to be a material concern in this location.

2.8 Road Safety Audit

2.8.1 During the formal scoping discussions, MCC requested a full road safety audit of the proposed development site. Hydrock commissioned a Stage 1 - Road Safety Audit [RSA] which was undertaken by an independent contractor in accordance with guidance outlined within the Design Manual for Roads and Bridges (DMRB) GG119 document, and Manual for Streets [MfS] document.

2.8.2 The lead auditor whom undertook the RSA has over 20 years' experience with over 1,500 audits undertaken.

2.8.3 The full Stage 1 - RSA report was undertaken in February 2021 and was based upon the development proposals (including raised tables at two Poland Street Junctions). The full report is provided at Appendix C.

2.8.4 The RSA concluded that the only recommended improvements to the proposed site layout related to the following:

- Insufficient highway drainage to support the raised tables proposed as a speed mitigation measure on the Poland Street / George Leigh Street junction.

2.8.5 Given the above, drainage gullies will be incorporated into the raised tables design during the next design stage.

2.8.6 It should be noted that no additional safety concerns were raised in relation to the proposed development or the existing surrounding area.

3. TRANSPORT POLICY

3.1 Policy Overview

3.1.1 In line with local and national policy, this section outlines the potential travel demand for all modes with regards to the proposed development, against the existing transport provision within the area.

3.2 National Planning Policy Framework [NPPF]

3.2.1 The NPPF sets out the Government's policies for delivering sustainable development through the planning system. Local authorities are required to take these policies into account when formulating local development plans and when determining planning applications.

3.2.2 The most recent NPPF report was published in February 2019 and sets out the Government's planning policies for England and how these are expected to be applied at a local level. The NPPF is a significant material consideration in plan making and decision taking.

3.2.3 Paragraph 102 seeks to encourage opportunities to promote walking, cycling and public transport use. This is supplemented by paragraph 103 which states that development should be focused in sustainable locations and offer a genuine choice of transport modes.

3.2.4 Development proposals should also give priority to pedestrian and cycle movements and facilitate access to high quality public transport. The needs of people with disabilities and reduced mobility should also be addressed (paragraph 110).

3.2.5 Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe, as noted on page 32 'Considering Development Proposals' (paragraph 110 - point a).

3.2.6 Furthermore, priority should be given to walking, cycling and public transport movements; conflicts between vehicles and vulnerable road users should be minimised through effective layout design, again as noted on page 32 'Considering Development Proposals' (paragraph 110 - points a & c).

3.2.7 Having regard to the above objectives, the proposed site access strategy includes measures to connect the site with the adjacent community and sustainable travel network, including existing public transport services. This TA considers the accessibility of the site by all modes and proposes a layout and access strategy that seeks to maximise the use of sustainable modes.

3.3 Planning Practice Guidance: Travel Plans, Transport Assessments and Statements in Decision-Making

3.3.1 In March 2014, the Department for Communities and Local Government [DCLG] in conjunction with the Department for Transport [DfT], released advice on when transport assessments and transport statements are required and what they should contain, which is intended to assist stakeholders in determining whether an assessment may be required. If an assessment is required, the level and scope of that assessment is then outlined within the document.

3.3.2 The advice reflects current Government policy, promoting a shift from the 'predict and provide' approach to transport planning to one more focused on sustainability. The document focuses on encouraging environmental sustainability, managing the existing network and mitigating the residual impacts of traffic from the development proposals.

3.4 Manual for Streets (MfS)

3.4.1 Manual for Streets (March 2007 and Sept 2010) supersedes Places Streets & Movement and Design Bulletin 32. Manual for Streets should now be used where 85th percentile monitored traffic speeds are less than 37mph.

3.4.2 The Manual deals with first principles in respect of what a street is for. It outlines five principal functions, namely:

- Place;
- Movement;
- Access;
- Parking; and
- Drainage and utilities.

3.4.3 A sense of place encompasses a number of characteristics, namely, local distinctiveness, visual quality and human interaction. Of the five functions, place and movement are the most important in determining the character of streets and should be considered together, as opposed to in isolation.

3.4.4 In new developments, Manual for Streets highlights that locations with a relatively high place function would be those where people are likely to gather and interact with each other, such as the town centre.

3.4.5 In Section 3 of Mfs – the design process highlights that the design of a scheme should follow the user hierarchy shown in **Table 3.1**:

Table 3.1: User Hierarchy (taken from Table 3.2 of MfS, March 2007)

Consider First	Pedestrians
	Cyclists
	Public Transport Users
	Specialist service vehicles (e.g. emergency services, waste etc.)
Consider Last	Other motor vehicles

Source: MfS (2007)

3.5 Guidelines for Providing for Journeys on Foot

3.5.1 Various walking distances are quoted in the Chartered Institution of Highways and Transportation's (CIHT's) "Guidelines for Providing for Journeys on Foot". **Table 3.2** (taken from Table 3.2 of the document) sets out the acceptable walking distances in various contexts:

Table 3.2: Acceptable Walking Distances

Criteria	Town Centre (m)	School/Commuters (m)	Elsewhere (m)
Desirable	200	500	400
Acceptable	400	1,000	800
Preferred Maximum	800	2,000	1,200

3.6 Greater Manchester Local Transport Plan (2017)

3.6.1 The Greater Manchester Transport Strategy 2040, published in February 2017, sets out TfGM's sustainable mobility plan for the future and forms Greater Manchester's 4th Local Transport Plan (GMLTP4). Building on its own 2040 Vision, the Strategy provides detail on the priority interventions needed to deliver that Vision. The document highlights several key objectives relevant to the application site:

- *"Reducing the need to travel by car, and the distance travelled*;
- *Making the best use of existing infrastructure, particularly through increasing the density of development close to public transport nodes*;
- *Increasing the use of sustainable transport to reduce the negative impacts of car use. The design of new development needs to make it easier for people to use sustainable modes e.g. the availability of safe and direct walk/cycle routes, the provision of secure cycle parking or the availability of EV charging points; and*
- *Establish cycling as a recognised and attractive component of the future integrated transport offer. 'Aim to double and double again' the proportion of trips made by bicycle by 2025, with the aspiration that 10% of all trips should be made by bike."*

3.6.2 One of the priority interventions for the Manchester Regional Centre includes improvements to the Manchester and Salford Inner Relief Route Improvements at Great Ancoats Street. The scheme aims to unlock the potential regeneration and growth to the north and east of Great Ancoats Street (A665) by reducing severance and improving the public realm.

3.7 Greater Manchester Transport Strategy [GMTS] (2040) Draft Delivery Plan (2020-2025)

3.7.1 The Greater Manchester Transport Strategy 2040 focusses on tackling the critical long-term challenges facing the city-region. This is the second in a series of five-year Delivery Plans that ensure the long-term challenges outlined in the overarching 2040 Transport Strategy can adapt and respond to emerging trends and priorities.

3.7.2 Connectivity to public transport is a key factor in the selection process that underpins the new allocations within the GMSF. Among other considerations, sites have been specifically identified for development where they meet the following criteria:

- Land which is well served by public transport;
- Land which capitalises on the benefits from planned major strategic public transport investment which will result in the site being well served by public transport – namely HS2 Airport, Piccadilly and Wigan Stations, and the Airport Metrolink Western Leg extension;
- Land within 800m of a main town centre boundary or 800m from the other town centres' mid-points; and
- Land where transport investment (by the developer) and the creation of significant new demand (through appropriate development densities), would support the delivery of long-term viable sustainable travel options and deliver significant wider community benefits.

3.8 Greater Manchester Spatial Framework [GMSF]

3.8.1 It is noted that the GMSF is draft and is likely to be subject to change due to the withdrawal of Stockport from the GMSF. As there are no fixed timescales for the adoption of a new document the Hub development does not rely on it coming forward, but has still been considered within the draft's context.

3.8.2 The GMSF sets out how Greater Manchester (GM) should develop up until 2037. The plan identifies the number of new developments that will come forward across the 10 districts of GM in terms of housing, offices and industry. Once adopted, the GMSF will become part of the statutory development plan for each of the 10 Greater Manchester authorities.

3.8.3 The GMSF states that public transport suffers from a lack of capacity on key routes and with poor reliability. Although many parts of the city region have good public transport accessibility, there remain areas that are poorly served and others that are not connected at all. Despite a few exemplar schemes, the quality and extent of Greater Manchester's cycling infrastructure is limited, which means relatively few people choose to travel by bike.

3.8.4 The GMSF vision for 2040 is to improve the transport network so that half of all daily trips in Greater Manchester can be made by public transport, cycling and walking.

3.8.5 Policy GM-Strat 14 of the GMSF involves Sustainable and Integrated Transport Networks and proposes that transport networks across GM will be improved so that half of all daily trips can be made by public transport, cycling and walking.

3.9 Ancoats and New Islington Neighbourhood Development Framework [NDF]

3.9.1 The Neighbourhood Development Framework [NDF] was endorsed in October 2014 and updated in 2016, and then again in 2020. The NDF has been prepared to guide future development in Ancoats and New Islington in a form that creates attractive and successful neighbourhoods where increasing numbers of people will choose to live.

3.9.2 The NDF has guided development across the neighbourhoods and Ancoats has been transformed from a depopulated, declining industrial zone into one of the UK's most desirable emerging neighbourhoods.

3.9.3 The document details some of the principles that are required to facilitate and accommodate the predicted increase in the Ancoats and New Islington areas.

3.9.4 A summary of the key principles relating to pedestrian, cycling and sustainable modes of transport are provided below:

- *"More generally, new development should contribute towards a walkable, pedestrian and cycle - friendly environment*;
- *New buildings should be designed to support active streets particularly around key public spaces and pedestrian desire lines*;
- *New development proposals should be accompanied by an appropriate car parking strategy which allows the potential demand generated by future residents to be met whilst considering the promotion of alternative sustainable forms of transport; and*
- *A sustainable development, both by maximising its locational advantages and proximity to public transport nodes and through building design."*

3.9.5 Additionally, the NDF document also states the following in relation to the growth of the Ancoats and New Islington District and the transportation services it offers:

"Exceptional transport connections: As long-distance commuting continues to become more costly and time consuming, central locations such as Ancoats and New Islington have become increasingly attractive destinations due to their ease of access to employment opportunities and also to public transport. Ancoats and New Islington are extensively served by good transport links and high-quality existing infrastructure. Significant investment in the city's public transport infrastructure will ensure it is better connected and has the capacity to grow. In particular, it is worth emphasising the area's proximity to Piccadilly and Victoria Stations both of which are the subject of major public investment in the form of HS2 and the Northern Hub. In relation to Metrolink, a new stop and gateway to the wider network has been created at New Islington which provides quick access back to Piccadilly. The area additionally has excellent access to walking and cycling routes and the city's Inner Ring Road and important arterial routes heading out to the M60 and the wider motorway network."

3.9.6 Furthermore, the NDF also acknowledges that there are existing road constraints within the Ancoats and New Islington District, which adds to the 'neighbourhood environment' and connectivity within the area, stating the following:

"The vehicle dominated environment of Oldham Road and Great Ancoats Street constrain a sense of connectivity with the wider area and contribute to Ancoats and New Islington's insular character."

3.9.7 The local streets which make up the Ancoats and New Islington area are typically narrow single carriageways and many of the junctions do not include priority control. Formal on-street parking is also prevalent. The local network has been designed this way in attempt to reduce vehicle speeds and improve safety for pedestrians and cyclists.

3.9.8 There is an issue associated with the current vehicular "rat runs" which exist throughout the Study Area. As this has been identified as a specific challenge for the Study Area, it is therefore considered within this update."

3.9.9 The NDF also confirms that non-vehicle traffic movements are high within the Ancoats and New Islington District, and vehicle traffic is typically low and at low speeds.

"Other streets within the Ancoats grid, such as Jersey Street, Blossom Street and George Leigh Street are heavily used by pedestrians and cyclists, though vehicular traffic is limited and slow moving."

3.9.10 The approach to car and cycle parking should be considered in line with the guidance set out in the Manchester Residential Quality Design Guide. This states that there is can be no "one size fits all" approach to car parking and it should be considered on a site-by-site basis. The NDF recognises that alternative approaches to car parking should be considered including off-site provision. The Mobility Hub provides an alternative approach to car parking within the NDF area.

3.9.11 Within the NDF, cycle parking facilities are recommended to make cycling convenient, safe and practical. The Mobility Hub will provide a cycle hub in a convenient location within the NDF area with links to existing and proposed cycle networks.

3.10 Ancoats and New Islington Neighbourhood Development Framework [NDF] - Poland Street Zone

3.10.1 MCC has recently refreshed the NDF with specific master planning focus on the area centred on Poland Street. The purpose of the refresh is to ensure that it incorporated current thinking in terms of the redevelopment of the area and is properly aligned to the current market context relating to a number of key issues including zero carbon and affordable housing.

3.10.2 The master plan described this area as having an interrupted street grid pattern that is dominated by two industrial estates on Poland Street; vacant and underutilised sites that detract from the visual amenity; being part of the Conservation Area but gaining little benefit from that; as having some open space at Ancoats Green that attracted a high level of anti-social behaviour; with a lack of pedestrian footfall and visible daytime activity; and with low value buildings that do not front onto the Rochdale Canal and therefore do not exploit the advantage of a waterside location.

3.10.3 The specific objectives that are now being proposed for this area in the refresh of the NDF are:

- *"the reinstatement of the grid pattern street layout to improve connectivity and movement through the area as well as creating legible routes that draw pedestrians into the area and through to the surrounding areas;*
- *the creation of a mixed living and working neighbourhood, delivering flexible commercial floorplates for office and modern light industrial uses that can co-exist with a residential development that offers a range of typologies and tenures including the provision of affordable housing; and*
- *the creation of high-quality amenity and green spaces integrated with surrounding uses and would draw people into and through the area."*

3.10.4 The NDF distinguishes the Poland Street Zone as a very low car use area but also recognises that residents will require access to private cars however the proximity to the city core and access to public transport creates a highly sustainable location.

3.10.5 The NDF area is split into five-character areas, Area 3 - Oldham Road is identified as a suitable location to provide parking that is close to the Key Route Network that would benefit the Ancoats area as a whole. The Mobility Hub will be located within this character area capturing trips from the main arterial routes and preventing traffic from routeing through the masterplan area.

3.10.6 High levels of cycle parking will also be provided across the area, this includes on street provision and within developments. The NDF recognises the opportunity to create a cycle hub with secure storage and on-site showers and changing facilities, this cycle hub will be facilitated within the Mobility Hub.

3.10.7 The concept of Green Streets is promoted within the Poland Street Zone, the ambition is to create green spaces throughout the area. The streets would build upon the wider network of green spaces that enable long distance pedestrian and cycle movement, complimenting existing routes and the emerging 'Beelines' network.

3.10.8 Following public consultation, the Ancoats and New Islington Neighbourhood Development Framework (NDF) Character Area 3 - Poland Street Zone was approved by MCC's Executive Committee in July 2020.

3.11 Manchester Core Strategy

3.11.1 Manchester's Core Strategy was adopted in July 2012 is the key Development Plan Document in the Local Development Framework (LDF). It sets out the long-term strategic policies for Manchester's future development and forms the framework that planning applications will be assessed against.

3.11.2 Transport forms one of the six spatial objectives within the document. The overriding objective for transport is to 'Improve the physical connectivity of the City, through sustainable and accessible transport networks, to enhance its functioning and competitiveness and provide access to jobs, education, services, retail, leisure and recreation'.

3.11.3 Within the Core Strategy there are three policies that set out how this objective will be achieved. These are now discussed in greater detail below.

Policy T1 - Sustainable Transport

3.11.4 The policy states the council's aim to deliver a sustainable, high quality, integrated transport system to encourage modal shift away from car travel to public transport, cycling and walking, to support the needs of residents and businesses and to prepare for carbon free modes of transport. The Council will support proposals that:

- *"Improve choice by developing alternatives to the car.*
- *Promote regeneration and economic vitality by relieving traffic congestion and improving access to jobs and services, particularly for those most in need and for those without a car.*
- *Improve access to transport services and facilities in order to enable disabled people and people with mobility impairments to participate fully in public life.*
- *Improve pedestrian routes and the pedestrian environment.*
- *Improve and develop further Manchester's cycle network (for example the Manchester Cycleway and the Trans Pennine Trail).*
- *Contribute to improvements to the extent and reliability of the public transport network through safe and attractive waiting and interchange facilities, better priority, improved services and information provision.*
- *Improve and develop appropriate road, rail and water freight transport routes and associated intermodal freight transport facilities in order to assist in the sustainable and efficient movement of goods.*
- *Facilitate modes of transport that reduce carbon emissions e.g. by incorporating charging points for electric vehicles, subject to their appropriate design and location.*
- *Would reduce the negative impacts of road traffic, for example, congestion, air pollution and road accident casualties.*
- *Take account of the needs of road users according to a broad hierarchy consisting of, in order of priority:*

- *1. Pedestrians and disabled people*
- *2. Cyclists, public transport*
- *3. Commercial access*
- *4. General off-peak traffic*
- *5. General peak time traffic"*

Policy T2 - Accessible Areas of Opportunity and Need

3.11.5 The Council will actively manage the pattern of development to ensure that new development:

- *"Is located to ensure good access to the City's main economic drivers, including the Regional Centre, the Oxford Road Universities and Hospitals and the Airport and to ensure good national and international connections.*
- *Is easily accessible by walking, cycling and public transport; connecting residents to jobs, centres, health, leisure, open space and educational opportunities. Particular priority will be given to providing all residents with access to strategic employment sites including:*
  - *Links between North Manchester residents and key employment locations, including the City Centre, Central Park, Salford Quays and Chadderton Industrial Estate and Trafford Park.*
  - *Links within East Manchester to employment locations, Central Park and Eastlands in particular.*
  - *Links within Central Area between residents and employment, the Corridor in particular and east/west connectivity for residents in Central Area to employment areas in Trafford and East Manchester.*
  - *Maintaining strong links between residential areas in the South and the Regional Centre and improving connectivity with the Airport.*
  - *Ensuring good links between Wythenshawe residents and the Airport and further employment opportunities in Stockport, Trafford and the Regional Centre.*
- *Within the City Centre, provides a level of car parking which reflects the highly accessible nature of the location, as well as the realistic requirements of the users of the development. Elsewhere, all new development should provide appropriate car parking facilities, taking account of the guidance in Appendix B, which reflects policy in the Regional Strategy (RS). In all parts of the City proposals should have regard to the need for disabled and cycle parking, in line with Appendix B. If the RS is revoked the Council will continue to use these standards when applying this policy. Standards are set for two different area types:*
  - *District Centres*
  - *Areas not within the City Centre or District Centres*
- *The car parking standards are maximums and the cycle and disabled car parking standards are minimums. However, the council will take the circumstances of each proposal into account to establish what level of parking is appropriate.*
- *Includes proportionate Traffic Impact Assessments and Travel Plans for all major applications and for any proposals where there are likely to be access or transport issues."*

Policy T3 - Strategic Integration

3.11.6 The Council will support proposals that contribute to an economically and environmentally sustainable transport network including the following strategic transport initiatives:

- *"Metrolink extensions to Rochdale, Oldham, Ashton, South Manchester and the Airport.*
- *The Council also supports future aspirations to extend the network to Trafford Park and Stockport.*
- *A second Metrolink crossing in the City Centre.*
- *A Metrolink extension to Marple on the current heavy rail network. Improvements to the heavy rail infrastructure.*
- *The Cross-City Bus Package comprising new connections through the City Centre to Parrs Wood, Middleton and Salford.*

Note - Any proposals which would prejudice the implementation of the strategic integration of projects will be refused."

3.12 MCC Parking Standards

3.12.1 MCC Parking Standards are contained within the Core Strategy. Appropriate parking standards are also recommended for all new developments to reflect demand and simultaneously encourage alternative travel choices.

3.12.2 The council recognises the need to promote sustainable travel and as such the parking standards aims to reflect current demand whilst striving to limit overprovision and discourage out of town developments.

3.12.3 Although maximum car parking standards and minimum cycle parking standards are given for different land uses, these do not apply to the city centre where each development will be considered on a case-by-case basis.

3.12.4 Consistent with Policy T2 of the Core Strategy, the proposed parking provision should be sufficient to satisfy demand, while simultaneously acting as a mechanism for demand management and encouraging sustainable travel behaviour.

3.13 Manchester Residential Design Guidance

3.13.1 Furthermore, to understand and comply with the existing residential neighbourhood and parking requirements, the Manchester Residential Design Guidance (MRDC) has been reviewed. The current version of the MRDC was issued in March 2017 (issue 01), with the document stating the following as the main objective for this guidance:

"The ambition of this report is to be simply the best guidance available to deliver a commensurate quality in housing design. It seeks to be particular to Manchester, and it seeks to strike a balance between prescription and non-prescription. It also takes the opportunity to bring clarity to what are often seen as variable aspects of design criteria such as parking standards, amenity, waste management, carbon management and the like. Above all it seeks to have a serviceability."

3.13.2 It was noted that within the MRDC that the key requirements (relating to transport / highways) identified within this document, which the Council expects the applicant to demonstrate / provide evidence on how these will be met as part of any application, are as follows.

Make It Easy To Get Around

- *Facilitate and encourage walking and cycling;*
- *Create clear, safe and obvious; connections to the public transport network;*
- *Define a clear street hierarchy; and*
- *Support opportunities to improve wayfinding and orientation.*

Make It Practical

- *Incorporate sufficient car parking in an appropriate location that does not harm pedestrian movement;*
- *Provide secure cycle parking for residents and visitors, which is safe and convenient and within the envelope of the building;*
- *Provide sufficient bin storage to accord with MCC's standards and is conveniently located with minimal impact on the street scene; and*
- *Have considered where temporary stopping could be accommodated.*

Make It Future Proof

- *Have mitigated for a higher risk of extreme weather events, both new and in relation to future modelling;*
- *Have retained and incorporated fit for purpose buildings of heritage value;*
- *Are able to be adaptable to accommodate change; and*
- *Consider the use of technology to reduce energy use.*

Make It A Home

- *Seek to exceed the Nationally Described Space Standards;*
- *Provide sufficient storage space;*
- *Maximise opportunities for daylight;*
- *Provide sufficient private amenity space in the most appropriate location; and*
- *Have considered the balance between the number of homes accessed from lift cores and neighbourliness.*

3.13.3 Furthermore, the MRDC document also advises that appropriate solutions to car parking should be considered and offered, with the document stating the following:

Offer Appropriate Solutions To Car Parking

"Manchester is highly accessible, and has invested significantly in public transport, to become the easiest place to get around by means of transport other than the car in the UK, outside of London.

Notwithstanding, the city's residential areas, will continue to generate demand for car parking spaces. As with other areas of this guidance, there is no 'one size fits all' approach to car parking and it should be considered on a site-by-site basis.

In the city centre, the ability to deliver car parking on site at a level that will fully satisfy demand is often a product of the configuration, size, topography and ground conditions associated with a particular site. Small infill sites in the city centre are often key to wider regeneration outcomes; however, in isolation it is extremely difficult to meet on site requirements.

With listed buildings, for example, it is often impossible to accommodate car parking in a manner that does not compromise the architectural and historic qualities of that asset. In these scenarios there is a need to look more holistically at car parking provision across an area, and utilise appropriate off site car parking solutions to meet demand.

This may for example involve the use of multistorey car parks, which increasingly are located or proposed around the edges of the city centre with easy vehicular access of the Inner Ring Road. New multi-storey car parking, in carefully identified locations, to meet demand for car parking both from resident and commuters should be supported, particularly as surface car parks get redeveloped."

3.13.4 In terms of recommended parking standards, the MRDC document states the following:

Recommended Parking Standards

"In accordance with the 'comply or justify' approach of this document, the following standards are required:

- *City Centre - Developments will be required to provide where possible, an appropriate level of car parking within the constraints of site-specific circumstances and other requirements;*
- *Outside City Centre - new apartment development will be expected to provide 100% parking provision as a starting point."*

3.14 Manchester City Centre Transport Strategy

3.14.1 In 2020 MCC in conjunction with Salford City Council [SCC] and TfGM consulted on the City Centre Transport Strategy [CCTS] that sets with vision for the city centre by 2040. The final version of the City Centre Transport Strategy was endorsed by MCC Executive on 17 March 2021 and Salford City Council's Regeneration Committee on 22 March, before being fully ratified by the Greater Manchester Combined Authority on 26 March 2021.

3.14.2 It is envisioned that the city centre will have over 100,000 more jobs and 50,000 more homes within the central core by 2040 when compared to 2020. As such the way in which people and goods are moved around the city centre must change to deliver a liveable city and meet MCC's growth, clean air and net zero ambitions. The CCTS aligns with the Greater Manchester Transport Strategy for 2040 and the Greater Manchester Clean Air Plan.

3.14.3 The City Centre area as defined within the Core Growth Strategy incorporates Ancoats and New Islington whilst the area bounded by the Inner Ring Road recognised as the City Core. The Mobility Hub plays an important role in removing vehicle trips from the City Core and promoting walking and cycling as the primary mode of transport to and within the City Core.

3.14.4 The CCTS has seven core ambitions, they are:

- Ambition 1: Walking is the main way of getting around the city centre;
- Ambition 2: The city centre is cleaner and less congested;
- Ambition 3: More people choose to cycle to destinations within the city centre;

- **Ambition 4:** The city centre benefits from better public transport connections;
- **Ambition 5:** Parking in the city centre is smarter and integrated with other modes;
- **Ambition 6:** Goods are moved and delivered sustainably and efficiently within the city centre;
- **Ambition 7:** Innovation is embraced where it benefits the city centre and its users.

3.14.5 Ancoats is primarily a residential area with a strong sense of place and character and includes the city centre's first primary school. Ancoats is developing at pace with a strong leisure and commercial offer complimenting the expanding and established residential nature of the area. Ancoats by nature is a primarily pedestrian friendly area with low levels of vehicle movements through the core area surrounding Cutting Room Square, this has been aided by early attempts at filtering vehicles away from pedestrian dominated streets and areas. Some issues do exist whereby vehicles cut through Ancoats to avoid Great Ancoats Street; however, these vehicle numbers remain low within the wider context.

3.14.6 The COVID-19 pandemic provided an opportunity to further restrict vehicle movements within Ancoats to allow social distancing measures and increase the amount of outdoor space to support local leisure and commercial offering, this has further added to the pedestrian orientated nature of the area and has provided safe spaces for cycling. Although it is not yet certain as to what measures will remain in the developed areas of Ancoats following the COVID-19 pandemic, the Hub presents an opportunity to allow a greater focus on public realm and pedestrian movement within the Poland Street Zone development area.

3.14.7 Mobility Hubs are referenced within the CCTS as enablers of more sustainable mobility and neighbourhood parking choices. The Ancoats Mobility Hub is the first Mobility Hub within Manchester and Greater Manchester and is specifically highlighted within the CCTS as an opportunity to align with the seven CCTS core ambitions:

- *"Meet the parking requirements of residential and commercial developments within Ancoats by removing parking from individual schemes and promoting a modal shift away from private car ownership.*
- *Be designed to provide access to sustainable modes of transport, including cycling, walking, public transport and car clubs.*
- *Integrated with enhanced walking and cycling routes including canal towpaths and the route towards New Islington Tram Stop.*
- *Include secure cycle storage and cycle hub facilities to encourage cycling as a primary mode of transport.*
- *Support the promotion of EVs where private car use is required, with EV charging infrastructure provided.*
- *Utilise the latest digital technology to help customers plan how they use transport through interactive systems to book car clubs, EV charging and cycling facilities.*
- *Be a hub for a local car club that encourages flexible car sharing/ rental over car ownership, offering a range of vehicles to suit as many users as possible.*
- *Be a hub for parcel deliveries including smart parcel lockers, with last mile deliveries to be arranged via electric vehicles or cargo bikes."*

3.14.8 The Mobility Hub will support the ambitions of the CCTS a description of which is provided in Table 3.3.

Table 3.3: The Mobility Hub's alignment with the CCTS's Ambitions

Ambition	Mobility Hub
Walking is the main way of getting around the City Centre	The Mobility Hub consolidates parking supply within the Poland Street Zone into a single area removing residential traffic from the wider network of streets. As part of the Mobility Hub development, a specific set of Traffic Regulation Orders will be implemented consummate to its effect on the highway network. This effectively includes double-yellow lines on Poland Street as identified within Appendix G of this TA. In addition, MCC are producing Poland Street Zone Public Realm and Traffic Regulation Order Strategy which will deliver a comprehensive package of works across the neighbourhood. Combined these measures seek to prevent on-street car parking and encourage use of off-street facilities within the Mobility Hub and support wider aspirations within the CCTS for new development to remove surface car parks and for on-street parking to be reduced to make better use of street space. Overall, this will facilitate a better environment for pedestrians and increase the prevalence of walking with the Poland Street Zone. More widely, the Mobility Hub includes high quality landscaping and shall facilitate the delivery of a new space outside the southern elevation which will interact with other public facing facilities. This will also link into the wider public realm and landscaping priorities for the area providing an attractive and safe route into Ancoats and the wider City Centre. The Mobility Hub is within close proximity to Oldham Road on the key route network and will capture commuting and visitor trips. Through its role in improving the streetscene as described above and the inclusion of visitor/commuter cycle parking and an e-bike hire scheme delivered by TfGM, the Mobility Hub will promote walking and cycling into the City Centre and city core during the early years of the Mobility Hub.
The City Centre is cleaner and less congested	The Mobility Hub proposals includes 150 cycle parking spaces, 408 car parking spaces (including a 25% provision of EV charging facilities within the base build, with infrastructure provision in place for 100% EVC parking bays if and when required in the future), car club and car sharing facilities, a ground floor commercial unit, and a delivery hub. These proposals will assist with the removal of vehicle trips from the network on the edge of the City Centre and promote walking and cycling as a primary mode of travel during the early years of the Mobility Hub.

	The provision of the Mobility Hub also reduces the distances travelled within the NDF area by 1,197km over a 24-hour period, a significant reduction in vehicle distances and vehicles routeing through the masterplan area. This figure has been arrived at by measuring the distance from the site (Mobility Hub) to the A665 Great Ancoats Street, via Jersey Street, that would be travelled 'without' the provision of the Mobility Hub. The resultant distance was then multiplied by the forecast number of vehicles that 'without' the Mobility Hub would be leaving the development plots and routing this way over a 24-hour period.
More people choose to cycle to destinations within the City Centre	The Mobility Hub will provide safe and convenient facilities for commuter/visitor cyclists including secure cycle storage, shower and changing facilities. The Mobility Hub is within close proximity to a safe and attractive cycling network including the proposed 'Beelines' network through Ancoats and New Islington. The Mobility Hub will be a base for TfGM's future cycle hire facilities, which include e-bikes for hire. Furthermore, the proposed Mobility Hub will provide 150 cycle parking spaces, which is greater than (or comparable) to other facilities within the Regional Centre; such as: • Salford Central = 100 spaces; • Oxford Road = 50 spaces; • Manchester Victoria = 38 spaces; • Manchester Piccadilly = 43 spaces; • Piccadilly Tower = 194 spaces.
The City Centre benefits from better public transport connections	Given its central location in relation to a range of sustainable modes of travel, the Mobility Hub provides an opportunity for commuters and visitors to continue the remainder of their journey via cycling or public transport. The Mobility Hub is in proximity to the bus network on Oldham Road and is the at the start of a safe walking route to New Islington Metrolink Stop. The intention for the Hub is that it is digitally enabled infrastructure with access to facilities potentially available via an app. This app could also be used to inform commuters of other sustainable transport options, including public transport, within the local area. MLSDCL and MCC have also been working with TfGM, and will continue to do so, to ensure the Hub is digitally integrated into GM's wider transport infrastructure.

Parking in the City Centre is smarter and integrated with other modes	The Mobility Hub is located within close proximity to Oldham Road on the key route network to capture trips coming into the City Centre. The future aspiration for the Mobility Hub is to be digitally enabled, with the proposed development aiming to tap into an East Manchester wide digital strategy for mobility. As stated previously, the car parking associated with the Mobility Hub will provide 25% provision of EV charging facilities within the base build, with infrastructure provision in place for 100% EVC parking bays if and when required in the future (including rapid charging parking spaces). This is a market leading EV charging provision in Manchester, noting it comfortably exceeds the provision within two comparable, recently approved schemes where substantial public car parking provision was provided. Crown Street Phase 2 – 10% provision (38 out of 389 spaces) Mayfield – 11% provision (60 out of 543 spaces) The Mobility Hub plays an important integrated role in providing alternative forms of transport into the City Centre, including cycle storage and hire. As referenced above, the intention is that the Hub is digitally enabled infrastructure allowing a smarter approach to transport.
Goods are moved and delivered sustainably and efficiently into and within the City Centre	The Mobility Hub provides an opportunity to recognise the changing role of streets throughout the day. As a result of the COVID-19 pandemic the way in which streets are used has changed, in Ancoats especially, using the streets for leisure uses rather than for vehicles has become an attractive concept. As such deliveries by vehicles throughout the day have come into conflict with the changing nature of streets. The Mobility Hub provides an opportunity to remove sporadic deliveries throughout the day to be consolidated into one area whilst the last section of the journey is made by cargo bikes or smaller electric vehicles utilising the existing highway network. This is an innovative approach to managing competing mobility requirements within a neighbourhood and is likely to lead to a vastly improved situation to existing where multiple individual couriers have to deliver to each individual development, often required to park on pavements to gain access. This creates a poor-quality street environment and also may cause concern about restricting inclusive access across the neighbourhood; especially for disabled people or children in buggies.

Innovation is embraced where it benefits the City Centre and its users	The Mobility Hub is a step forward in supporting the City Centre's transition to a future mobility zone. As stated previously, the car parking associated with the Mobility Hub will provide a market-leading 25% provision of EV charging facilities within the base build, with infrastructure provision in place for 100% EVC parking bays if and when required in the future (including rapid charging parking spaces). As referenced above, the intention is that the Hub is digitally enabled infrastructure allowing a smarter approach to transport.

3.15 Wider Policy Considerations

3.15.1 In the Spring of 2021, MCC opened a second stage of consultation for the North Eastern Cycling Route that forms part of the 'Beelines' network. This route will link burgeoning residential areas and developments such as the Green Quarter and Red Bank through New Cross, Ancoats and New Islington linking the areas together and to the city centre with a continuous walking and cycling route.

3.15.2 The 'Beelines' network proposals will provide a Cycle Optimised Protected Signals [CYCLOPS] junction at the junction of Thompson Street, Oldham Road and Sherratt Street. Sherratt Street will provide a quiet route into Ancoats and will route onto Blossom Street leading to Bengal Street before entering New Islington Marina. The proposed Mobility Hub can be accessed from the route from George Leigh Street approximately 250m from Sherratt Street.

3.15.3 Within the wider context of the Back of Ancoats Development Area and the associated public realm and landscaping strategy, George Leigh Street will be a quiet street promoting walking and cycling and would link directly into the Mobility Hub. The wider area will also be transformed to facilitate active modes of travel.

3.16 Summary

3.16.1 The above policy review summaries both national and local transport policies relevant to the proposed development site.

3.16.2 The Mobility Hub aligns with the City Centre Transport Strategy and wider ambitions for the area by consolidating and removing vehicle trips from the local road network and providing a safe and secure facilities for cyclists. The Mobility Hub will link into the wider public realm and master plan ambitions for the area and will provide a direct link from Poland Street into Ancoats Green.

3.16.3 It is concluded that the proposed Mobility Hub development is in line with the guidance and is believed to offer great benefit, improvements and value to the Poland Street Zone and the wider Ancoats and New Islington District.

4. SUSTAINABLE ACCESSIBILITY / CONNECTIVITY / PARKING RESTRICTIONS

4.1 Encouraging Sustainable Travel

4.1.1 The proposed Mobility Hub will be accessed by a wide variety of users via an assortment of modes of transport. It is anticipated that the proposed Mobility Hub will fall under one of the following nodes for all users:

- Destination (for commuters / visitors utilising the car park and the local employment / retail / hospitality land uses of Manchester City Centre);
- Base (for residents with cars or cycles permanently parked); and
- Connecting Node (for commuters / office workers travelling to the site via one form of transport (e.g. Metrolink or bus) and leaving the site via Car club or bike);

4.1.2 MLSDCL recognise the importance of providing for, encouraging, and promoting the use of a range of sustainable travel mode options as alternatives to single occupancy car use to / from or as a connecting node from the Mobility Hub.

4.1.3 As part of the proposed Mobility Hub, the operator appointed by MLSDCL and MCC will look to introduce initiatives that may benefit residents, commuters, staff and visitors to the Mobility Hub by facilitating sustainable travel choices, resulting in the following:

- Identifying cost savings associated with travelling on foot, cycling, using public transport or car sharing (when compared with single occupancy car use);
- Health benefits from increased levels of walking and cycling, and fewer vehicular emissions in the immediate vicinity of the site; and
- Improved site accessibility;
- A pedestrian / cycle friendly environment.

4.1.4 A combination of postcode indexed pricing incentives for existing local resident and businesses and the Public Realm and TRO strategy believed to be being brought forward by Manchester City Council will consolidate existing parking in the area (both regulated and unregulated) into the Hub. From the outset, sustainable travel will be promoted to new residents and commercial tenants of the Poland Street Zone developments.

4.1.5 Key the promotion of sustainable transport modes will be the development of the digital platform via which all Mobility Hub services are accessed. The digital platform will link to information including (but not limited to)

- Public transport, pedestrian and cycle route maps and information on car club sharing;
- Information and contact details for local taxi services;
- List of internet websites on sustainable transport and journey planning; and

  Cycle Shops / Cycle Repair Facilities.

4.1.6 The digital platform will be supported by digital signage, appropriately positioned within the facility.

4.1.7 All staff working at the Mobility Hub will be provided with a 'sustainable travel information pack' (Welcome Pack) as part of the induction process. This will include access to the digital platform, details of the public transport, walking and cycling routes and surrounding amenities.

4.1.8 In order to integrate the wider sustainable travel agenda, the Welcome Pack may also be used to promote national and international initiatives such as 'Bike Week', 'Catch the Bus Week', 'European Mobility Week' and 'Walk to Work Week'. Details of these events will be provided on the notice boards and a travel 'events' calendar will be developed for inclusion within the welcome packs.

4.1.9 The above information will be replicated in the Welcome Packs provided to new residents of the Poland Street Zone developments served by the Mobility Hub.

4.1.10 With the above in mind, the following section comprises a review of all sustainable modes of transport, followed by a review of all vehicle movements (cars / LGVs) to and from the site.

4.2 Accessibility on Foot

4.2.1 Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly those under 2km. The guidance on the preferred maximum walking distances to amenities is given in the Chartered Institution of Highways and Transportation [CIHT] document "Providing for Journeys on Foot" (2000).

4.2.2 In terms of commuting journeys by foot, the desirable distance is 500m, the acceptable distance is 1km and the preferred maximum is 2km. However, the distance that people are prepared to walk depends upon many factors; there are obvious physical factors such as age, health and disabilities, along with factors concerning the quality of the route and the environment.

4.2.3 Paragraph 2.3 of TA91/05 Provision for Non-Motorised Users states that 'Walking is used to access a wide variety of destinations including educational facilities, shops, and places of work, normally within a range of up to 2 miles' (3.2km).

4.2.4 Paragraph 2.2 of TA91/05 states that 2 miles is 'a distance that could easily be walked by the majority of people' and (at paragraph 2.3) that 'Walking and rambling can also be undertaken as a leisure activity, often over longer distances.

4.2.5 In relation to shorter trips in particular, the CIHT publication Planning for Walking (Section 2.1) states that across Britain about '80% of journeys shorter than 1 mile are made wholly on foot'.

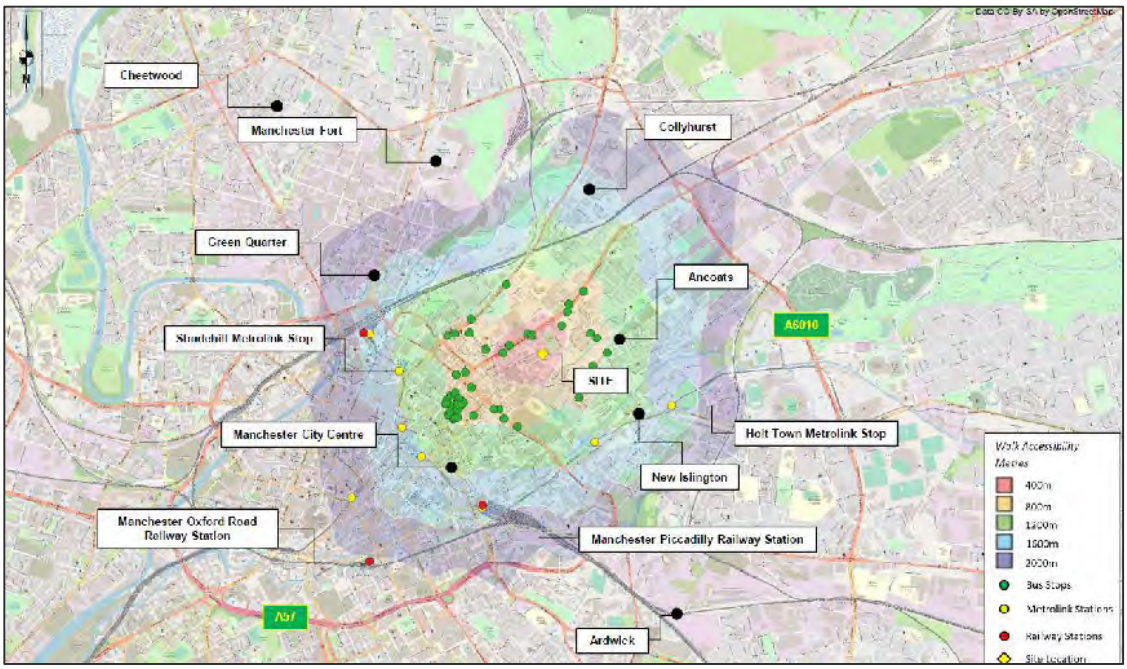
4.2.6 Manual for Streets [MfS] emphasises this advice, stating that "walkable neighbourhoods" should have a range of facilities available within 800m. However, this distance is not regarded as the upper limit for walking journeys, and MfS uses the principle that walking offers the greatest potential to replace short car trips, particularly those under 2km in length.

4.2.7 Based on the above guidance, and the three user groups identified above, it is anticipated that due to the location of the proposed Mobility Hub with a number of local streets / roads, with good levels of pedestrian footways (offering 2.0m wide footpaths on both sides of the carriageway), dropped kerbs, tactile paving, pedestrian crossing facilities, the Hub will generate a substantial amount of pedestrian movement.

4.2.8 Furthermore, the Mobility Hub will increase connectivity and movement from the Ancoats and New Islington district into the surrounding areas within a 2km walk catchment area, such as; Manchester City Centre, as well as key transportation links such as; Metrolink Tram Stations, Bus Stops, and Railway Stations.

4.2.9 **Figure 4.1** below provides an extract of the indicative 2km walk catchment plan using GIS software - Basemap's Visography (TRACC) program which provides sustainable travel mapping. A copy of the full 2km walking catchment is provided in **Appendix D**.

Figure 4.1: 2km Walking Catchment

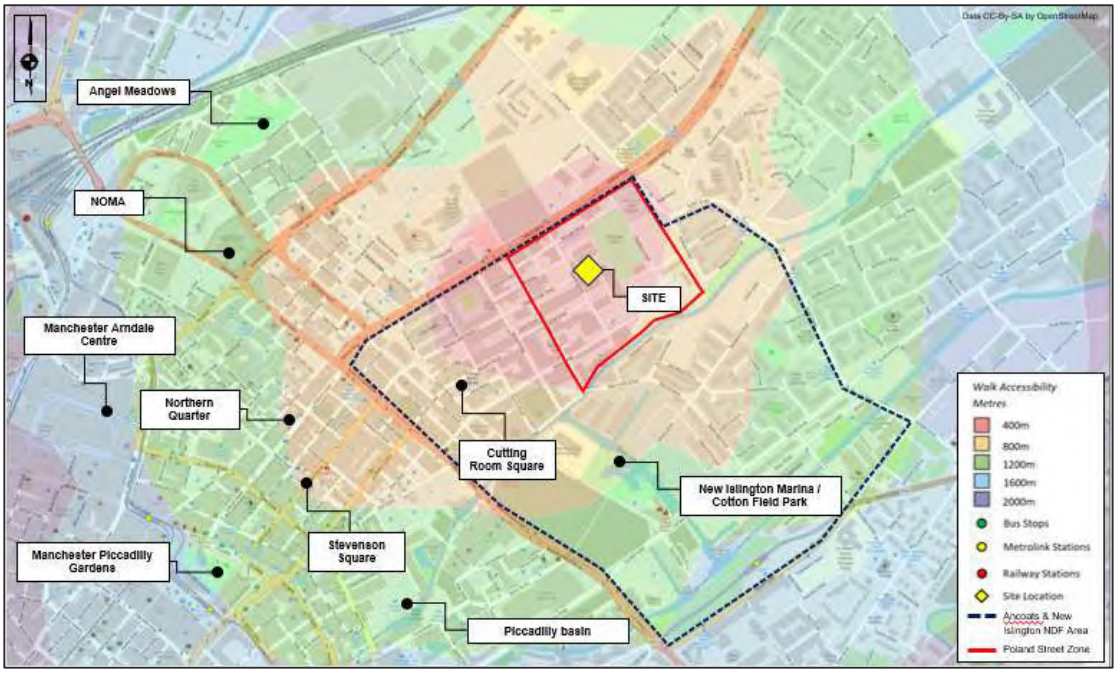


Source: CC-BY-SA by openstreetmap

4.2.10 As can be seen from **Figure 4.1** within 2.0km of the site, there are a number of bus stops, Metrolink stations, railway stations, and local amenities within the Ancoats and New Islington District and across Manchester City Centre, which will help facilitate pedestrian movements to and from the site, and therefore underlines the potential for the Mobility Hub to be used as a connection node as suggested above.

4.2.11 Furthermore, in terms of facilities / destinations in close proximity (circa 800m) of the site, Hydrock have undertaken a further walk catchment plan using GIS software - Basemap's Visography (TRACC) program. A copy of the full 800m walking catchment is provided in **Appendix D** and summarised in **Figure 4.2** below.

Figure 4.2: 800m Walking Catchment



Source: CC-BY-SA by openstreetmap

4.2.12 As can be seen from **Figure 4.2** within 800m of the site, there are a number of key destinations such as; Cutting Room Square, New Islington Marina / Cotton Field Park, and Stevenson Square, all of which combined offers a range of public spaces, shops, bars, restaurants, office spaces etc.

4.2.13 In summary, the site is well situated to offer pedestrian access to future Poland Street Zone residential developments within an 800m radius. It is also well situated to offer access to the wider Ancoats and New Islington area (remaining within an 800m or 2.0km radius) for existing residents, commuters and visitors using one form of transport (Metrolink or bus) and then leaving the Mobility Hub by bike or hire car (or vice versa).

4.3 Accessibility by Cycle

4.3.1 It is widely recognised that cycling can act as a substitute for short car journeys, particularly those up to 5km in length. With regard to cycling, TA91/05 states (paragraph 2.11) that 'Cycling is used for accessing a variety of different destinations, including educational facilities shops and places of work, up to a range of around 5 miles. Cycling is also undertaken as a leisure activity, often over much longer distances.' At paragraph 2.9, TA91/05 states that 5 miles (8km) is a distance 'that could easily be cycled by the majority of people'.

4.3.2 This is consistent with the statement in LTN 1/20 Cycle Infrastructure Design (paragraph 2.2.2) that "two out of every three personal trips are less than five miles in length – an achievable distance to cycle for most people, with many shorter journeys also suitable for walking."

4.3.3 Based on the above guidance, it is anticipated that due to the location of the proposed Mobility Hub, with the proposed 150 cycle parking spaces (exclusive of TfGM cycle hire and cycle changing facilities), and with a number of local streets / roads, and existing cycle networks, the Hub will generate a substantial amount of cycling movement.

4.3.4 The Mobility Hub proposals will include a shared pedestrian / cycle path along the southern side of the Hub which is anticipated to be incorporated into the public realm strategy being brought forward by MCC. The path will be designed to tie into / take into account the recent 'Cycle Infrastructure Design (CID) - Local Transport Note (LTN) 1/20 - July 2020'.

4.3.5 The existing cycle network within close proximity of the site comprises the National Cycle routes 6, 55, 60 and 66.

4.3.6 National Route 6 passes through Watford, Luton, Milton Keynes, Northampton, Market Harborough, Leicester, to Sheffield, Manchester and Lancashire to Windermere.

4.3.7 Route 55 of the National Cycle Network is open between Stoke-On-Trent and Marple, and around Stockport, Manchester and Wigan.

4.3.8 Route 60 of the National Cycle Network runs between North and East Manchester, with its furthest south segment forming part of the Fallowfield Loopline.

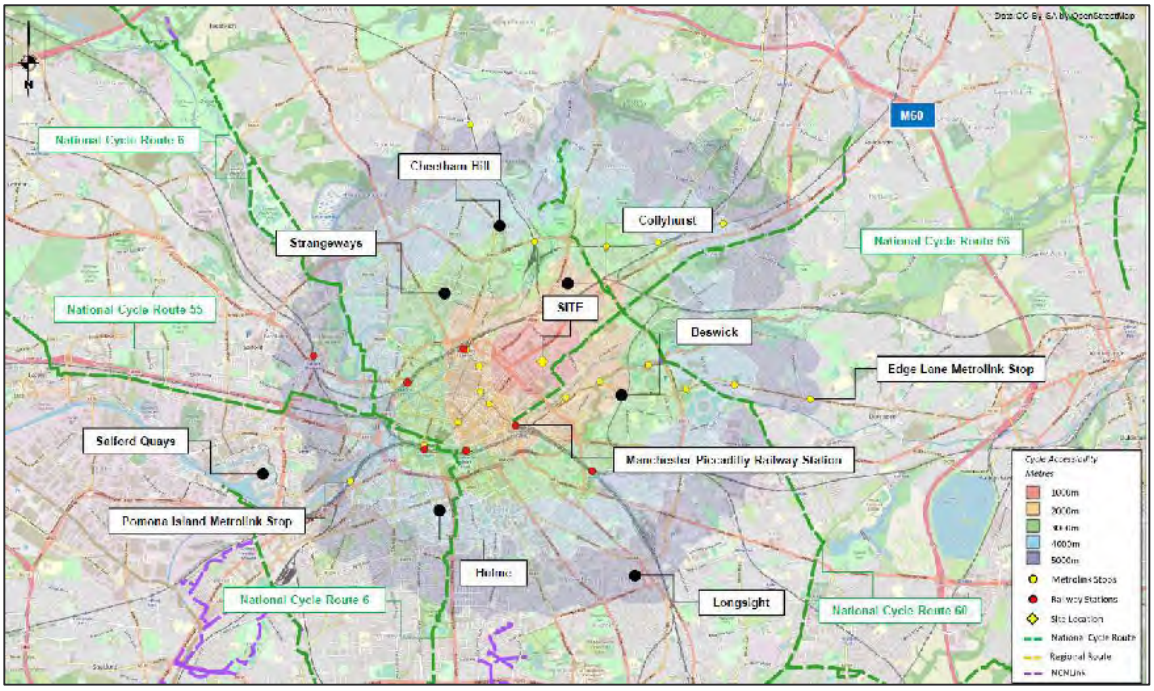
4.3.9 National Cycle Route 66 runs from central Manchester to Spurn Head via Bradford, Leeds, York, Beverley, and Kingston upon Hull. Please see route description below for details of open sections.

4.3.10 Given the cycling facilities proposed and existing and proposed local cycling routes it is anticipated that the Hub, with the proposed 150 cycle parking spaces, will increase connectivity and movement from the Ancoats and New Islington district into the surrounding areas within a 5km cycling catchment area by acting as a destination or connecting node for cycling commuters.

4.3.11 It is noted that at present, both Buses and Metrolink Trams only allow fold-up bikes on board, however this is an area/service that TfGM are potentially looking to improve in the future.

4.3.12 Figure 4.3 below provides an extract of the indicative 5km cycling catchment plan, again using GIS software - Basemap's Visography (TRACC) program, and is equivalent to a typical cycle time of 15-20 minutes. A copy of the full walking catchment is provided in Appendix D.

Figure 4.3: 5km Cycling Catchment



Source: CC-BY-SA by openstreetmap

4.3.13 The above figure provides further evidence to support the 'connecting node' user profile for commuters / office workers travelling to the site via one form of transport (e.g. Metrolink or bus) and leaving the site via Car club or bike.

4.4 Transport for Greater Manchester (TfGM) Beeline Network

4.4.1 TfGM are currently progressing with the new 'Beelines' network which aims to improve both walking and cycling within Greater Manchester and will be introduced / developed over the upcoming years, with TfGM stating that the scheme will provide the following:

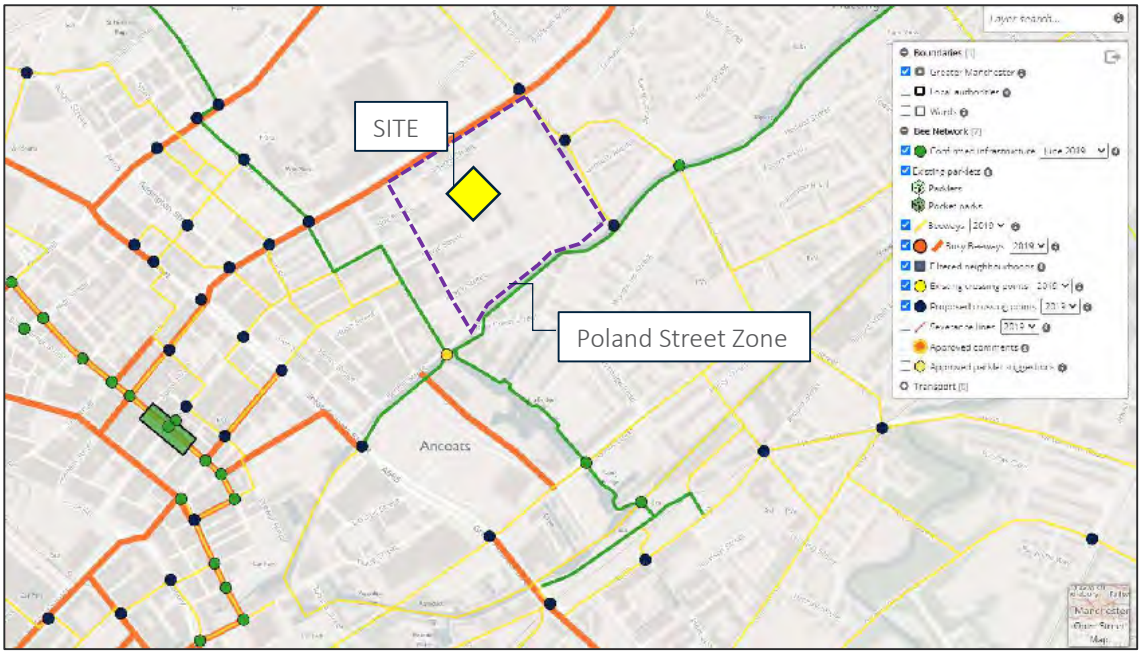
"an innovative new plan to create a city-region-wide cycling and walking network made up of more than 1,000 miles of routes, including 75 miles of Dutch-style segregated bike lanes.

The 'Beelines' network will be the largest joined-up system of walking and cycling routes in the UK and has been developed with all 10 Greater Manchester local authorities.

Once built, the network will better connect every community in Greater Manchester, benefitting 2.7 million people and making cycling and walking a real alternative to the car."

4.4.2 The new 'Beelines' network is shown in **Figure 4.4** below.

Figure 4.4: Proposed TfGM Beeline Network



4.4.3 As can be seen from **Figure 4.4** above, in close proximity to the site the junction of Bengal Street/Redhill Street/Rochdale Canal Towpath is the only existing crossing point, with a further 4 proposed crossing points surrounding the site and the perimeter of the 'Poland Street Zone' at the following junctions:

- Rodney Street / Rochdale Canal Towpath;
- Rodney Street / Butler Street;
- A62 Oldham Road / Butler Street; and
- A62 Oldham Road / Sherratt Street.

4.4.4 The above junctions link up to the existing routes (shown in green) in addition to the proposed 'Beelines' network extension routes (shown in yellow and orange) with both providing greater connectivity within the Ancoats and New Islington District and to the surrounding areas.

4.4.5 The Mobility Hub is well situated to take advantage of existing and proposed routes cycle routes into the Ancoats and New Islington area. This supports its use as a destination or connecting node for commuters.

4.5 Access by Public Transport

4.5.1 Bus

4.5.2 This site is accessible by bus, with the nearest bus stops located along the A62 Oldham Road located approximately 120m away from the site, providing services in both directions. Additionally, Manchester Piccadilly bus station is located approximately 950m to the south west of the site.

4.5.3 Services from the nearby bus stops and Piccadilly Gardens run at a very high frequency throughout the week, and are simply too numerous to list exhaustively in this report, even just allowing for those services that operate before 08:00 and after 18:00.

4.5.4 The bus services provide convenient access to locations including Newton Heath, Crumspall, Salford, Oldham, Rochdale, Huddersfield and Manchester City Centre.

4.5.5 It is therefore concluded that the site benefits from destination, base and connecting nodes by bus, offering an alternative mode of transport to single occupancy car journeys.

4.5.6 Rail / Metrolink

4.5.7 The nearest rail station is Manchester Piccadilly located approximately 1.2km to the south of the site, and is therefore within acceptable walk distance of the site.

4.5.8 Manchester Piccadilly Railway Station is served by a variety of rail operators and provides direct access to wider locations such as Birmingham, Stockport, Stoke-on-Trent, Leeds, Liverpool, and London amongst others. In addition to local commuter locations such as Heaton Chapel, Stockport, Macclesfield, Burnage, Wilmslow and Manchester Airport amongst others.

4.5.9 Manchester Victoria Railway Station is also located approximately 1.4km to the north west of the site, providing frequent services to a number of northern towns and cities including: Blackburn, Leeds, Preston, and Bolton amongst others.

4.5.10 Both railway stations serve as rail hubs for the city and for the wider region, and so collectively they serve a very sizable number of train services, at a high frequency to a substantial number of destinations throughout the day.

4.5.11 Again, the volume of train services is too numerous to list exhaustively in this report.

4.5.12 Both Manchester Piccadilly Railway Station and Manchester Victoria Railway Station provides access to the Metrolink, offering a number of frequent services to a variety of destinations within Greater Manchester.

4.5.13 The Metrolink provides connections to a number of destinations within Greater Manchester including: Rochdale, Bury, Ashton-under-Lyme, East Didsbury, Altrincham and Eccles amongst others. The closest Metrolink stop to the site is the New Islington stop located approximately 800m from the site located to the rear of the existing residential buildings, opposite the Ashton Canal, with frequent services provided 7 days a week.

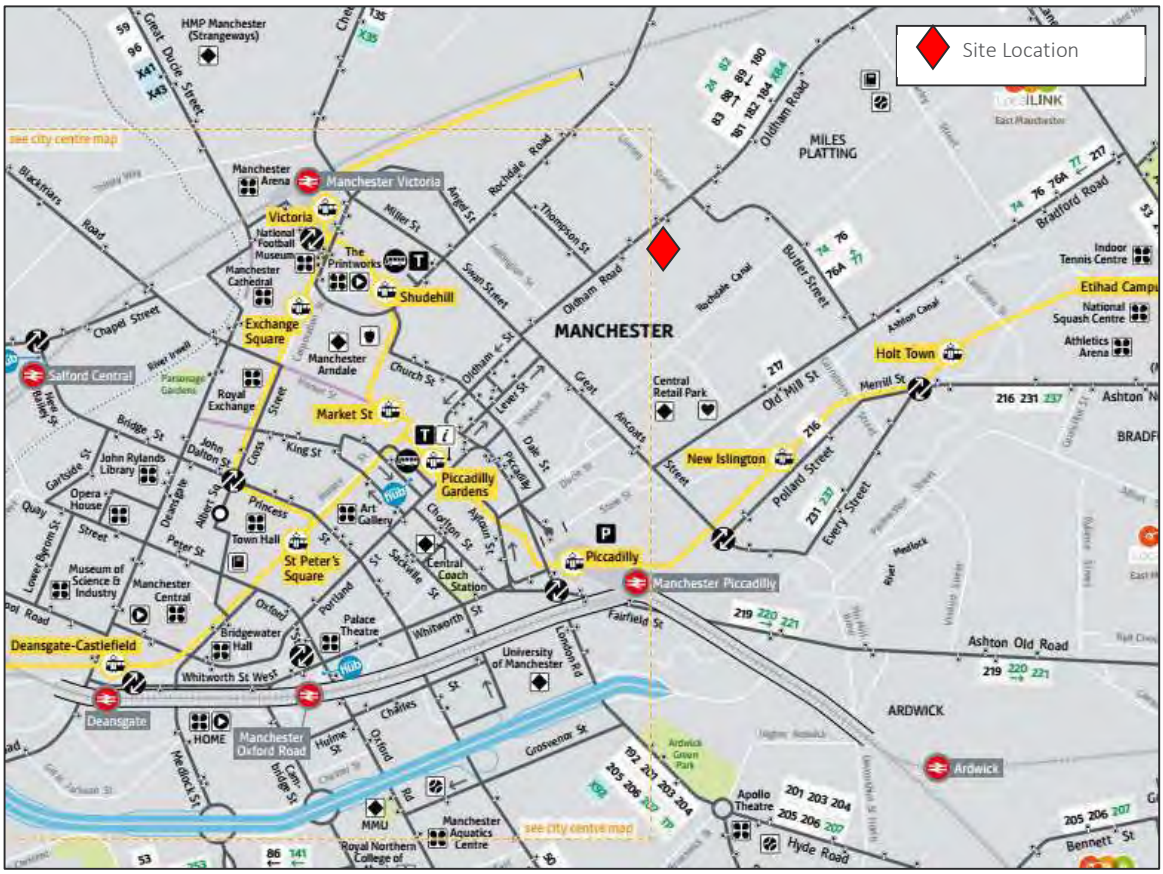
4.5.14 Additionally, Manchester Piccadilly Gardens Metrolink station is located approximately 950m to the south west of the site.

4.5.15 Trams run on the Metrolink network between approximately 06 :00 to 00:30 Mondays to Thursdays, with the last trams running later on Fridays and Saturdays. On Sundays, trams start later and finish earlier in a time range of approximately 07:00 to 22:30.

4.5.16 Having regard to the above, it is therefore concluded that The Mobility Hub is highly accessible by public transport for connecting nodes. Prospective visitors, staff, and local residents within the area, will have a very good range of public transport travel choices, even outside of what might normally be considered the daytime 'core' hours.

4.5.17 A snapshot of public transport map for the site is illustrated in **Figure 4.5** below.

Figure 4.5: Manchester Public Transport Map



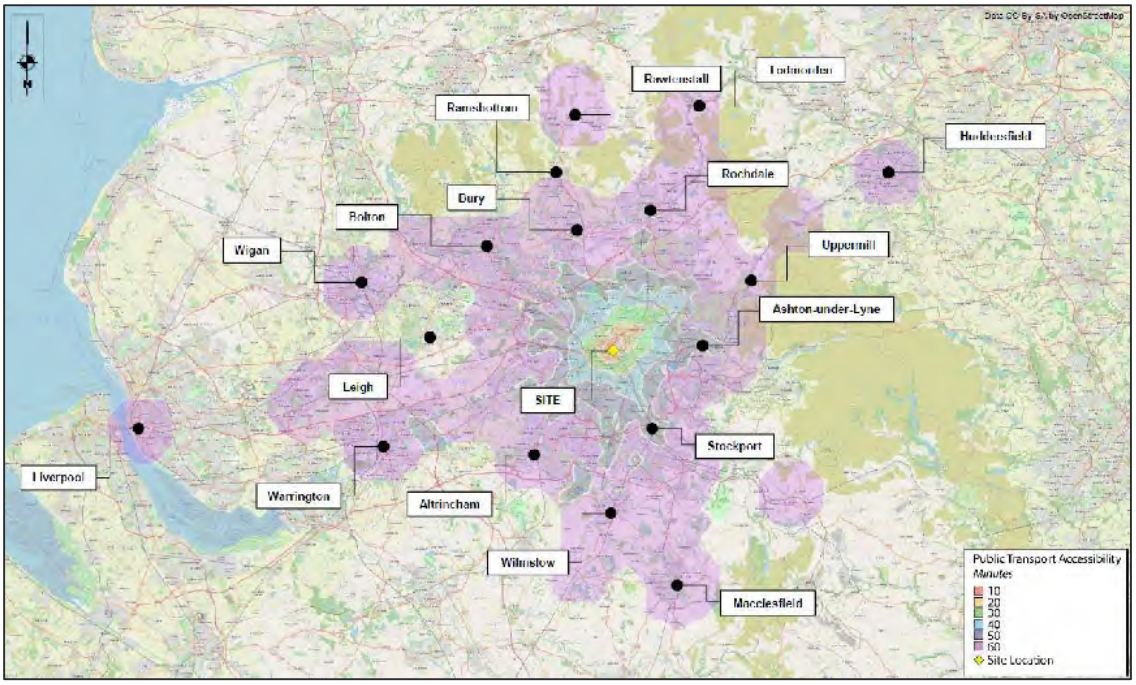
Source: TfGM

4.6 Journey Time Assessment by Public Transport

4.6.1 A calculation has been undertaken, using GIS software - Basemap's Visography (TRACC) program, to illustrate the distance that can be travelled within 60 minutes by public transport to and from the proposed development site. The time includes the walk to the bus stops and demonstrates that key areas such as Stockport, Rochdale, Wigan, Bolton, Huddersfield and Liverpool (to name a few) are all within a 60minute public transport journey.

4.6.2 **Figure 4.6** below provides an extract of the public transport 60minute catchment area. A copy of the full plan is provided within **Appendix D**.

Figure 4.6: 60-minute Public Transport Catchment



Source: CC-BY-SA by openstreetmap

4.6.3 While the likelihood of the hub to act as a direct link for visitors to park and then use multiple public transport modes is likely to be modest, it is clear the site is accessible by public transport and could be used by hub-based staff to access the site.

4.6.4 In summary, the Mobility Hub is well situated to act as a connecting node for journeys by public transport.

4.7 Vehicle Movements

4.7.1 As previously stated, the Ancoats Mobility Hub is being brought forward to support the next phase of the redevelopment in Ancoats which will be focused on the Poland Street Zone as defined by the Poland Street Zone NDF endorsed by MCC in July 2020.

4.7.2 The Hub will consolidate new and existing vehicle movements into a single facility on the edge of the NDF area.

4.7.3 Consolidating the parking in this manner will reduce vehicle movements deeper into the NDF area while providing a piece of neighbourhood infrastructure which can facilitate a move to more sustainable means of transport.

4.7.4 Hydrock have sought to ensure that the trip generation assessment which informs both Junction Impact Assessments and Air Quality Assessment represents a robust assessment of likely users of the parking spaces at the Hub.

4.7.5 The split between existing vehicle trips (those already on the local highways network) which will be consolidated into the Hub and new trips driven by the Poland Street Zone NDF redevelopments is key to ensuring that assessment is robust for opening year of 2023.

4.7.6 In order to inform the assumption in regards to new and existing uses of the parking at the Hub, Hydrock have used a combination of their knowledge of the application area; information relating to existing Manchester Life rental buildings; and confirmed new residential uptake at the Mobility Hub to make reasonable assumptions on the split between new and existing vehicle trips which will be consolidated into the Hub.

4.7.7 Existing and new user groups are further broken down into resident, working commuter and visitor use classifications in order to allow the likely trips generated on the highways network during peak hours to be understood.

4.8 Existing Vehicle Trips

Existing Residents

4.8.1 A shortage of residential parking is a well-known issue in the area giving rise to residents needing to find other solutions. Manchester Life have confirmed that 56 people are on their combined waiting list for parking across their 4 operational rental buildings at the time of writing this report. Whilst the list is dynamic and changes in line with tenancy and individual resident circumstances, Manchester Life have confirmed that the average waiting list for parking consistently sits between 50 and 60 residents.

4.8.2 Clearly, the Manchester Life buildings are only one of several residential developments in the Ancoats and New Islington area and we have no reason to believe that the average parking demand across those other completed developments would not be consistent with Manchester Life's experience.

4.8.3 This demand will be exacerbated by the redevelopment of surface car parks within the Poland Street Zone NDF area as outlined in section 2.5.8, alongside the likely introduction of on street parking controls by MCC as part of the public realm improvements.

4.8.4 Within the Operation and Management statement which forms part of this application, MLSDCL have highlighted a requirement on the Mobility Hub Operator to prioritise existing residents via a combination of postcode indexed and season ticket length pricing incentives.

Existing Visitors and Commuters

4.8.5 As articulated within the Strategic Justification for the Mobility Hub, which forms part of this application, Ancoats has become a destination for visitors. Key leisure venues such as the Halle St Peter's and restaurants such as Mana, Sugo and Erst are already attracting visitors into the area.

4.8.6 It had been the aim to undertake comprehensive car parking surveys for both 'long stay' private car parking sites, in addition to 'short stay' on-street car parking bays. However, due to the current COVID-19 situation it has not been possible to undertake a comprehensive beat survey.

4.8.7 However, Hydrock have reviewed Google Street view to gain a snapshot of those surface car parks. The images were dated July 2019, therefore outside COVID times and show those car parks are well used and are either at or approaching capacity. These images are located in Appendix E.

4.8.8 As previously stated in Section 1, pre-application engagement with local councillors has highlighted the issues that existing residents of Ancoats and New Islington already face with a lack of resident parking. The minutes of the relevant meeting are included at Appendix A.

4.8.9 Notwithstanding, in terms of car parking demand MLSDCL have confirmed that 56 people are on their combined waiting list for parking at their 4 operational rental buildings. Whilst the list is dynamic and changes in line with tenancy and individual resident circumstances, the average waiting list for parking sits between 50 and 60 residents.

4.8.10 Further to the above to further understand the existing parking use of the Poland Street Zone, Hydrock undertook a daytime snapshot beat survey on May 25th and an early evening (post 1800) snapshot beat survey on the May 26th. Images associated with the surveys are located in Appendix E. Key points that are identified are as follows:

25th May Day Time Survey - Circa 2pm

- Jersey Street SIP (50 cars parked)
- Jersey Street NCP (21 cars parked)
- SIP Car Park - Radium Street / Silk Street (46 cars parked)
- Silk Street (on Street) (4 cars parked).
- SIP – Europark – George Leigh Street (45 cars parked)
- George Leigh Street (between Poland Street and Connell Street) (32 cars parked). Note 8 x formal bays avoided between Poland and Radium Street in favour of free fly parking on the other side of the road.
- Radium Street – (21 Cars Parked)
- Jersey Street / Wadeford Close / Rodney Street (47 cars 'fly parked' where there are no TRO yellow lines)
- Jersey Street Mozart Close corner – (5 x cars double 'fly -parked' where no TRO yellow lines).
- Jersey Street (14 Cars Parked)
- Murray St (2 x cars parked 1 x delivery vehicles dropping off on double yellow lines).
- Blossom Street (7 cars parked).
- Sherratt Street (8 cars parked).
- Bengal Street (5 cars parked)

26th May Evening Time Survey - Circa 6:30pm

- Jersey Street SIP (15 cars parked)
- Jersey Street NCP (4 cars parked)
- SIP Car Park - Radium Street / Silk Street (10 cars parked)
- SIP – Europark – George Leigh Street (8 cars parked)
- George Leigh Street (between Poland Street and Connell Street) (32 cars parked). Note 12 x formal bays between Poland St and Radium St -2 occupied, 4 car parked on single yellow lines on the opposite side of the road. 8 x resident parking bays free between Sherrat St and Cornell Street – one way system still ignored by cars coming from Great Ancoats Street. 3 out of 20 car parking bays free between Bengal St and Sherrat St.
- Radium Street – (11 Cars Parked)

- Jersey Street / Wadeford Close / Rodney Street (12 cars 'fly parked' where there are no TRO yellow lines)
- Jersey Street Mozart Close corner – (6 x cars double 'fly -parked' where no TRO yellow lines).
- Jersey Street (14 Cars Parked)
- Murray St (0 x cars parked 1 x delivery vehicles dropping off on double yellow lines).
- Blossom Street (6 cars parked).
- Sherratt Street (8 cars parked).
- Bengal Street (6 cars parked)
- Naval Street – No parking bays -3 cars parked on single yellow lines, 2 of which on the pavement

4.8.11 In summary, the snapshot survey conducted has demonstrated a high use of regulated and unregulated daytime parking in the Poland Street zone with 307 vehicles parked during the daytime survey in spaces which will either be lost due to redevelopment or rationalised by the proposed MCC Public Realm and TRO strategy.

4.8.12 This demonstrates 75% of the Hubs capacity could be justified as existing on the highways network today despite COVID19 restrictions on movement not yet having been fully lifted.

4.8.13 Hydrock have used the above to inform a conservative assumption that 40% of the car parking spaces proposed at the hub will be associated with existing trips already existing on the local highways network and consolidated into the Hub.

4.9 New Vehicle Trips

4.9.1 The Poland Street Zone NDF update references the potential for up to 1500 new homes. For the purposes of this Transport Assessment, Hydrock have assumed these new homes would have a 30% parking allocation.

4.9.2 This 30% assumption is informed by a review of recent planning permissions within the Ancoats and New Islington NDF area which have provided an average of 30% car parking per development. This provision is often provided on-site although there are examples where this provision is 'topped up' to achieve a 30% provision through the purchasing of leases in nearby multi-storey car parks. Additionally, it is evident from site visits that a proportion of the existing on-street parking within the area is also taken by local existing residents/visitors within the area, which in reality would lead to a higher percentage provision allocated to existing residents.

4.9.3 The 'day one' modelling assumptions detailed further within section 7, use the known residential parking uptake required by MLSDCL's Eliza Yard development which is being developed concurrently and will take its parking from the Mobility Hub. This allocation represents 10% of the Hubs capacity which are being modelled as 'new residential trips'.

4.10 New and Existing Working Commuters

4.10.1 The Poland Street Zone NDF update references the potential for up to 31,000sft of commercial space to be developed. Those commercial units will attract additional commuters into the area who will be consolidated into the Hub.

4.10.2 Working commuters have a more onerous trip generation within the TRICS software. As such, despite the residential parking focus and evidence of existing commuter trips into the aera, Hydrock have associated the 50% balance of spaces in the hub with 'new working commuter trips' in order to ensure robust modelling methodology.

4.10.3 In summary, a conservative estimate of 40% of the trips associated with the Hub are assumed as 'existing' on the local highways network within the junction modelling conducted. The remaining 60% (10% visitor and 50% working commuter) of spaces within the mobility Hub have been associated with new trips on the local highways network.

Deliveries

4.10.4 Hydrock have used survey data collected by MLSDCL between 6th – 12th October 2020 of parcel deliveries to 860 units across their 4 rental buildings. That survey is included at **Appendix N** and confirms and average daily delivery of 286 parcels and 85 vehicle trips daily within the peak hours to the existing 860 units.

4.10.5 In order to provide a robust assessment for the delivery traffic associated with the 1,612 units anticipated to be coming forward in the Poland Street Zone NDF area, Hydrock have doubled the vehicle trips generated by deliveries to the 860 units surveyed and assumed this number of daily trips from day one of operation.

4.10.6 This approach has assumed a higher number of units (1,720) than those proposed under the NDF (1,612) and has assumed 100% of those trips would be generated from day one of operation despite developments coming forward incrementally. In this manner, Hydrock have offered a robust assessment of vehicle trips associated with the Delivery Hub.

4.10.7 To summarise the above, Hydrock have split the anticipated vehicle movement trips associated with the proposed Mobility Hub into the following five categories.

1. 'New' Residents (40 spaces) taking parking at the Hub
2. 'Existing' Residents (126 spaces) consolidated into the Hub
3. 'Existing' Visitors (29 spaces) consolidated into the Hub
4. 'New'* Working Commuters (215 spaces) taking parking at the Hub
5. Parcel Hub Deliveries **(Internal Drop-off facilities).

* conservative estimate of all new working commuters

** conservative assumption of Parcel Hub at 100% capacity from day 1.

4.10.8 As referenced above, it is assumed that existing residents, visitors, and working commuters will already be utilising other existing car parking facilities within the surrounding areas. As stated previously (within Section 4) Hydrock have provided the following detailed summary of the existing surface car parking facilities located within the Poland Street Zone closest to Mobility Hub that are earmarked for future development within the Poland Street Zone NDF.

- George Leigh Street – surface (SIP Car Parks) – 50 spaces, parking costs are 50p - £4, opening times are 24 hours, 7 days a week (within the NDF area – future NDF development plot);
- Radium Street – surface (SIP Car Parks) – 25 spaces, parking costs are 50p - £4, opening times are 24 hours, 7 days a week (within the NDF area – future NDF development plot);

- Jersey Street – surface (SIP Car Parks) – 88 spaces, within the NDF area, subject of live planning application for Eliza Yard); and
- Jersey Street – surface (BPP) – 100 spaces - £3 all day parking, opening times are 24 hours, 7 days a week (Within the NDF area, future NDF development plot).

4.10.9 As shown above, in total, the Poland Street Zone NDF identifies sites containing 263 (175 public) surface car parking spaces for redevelopment. With the exception of the 88 spaces contained at Eliza Yard, the timing of these developments coming forward and these car parking spaces being lost is unclear.

4.10.10 It should be noted that a key part of the vision for the Poland Street Zone, as outlined within the NDF, is an ambition to curate a diverse and multi-generational community through providing a housing mix and living environment that opens up the Ancoats' urban lifestyle to a broader range of people. This will still include young professionals, who arguably are the prevalent demographic within developments delivered in Ancoats to date.

4.10.11 However, increasingly Ancoats is attractive to young families, established professional couples, and older residents looking to benefit from living closer to attractions within the City Centre. These groups may have a greater need to use a car than young professionals, as set out below, and it is critical that we still envisage a future where cars are relevant for City Centre living:

- Those who may need to use a car as part of their job, noting that not all workers are office-based and may not be able to do their job working from home. This group may still want to be able to benefit from proximity to the City Centre and its wide range of leisure and retail opportunities.
- Elderly people who want to downsize and benefit from the same locational advantages that arise from living within the city-centre. This group may be less mobile than others and want the opportunity to also have a car.
- Young or established families who may want the choice to have a car to simplify travel arrangements.
- Individuals or couples who have relatives or friends who live in more remote parts of the country which are difficult to access by public transport. This group may want the choice to drive directly back when visiting friends or family.

4.10.12 Critically, the Hub would offer the choice to suit the needs of an individual dependent on their circumstances. This includes the ability to acquire the right to park or access to a centralised facility with Car Club / Car Sharing opportunities.

4.10.13 It is anticipated that re-development of the Poland Street Zone will happen incrementally. As such, capacity will exist in the Mobility Hub to accommodate existing residents without parking or existing displaced commuters from the lost surface car parks until the Hub reaches capacity with residential parking provision.

4.11 Car Club

4.11.1 In addition to the above, Car Club spaces are located across Manchester City Centre in designated parking bays and can be reserved by the hour, day or longer.

4.11.2 As part of the research into Car Club Spaces Hydrock have reviewed the latest edition (2017/18) of the 'England & Wales Car Club Annual Survey'. The survey was completed by almost 2,500 car club members from Co-wheels, E-Car Club and Enterprise Car Club. The Car Club Annual Survey report focuses on the following three sections:

- The Members Survey;
- Emissions and Fleet Profiling; and
- Operators Survey.

4.11.3 A summary of the key principles identified within the Car Club Annual Survey report are provided below:

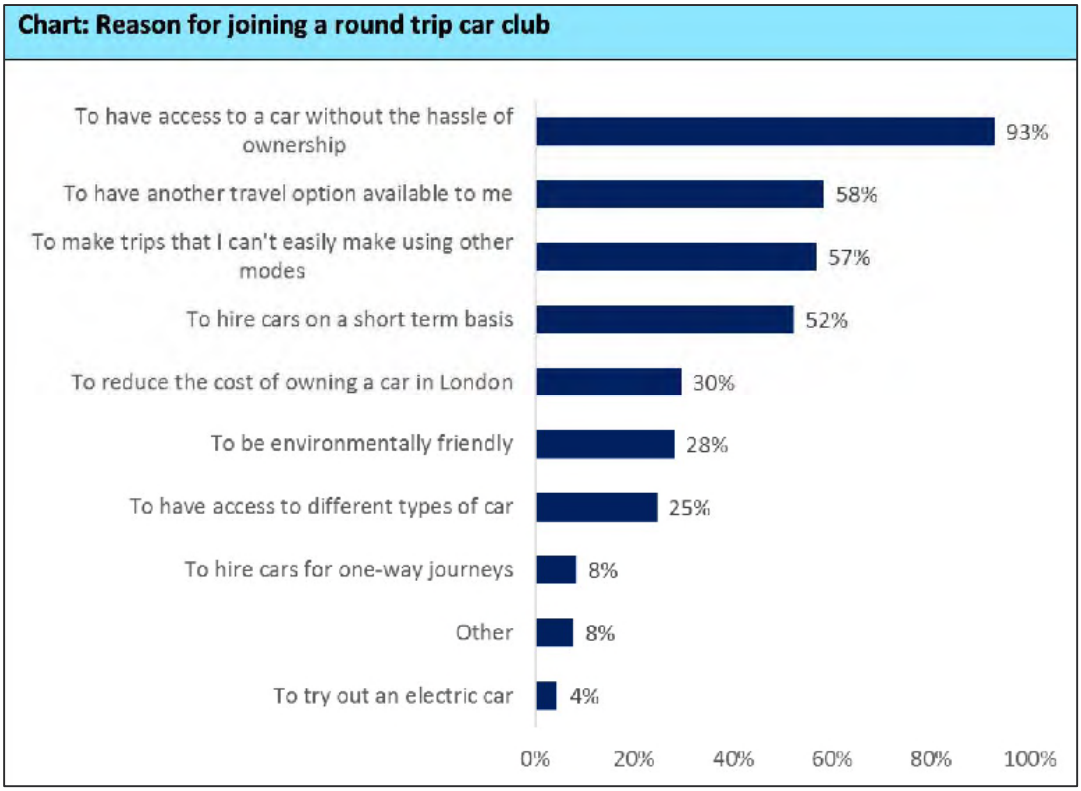
- Page 5 states that 1 car club space = a reduction of 6 private cars.
- Pages 14 and 15 (Sections 2.4 and 2.5 respectively) further illustrate how car clubs would appear to reduce private car ownership, enhance modal shift etc, and is summarised as follows:
  - » Car ownership amongst new members falls after joining
    - 63% of new members, who joined in the last 12 months, owned at least one car before joining, falling to 54% afterwards;
  - » Car ownership remains low amongst longer term members
    - Longer term members, show a larger drop in car ownership after joining. 62% of longer-term members owned at least one car before joining, falling to just 46% afterwards. Longer term members also show a bigger drop in their first cars compared to new members.
  - » Reduction in car ownership
    - Across all car club members reductions in car ownership result in 4,747 less privately owned cars (by applying the % reduction in both groups to the whole sample, equivalent to 6.1 less private cars per car club car).
  - » Car clubs reduce the need to purchase a car
    - Respondents who owned at least one car but had not sold a car in the last 12 months were asked to choose from a range of potential factors which would influence them to sell their car in the future. A better range of public transport options was the most popular factor, chosen by 48% of respondents, followed by more reliable transport (41%) and a substantial rise in the cost of owning a car (41%);
    - Members were also asked whether they would have bought a new car had they not joined a car club. 36% of members reported that they would have done, equating to around 9,297 deferred car purchases from total members; and
    - 51% of members said that they are now less likely to buy a private car in the next few years, after joining a car club. 37% said it had had no effect on their decision, 6% said they were more likely and another 6% did not know.

4.11.4 In addition to the above, Hydrock have also obtain car-club data from CoMoUK (CoMo.org.uk) with an example of their 2018 study for London indicating that:

- the vast majority of users wanted access to a car without owning it (see **Figure 4.7** below);
- Car-ownership among car-club users decreased from 49 to 27%;
- 53% of members said that they are now less likely to buy a private car in the next few years, after joining a car club. 30% said it had had no effect on their decision;
- 41% of round trip and flexible members and 26% of point-to-point members would have bought a first or additional private vehicle had they not joined a car club. This equates to 100,000 deferred car purchases;

- 18% of round trip, 15% of flexible members and 10% of point-to-point members have sold a private vehicle after joining a car club and no longer own a vehicle. This equates to an additional 42,000 car-free households across Greater London; and
- More than half of all members said joining a car club has made it less likely that they will purchase a first or additional private vehicle over the next few years.

Figure 4.7: CoMoUK Data - 2018 Study for London



4.11.5 Taking the above into account the Hub provides a real opportunity to further promote this sustainable mode of transport and this opportunity has been taken. As such as part of the development proposals a number of new Car Club spaces will be provided. It is intended that these cars could be reserved via the proposed digital platform in advance and would be available 24 hours, 7 days a week.

4.11.6 As shown below in Figure 4.8, the existing network of car club spaces across the city enhances the convenience and attractiveness of the car club proposed from The Mobility Hub.

Figure 4.3: Location of Car Club Spaces within Manchester



Source: Google Images ©

4.12 Traffic Regulation Order [TRO] / Speed Mitigation

4.12.1 Hydrock have undertook a comprehensive review of the existing TROs and speed limits in the Ancoats area within the vicinity of the site. It is noted that the majority of the local roads within Ancoats are restricted to 20mph, which increase to 30mph upon intersection with the main A-roads.

4.12.2 In relation to existing TROs, Poland Street has parking restrictions in the form of a single yellow line which prohibit parking within the controlled zone area between the hours of 08:00-18:00 Monday-Saturday. The remaining streets have limited pay and display parking bays, and areas of uncontrolled parking areas.

4.12.3 To further reduce the likelihood of vehicle conflicts Hydrock propose to introduce double yellow lines within the vicinity of the site along Poland Street, and at the intersection between the surrounding junctions.

4.12.4 Furthermore, following consultation with MCC and to accompany the existing 20mph speed limit, Hydrock propose to introduce some further speed mitigation in the form of 2 x coloured raised tables located at the junctions closest to the site entrance (Poland Street/George Leigh Street and Poland Street / Silk Street). These proposals have been considered as part of the Road Safety Audit as presented in **Appendix C**.

4.12.5 A plan detailing both the TRO and Speed Mitigation proposals are shown at **Appendix G**.

4.12.6 In addition to the project specific TROs being proposed by Hydrock to support the Mobility Hub Development, Hydrock are led to believe that MCC are also developing a Public Realm and TRO strategy for the Poland Street Zone. This strategy is expected to be delivered in conjunction with the Mobility Hub and be consistent with the aspirations of the Poland Street Zone NDF update.

4.13 Conclusions

4.13.1 In summary, the site is highly accessible on foot by all developments proposed within the Poland Street Zone re-development area. It is therefore well positioned to support the residential parking needs of future developments. The local area is served by a good network of existing and proposed cycle routes which support the proposed delivery of a 150-space cycle hub. It has good public transport links which support its use as a connecting node for commuters and prospective visitors to the area wishing to travel further into the city by more sustainable means.

4.13.2 The residential parking and deliveries associated with the Poland Street Zone re-development area have been considered as 'new trips'. However, it could be considered that the existing residential, commuter and visitor parking being made available while capacity exists in the facility fall into the category of 'existing' vehicle trips. In servicing the current demand for parking in the neighbourhood in a managed fashion, the Mobility Hub will help reduce real time issues of nuisance parking.

4.13.3 Furthermore, as has been demonstrated by the snapshot parking surveys has demonstrated a high use of regulated and unregulated daytime parking in the Poland Street zone with 307 vehicles parked during the daytime survey in spaces which will either be lost due to redevelopment or rationalised by the proposed MCC Public Realm and TRO strategy.

4.13.4 This demonstrates 75% of the Hubs capacity could be justified as existing on the highways network today despite COVID19 restrictions on movement not yet having been fully lifted.

4.13.5 As such it should be reiterated that, with the exception of category 1 (‘New’ Residents), all (or a significant proportion thereof) remaining categories (as listed within this Section previously) could be considered as 'existing' vehicle trips, with all of the above currently taking in place in one form or another.

4.13.6 For example, categories (2) ‘Existing’ Residents, (3) ‘Existing’ Visitors, and (4) Working Commuters will already be utilising other existing car parking facilities within the Ancoats and New Islington District, and could therefore be classed as 'transferable' trips.

4.13.7 However, it is noted that there will also be an element of 'new' vehicle trips associated with New Developments coming forward under the NDF within the Ancoats and New Islington District. Therefore, Hydrock have included the ‘New’ Residents (40 spaces) associated trips.

4.13.8 In order to ensure a robust modelling methodology Hydrock have assumed Working Commuter associated trips (215 spaces) as new within their modelling assessments for the anticipated vehicle movement trips.

4.13.9 In relation to category (5) Parcel Hub Delivery vehicle trips, again a significant proportion could also be considered as existing vehicle trips, with numerous single occupancy and single destination trips being undertaken by independent parcel delivery vehicles to existing residents and businesses within the Ancoats and New Islington District, although again it is noted future new developments will increase this demand.

4.13.10 Nevertheless, Hydrock have included the Parcel Hub Deliveries associated trips within their modelling assessments. It should also be noted that for robustness, Hydrock have assessed the Parcel Hub Deliveries as a future ‘worst case’ scenario when all New Developments have come forward under the NDF within the Ancoats and New Islington District, and therefore the Parcel Hub Deliveries would be operating at maximum capacity.

5. DEVELOPMENT PROPOSAL

5.1 General

5.1.1 The development proposals have been summarised in Section 1 of this TA, the proposed site layout is illustrated in **Figure 5.1** below with a copy of the full plan located at **Appendix H.**

Figure 5.1: Site Layout Plan



Source: Buttress

5.2 Proposed Vehicle Access Arrangement

5.2.1 It is proposed that vehicle access to the site will take place from Poland Street, along the western boundary of the development plot.

5.2.2 The proposed vehicle access includes the following elements:

- A two-way car park access measuring 7.0m wide (2 x 3.5m wide lanes) leading to a ramped configuration within the car park structure. The access also provides vehicle height restriction barriers to prevent any vehicle larger than 3m entering the site; and
- A 'one-way' delivery / servicing vehicle only access, providing a 5.0m wide singular lane, which acts as the servicing route for the site. The entry lane is located immediately north of the two-way car park access and loops around the ground floor configuration and egresses via a separate 5.0m wide exit immediately south of the two-way car park access. The access also provides vehicle height restriction barriers to prevent any vehicle larger than 3m entering the site.

5.2.3 The proposed vehicle accesses are shown below in **Figure 5.2**, with a copy of the proposed site access drawing provided in more detail at **Appendix I**.

Figure 5.2: Proposed Site Access



5.2.4 To demonstrate the proposed two-way car park access, the swept path analysis of a large car is presented at **Appendix J**.

5.3 Proposed Cycle and Pedestrian Access

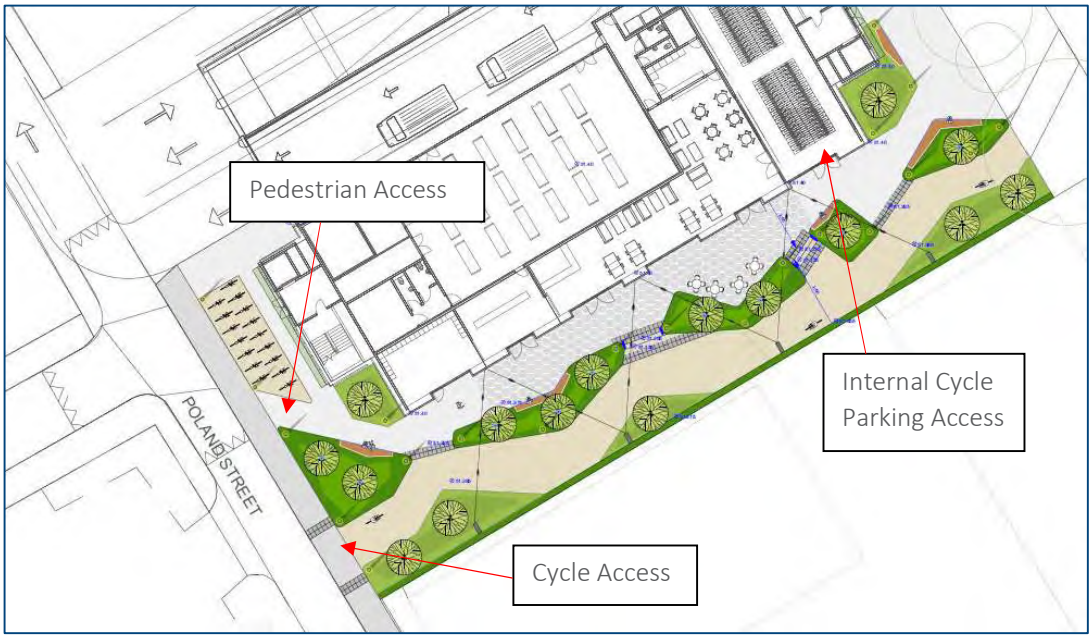
5.3.1 The site's proposed pedestrian / cycling access is from the new pedestrian and cycle route directly south of the building connecting Poland Street and Ancoats Green. This has been designed to ensure safe segregation of pedestrians and vehicles.

5.3.2 The new route proposed along the southern boundary of the site includes a segregated pedestrian and Cycle Infrastructure Design LTN 1/20 compliant cycle route and public realm comprising hard and soft landscaping.

5.3.3 The cycle hub is located at the south eastern corner of the development site. The proposed commercial unit is situated along the southern boundary and is well situated to contribute to an active frontage which will enhance the amenity offering in the area.

5.3.4 A copy of the proposed pedestrian / cycling access is provided at **Appendix I**, and shown in summary within **Figure 5.3** below.

Figure 5.3: Proposed Cycle and Pedestrian Access



5.4 Parking

5.4.1 In the absence of defined metrics to inform the scale of the various component functions of the Mobility Hub, a combination of engagement with market specialists, transport assessment and detailed knowledge of the area have been used to inform reasonable assumptions to determine the spatial allocations in the brief as follows:

- The 150 cycle hub spaces have been proposed after considering the capacity of other cycle hub facilities within the Regional Centre in combination with the commercial development proposed under the Poland Street Zone NDF.
  - » Salford Central = 100 spaces;
  - » Oxford Road = 50 spaces;
  - » Manchester Victoria = 38 spaces;
  - » Manchester Piccadilly = 43 spaces;
  - » Piccadilly Tower = 194 spaces.
- 20 car club spaces with a further 10 rideshare spaces have been allocated following engagement with potential operators
- The number of car parking spaces proposed at the Mobility Hub represent a 25% allowance for the Poland Street Zone NDF development area. As a projection 378 spaces (408 less 30 car club and rideshare spaces above) provides 1,512 dwellings with parking at this 25% rate. Although lower than a 30% allowance which could be considered as appropriate for residential developments in this area, the alternative mobility provision within the Hub and the tenure model proposed for the parking spaces justify a reduction in provision and support the aspirations of the NDF.

- The sizing of the 780sqm Delivery Hub has been driven by engagement with potential operators of the facility who understand the area required to service the 1,612 units proposed under the Poland Street development area

5.4.2 Further to the above the Hub will operate a 'right to park' leasing option that will be appended to their apartment lease.

5.4.3 This is a departure from the traditional model and allows for a more innovative approach to the provision and longevity of parking provision. Removing the parking from individual developments and providing it in the Mobility Hub creates the scope to give the homeowners greater freedom and flexibility as to how long they want to own a private car with a parking space.

5.4.4 This disruption to the traditional model represents a creative and practical way to support the transition to reduced car ownership and, in combination with EV infrastructure, a much higher % take up of electric vehicles.

5.5 Vehicle

5.5.1 As stated previously, the development proposals comprise 408 car parking spaces. From the opening year (Year 1 - opening year of 2023) the 408 car parking spaces are proposed to be split as follows:

- 408 car parking spaces comprising:
- 378 parking spaces (including 24 disabled spaces) designed to support future residential developments.
- 20 Car Club spaces - 20 spaces initially and room to grow, the car club will look to provide a mobility provision other than car ownership to facilitate sustainable choices.
- 10 car sharing spaces (Rideshare) – up to 10 spaces available initially and room to grow, the ridesharing spaces will facilitate residents with electric vehicles offering their vehicle for private hire via a car-sharing platform.
- 25% provision (102 points) of Electric Vehicle Charging Points with electrical capacity secured to grow with demand up to 100%.
- 7 x rapid charge points (50kw) for visitors.
- 95 x standard charge points (7kw) for residents.

TOTALS = 408 parking bays*

**Note the profile of the residential parking levels will change in the future years and this is discussed in detail in Section 7.*

5.5.2 The Mobility Hub will offer 378 parking spaces (408, less 30 car club/rideshare) inclusive of 24 disabled spaces which are ultimately being provided to serve the scale of development anticipated in the Poland Street Zone.

5.5.3 Level one will be ringfenced as car club / rideshare plus visitor parking in the early years. 30 spaces on level one will be dedicated to car club / rideshare with the remaining 28 (7% provision) being allocated as visitor spaces. Of the 28 visitor spaces, 20 spaces will have EV charging points with the remaining 8 being future proofed ready for EV charging points. The nominal (7%) visitor parking provision will be regularly reviewed against the demand for residents (new or existing) parking provision and or demand for car club/rideshare expansion. It is Hydrock's view that the proposed level of vehicle parking is sufficient for this scale of development, especially given the alternative mobility provision being made available from the Hub and its proximity to the city centre and public transport links.

5.5.4 Cycle

5.5.5 A 750m2, 150 space, cycle hub comprising cycle storage, lockers, shower and changing facilities will be available on the ground floor of the Mobility Hub and will incorporate disabled facilities. It will be accessed from the cycle path on the South Eastern corner of the site.

5.5.6 Tiered memberships will be available with permit access to storage, lockers, changing, and showering facilities depending on the requirement of the individual.

5.5.7 The operator will be encouraged to liaise with local businesses to develop partnerships and commercial offers to encourage commuter cycling into the area.

5.5.8 Furthermore, at the front of Mobility Hub (along the western boundary of the site), an area of hard standing with power supply will be offered to TfGM for their proposed city-wide cycle hire scheme.

5.5.9 Again, it is Hydrock's view that this level of cycle parking is sufficient for this scale of development and appropriate for an area so well served by existing and proposed cycle routes.

5.6 Deliveries

5.6.1 The delivery Hub is proposed to allow a daily aggregation and sustainable last mile distribution of the parcels destined for the residential developments in the area. The Mobility Hub has been designed with a dedicated access and egress to the Delivery Hub.

5.6.2 The operator will take delivery of small to medium sized parcels at the Hub where they will be stored until either an electric vehicle or cargo bike is full and ready for delivery or the end of the day. The last mile deliveries will be planned an organized to maximise the efficiency of each delivery run.

5.6.3 It is envisaged that larger deliveries of appliances and furniture would still to be delivered directly to residential properties due to the impracticality of double handling larger items and the lower frequency of that type of delivery.

5.6.4 The detail of the delivery cycles and vehicles to be used will be developed by the operator in conjunction with MLSDCL and MCC.

5.6.5 It is envisaged that both deliveries of the site will take place via the 'one-way' delivery access, with vehicles entering the site, servicing the site via the loading bays within the servicing route, and then exiting the site in a forward gear.

5.6.6 In order to demonstrate the manoeuvres of the delivery vehicles, Hydrock have provided swept path analysis a 7.5T Panel Van. The swept paths are presented at **Appendix J**.

5.7 Servicing

5.7.1 The servicing requirements of the development have been considered to ensure that the site can successfully be serviced by refuse vehicles.

5.7.2 The exact details of the servicing arrangement are contained in the site waste management plan which is also contained as part of this planning submission.

5.7.3 However, at this stage it is envisaged that waste will be collected directly from the refuse collection point located internally to the site and wheeled onto Poland Street, and accessed by the refuse vehicle directly off Poland Street.

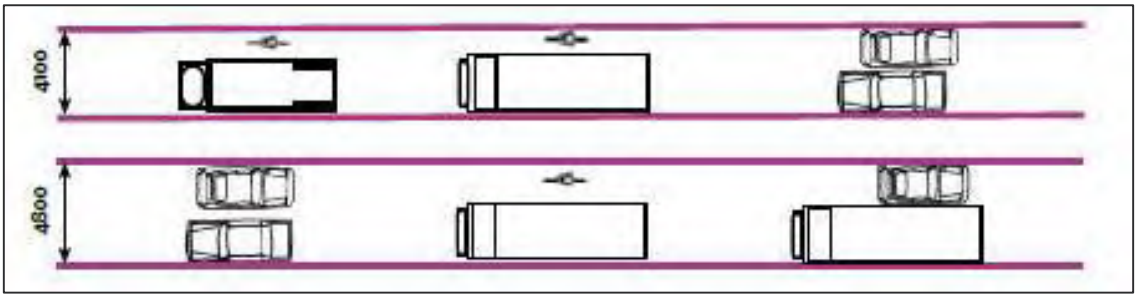
5.7.4 Due to the nature of the development, the frequency of refuse servicing is expected to be modest and occurring outside the busiest periods. A Waste Management Strategy (WMS) has been prepared to support of this planning application and will be submitted as part of the application. The WMS should be read in conjunction with this TA.

5.8 Vehicle Swept Path Analysis

5.8.1 In terms of the 'Poland Street Zone', all of the roads within this area, including Poland Street itself, are approximately 4.0m - 5.0m wide.

5.8.2 The street geometry guidance at Chapter 7 of Manual for Streets (MfS) (shown at **Figure 5.4** below), confirms that a road of this width (i.e. 4.8m) can accommodate two cars passing each other, or one car and a Light Goods Van (LGV) - no larger than a 7.5t Box Van.

Figure 5.4: MfS Extract - Street Geometry



Source: MfS

5.8.3 Hydrock have used the topographical survey of the site area to undertake swept path analysis along Poland Street, and George Leigh Street. The swept path analysis presented at **Appendix J**, confirms compliance with the street geometry guidance at chapter 7 of the MfS. The swept path analysis conducted is summarised below:

- 12.0m long rigid vehicle;
- 7.5t Box Light Goods Vehicles (LGVs) measuring 8.0m in length; and
- A Large Car measuring 5.0m in length.

5.9 Proposed Signage

5.9.1 Hydrock have provided a preliminary signage drawing at provided at **Appendix K** identifying the location of the proposed signage associated with the development site.

6. FUTURE BASELINE TRAFFIC CONDITIONS

6.1 Introduction

6.1.1 This Section describes the future baseline traffic conditions on the local highway network in relation to traffic growth.

6.2 Traffic Growth

6.2.1 As previously mentioned in Section 2, the current COVID-19 restrictions on movement have required alternative approaches to providing a robust data set to establish the baseline situation.

6.2.2 TfGM requested that the surveyed flows were growthed to match recorded 2019 levels from an ATC link situated along the A62 Oldham Road to the south of Poland Street.

6.2.3 Given TfGM's requested, this growth factor (shown in **Table 6.1** below) was then applied to all traffic flows from the October / November 2020 surveys, which resulted in an acceptable 2021 baseline scenario.

Table 6.1: Traffic Growth Factor from TfGM ATC count

Period	Weekday AM	Weekday PM
2019 - 2021	1.4313	1.4313

6.2.4 Additionally, historic traffic data (which included some traffic data from 2010, 2020, and up to present day 2021) obtained to augment the survey data has been growthed to generate the 2021 base (year of application).

6.2.5 In accordance with the DfT's "Guidance on Transport Assessment", and as agreed with MCC and TfGM the future assessment year for this TA is 2026 (i.e. the year of application +5 years).

6.2.6 TEMPRO v7.2 has been used to calculate background traffic growth from the survey years to the application year of 2021, and then through to the future (+5 years) base of 2026 for the Manchester area (054).

6.2.7 The growth factors that have been obtained from TEMPRO are summarised in **Table 6.2** below.

Table 6.2: Traffic Growth Factors (Manchester 054)

Period	Weekday AM	Weekday PM
2010 - 2021	1.1758	1.1790
2020 - 2021	1.0142	1.0128
2010 - 2026	1.2469	1.2458
2020 - 2026	1.0754	1.0701

Source: TEMPRO

6.2.8 The above growth factors were applied to the historic data provided by TfGM for the weekday AM and weekday PM peak hour periods to obtain the base 2021, and future (+ 5 years) base 2026 (B) (2026 B), as shown at **Figures 1-4** in the Traffic Flow Figures within the appendices.

6.3 Committed Development

6.3.1 To determine any relevant committed developments needed to be considered, Hydrock liaised with MCC to confirm the developments to be included within these assessments, with MCC confirming that the following committed developments were to be included:

- Ref: 125927/FO/2020 - Proposed 22 Residential Dwellings;
- Ref: 126467/FO/2020 - Proposed 22 Residential Dwellings;
- Ref: 123887/FO/2019 - Proposed 37 Residential Dwellings; and
- Ref: 123453/JO/2019 - 3 Commercial units.

6.3.2 Committed development traffic flows have be extracted from the supporting transport assessments and are shown on **Traffic Figures 5-9** for the weekday AM and PM peak hours respectively presented within the Traffic Flow Figures within the appendices.

6.3.3 Therefore, the future baseline scenario is the growthed base 2026 flows (B) plus the committed development flows (C) (2026 B+C) as shown on **Traffic Figure 10** for the weekday AM and PM peak hours respectively within the appendices.

7. TRAFFIC IMPACT & TRIP GENERATIONS

7.1 Introduction

7.1.1 The nature of the proposed development use (residential with visitor and limited commercial) dictates weekday AM and PM peak hours. The trip rates used within all assessments are based upon these peak hours.

7.2 Trip Rates & Trip Generation - Proposed Development

7.2.1 Given the uniqueness of the proposed facility it is proposed that the trip generation will be calculated using a combination of Trip Rate Information Computer System [TRICS] version 7.7.3 and knowledge of the site area and proposed development, with supporting information provided by MLSDCL.

7.2.2 As stated previously in Section 4, Hydrock have split the anticipated vehicle movement trips associated with the proposed Mobility Hub into the following five categories.

1. **'New' Residents** (40 spaces) - Future Residents of the Poland Street Zone Redevelopment Area;
2. **'Existing' Residents** (126 spaces) - Existing Residents within the surrounding Ancoats and New Islington District, which would be relocated to the Mobility Hub;
3. **'Existing' Visitors** (29 spaces) – Existing Visitors (family or friends visiting existing residents in the area, retail shoppers, or retail / hospitality customers), which would be relocated to the Mobility Hub;
4. **Working Commuters** (215 spaces); and
5. **Parcel Hub Deliveries** (Internal Drop-off facilities).

7.2.3 Given the above, the trip rates associated with category 1 ('New' Residents) and category 4 (Working Commuters) have been obtained from the TRICS database, with MLSDCL providing supporting survey information for the trips associated with category 5 (Parcel Hub Deliveries). Trips associated with Categories 2 and 3, are deemed to be existing trips that already exist on the network which would be relocated to the Mobility Hub.

7.2.4 In order to ensure a robust accurate trip assessment is carried forward into the detailed modelling, the residential parking uptake from the opening year (Year 1 - opening year of 2023) has been used. The anticipated residential parking uptake associated with developments coming forward in the Poland Street Zone is detailed at **Table 7.1**.

7.2.5 Given the scale and nature of the cycle facilities and minimal staffing requirements of the single commercial unit, these uses are anticipated to generate 'zero' vehicle trips to the Mobility Hub. Therefore, these have been omitted from the trip generation assessments, and only the car park (with 408 spaces), and parcel delivery services elements of the Mobility Hub site have been considered within the trip generation assessments.

7.2.6 Car Park Demand

Justification for Future Car Parking Demand

7.2.7 Within the NDF area there are an estimated 1,612 apartments that will be developed in the coming years. If a 30% parking provision assumption is applied, there is requirement for 484 parking spaces spread throughout the masterplan area.

7.2.8 The 30% car parking provision assumption is based upon a review of planning permissions for residential apartment schemes across Ancoats and New Islington. This review has identified on-site car parking provision ranging from 23%-40%. The level of on-site provision is dependent on-site specific considerations and also the residential product. A summary of the planning permissions reviewed is below;

- 111616/FO/2016/N1 – McCaul's, Warehaus Ancoats – whilst noting that these developments also included townhouses (where there is greater expectation of car parking spaces being provided on site) it is noted that the Applicant originally provided 5 on-site car parking spaces which was considered too low by MCC. This led to the developer increasing the number of on-site car parking spaces to 7 and agreeing terms with a car park operator to secure an additional 6 spaces for occupants. The final car parking provision was 40%.
- 112256/FO/2016 – Mulbury Homes, Blossom Street – the application specifically makes reference to provisions the developer put in place with NCP to ensure that a 30% car parking provision could be achieved on a constrained site. This figure was arrived at after substantial option appraisal work to establish what level of car parking could be accommodated on Site and ultimately was agreed with MCC as an acceptable provision.
- 111742/FO/2016/N1 and 116190/FO/2017 – MLSDCL (Smiths' Yard, and Lampwick) – these permissions represent MLSDCL's most recent Built to Rent planning permissions which deliver 32%, and 30% on-site car parking respectively. Build to Rent is likely to be predominate residential product within Ancoats, building on the success of the area in attracting professional renters looking to establish themselves in Manchester. MLSDCL can confirm that demand for car parking spaces from Smith's Yard is as expected (Lampwick is still under construction).
- 120893/FO/2018 – One Manchester Ltd, Bengal Street – the application proposes an on-site car parking provision of 23% however MCC included a planning condition which requires the Applicant to review demand within six-months of operation and present a strategy for the provision of further off-site car parking spaces should demand be deemed necessary. It is clear that MCC felt that 23% provision was not wholly satisfactory, otherwise a condition would not have been applied.

7.2.9 Given the above, it is considered that 30% on-site car parking provision is an appropriate 'average' assumption for on-site car parking provision across the NDF area.

7.2.10 By utilising alternative mobility provision (noting the potential reductive impact of car clubs referenced at 4.9) and an innovative tenure model summarised in the description and detailed in the supporting Operational and Management Statement, the Mobility Hub is able to offer a 25% provision which Hydrock anticipate will be sufficient to service the new Poland Street Zone residential developments.

7.2.11 The impacts of the provision of car clubs on car ownership is presented in Section 4.8 and is highlighted within the Wider Neighbourhood Development Framework Traffic Study presented in **Appendix F**.

7.2.12 MLSDCL's have provided a memo summarising the anticipated Poland Street Zone residential car parking uptake from the Hub. The full memo is at **Appendix L**, however their assumptions relating to the timing of known developments parking uptake from the hub is summarised at **Table 7.1**.

Table 7.1: Proposed Poland Street Zone Developments

Development	Open Year	Car Parking Spaces
Mobility Hub operational	Mar 2023	408 Spaces operational*
MLDC Eliza Yard (118 dwellings)	Aug 2023	40 Spaces taken (368 remain)
MLDC Jersey Wharf (circa 200 dwellings)	Jan 2026	60 Spaces taken (308 remain)
Rodney Street (circa 130 dwellings)	Jan 2027	40 Spaces taken (268 remain)
MLDC Plot A (circa 232 dwellings)	Jan 2027	70 Spaces taken (198 remain)
Plot 16 (circa 200 dwellings)	Oct 2027	60 Spaces taken (138 remain)
Plot 10 (circa 200 dwellings)	Mar 2029	60 Spaces taken (78 remain)

7.2.13 Whilst the above does suggest a total of 78 car parking spaces would remain, 30 of those spaces are taken by car club / rideshare with a further 28 assumed for visitor parking in the early years. It is worth noting that the above table is an estimate. It only represents those developments which MLSDCL understand are currently being progressed through a design process by respective landowners.

7.2.14 It has been assumed that from Day 1 of the opening of the Mobility Hub, 7% of the car parking spaces would be allocated to car club / rideshare and 10% of the car parking spaces would be allocated to the new residents within the NDF redevelopment area.

Trip Rates and Trip Generation - Car Park

7.2.15 Notwithstanding the above confirmed capacity of 408 parking spaces, Hydrock have completed the modelling of the trip rates and highways impact based upon 410 vehicles. This decision has been made to ensure a robust modelling methodology for the Mobility Hub. All calculations have been based on a total of 410 spaces for robustness.

7.2.16 Hydrock have calculated the trip generation associated with the car park (410 spaces) using a combination of TRICS and a knowledge of the site area and proposed development with supporting information on year 1 confirmed residential uptake provided by MLSDCL.

TRICS

7.2.17 As stated previously, it is anticipated that the proposed Mobility Hub will generate trips associated with one of the following nodes for all users:

- Destination (for commuters / visitors utilising the car park and the employment / retail / hospitality land uses);
- Base (for residents with cars or cycles permanently parked); and
- Connecting Node (for commuters / office workers travelling to the site via one form of transport (e.g. Metrolink or bus) and leaving the site via Car club or bike).

7.2.18 Just focusing on the car park (410 spaces) element of the Mobility Hub, Hydrock have broken down the users for the car park as the following four categories:

1. 'New' Residents (40 spaces) - Future Residents of the Poland Street Zone Redevelopment Area;
2. 'Existing' Residents (126 spaces) - Existing Residents within the surrounding Ancoats and New Islington District, which would be relocated to the Mobility Hub;
3. 'Existing' Visitors (29 spaces) – Existing Visitors (family or friends visiting existing residents in the area, retail shoppers, or retail / hospitality customers), which would be relocated to the Mobility Hub; and
4. Working Commuters (215 spaces).

TOTALS = 410 spaces

7.2.19 As stated previously within Section 4, it should also be noted that, with the exception of category 1 ('New' Residents), all remaining categories listed above could be considered as 'existing' vehicle trips, with all of the above currently taking in place in one form or another.

7.2.20 For example, categories (2) 'Existing' Residents, (3) 'Existing' Visitors, and (4) Working Commuters will already be utilising other existing car parking facilities within the Ancoats and New Islington District, and could therefore be classed as 'transferable' trips.

7.2.21 However, it is noted that there will also be an element of 'new' vehicle trips associated with New Developments coming forward under the NDF within the Ancoats and New Islington District. Therefore, Hydrock have included the 'New' Residents (40 spaces) associated trips and the Working Commuter associated trips (215 spaces) within their modelling assessments for the anticipated vehicle movement trips.

7.2.22 Given the above, the TRICS database has been used to derive the predicted vehicle trip generation for the car park (410 spaces) element of the Mobility Hub using the above four categories. The TRICS database is an industry accepted tool for predicting the likely number of trips from a development by comparing the site with existing developments of a similar size and characteristic within the UK.

7.2.23 The TRICS database has been interrogated based on the following criteria:

Residents

- Land Use > Residential > Privately Owned Flats;
- Sites > Ireland and London excluded;
- Selection > Dwellings;
- Range > 6 to 500; and
- Day of week > Weekday surveys.

Working Commuters

- Land Use > Employment > Office;
- Sites > Ireland and London excluded;
- Selection > GFA;
- Range > 200 to 3000; and
- Day of week > Weekday surveys.

'Existing' Visitors & 'Existing' Residents

- In terms of the 'Existing' Visitor category, Hydrock have not included these within the assessments as it is deemed that all of these trips would typically travel outside of Peak Hours. Furthermore, it is also considered that these trips already exist on the local highway network within the surrounding Ancoats and New Islington District, and would simply be relocated to the Mobility Hub.
- In terms of 'Existing' Residents category, Hydrock have not included these within the assessments as it is considered that these trips already exist on the local highway network within the surrounding Ancoats and New Islington District, and would simply be relocated to the Mobility Hub.

7.2.24 The resulting trip rates and trip generation figures for the 'residents' category are summarised within **Table 7.2** and **7.3** below, with the TRICS outputs presented in **Appendix M**.

Table 7.2: TRICS 'Residents' Trip Rates

Trip Rate per dwellings	Weekday AM Peak (08:30-09:30)		Weekday PM Peak (17:00-18:00)	
	IN	OUT	IN	OUT
Vehicle Trip Rates	0.036	0.156	0.142	0.076

7.2.25 The above trip rates have been applied to the known active developments within the NDF (shown in **Table 7.1**) to determine the resultant traffic generation over the next known development years, as shown in **Table 7.3** below.

Table 7.3: TRICS 'Residents' Trip Generation

	Weekday AM Peak (08:30-09:30)		Weekday PM Peak (17:00-18:00)	
	IN	OUT	IN	OUT
2023 (circa 118 Dwellings in total) - Vehicle Trips	4	18	17	9
2026 (circa 318 Dwellings in total) - Vehicle Trips	11	50	45	24
2027 (Jan - Rodney Street + MLDC Plot A) (circa 680 Dwellings in total) - Vehicle Trips	25	107	97	52
2027 (Oct) (circa 880 Dwellings in total) - Vehicle Trips	32	138	125	67
2029 (circa 1500 Dwellings in total) - Vehicle Trips	39	169	154	82

7.2.26 The resulting trip rates and trip generation figures for the 'working commuters' category are summarised within **Table 7.4** and **7.5** below, with the TRICS outputs presented in **Appendix M**.

Table 7.4: TRICS 'Working Commuters' Trip Rates

Trip Rate per GFA	Weekday AM Peak (08:30-09:30)		Weekday PM Peak (17:00-18:00)	
	IN	OUT	IN	OUT
Vehicle Trip Rates	1.169	0.090	0.138	1.058

7.2.27 In order to generate a core number to apply the above 'working commuter' trip rates Hydrock have calculated how many car parking spaces are available / allocated for 'working commuters' from Year 1 (opening year of 2023), and using the robust number of spaces available set as 410.

7.2.28 As such Hydrock have assumed the following splits:

1. 'New' Residents (40 spaces) - Future Residents of the Poland Street Zone Redevelopment Area;
2. 'Existing' Residents (126 spaces) - Existing Residents within the surrounding Ancoats and New Islington District, which would be relocated to the Mobility Hub;
3. 'Existing' Visitors (29 spaces) – Existing Visitors (family or friends visiting existing residents in the area, retail shoppers, or retail / hospitality customers), which would be relocated to the Mobility Hub; and
4. Working Commuters (215 spaces).

TOTALS = 410 spaces

7.2.29 In order to calculate vehicle trips in TRICS a GFA is required. Using the above 215 spaces for 'Working Commuters', and multiplying this number by MCC's parking guidance requirement of 1 space per 35sqm for E(C)(III) Office land use, this then gives us a GFA of 7,525sqm to account for the 'Working Commuters'.

7.2.30 Given the trip rate parameter values obtained from TRICS (for the trip rates presented above in **Table 7.4**) for 'Working Commuters' are based on GFA, the 7,525sqm GFA can then be used to calculate the trip generation flow associated with the 'Working Commuters' element.

7.2.31 The above trip rates (in **Table 7.4**) have then been applied to 7,525sqm GFA to determine the resultant traffic generation for 'Working Commuters' for Year 1. Similarly, as the take up for resident car parking spaces increases year on year, the 'Working Commuters' number of spaces reduces. Using the same methodology as described previously, Hydrock have then determined the traffic generation over the next known development years for 'Working Commuters', as shown in **Table 7.5** below.

Table 7.5: TRICS 'Working Commuters' Trip Generation

	Weekday AM Peak (08:30-09:30)		Weekday PM Peak (17:00-18:00)	
	IN	OUT	IN	OUT
2023 (215 spaces) - Vehicle Trips	88	7	10	80
2026 (185 Spaces) - Vehicle Trips	76	6	9	69
2027 (Jan) (130 Spaces) - Vehicle Trips	53	4	6	48
2027 (Oct) (100 Spaces) - Vehicle Trips	41	3	5	37
2029 (70 Spaces) - Vehicle Trips	29	2	3	26

7.2.32 In summary the anticipated 'Year on Year' daily weekday trip generation numbers are presented in Table 7.6 below.

Table 7.6: Anticipated 'YEAR ON YEAR' Daily Weekday Trip Generation Assessment

2023 (March - MLDC Eliza Yard)				
Trip Categories	AM Peak (08:30-09:30)		PM Peak (17:00-18:00)	
	IN	OUT	IN	OUT
'NEW' Residents	4	18	17	9
*Visitors	0	0	0	0
Working Commuters	88	7	10	80
TOTAL	**92**	**25**	**27**	**89**
2026 (January - MLDC Jersey Wharf)				
Trip Categories	AM Peak (08:30-09:30)		PM Peak (17:00-18:00)	
	IN	OUT	IN	OUT
'NEW' Residents	11	50	45	24
*Visitors	0	0	0	0
Working Commuters	76	6	9	69
TOTAL	**87**	**55**	**54**	**93**

2027 (January - Rodney Street + MLDC Plot A)				
Trip Categories	AM Peak (08:30-09:30)		PM Peak (17:00-18:00)	
	IN	OUT	IN	OUT
'NEW' Residents	25	107	97	52
*Visitors	0	0	0	0
Working Commuters	53	4	6	48
TOTAL	**78**	**111**	**103**	**100**
2027 (October - Plot 16)				
Trip Categories	AM Peak (08:30-09:30)		PM Peak (17:00-18:00)	
	IN	OUT	IN	OUT
'NEW' Residents	32	138	125	67
*Visitors	0	0	0	0
Working Commuters	41	3	5	37
TOTAL	**73**	**141**	**130**	**104**
2029 (March - Plot 10)				
Trip Categories	AM Peak (08:30-09:30)		PM Peak (17:00-18:00)	
	IN	OUT	IN	OUT
'NEW' Residents	39	169	154	82
*Visitors	0	0	0	0
Working Commuters	29	2	3	26
TOTAL	**68**	**171**	**157**	**108**

**Note - would typically travel outside of Peak Hours*

7.2.33 As stated previously, with the exception of the trips associated with the 'New' Residents element, it could be considered that these trips are classified as 'existing' trips on the basis that these trips into the area would be made with or without the Mobility Hub in place.

7.2.34 Nonetheless, to provide a robust assessment and to demonstrate that the trips could be accommodated within the existing capacity of the aforementioned junctions no reduction in trips has been undertaken, and therefore all trips have been classified as 'new' trips.

7.3 Proposed Trip Generation Methodology - Delivery Hub Service

7.3.1 As previously set out in paragraph 4.8.14 MLSDCL have provided Hydrock with delivery data on a number of MLSDCL sites which were undertaken over 860 units. The full data provided by MLSDCL is provided at **Appendix N**. Hydrock have identified the 'MAX' weekday AM and PM flows for the 860 units. These figures have been multiplied by 2 to provide an indicative number of vehicle trips, associated with the parcel hub, serving 1,720 units, as shown in **Table 7.7**.

Table 7.7: Delivery Hub Trips

	Weekday AM Peak (08:30-09:30)		Weekday PM Peak (17:00-18:00)	
	IN	OUT	IN	OUT
Delivery Hub Trips	98	98	72	72

7.3.2 It should be reiterated (as stated in Section 4), that for robustness, Hydrock have assessed the Parcel Hub Deliveries as a future 'worst case' scenario when all New Developments have come forward under the NDF within the Ancoats and New Islington District, and therefore the Parcel Hub Deliveries would be operating at maximum capacity.

7.4 Trip Distribution

7.4.1 Car

7.4.2 To assess the percentage of the development traffic impacting on the local highway network, a trip distribution exercise has been undertaken to route traffic from their likely origin (for inbound trips) and to their likely destination (in the case of outbound trips).

7.4.3 For the study area inbound and outbound distributions have been combined. Separate distributions are not considered necessary due to minimal overlaps between inbound and outbound traffic occurring.

7.4.4 The flows for the development site have been distributed along the study network using a distribution profile based on the 2011 Journey to Work (JTW) Census data. For the residential zone which the development site lies in (Manchester 054), the taken approach resembles a simplified Gravity Model, generating an output in the form of percentage splits for trips attracted by surrounding employment zones based on their size and proximity to the development.

7.4.5 Table 7.8 below illustrates the percentage of trips attracted by surrounding employment zones, summarised as local authority districts.

Table 7.8: Journey to Work Distribution - Census Data (Manchester 054)

JTW Routes	%	Route Description
A	29%	A62 Oldham Road (northbound)
B	17%	A62 Oldham Road (southbound)
C	47%	Jersey Street via Great Ancoats Street
D	5%	A62 Oldham Road (northbound) via Great Ancoats Street
E	1%	Jersey Street via Butler Street

7.4.6 The full output is provided in Appendix O and shows the percentage splits for all census tracts. For statistical accuracy, tracts with a sample size of less than 3 have been omitted from the analysis.

7.4.7 Delivery Vehicles

7.4.8 The flows for the development site have been distributed along the study network on the assumption that all Delivery Vehicles will look to access the main A roads in order to cover large areas within Manchester when delivery parcels.

7.4.9 Table 7.9 below illustrates the percentage of trips attracted to each of the aforementioned routes.

Table 7.9: Delivery Vehicle Distribution

JTW Routes	%	Route Description
A	63%	A62 Oldham Road (northbound)
B	37%	A62 Oldham Road (southbound)
C	0%	Jersey Street via Great Ancoats Street
D	0%	A62 Oldham Road (northbound) via Great Ancoats Street
E	0%	Jersey Street via Butler Street

7.4.10 The Trip Generation and Trip Distribution figures are shown on **Traffic Figures 11-15** within the Traffic Flow Figures within the appendices.

7.4.11 The future base year of 2026 (B) plus committed development (C) plus the development scenario (D) (2026 B+C+D) are shown at **Traffic Figure 16** within the Traffic Flow Figures within the appendices.

8. ANTICIPATED HIGHWAYS IMPACT

8.1 Introduction

8.1.1 This Section describes the impact of the additional trips generated by the proposed development on the operation of the surrounding highway network.

8.2 Proposed Traffic Impact Assessment - Local highway network

8.2.1 As stated previously, TfGM confirmed that detailed capacity assessments of the following five junctions within close proximity to the site should be provided.

- Poland Street / A62 Oldham Road;
- Poland Street / Jersey Street;
- Jersey Street / A665 Great Ancoats Street;
- Bengal Street / A62 Oldham Street;
- A665 Great Ancoats Street / A62 Oldham Road / Oldham Street / Swan Street;

8.2.2 Furthermore, following the percentage impact assessments, the following three junctions were identified and agreed with TfGM as junctions that would should be included within the detailed capacity assessments.

- A62 Oldham Road / Collyhurst Street (max 7% impact);
- A62 Oldham Road / Livesey Street (max 10% impact); and
- A664 Rochdale Road / Livesey Street (max 9% impact).

8.2.3 Given the above, a detailed capacity assessment has been undertaken at the following junctions:

Priority Junction PICADY (Junctions 9) Assessments

- Poland Street / A62 Oldham Road;
- Poland Street / Jersey Street;
- Jersey Street / A665 Great Ancoats Street;
- Bengal Street / A62 Oldham Street;

Signalised Junction LINSIG Assessments

- A665 Great Ancoats Street / A62 Oldham Road / Oldham Street / Swan Street;
- A62 Oldham Road / Collyhurst Street;
- A62 Oldham Road / Livesey Street;
- A664 Rochdale Road / Livesey Street;

8.2.4 It should also be noted that Hydrock have obtained the signal timing data from TfGM for all signalised junctions listed above.

8.2.5 As previously stated in Section 6, the historic traffic data obtained to augment the survey data has been growthed to generate the 2021 base (year of application).

8.2.6 In accordance with the DfT's "Guidance on Transport Assessment", and as agreed with MCC and TfGM the future assessment year for this TA is 2026 (i.e. the year of application +5 years) (2026 Base).

8.2.7 The capacity of the above junctions has therefore been assessed for the future base year of 2026 (B) plus committed development (C) plus the development scenario (D) (2026 B+C+D). However, it should be noted that in order to provide a robust assessment the development element (D) of this scenario is actually as per day 1 (year opening of 2023) as this provides the higher levels of working commuter trips associated with the Mobility Hub.

8.2.8 Additionally, all of the junctions requested by TfGM (including the above junctions) have all been included within the percentage impact junction assessments, with the full list of junctions assessed as follows:

Percentage Impact Junction Assessments

- A56 Bury New Road / A6042 Trinity Way;
- A665 Cheetham Hill Road / A6042 Trinity Way;
- A665 Miller Street / A664 Angel Street;
- A664 Angel Street / Dantzic Street;
- A664 Angel Street / A664 Rochdale Road;
- A665 Miller Street / A664 Rochdale Road;
- A665 Addington Street / A62 Oldham Road;
- A664 Rochdale Road / Livesey Street;
- A62 Oldham Road / Livesey Street;
- A62 Oldham Road / Collyhurst Street;
- A665 Great Ancoats Street / Old Mill Street;
- A665 Great Ancoats Street / A662 Pollard Street;
- A665 Great Ancoats Street / Every Street;
- A665 Great Ancoats Street / A635 Pin Mill Brow;
- A665 Great Ancoats Street / Fairfield Street;
- A665 Great Ancoats Street / A635 Ashton Old Road;
- A665 Great Ancoats Street / Redhill Street;
- A665 Great Ancoats Street / Newton Street;
- A665 Great Ancoats Street / George Leigh Street;
- Poland Street / A62 Oldham Road;
- Poland Street / Jersey Street;
- Jersey Street / A665 Great Ancoats Street;
- Bengal Street / A62 Oldham Street; and
- A665 Great Ancoats Street / A62 Oldham Road / Oldham Street / Swan Street.

8.3 Assessment Methodology - Priority Junction PICADY (Junctions 9) Assessments

8.3.1 With the PICADY (Junctions 9) models the results generated provide a Ratio to Flow capacity [RFC] along with an estimate of the likely traffic queues.

8.3.2 RFC values between 0.00 & 0.85 states that junctions are 'within' capacity, and 0.85 – 0.90 are 'within theoretical' capacity, and respectively both are generally accepted as representing stable and acceptable operating conditions for traffic passing through a junction. Whereas, values between 0.90 & 1.0 represent a junction that is 'approaching' capacity and results in variable operation (i.e. possible queues building up at the junction during the period under consideration and increases in vehicular delay moving through the junction). RFC values in excess of 1.0 represent overloaded conditions (i.e. congestion).

8.3.3 The full PICADY model outputs for the 4 junctions identified above to be assessed are presented in **Appendix P**, with the 2026 B+C+D results summarised in **Tables 8.1, 8.2, 8.3,** and **8.4** below.

Table 8.1: PICADY CAPACITY ASSESSMENT - Poland Street / A62 Oldham Road

Arms	Weekday AM Peak (08:30-09:30)		Weekday PM Peak (17:00-18:00)	
BASE 2026 + Committed + Development				
	RFC%	Queue	RFC%	Queue
Poland Street - All Movements	0.43	1	0.51	1
A62 Oldham Road (West) - All Movements	0.22	1	0.31	1

Table 8.2: PICADY CAPACITY ASSESSMENT - Poland Street / Jersey Street

Arms	Weekday AM Peak (08:30-09:30)		Weekday PM Peak (17:00-18:00)	
BASE 2026 + Committed + Development				
	RFC%	Queue	RFC%	Queue
Poland Street - All Movements	0.17	0	0.19	0
Jersey Street (South-west) - All Movements	0.03	0	0.02	0
Car Park - All Movements	0.03	0	0.03	0
Jersey Street (North-east) - All Movements	0.03	0	0.01	0

Table 8.3: PICADY CAPACITY ASSESSMENT - Jersey Street / A665 Great Ancoats Street

Arms	Weekday AM Peak (08:30-09:30)		Weekday PM Peak (17:00-18:00)	
BASE 2026 + Committed + Development				
	RFC%	Queue	RFC%	Queue
Jersey Street - All Movements	0.27	0	0.42	1
A665 Great Ancoats Street - All Movements	0.17	1	0.07	0

Table 8.4: PICADY CAPACITY ASSESSMENT - Bengal Street / A62 Oldham Street

Arms	Weekday AM Peak (08:30-09:30)		Weekday PM Peak (17:00-18:00)	
BASE 2026 + Committed + Development				
	RFC%	Queue	RFC%	Queue
Bengal Street - All Movements	0.21	0	0.27	0
A62 Oldham Road - All Movements	0.30	1	0.56	3

8.3.4 Based on the evidence above it is clear that the vehicle impacts associated with the proposed development at all junctions are negligible, with the junctions clearly operating within capacity, and are concluded to result in minimal change to the future situation.

8.4 Assessment Methodology - Signalised Junction LINSIG Assessments

8.4.1 An assessment of the junctions identified above has been undertaken using industry standard LINSIG software. The LINSIG software presents results as a percentage Degree of Saturation (DoS) and corresponding likely traffic queues for each modelled link at the junction. For signalised junctions it is generally accepted that DoS of 90% or less on individual links represents satisfactory signal operation. DoS of between 90% and 100% represent variable operation which warrants further investigation and values in excess of 100% represent overloaded conditions.

8.4.2 It is worth re-asserting that the COVID-19 restrictions on movement have meant a reliance on existing TfGM 2010 data which have had growth applied to the year 2021 to establish a present-day scenario. This is methodology is likely to present a robust level of base traffic that would be present in reality.

8.4.3 Due to the revised anticipated working patterns as a result of the COVID-19 pandemic, it is estimated that general working commuters will see a reduction from previous historic traffic levels going forward.

8.4.4 The full LINSIG model outputs for the aforementioned 4 junctions to be assessed are presented in **Appendix Q**, with the base 2021, and future base years of 2026 B+C, and the future base year of 2026 B+C+D results summarised in **Tables 8.5, 8.6, 8.7,** and **8.8**.

Table 8.5: LINSIG Capacity Assessment - A665 Great Ancoats Street / A62 Oldham Road / Oldham Street / Swan Street

Arms	Weekday AM Peak (08:30-09:30)		Weekday PM Peak (17:00-18:00)	
BASE 2026 + Committed + Development				
	DoS%	Queue	DoS%	Queue
1/1 - A665 - Left / Ahead	47.0	6	47.0	7
1/2 - A665 - Ahead	51.9	8	50.4	8
1/3 - A665 - Right	49.2	7	47.8	7
2/1+2/2 - A62 - Ahead / Right	51.3	6	50.9	6
3/1+3/2 - A62 - Left	28.3	2	28.4	2
10/1 - Give Way Link to Swan Street - Ahead	26.2	6	24.2	5

Table 8.6: LINSIG Capacity Assessment - A62 Oldham Road / Collyhurst Street

Arms	Weekday AM Peak (08:30-09:30)		Weekday PM Peak (17:00-18:00)	
BASE 2026 + Committed + Development				
	DoS%	Queue	DoS%	Queue
1/1 - A62 (North) - Ahead / Left	53.2	9	41.2	6
1/2+1/3 - A62 (North) - Ahead / Right	63.6	11	50.4	8
2/1 - Valley Street - All Movements	44.6	6	51.8	8
3/1 - A62 (South) - Ahead / Left	26.8	4	54.7	9
3/2 - A62 (South) - Ahead / Right	29.0	5	57.1	10
3/3 - Collyhurst Street - All Movements	62.1	10	56.8	10

Table 8.7: LINSIG Capacity Assessment - A62 Oldham Road / Livesey Street

Arms	Weekday AM Peak (08:30-09:30)		Weekday PM Peak (17:00-18:00)	
BASE 2026 + Committed + Development				
	DoS%	Queue	DoS%	Queue
1/1 - A62 (North) - Ahead / Left	50.1	6	36.3	4
1/2+1/3 - A62 (North) - Ahead / Right	58.4	8	43.0	5
2/1+2/2 - Butler Street - All Movements	59.4	8	62.0	8
3/1 - A62 (South) - Ahead / Left	24.3	3	49.3	6
3/2+3/3 - A62 (South) - Ahead / Right	35.6	4	63.1	8
4/1 - Livesey Street - All Movements	44.7	5	52.1	7

8.4.5 Based on the evidence above it is clear that the vehicle impacts associated with the proposed development at all junctions are negligible, with the junctions clearly operating within capacity, and are concluded to result in minimal change to the future situation.

8.4.6 In relation to the final signalised junction (A664 Rochdale Road / Livesey Street), Hydrock have built the LINSIG Model as per the Signal Data provided by TfGM and this methodology has given rise to an appearance of capacity issues at tis junction.

8.4.7 However, having reviewed the outputs, and the quite significant DoS% in the 2010 Base, it is Hydrock's view that this is potentially down to the fact that this junction is operated via Microprocessor Optimised Vehicle Actuation (MOVA), which isn't representable in LINSIG. The issue with this modelling methodology is that MOVA uses a method of controlling the traffic signals based on the presence of vehicles detected on the approach to a signalised junction. As such MOVA responds dynamically to vehicle demands, including changing of green time for arms in demand.

8.4.8 In comparison LINSIG runs on fixed time, potentially missing out on swathes of spare capacity over a changing flow profile. MOVA can also run a 'high demand' scenario, keeping traffic moving by minimizing green times on all arms.

8.4.9 Furthermore, it is also noted that an all-red phase is called every cycle within the Signal Data provided by TfGM. Given the location of this signalised junction it is Hydrock's view that a pedestrian movement occurring every cycle is considered unlikely. Therefore, to establish a realistic baseline scenario Hydrock have amended the stage sequence within the LINSIG model to provide an all-red pedestrian cycle to run in every other cycle.

8.4.10 Given the above, Hydrock have presented the results of both scenarios (LINSIG model created with the original Signal Data provided by TfGM, and an amended LINSIG model which includes the revised pedestrian movements (every other cycle)). The results are shown below respectively in Tables 8.8 and 8.9.

Table 8.8: LINSIG Capacity Assessment - A664 Rochdale Road / Livesey Street

Arms	Weekday AM Peak (08:30-09:30)		Weekday PM Peak (17:00-18:00)	
BASE 2010				
	DoS%	Queue	DoS%	Queue
1/1+1/2 - A664 (North) - All Movements	93.5	21	49.5	6
2/1 - Livesey Street - All Movements	90.7	12	115.8	41
3/1+3/2 - A664 (South) - All Movements	38.5	4	114.8	88
4/1 - Bromley Street - All Movements	24.8	1	115.6	25
BASE 2021				
	DoS%	Queue	DoS%	Queue
1/1+1/2 - A664 (North) - All Movements	113.1	97	58.3	7
2/1 - Livesey Street - All Movements	112.2	35	136.6	79
3/1+3/2 - A664 (South) - All Movements	44.2	4.2	135.4	179
4/1 - Bromley Street - All Movements	29.3	1	136.3	46
BASE 2026 + Committed				
	DoS%	Queue	DoS%	Queue
1/1+1/2 - A664 (North) - All Movements	119.0	129	61.7	8
2/1 - Livesey Street - All Movements	112.7	38	144.0	92
3/1+3/2 - A664 (South) - All Movements	48.2	5	144.1	216
4/1 - Bromley Street - All Movements	30.5	1	143.6	54
BASE 2026 + Committed + Development				
	DoS%	Queue	DoS%	Queue
1/1+1/2 - A664 (North) - All Movements	126.0	171	65.6	9
2/1 - Livesey Street - All Movements	126.0	56	152.2	102
3/1+3/2 - A664 (South) - All Movements	53.6	5	149.9	247
4/1 - Bromley Street - All Movements	30.5	1	143.6	54

Table 8.9: LINSIG Capacity Assessment - A664 Rochdale Road / Livesey Street (amended LINSIG including 'every other cycle')

Arms	Weekday AM Peak (08:30-09:30)		Weekday PM Peak (17:00-18:00)	
BASE 2010				
	DoS%	Queue	DoS%	Queue
1/1+1/2 - A664 (North) - All Movements	84.0	16	46.3	6
2/1 - Livesey Street - All Movements	82.1	10	104.3	26
3/1+3/2 - A664 (South) - All Movements	33.9	3	104.2	54
4/1 - Bromley Street - All Movements	24.8	1	105.1	18
BASE 2021				
	DoS%	Queue	DoS%	Queue
1/1+1/2 - A664 (North) - All Movements	100.7	48	53.5	8
2/1 - Livesey Street - All Movements	101.0	21	122.9	67
3/1+3/2 - A664 (South) - All Movements	39.0	4	124.7	160
4/1 - Bromley Street - All Movements	29.3	1	123.9	42
BASE 2026 + Committed				
	DoS%	Queue	DoS%	Queue
1/1+1/2 - A664 (North) - All Movements	104.6	68	56.6	8
2/1 - Livesey Street - All Movements	104.5	27	129.6	82
3/1+3/2 - A664 (South) - All Movements	42.0	5	131.9	201
4/1 - Bromley Street - All Movements	30.5	2	130.5	51
BASE 2026 + Committed + Development				
	DoS%	Queue	DoS%	Queue
1/1+1/2 - A664 (North) - All Movements	110.1	103	60.3	9
2/1 - Livesey Street - All Movements	109.8	36	136.4	92
3/1+3/2 - A664 (South) - All Movements	48	36	136.5	233
4/1 - Bromley Street - All Movements	30.5	2	130.5	51

8.4.11 Whilst the junction is currently operating close to capacity - the modelling demonstrates the development has negligible impact in real terms.

8.4.12 Furthermore, the JTW census data would suggest that the 'with development' scenario is based on an estimated worst-case assessment with all (100%) northbound trips routing via Livesey Street to the A664 Rochdale Road, rather than continuing along the A62 Oldham Road. This is unlikely to be the case, especially given that the JTW census data estimates that only 22% will take the route via Livesey Street to the A64 Rochdale Road. Therefore, the capacity at the above junction would be better than the results presented above.

8.5 Percentage Impact Junction Assessments on Additional Links

8.5.1 As stated previously Hydrock have also assessed all of the junctions requested by TfGM (including the above junctions) within a percentage impact junction assessment. The full analysis presented at **Appendix R**, but in summary, the only junctions that showed a percentage impact of greater than 5% are shown in **Table 8.10**, and are essentially just the junctions that Hydrock have undertaken capacity assessments on.

Table 8.10: Percentage Impact - Greater than >5%

Junction Name	AM Peak (08:30-09:30)			PM Peak (17:00-18:00)		
	Base Flows (2-way)	Dev Flows (2-way)	Percentage Impact	Base Flows (2-way)	Dev Flows (2-way)	Percentage Impact
A664 Rochdale Road / Livesey Street	2274	158	7%	2422	125	5%
A62 Oldham Road / Livesey Street	1550	158	10%	1823	125	7%
A62 Oldham Road / Collyhurst Street	1693	158	9%	1833	125	7%
A62 Oldham Road / Bengal Street	1687	100	6%	1786	80	5%
A62 Oldham Road / Poland Street	1525	258	17%	1905	206	11%
Poland Street / Jersey Street	183	58	32%	177	57	32%

8.5.2 It should be noted that while the percentage impact at the Poland / Jersey Street appears high this is a result of the low number of existing flows along Jersey Street. As stated above, the Poland Street / Jersey Street junction has been subject to detailed capacity assessment which concluded negligible impact on the development.

8.5.3 However, as demonstrated above, it is evident that the forecasted development trips will result in negligible increases in flows and result in a minimal percentage impact along the local highway network, and therefore the development can be suitably accommodated by the available infrastructure.

8.5.4 As such, it is Hydrock's view that the development impact on the local network is not considered material, and does not require further consideration.

8.6 Poland Street Zone without a Mobility Hub - Impact Study

8.6.1 In support of a full TA of the development proposals, MLSDCL also commissioned Hydrock to undertake an impact study that quantifies and compares the traffic impact of the Poland Street Zone development proposals 'with' and 'without' the provision of the proposed Mobility Hub.

8.6.2 The full impact study is provided at **Appendix F**, and the conclusions are summarised as follows:

- The provision of the Mobility Hub is forecast to provide 25% parking provision for the Poland Street Zone redevelopment area. This is a 5% reduction on the standard 30% car parking provision which the full report concludes would be appropriate for developments in the area. This reduction is justified on the basis of the alternative mobility provision and innovative tenure model referenced elsewhere in the application pack (specifically the operation and management statement). This reduction in provision drives a direct reduction on the total number of vehicles on the highways network in the NDF area.
  - » Within the weekday AM peak period all of the junctions are forecast to benefit from a reduction in vehicles flows, whilst in the weekday PM peak one junction is forecast to experience a minor increase (A62 Oldham Road / Swan Street). Over a 24-hour period, the provision of the Mobility Hub is forecast to reduce the number of vehicles throughout the NDF area and wider Ancoats (by approximately 2,000 vehicles).
- The location of the Mobility Hub and its proximity to A62 Oldham Road reduce the number of journeys through the Poland Street Zone when compared to parking being provided within individual developments
  - » The provision of the Mobility Hub also reduces the distances travelled within the NDF area by 1,197km over a 24-hour period, a significant reduction in vehicle distances and vehicles routeing through the masterplan area.
- Without the provision of the Mobility Hub, parking provision will be spread throughout the NDF area and encourages vehicles to route through areas of public realm impacting on pedestrian and cycling amenity. Additionally, parcel deliveries will continue in an uncoordinated manner throughout the NDF area.
- The provision of the Mobility Hub will provide a betterment in traffic terms for the NDF area and wider Ancoats, by consolidating vehicle trips in close proximity to the A62 Oldham Road and the Key Route Network.

9. SUMMARY AND CONCLUSION

9.1 Summary

9.1.1 Hydrock has been instructed by MLSDCL to prepare a TA in support of a planning application for The Ancoats Mobility Hub development, Manchester.

9.1.2 The Ancoats Mobility Hub ("the Hub") is being brought forward to support the next phase of the redevelopment of the Ancoats area of Manchester which will be focused on the Poland Street Zone as defined by Poland Street Zone NDF endorsed by MCCMCC in July 2020.

9.1.3 The Hub offers the opportunity to transform how residential parking is provided on a neighbourhood basis, facilitating and enabling the transition away from petrol/diesel cars and to alternative, active modes of transport and consists of the following components:

- Cycle Hub – 150 cycle spaces with lockers and shower provision;
- Delivery Hub – 750sqm area designated for aggregated deliveries to the residential addresses;
- Commercial Unit – 220sqm commercial unit;
- 408 car parking spaces comprising:
  - 378 parking spaces (including 24 disabled spaces) designed to support future residential developments.
  - 20 Car Club spaces - 20 spaces initially and room to grow, the car club will look to provide a mobility provision other than car ownership to facilitate sustainable choices.
  - 10 car sharing spaces (Rideshare) – up to 10 spaces available initially and room to grow, the ridesharing spaces will facilitate residents with electric vehicles offering their vehicle for private hire via a car-sharing platform.
- Electric Vehicle Charging Points – 25% provision (102 points) with electrical capacity secured to grow with demand up to 100%.
  - 7 x rapid charge points (50kw) for visitors.
  - 95 x standard charge points (7kw) for residents.
- A Photo Voltaic (PV) array with a projected total generation of 97.6MWh. The electricity generated will support landlord functions with sufficient excess to support 7 car club spaces.
- Digital Platform – a platform will be delivered with the Mobility Hub which will make the services available at the Hub accessible to individuals and families in the neighbourhood via their smartphones.
- A tenure model for car parking provision which breaks the link between homes and car parking spaces and allows spaces to be recycled by being sold back to the operator as residents choose not to own a car and to make use of car clubs and other modes of transport.
- The Mobility Hub Operators will be asked to develop a parking season ticket which prioritises existing residents without parking provision followed by workers commuting into existing business premises in the Ancoats and New Islington area via a combination of postcode indexed and season ticket length pricing incentives.

9.1.4 The site's proposed pedestrian / cycling access is from the new pedestrian and cycle route directly south of the building connecting Poland Street and Ancoats Green. This has been designed to ensure safe segregation of pedestrians and vehicles.

9.1.5 The new route proposed along the southern boundary of the site includes a segregated pedestrian and Cycle Infrastructure Design LTN 1/20 compliant cycle route and public realm comprising hard and soft landscaping.

9.1.6 It is proposed that vehicle access to the site will take place from Poland Street, along the western boundary of the development plot.

9.1.7 The proposed vehicle access includes the following elements:

- A two-way car park access measuring 7.0m wide (2 x 3.5m wide lanes) leading to a ramped configuration within the car park structure. The access also provides vehicle height restriction barriers to prevent any vehicle larger than 3m entering the site; and
- A 'one-way' delivery / servicing vehicle only access, providing a 5.0m wide singular lane, which acts as the servicing route for the site. The entry lane is located immediately north of the two-way car park access and loops around the ground floor configuration and egresses via a separate 5.0m wide exit immediately south of the two-way car park access. The access also provides vehicle height restriction barriers to prevent any vehicle larger than 3m entering the site.

9.1.8 A conservative estimate of 40% of the trips associated with the Hub are assumed as 'existing' on the local highways network within the junction modelling conducted. The remaining 60% (10% visitor and 50% working commuter) of spaces within the mobility Hub have been associated with new trips on the local highways network.

9.1.9 A percentage impact junction assessment of all junctions in the study area, in addition to detailed capacity assessment of the junctions requested by TfGM has been assessed for the future base year of 2026 B+C+D scenario.

9.1.10 The full analysis of the percentage impact junction assessments showed that the only junctions showing a percentage impact of greater than 5% are the junctions that Hydrock have undertaken detailed capacity assessments on.

9.1.11 The results of the detailed capacity assessments conclude that the vehicle impacts associated with the proposed development at all junctions are negligible, with the junctions clearly operating within capacity, and are concluded to result in minimal change to the future situation.

9.1.12 While it is noted that the A664 Rochdale Road / Livesey Street junction is operating close to capacity within both the AM and PM peak hours, the capacity only worsens during the future base years, with the committed developments, and with the proposed development in place. Therefore, it is evident that the junction would be approaching capacity 'with' or 'without' the development in place. However, it is noted that the DoS% increase with the development in place result in a minimal increase change.

9.1.13 Furthermore, the JTW census data would suggest that the 'with development' scenarios are based on an estimated worst-case assessment with all (100%) northbound trips routing via Livesey Street to the A664 Rochdale Road, rather than continuing along the A62 Oldham Road. This is unlikely to be the case, especially given that the JTW census data estimates that only 22% will take the route via Livesey Street to the A64 Rochdale Road. Therefore, the capacity at the above junction would be better than the results presented above.

9.1.14 Given the above evidence, it is Hydrock's view that the development impact on the local network is not considered material, and does not require further consideration

9.1.15 Therefore, the traffic impact assessment shows that there is no traffic impact upon the existing highway network that would be considered severe.

9.2 Conclusion

9.2.1 The Hub is to be located in an ideal location in relation to the future residential developments coming forward, as well as easy access by commuters or visitors and will have capacity in early years to absorb some of the existing surface parking provision in the NDF area that is likely to be lost to redevelopment.

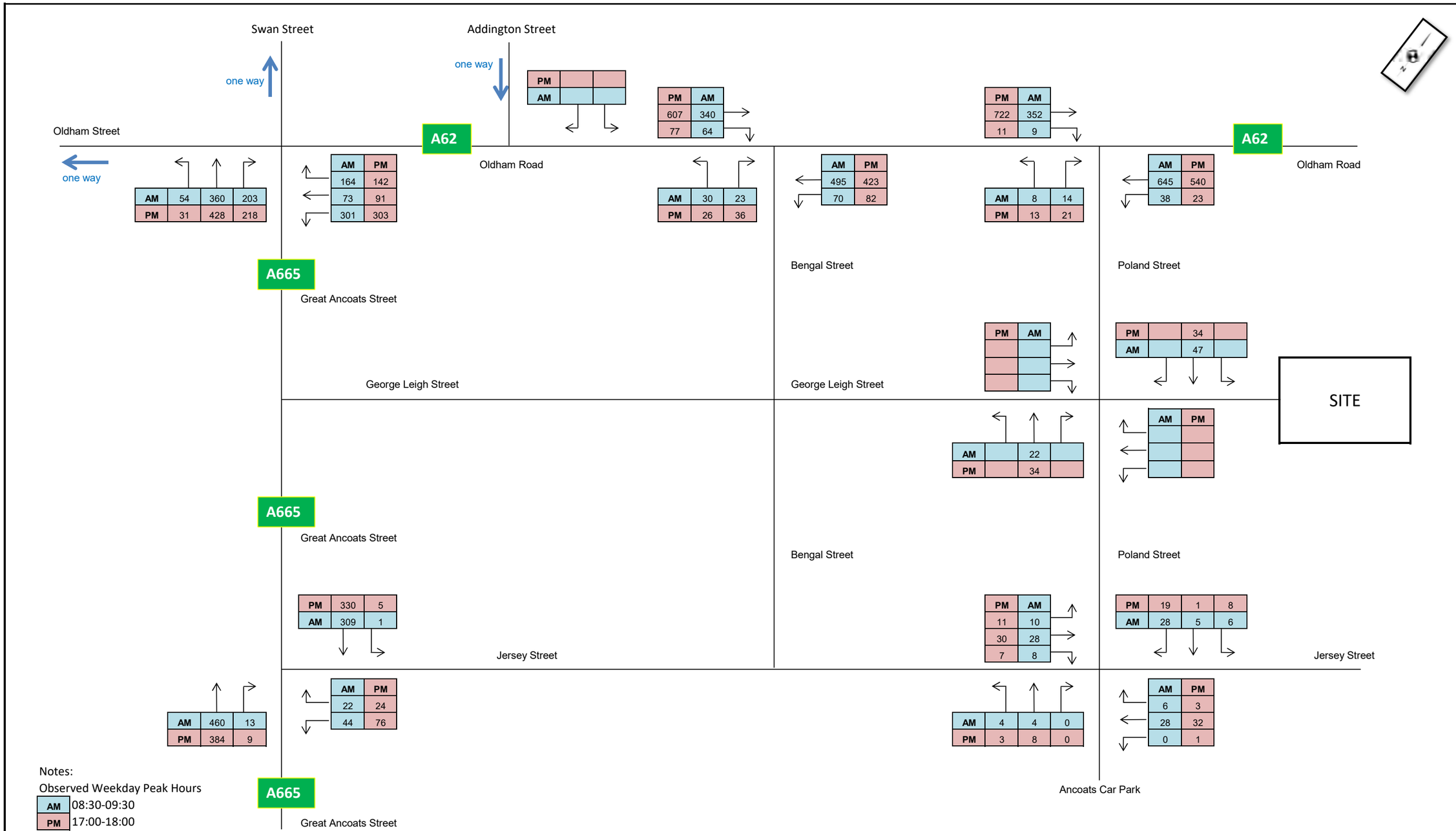
9.2.2 The Hub's traffic impact has been assess based on a set of trip generation assumptions that are robust and are intended to provide MCC and TfGM with comfort that the operational results presented within this TA can be considered reliable.

9.2.3 Furthermore, the impact study without the hub in place has demonstrated that without the Hub in place the traffic movements across the NDF area will be worse as a result of the Poland Street Zone NDF developments.

9.2.4 As consequence Hydrock therefore conclude that having worked closely with MCC and TfGM, undertaken a comprehensive analysis of the development site and after reviewing planning policies, it has been demonstrated by this TA that the proposed development accords with highway design recommendations and sustainable values and hence there is no basis for highway and transportation objections to the proposals.

9.2.5 The impacts of the proposed development are not severe and therefore the presumption in favour of the development is not outweighed by any highways or traffic related issues.

Traffic Figures



Notes:
Observed Weekday Peak Hours

AM	08:30-09:30
PM	17:00-18:00

Traffic surveys undertaken on
22/10/20 & 03/11/20

Hydrock

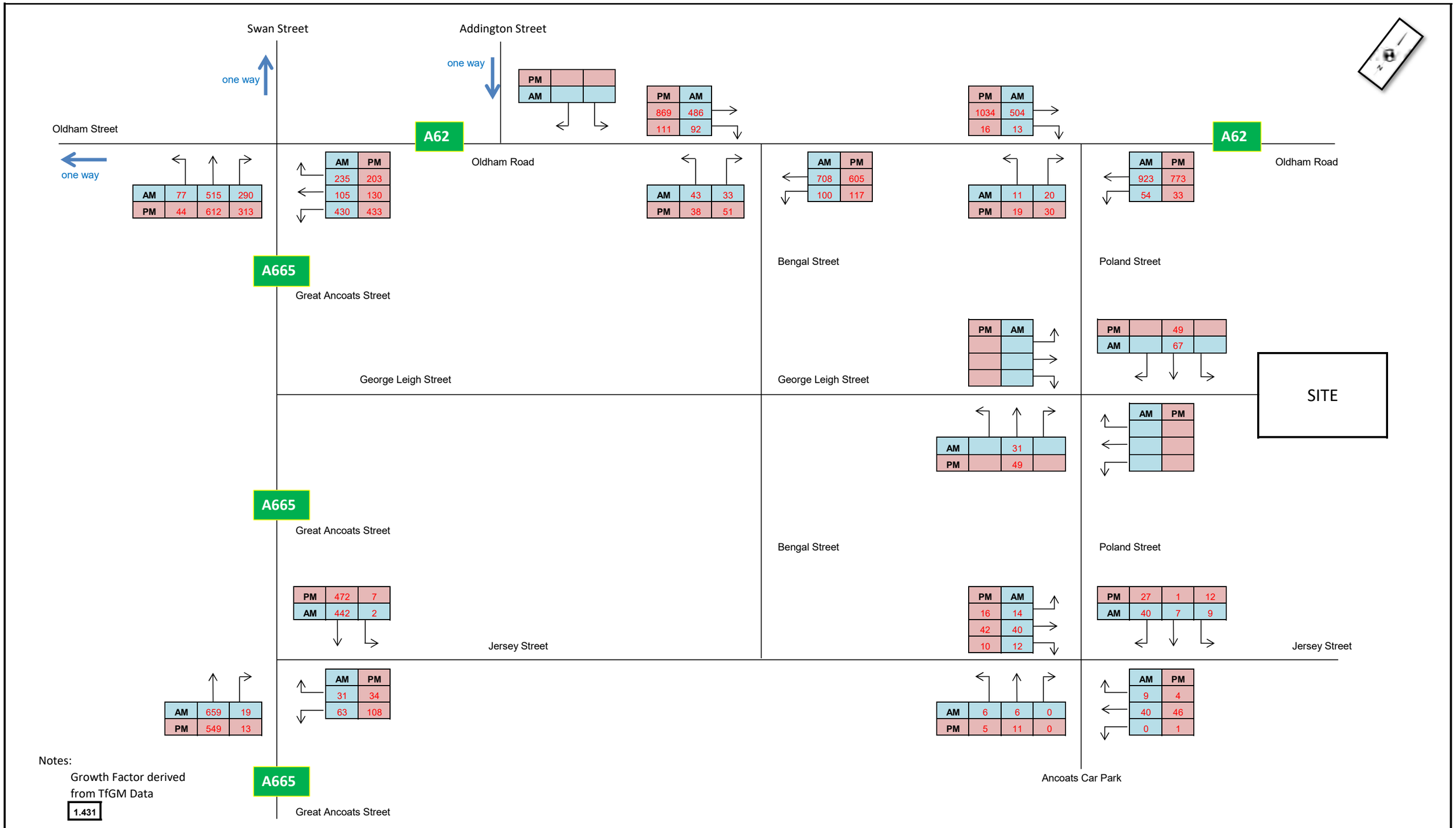
AM & PM Peak Hour - 2020 Traffic Surveyed Base Flows (PCUs)

Proposed Mobility Hub Development, Poland Street, Ancoats

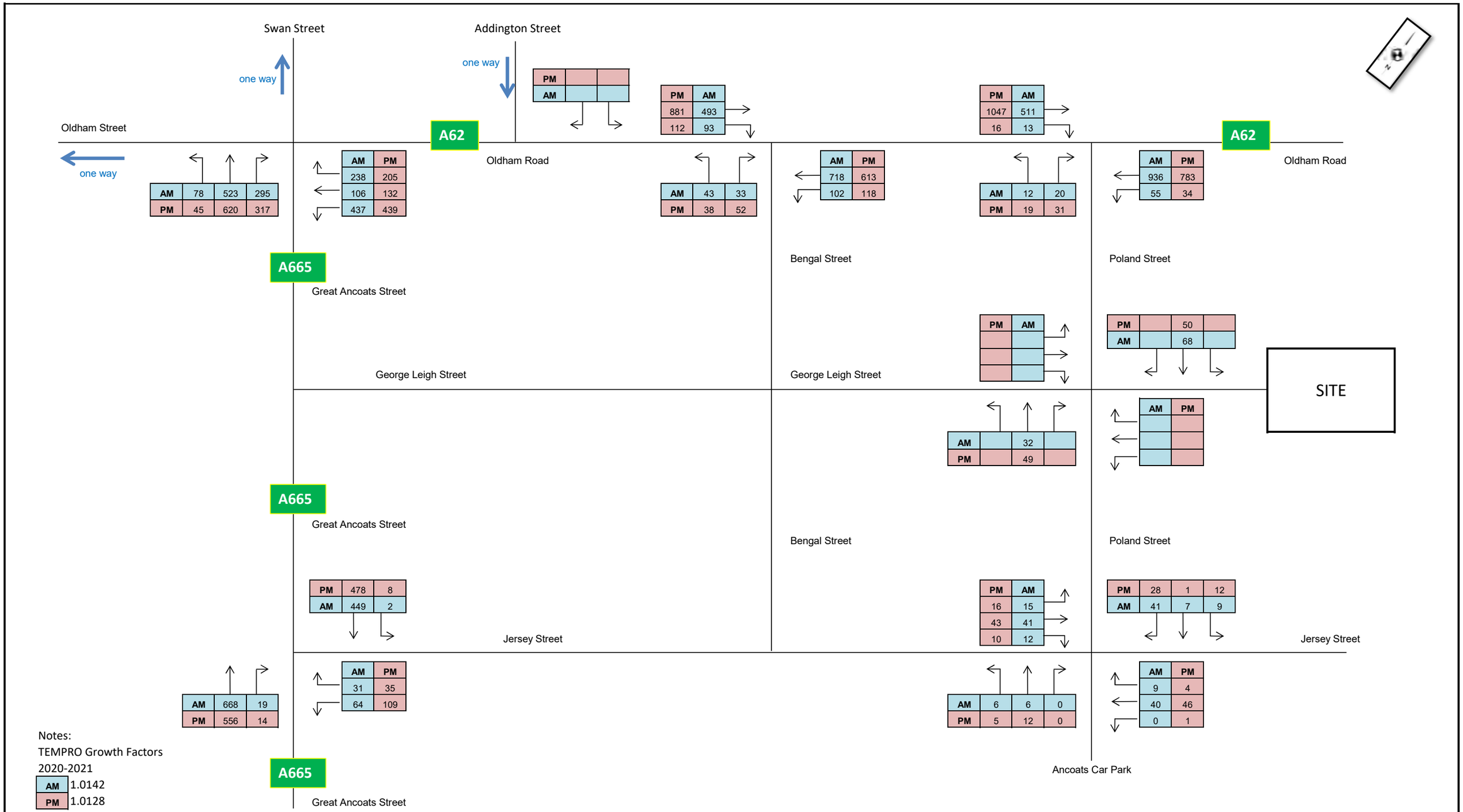
16 April 2021

Job Number - C16857

Figure 1



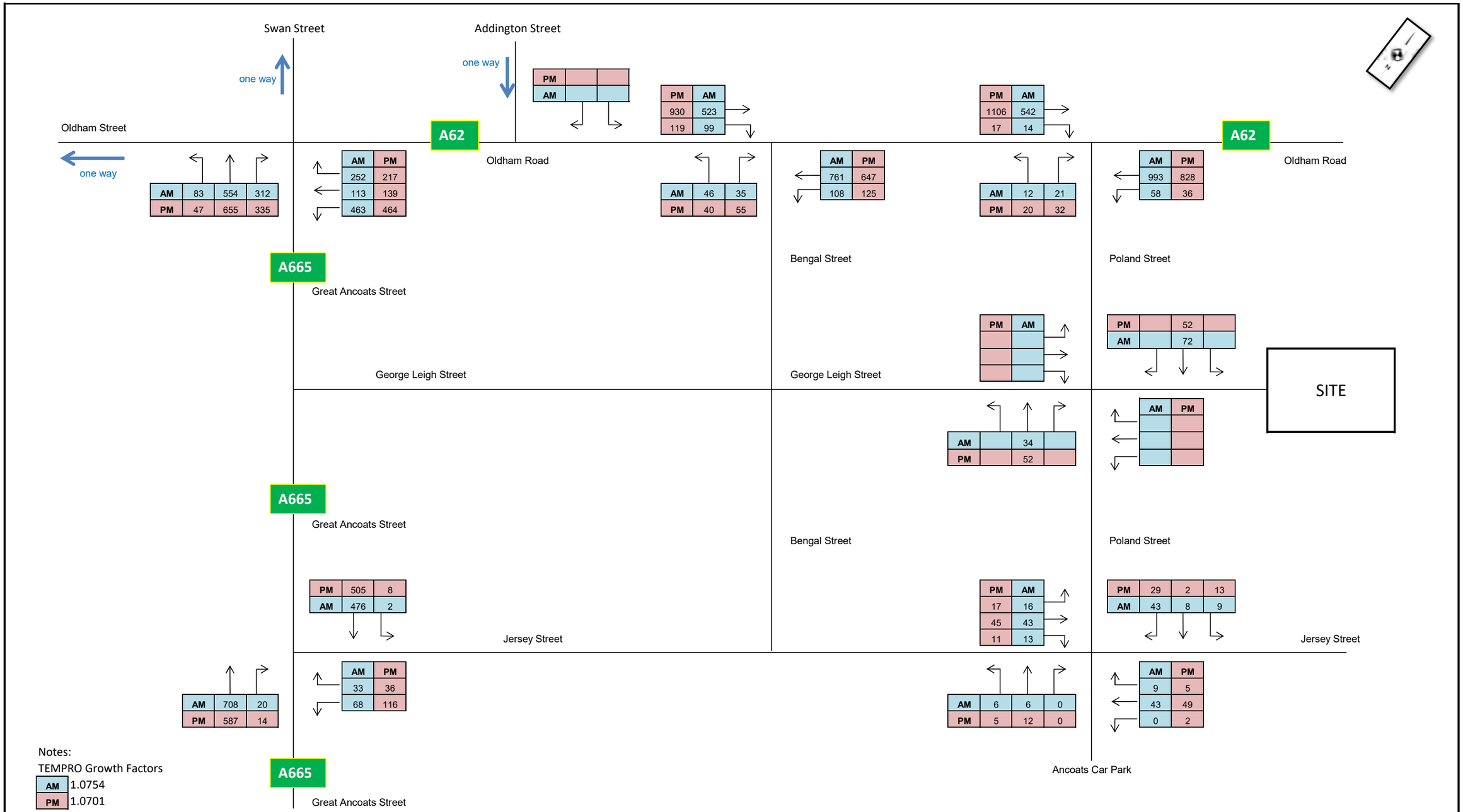
Hydrock	**AM & PM Peak Hour - NEW 2020 Base Flows (PCUs) Growthed by TfGM factor**	**16 April 2021**
		Job Number - C16857
	Proposed Mobility Hub Development, Poland Street, Ancoats	**Figure 2**



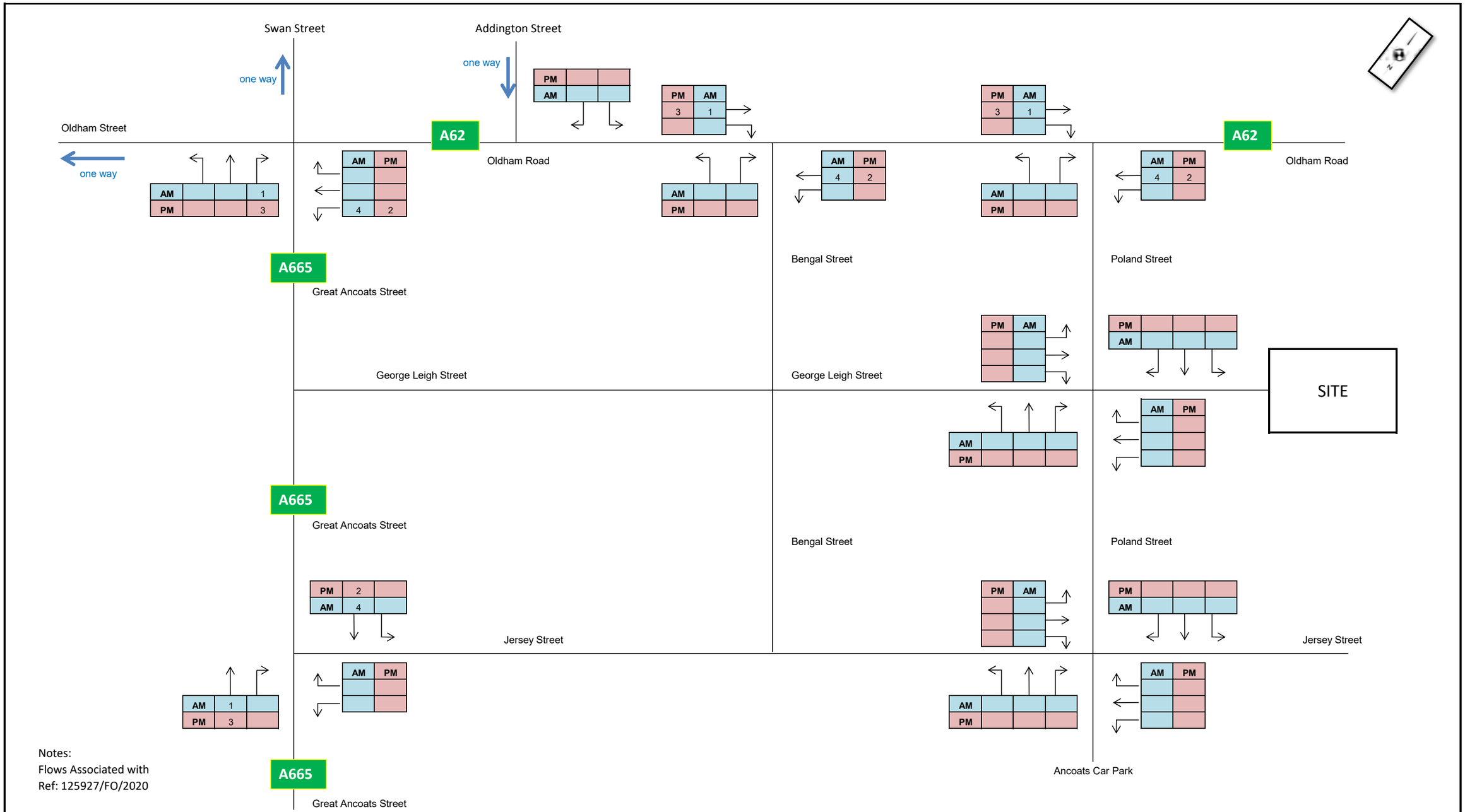
Notes:
TEMPRO Growth Factors
2020-2021

AM	1.0142
PM	1.0128

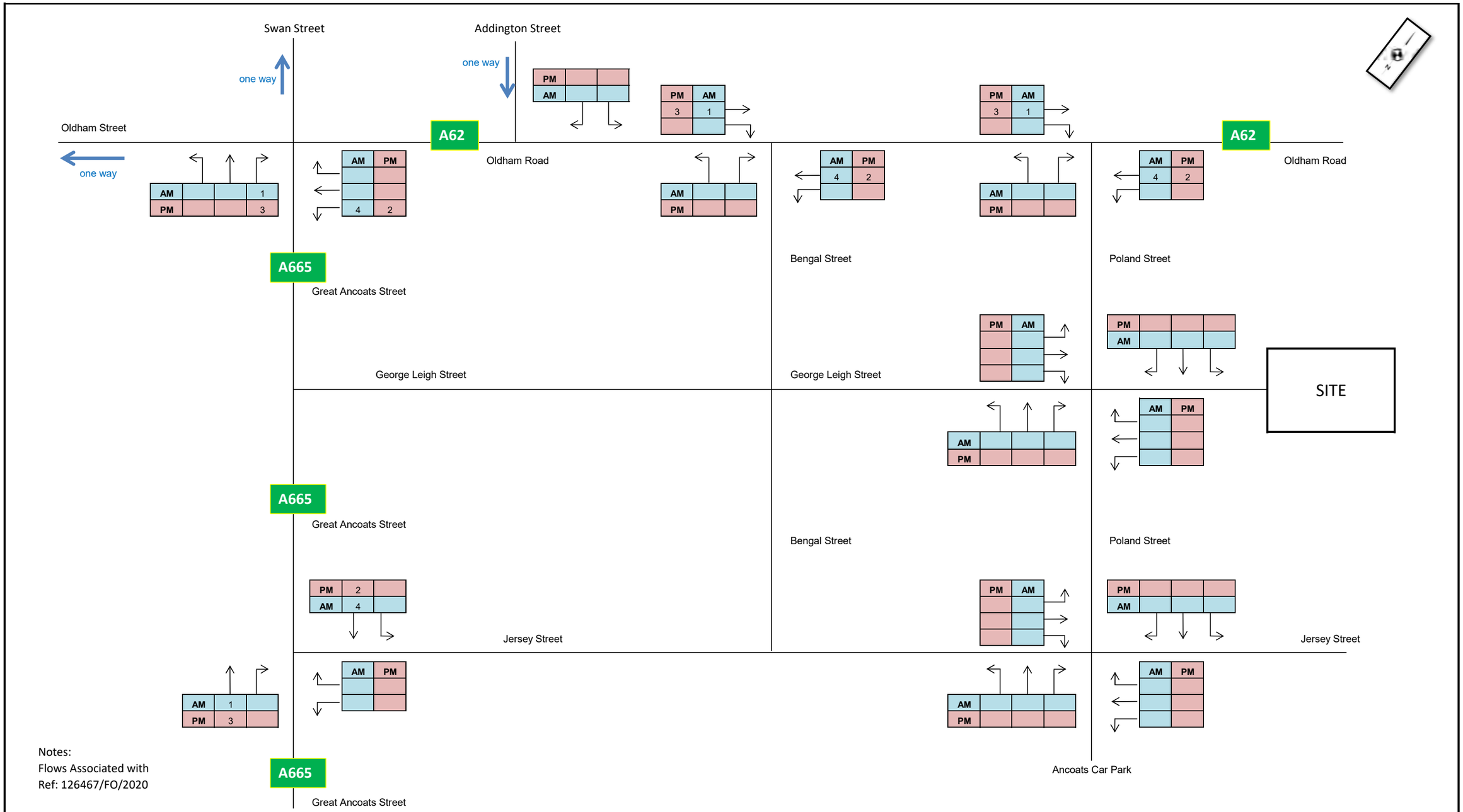
Hydrock	AM & PM Peak Hour - 2021 Future Base Flows (PCUs)	16 April 2021
		Job Number - C16857
	Proposed Mobility Hub Development, Poland Street, Ancoats	Figure 3



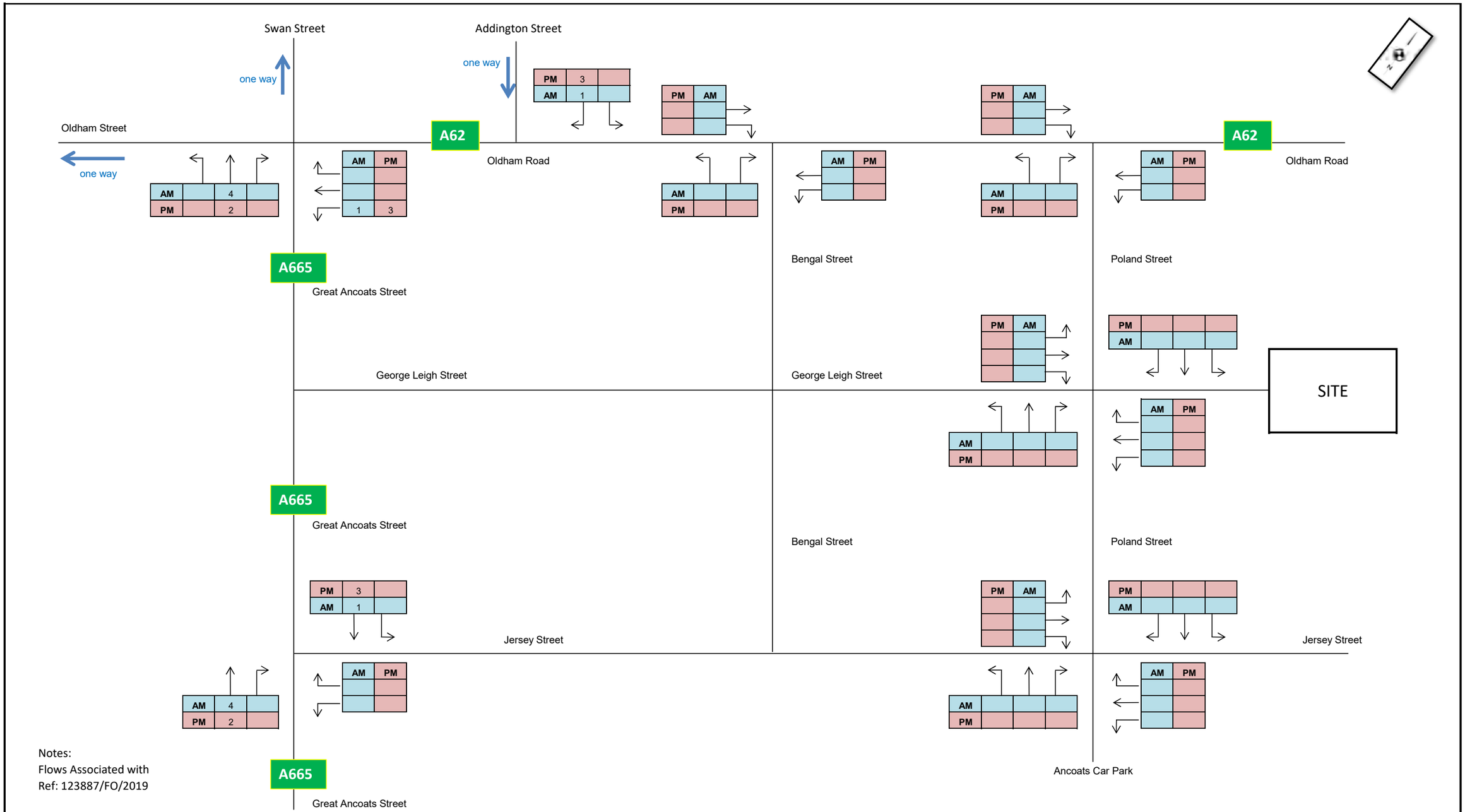
Hydrock	AM & PM Peak Hour - 2026 Future Base Flows (PCUs)	16 April 2021
		Job Number - C16857
	Proposed Mobility Hub Development, Poland Street, Ancoats	Figure 4



Hydrock	**AM & PM Peak Hour - 22 Residential Dwellings (Ref: 125927/FO/2020) - Committed Development (PCUs)**	**16 April 2021**
		Job Number - C16857
	Proposed Mobility Hub Development, Poland Street, Ancoats	**Figure 5**

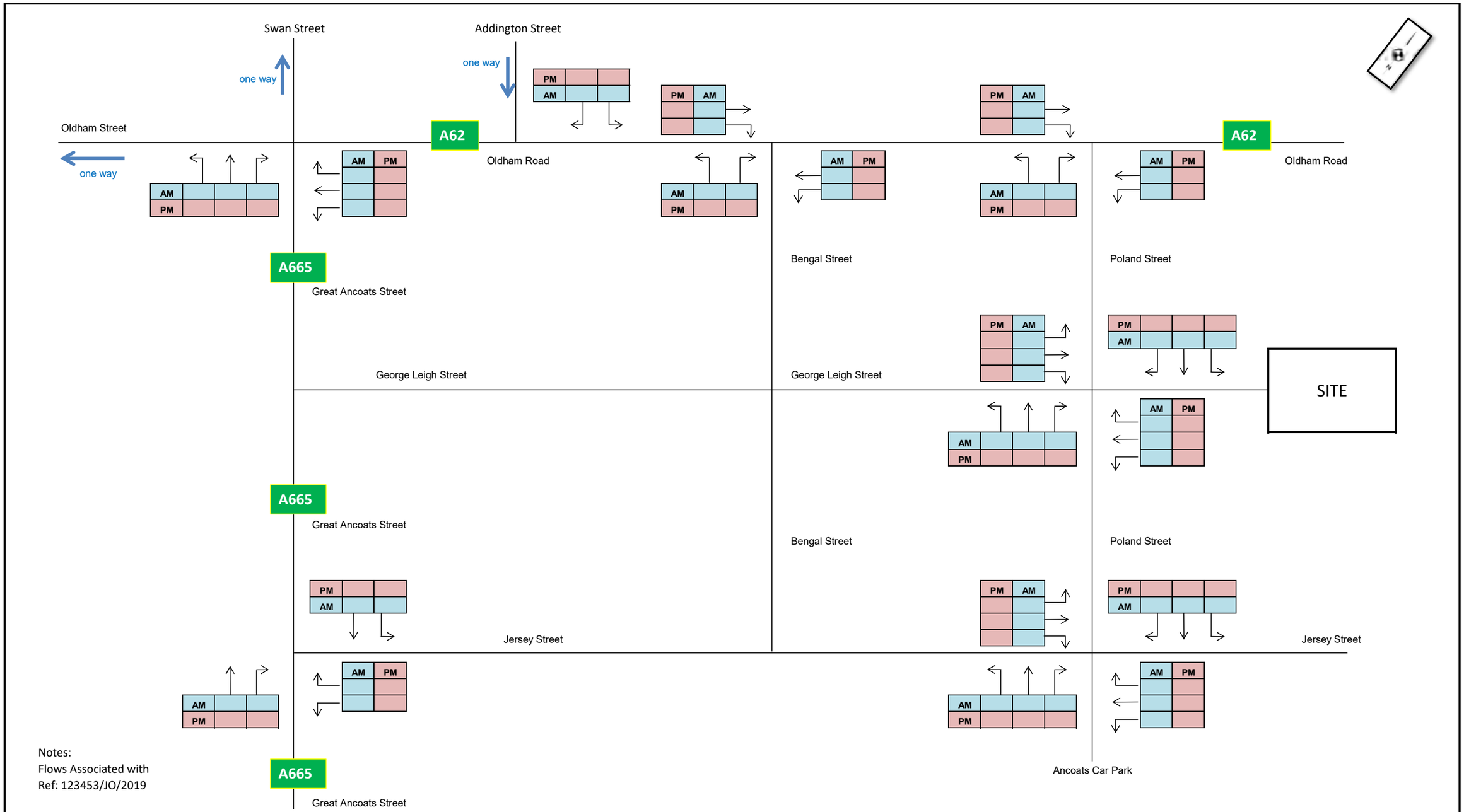


Hydrock	**AM & PM Peak Hour - 22 Residential Dwellings (Ref: 126467/FO/2020) - Committed Development (PCUs)**	**16 April 2021**
		Job Number - C16857
	Proposed Mobility Hub Development, Poland Street, Ancoats	**Figure 6**



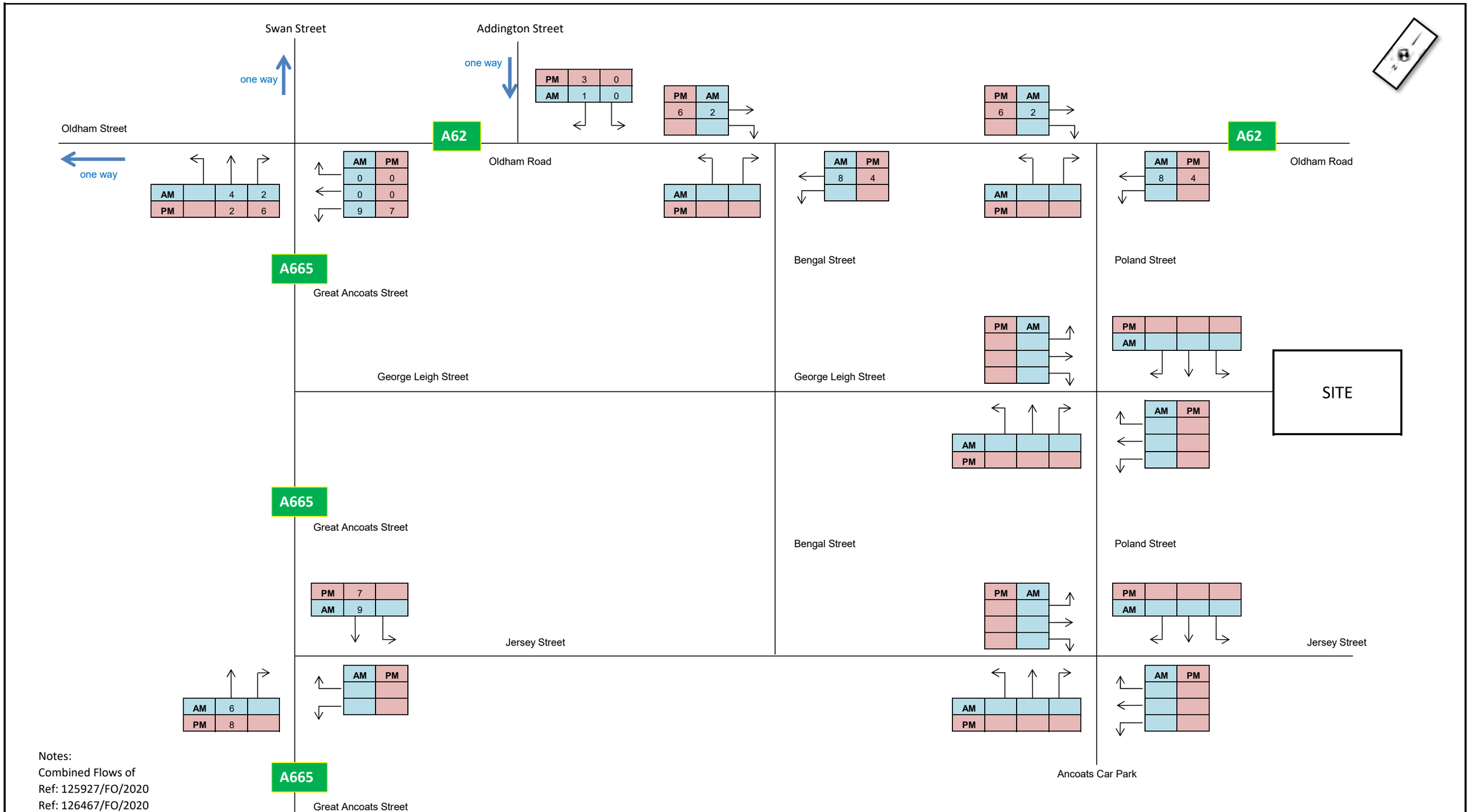
Notes:
Flows Associated with
Ref: 123887/FO/2019

Hydrock	**AM & PM Peak Hour - 37 Residential Dwellings (Ref: 126467/FO/2020) - Committed Development (PCUs)**	**16 April 2021**
		Job Number - C16857
	Proposed Mobility Hub Development, Poland Street, Ancoats	**Figure 7**



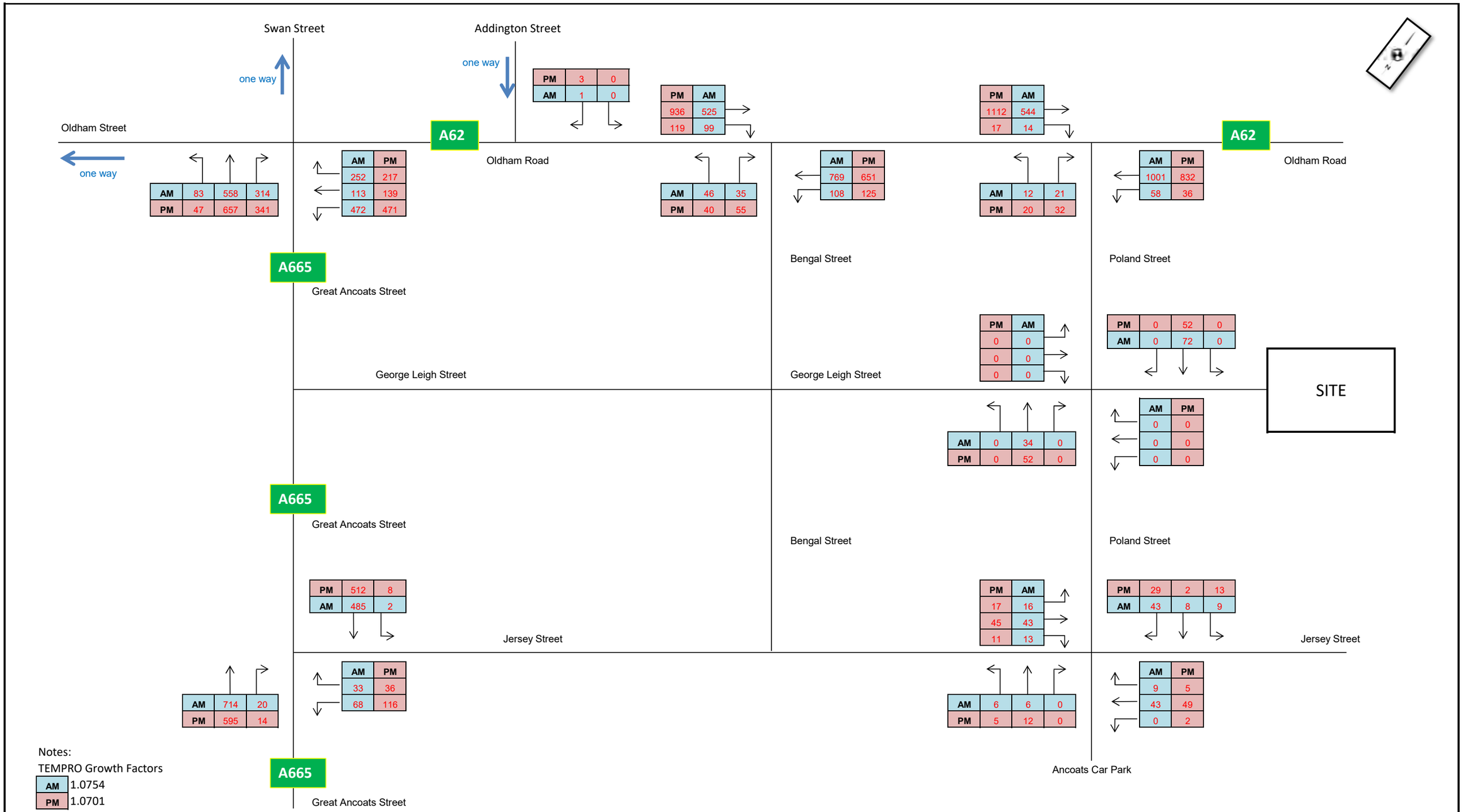
Notes:
Flows Associated with
Ref: 123453/JO/2019

Hydrock	**AM & PM Peak Hour - 3 Commercial Units (Ref: 123453/JO/2019) -Committed Development (PCUs)**	**16 April 2021**
		Job Number - C16857
	Proposed Mobility Hub Development, Poland Street, Ancoats	**Figure 8**

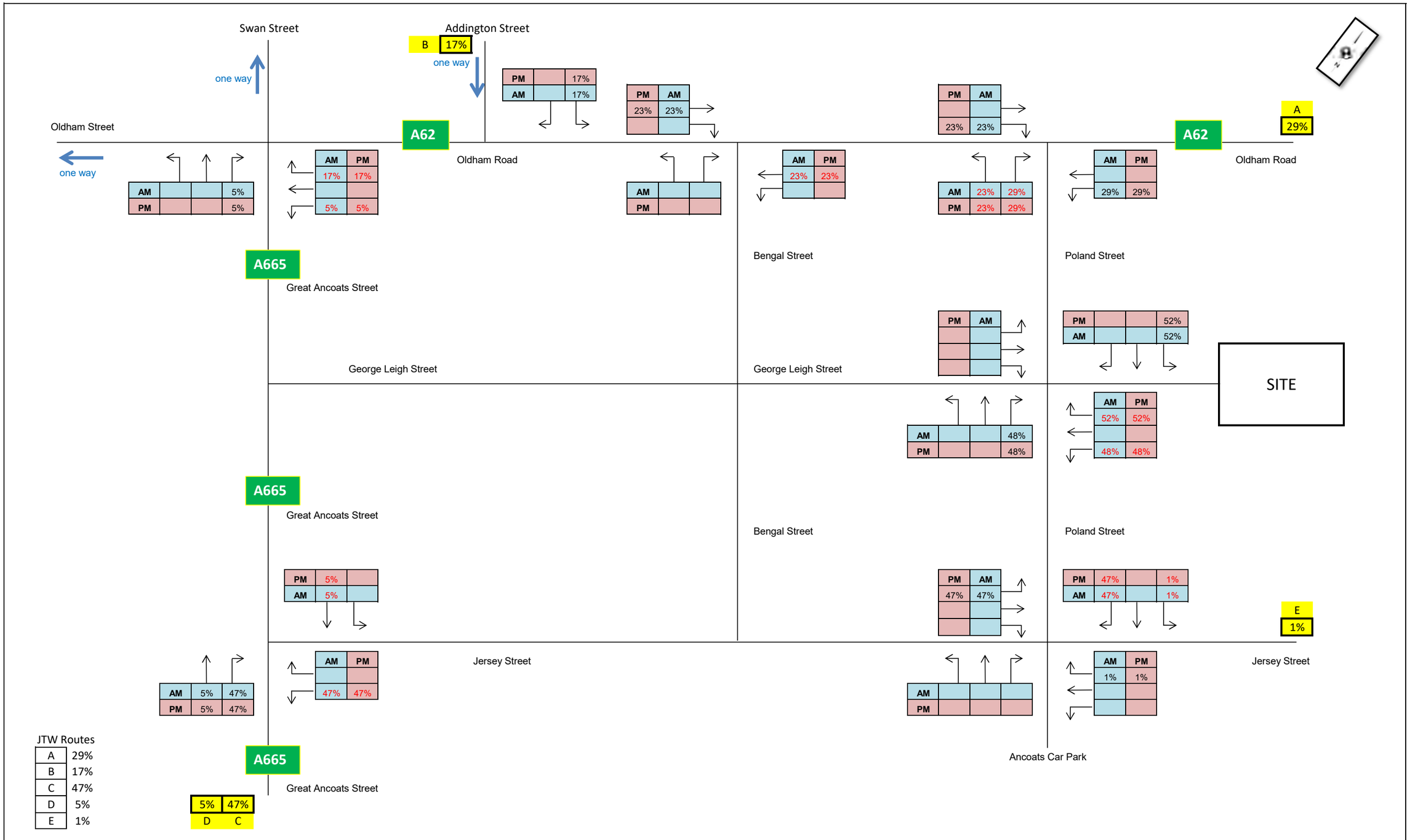


Notes:
Combined Flows of
Ref: 125927/FO/2020
Ref: 126467/FO/2020
Ref: 123887/FO/2019
Ref: 123453/JO/2019

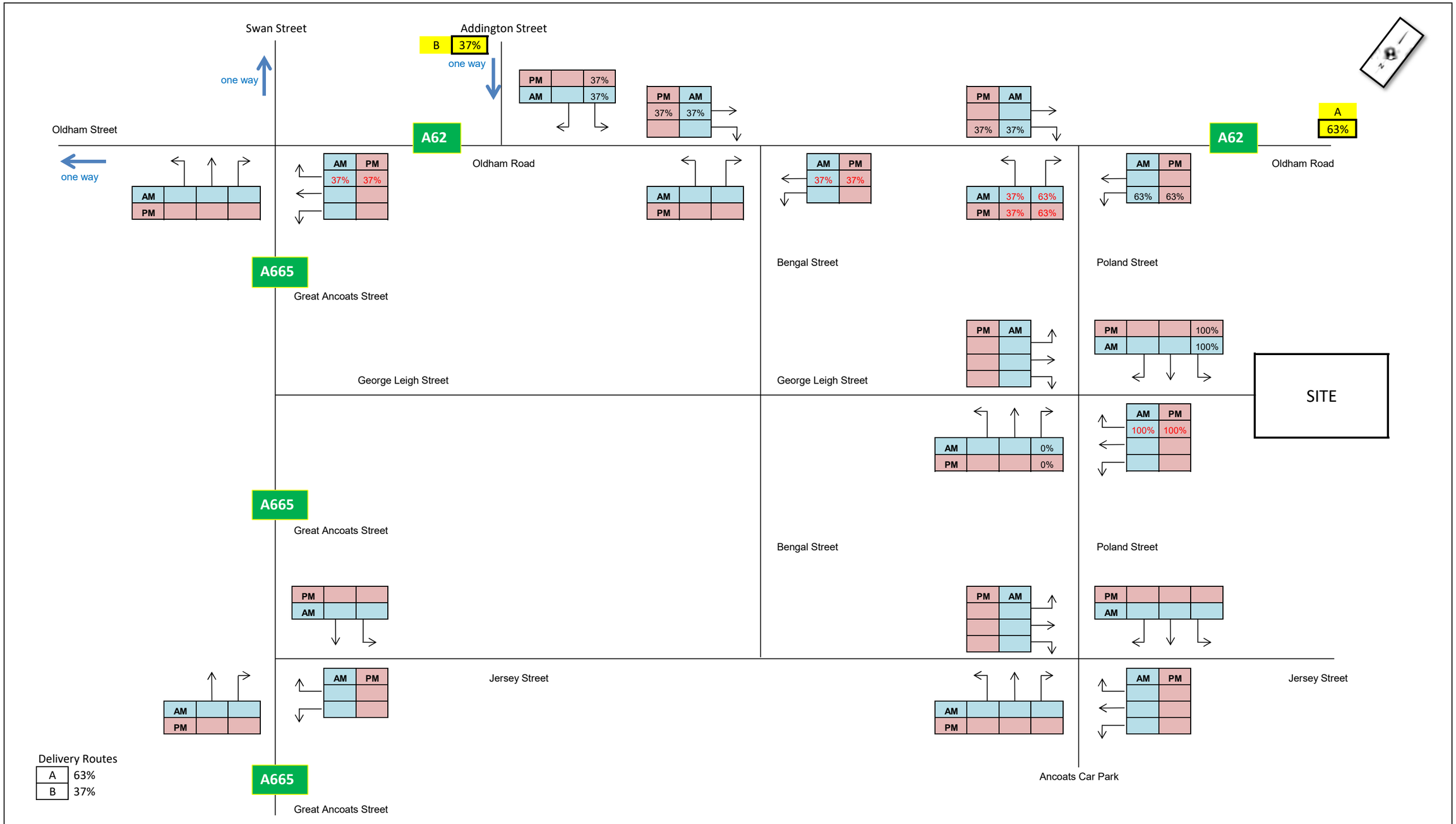
Hydrock	**AM & PM Peak Hour - TOTAL Committed Development (PCUs)**	**16 April 2021**
		Job Number - C16857
	Proposed Mobility Hub Development, Poland Street, Ancoats	**Figure 9**



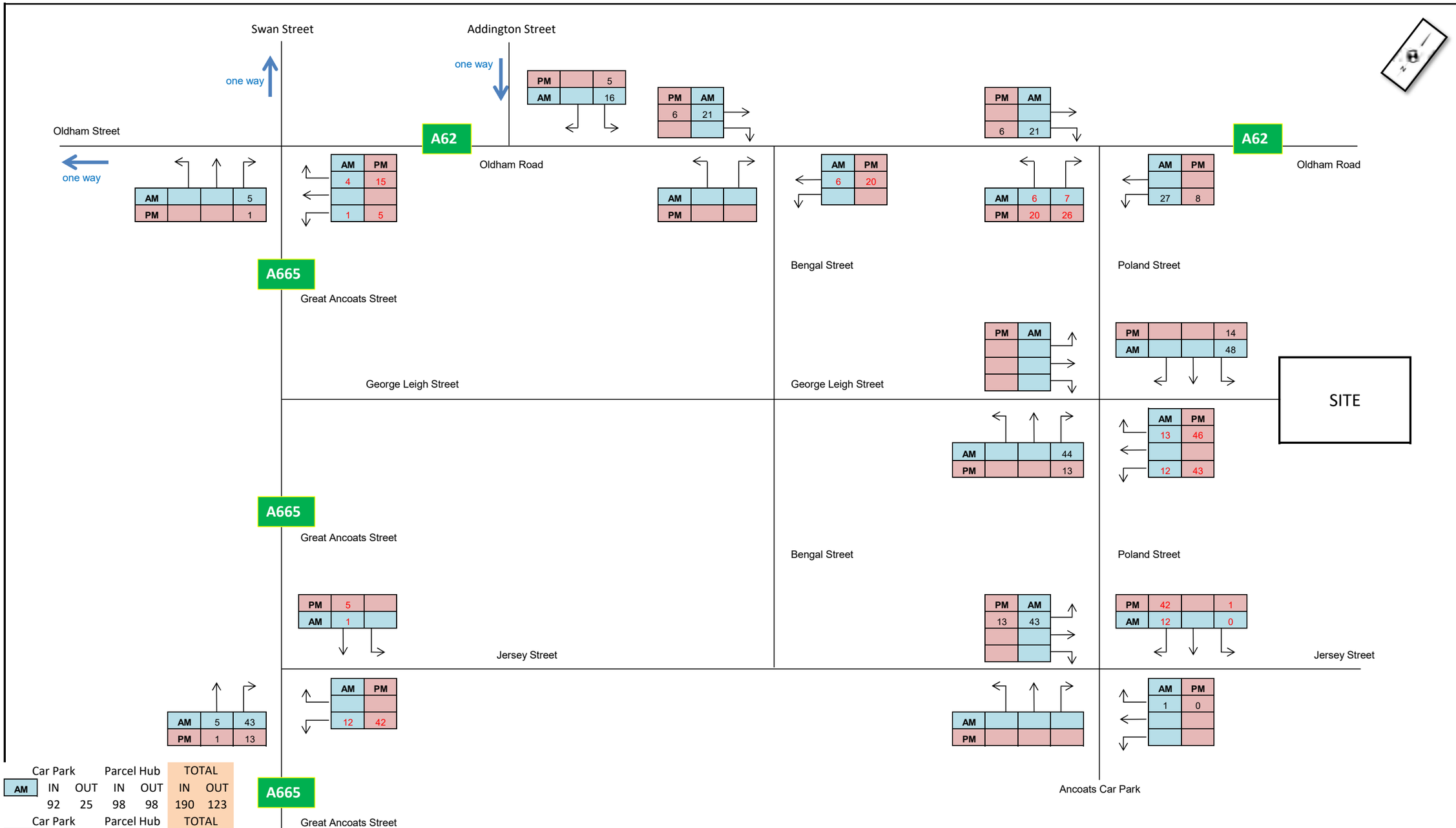
Hydrock	AM & PM Peak Hour - 2026 Future Base Flows + TOTAL Committed Dev (PCUs	16 April 2021
	Proposed Mobility Hub Development, Poland Street, Ancoats	Job Number - C16857
		Figure 10



Hydrock	AM & PM Peak Hour - Car %Trip Distribution	16 April 2021
		Job Number - C16857
	Proposed Mobility Hub Development, Poland Street, Ancoats	Figure 11



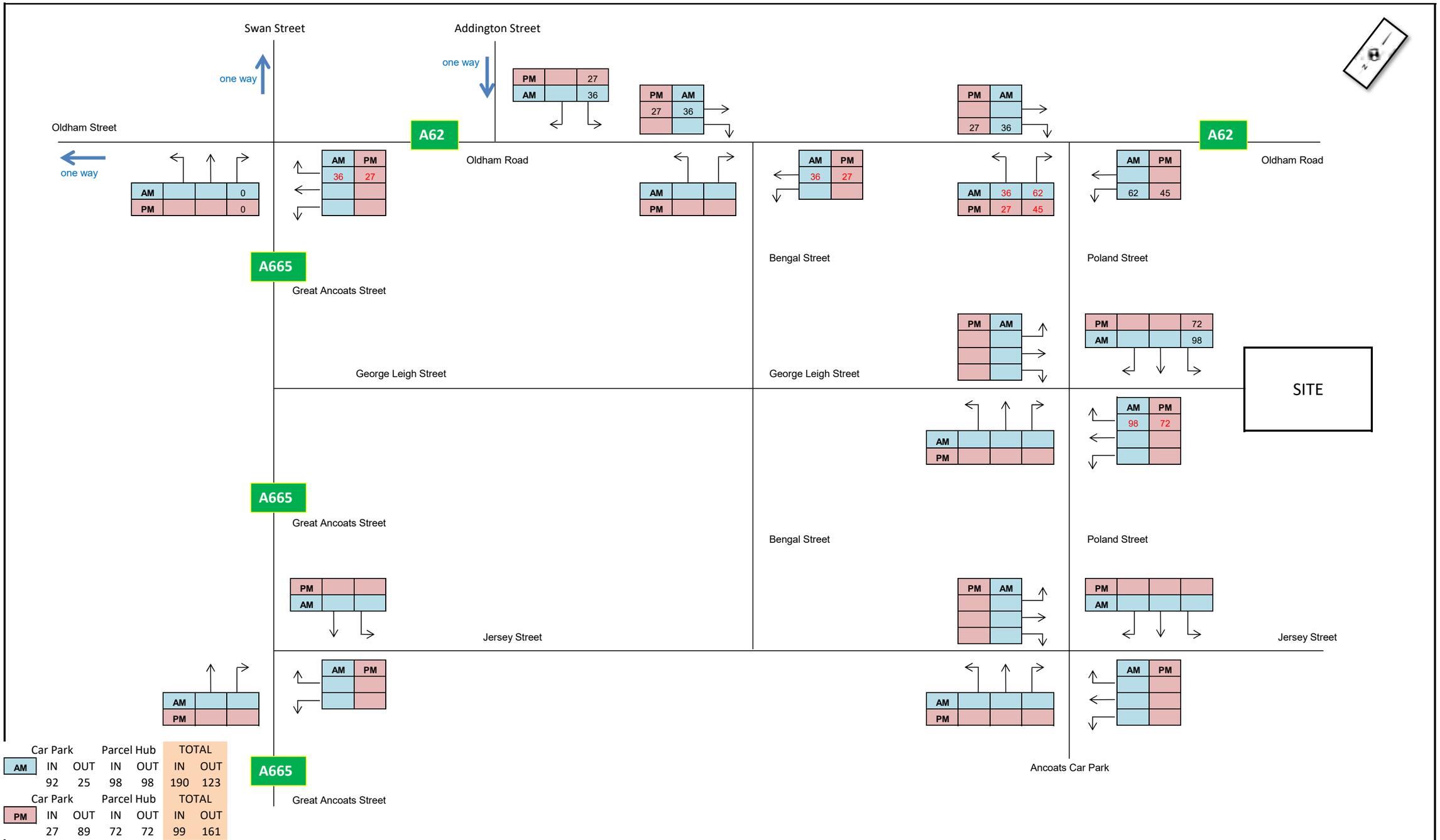
Hydrock	**AM & PM Peak Hour - Delivery Vehicles %Trip Distribution**	**16 April 2021**
		Job Number - C16857
	Proposed Mobility Hub Development, Poland Street, Ancoats	**Figure 12**



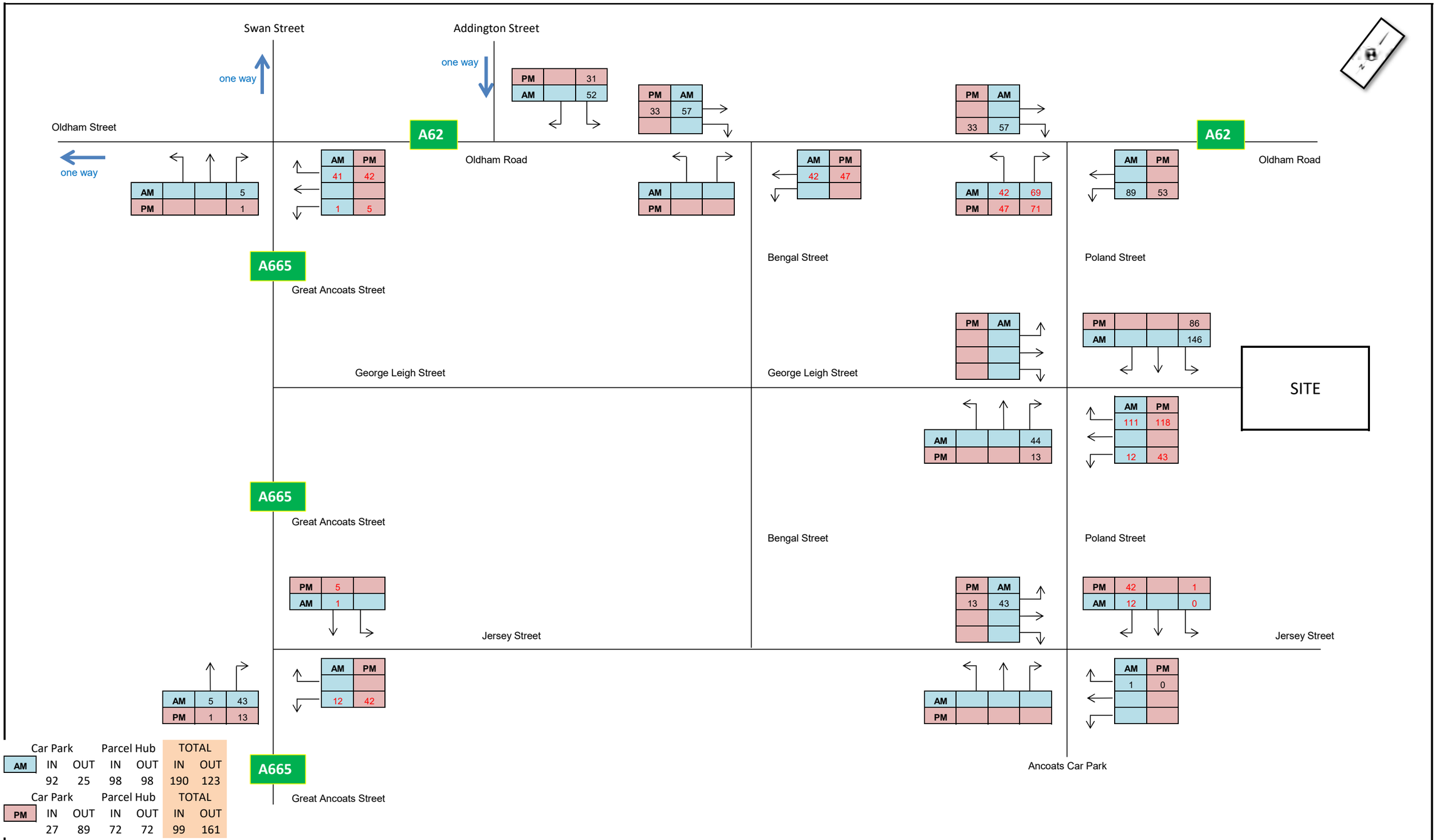
AM	Car Park IN	Car Park OUT	Parcel Hub IN	Parcel Hub OUT	TOTAL IN	TOTAL OUT
	92	25	98	98	190	123

PM	Car Park IN	Car Park OUT	Parcel Hub IN	Parcel Hub OUT	TOTAL IN	TOTAL OUT
	27	89	72	72	99	161

Hydrock	AM & PM Peak Hour - Car Trip Generation (PCUs)	11 May 2021
		Job Number - C16857
	Proposed Mobility Hub Development, Poland Street, Ancoats	Figure 13



Hydrock	**AM & PM Peak Hour - Delivery Vehicles Trip Generation (PCUs)**	**11 May 2021**
		Job Number - C16857
	Proposed Mobility Hub Development, Poland Street, Ancoats	**Figure 14**



	Car Park		Parcel Hub		TOTAL	
AM	IN	OUT	IN	OUT	IN	OUT
	92	25	98	98	190	123
PM	Car Park		Parcel Hub		TOTAL	
	IN	OUT	IN	OUT	IN	OUT
	27	89	72	72	99	161

Hydrock

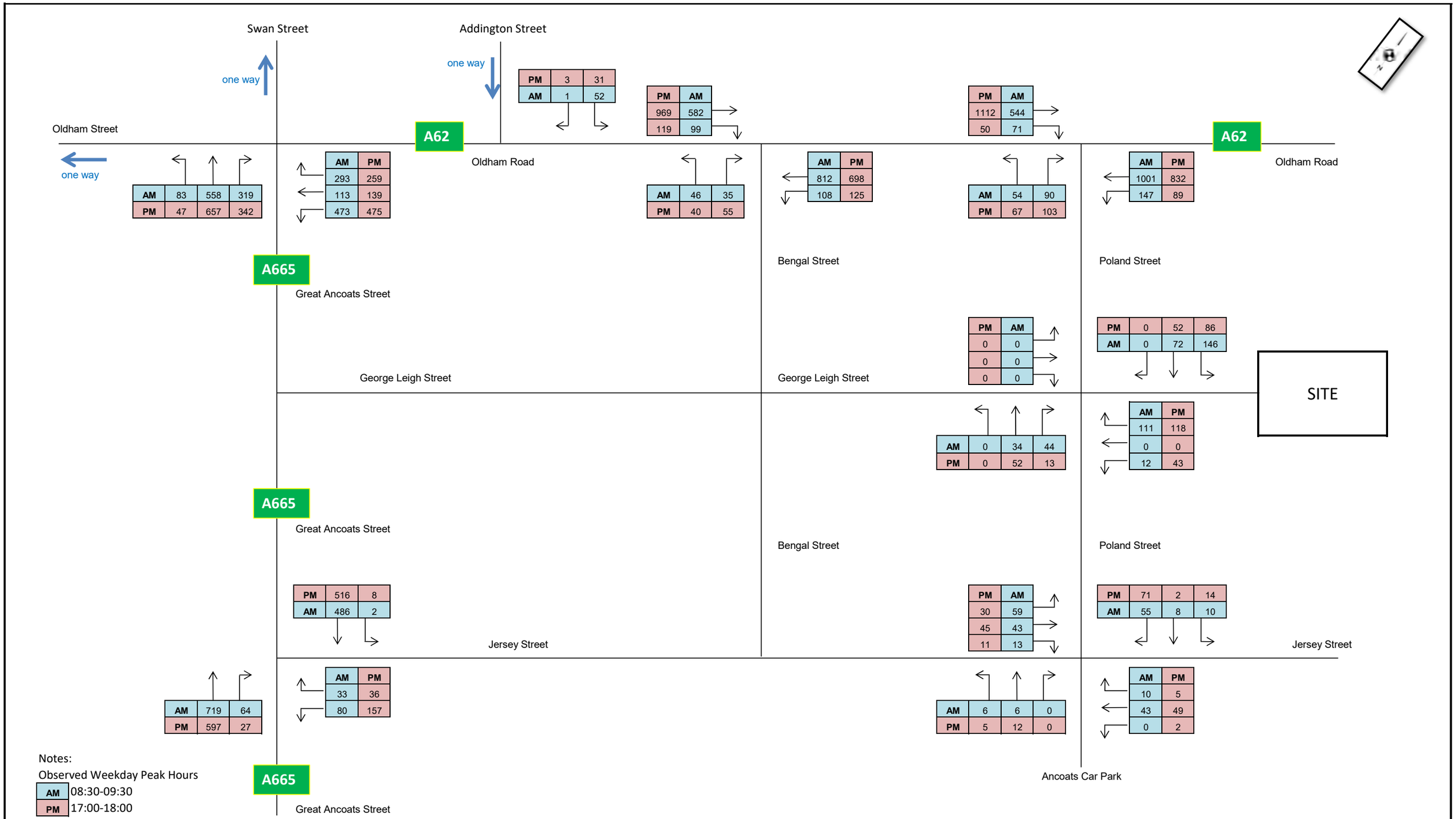
AM & PM Peak Hour - TOTAL (Car+Delivery) Trip Generation (PCUs)

Proposed Mobility Hub Development, Poland Street, Ancoats

11 May 2021

Job Number - C16857

Figure 15



Notes:
Observed Weekday Peak Hours

AM	08:30-09:30
PM	17:00-18:00

Hydrock	**AM & PM Peak Hour - 2026 Base + Committed Development + Development Flows (PCUs)**	**11 May 2021**
		Job Number - C16857
	Proposed Mobility Hub Development, Poland Street, Ancoats	**Figure 16**

Appendix A Scoping Correspondence

Chris Rushton

From: Andy Connell <andy.connell@manchester.gov.uk>
Sent: 24 March 2021 11:17
To: Chris Rushton; Sam Denby
Subject: Re: KRN Ref. 20/312 - Ancoats Green Mobility Hub

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Hi Chris, yes that's fine.

Regards,

Andy Connell (Working Times until the end of
March 2021:- Tuesday to Thursday 0700 - 1600)
CURRENTLY WORKING FROM HOME
Traffic Engineer
Highways Service, Neighbourhoods Directorate
5th Floor Bridgewater House
Whitworth Street
Manchester
M1 6LT

Tel External: 0161 219 6510
Tel Internal: 801 36510
Work mobile: 07949 611265
E-mail: andy.connell@manchester.gov.uk
Web: http://www.manchester.gov.uk

From: Chris Rushton <ChrisRushton@hydrock.com>
Sent: 24 March 2021 10:12 AM
To: Andy Connell <andy.connell@manchester.gov.uk>; Sam Denby <SamDenby@hydrock.com>
Subject: RE: KRN Ref. 20/312 - Ancoats Green Mobility Hub

Hi Andy,

Thanks for getting back to me yesterday.

Apologises for any confusion, but the attached plan was produced to identify all of the committed developments within the area. However, we wasn't suggesting that we would need to include all of these in our assessments. In fact we would propose that only the sites (highlighted in red) within the figure below is required.

If you can confirm that you happy with this approach, then we will get these included within our assessments. Obviously, if there are specific ones you want us to include, then we can do add these our proposed committed development sites.

Cheers,
Chris



Kind regards

Chris Rushton BA (Hons) CMILT MTPS
Associate | Transportation

Following government advice, I am currently working from home. If we need to speak, drop me a line and I'll get straight back to you. For wider information on working with Hydrock during COVID-19 visit hydrock.com/coronavirus.

Hydrock
Northern Assurance Buildings, 9-21 Princess St, Albert Square, Manchester M2 4DN
Tel: +44 (0)161 804 5550 Ext: 5005 Mob: 07469858024
Email: ChrisRushton@hydrock.com
hydrock.com

Six consecutive years in the 'Sunday Times 100 Best Companies to Work For' listing, and winner of the NCE100 'Health and Wellbeing Leader of the Year' award, 2019.

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From: Andy Connell <andy.connell@manchester.gov.uk>
Sent: 23 March 2021 14:44
To: Chris Rushton <ChrisRushton@hydrock.com>; Sam Denby <SamDenby@hydrock.com>
Subject: Re: KRN Ref. 20/312 - Ancoats Green Mobility Hub

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Hi to both, apologies for delay - been off and now being asked to prioritise for city centre reopening on 12th April!

Committed development proposals for inclusion look fine to me.

Regards,

Andy Connell (Working Times until the end of
March 2021:- Tuesday to Thursday 0700 - 1600)
CURRENTLY WORKING FROM HOME
Traffic Engineer
Highways Service, Neighbourhoods Directorate
5th Floor Bridgewater House
Whitworth Street
Manchester
M1 6LT

Tel External: 0161 219 6510
Tel Internal: 801 36510
Work mobile: 07949 611265
E-mail: andy.connell@manchester.gov.uk
Web: http://www.manchester.gov.uk

From: Chris Rushton <ChrisRushton@hydrock.com>
Sent: 22 March 2021 11:58 AM
To: Andy Connell <andy.connell@manchester.gov.uk>
Cc: Sam Denby <SamDenby@hydrock.com>
Subject: RE: KRN Ref. 20/312 - Ancoats Green Mobility Hub

Hi Andy,

Following the email I sent on 05/03/21, I'm just contacting you to obtain a response from MCC as to what committed development sites are required to be included within our assessments.

If you can get back to me asap on this please, as this needs to feed into our modelling assessments.

For ease of reference, I've re-attached the drawing illustrating the committed developments Hydrock have identified following a search of MCC's planning portal to identify committed developments within the vicinity of the site.

I look forward to hearing back from you soon.

Cheers,
Chris

Kind regards

Chris Rushton BA (Hons) CMILT MTPS
Associate | Transportation

Following government advice, I am currently working from home. If we need to speak, drop me a line and I'll get straight back to you. For wider information on working with Hydrock during COVID-19 visit hydrock.com/coronavirus.

Hydrock
Northern Assurance Buildings, 9-21 Princess St, Albert Square, Manchester M2 4DN
Tel: +44 (0)161 804 5550 Ext: 5005 Mob: 07469858024
Email: ChrisRushton@hydrock.com
hydrock.com



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From: Chris Rushton
Sent: 05 March 2021 15:41
To: andy.connell@manchester.gov.uk
Cc: Sam Denby <SamDenby@hydrock.com>; Ian Knight <ian.knight@mcrlife.co.uk>; Riccardo.Boncinelli@tfgm.com; Richard.Dolphin@tfgm.com
Subject: RE: KRN Ref. 20/312 - Ancoats Green Mobility Hub

Hi Andy,

As discussed in the meeting yesterday, Hydrock have undertaken a search of MCC's planning portal to identify committed developments within the vicinity of the site. Please find attached a copy of the plan which identifies these committed developments.

If you can please review, and provide any comments / confirm which of these sites are required to be included within our assessments.

Additionally, as per our meeting yesterday evening, we looked forward to receiving TfGM's data / comments in relation to traffic impact assessments early next week.

Cheers,
Chris

Kind regards

Chris Rushton BA (Hons) CMILT MTPS
Associate | Transportation

Following government advice, I am currently working from home. If we need to speak, drop me a line and I'll get straight back to you. For wider information on working with Hydrock during COVID-19 visit hydrock.com/coronavirus.

Hydrock
Northern Assurance Buildings, 9-21 Princess St, Albert Square, Manchester M2 4DN
Tel: +44 (0)161 804 5550 Ext: 5005 Mob: 07469858024
Email: ChrisRushton@hydrock.com
hydrock.com



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From: Andy Connell <andy.connell@manchester.gov.uk>
Sent: 04 March 2021 07:15
To: Sam Denby <SamDenby@hydrock.com>
Cc: Richard Dolphin <Richard.Dolphin@tfgm.com>
Subject: Fw: KRN Ref. 20/312 - Ancoats Green Mobility Hub

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Sam, apologies for my earlier mistake.

Here are the comments from TfGM.

Regards,

Andy Connell (Working Times until the end of
March 2021:- Tuesday to Thursday 0700 - 1600)
CURRENTLY WORKING FROM HOME
Traffic Engineer
Highways Service, Neighbourhoods Directorate
5th Floor Bridgewater House
Whitworth Street
Manchester
M1 6LT

Tel External: 0161 219 6510

Tel Internal: 801 36510
Work mobile: 07949 611265
E-mail: andy.connell@manchester.gov.uk

From: Riccardo Boncinelli <Riccardo.Boncinelli@tfgm.com>
Sent: 01 March 2021 10:27
To: Leanne Chapman <leanne.chapman@manchester.gov.uk>
Cc: Landuse <Landuse@tfgm.com>
Subject: KRN Ref. 20/312 - Ancoats Green Mobility Hub

Please find attached comments on the latest scoping submission for the development:

- MCC need to inform applicant of committed developments.
- Percentage impact assessment of predicted flows is not a valid way of assessing impact of the new flows on the highway network.
- Junction assessments: The data collection was in October 2020 – this is in the reduced traffic volumes due to COVID – the flows should be crossed referenced against the pre-COVID figures using the ATC data available from TfGM or other sources and factored up accordingly
- More justification is required to back the assertion that the existing residents in the area will use the new car park – just because they are residents doesn't mean that they will automatically use the car park especially if there is an additional cost
- Paragraph: 2.3.6 – the 20 per cent value for uptake in the hub needs more justification
- TfGM would prefer that there are no netted-off trips for the car park and as such all trips to and from the car park are new – this could be run as a separate sensitivity test.
- Paragraph 2.4.1 For a 407 space car park – presumably mostly work trips – these numbers seem low

  Regards,

  Riccardo Boncinelli

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Fw: KRN Ref 20/312 - Ancoats Mobility Hub

Leanne Chapman <leanne.chapman@manchester.gov.uk>

Tue 2021-04-13 7:08 AM

To: Andy Connell <andy.connell@manchester.gov.uk>

2 attachments (821 KB)

Junctions Assessed.pdf; Percentage Impact Table.pdf;

Hi Andy,

Hope all is well with you,
Email from TFGM, FYI.

Best Wishes

Leanne Chapman, Assistant Engineer (Mon-Thurs)
Highways Development Control
Growth and Neighbourhoods Directorate

Mobile: 07971384481
Email: leanne.chapman@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



_____

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From: Jordon Harris <Jordon.Harris@tfgm.com>
Sent: 08 April 2021 09:50
To: Leanne Chapman <leanne.chapman@manchester.gov.uk>
Cc: Landuse <Landuse@tfgm.com>
Subject: KRN Ref 20/312 - Ancoats Mobility Hub

Hi Leanne,

TfGM's comments on the latest information (attached for reference) submitted to us by Chris Rushton at Hydrock for the above application are as follows;

- Percentage impact should be presented on an approach by approach basis rather than looking the whole junction together.

- Subject to the analysis of the traffic flows being correct then the conclusion about the need for further assessment are acceptable.

- We can confirm that the signal timing information is available. Email gmutc@tfgm.com and quotation for the information will be provided along with the timescales.

- Note that if the impact of the flows on the junctions are significant then appropriate mitigation would be expected – it would be prudent to discuss the results of the modelling with MCC and TfGM prior to submission of the TA.

Thanks

Jordon Harris
Infrastructure Development Support Officer
Transport for Greater Manchester

2 Piccadilly Place, Manchester M1 3BG
Direct line 0161 244 1072, Extension 701072
www.tfgm.com

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Chris Rushton

From: Andy Connell <andy.connell@manchester.gov.uk>
Sent: 17 February 2021 08:50
To: Sam Denby
Cc: Neil Bayliss-Rowe; Ian Knight; Edwards, Amelia; Chris Rushton
Subject: Re: [Hydrock: 16857-TMBI] RE: Mobility Hub - Junction Assessments

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Hi Sam, agreed.

Regards,

Andy Connell (Working Times until the end of
March 2021:- Tuesday to Thursday 0700 - 1600)
CURRENTLY WORKING FROM HOME
Traffic Engineer
Highways Service, Neighbourhoods Directorate
5th Floor Bridgewater House
Whitworth Street
Manchester
M1 6LT

Tel External: 0161 219 6510
Tel Internal: 801 36510
Work mobile: 07949 611265
E-mail: andy.connell@manchester.gov.uk
Web: http://www.manchester.gov.uk

From: Sam Denby <SamDenby@hydrock.com>
Sent: 16 February 2021 6:06 PM
To: Andy Connell <andy.connell@manchester.gov.uk>
Cc: Neil Bayliss-Rowe <neil.bayliss-rowe@manchester.gov.uk>; Ian Knight <ian.knight@mcrlife.co.uk>; Edwards, Amelia <Amelia.Edwards@macegroup.com>; Chris Rushton <ChrisRushton@hydrock.com>
Subject: RE: [Hydrock: 16857-TMBI] RE: Mobility Hub - Junction Assessments

Hi Andy,

Many thanks for your time earlier.

Further to our discussions my notes of our conversation is set out below. If you feel there is any discrepancy I would be most grateful if you could flag these so our records are correct.

- We discussed the existing carriageway and footway widths on Poland Street not being what we would plan for if we were starting with a blank canvas. You confirmed this was not uncommon in Manchester City Centre and was not considered a show stopper;
- We discussed the potential of a one way system. While this options was not ruled out per se, you made the point that a one way system can create more challenges than it solves;
- You confirmed MCC will not accept surface dressing/a coloured carriageway as speed mitigation, therefore some vertical proposal to act as a deterrent to vehicle speeds is required. It is noted that the current speed limit along Poland Street is 20mph;
- We discussed the options of speed cushions and raised tables at junctions. Speed cushions were discounted due to the available carriageway width issues;
- We also discussed about having two raised tables either site of the hub access, located off Silk Street/George Leigh Street. The aim is reducing traffic speeds in the vicinity of the proposed vehicle access points of the hub. We have set out a revised proposal which is attached FYI; and
- It was discussed that undertaking an independent Road Safety Audit is appropriate to confirm if such an arrangement is acceptable.

Kind regards

Sam Denby BA (Hons) MSc CMILT
Technical Director | Transportation

Hydrock
Northern Assurance Buildings, 9-21 Princess St, Albert Square, Manchester M2 4DN

Tel: (0161) 804 5550 Internal Ext: 5014
Mobile: 07584 081 586
Email: SamDenby@hydrock.com

From: Andy Connell <andy.connell@manchester.gov.uk>
Sent: 16 February 2021 08:34
To: Sam Denby <SamDenby@hydrock.com>
Cc: Neil Bayliss-Rowe <neil.bayliss-rowe@manchester.gov.uk>
Subject: Re: [Hydrock: 16857-TMBI] RE: Mobility Hub - Junction Assessments

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Thanks Sam,

With regard to traffic calming, the provision of junction plateaus as depicted in appendix G could fit the bill although measures should be spaced every 60/70m to have the desired effect. Therefore, depending on the lengths between junctions you might need other measures such as speed cushions between plateaus eg between Jersey St and Naval St.

Regards,

Andy Connell (Working Times until the end of
March 2021:- Tuesday to Thursday 0700 - 1600)
CURRENTLY WORKING FROM HOME
Traffic Engineer
Highways Service, Neighbourhoods Directorate
5th Floor Bridgewater House

Whitworth Street
Manchester
M1 6LT

Tel External: 0161 219 6510
Tel Internal: 801 36510
Work mobile: 07949 611265
E-mail: andy.connell@manchester.gov.uk
Web: http://www.manchester.gov.uk

From: Sam Denby <SamDenby@hydrock.com>
Sent: 12 February 2021 12:05 PM
To: Richard Dolphin <Richard.Dolphin@tfgm.com>; Andy Connell <andy.connell@manchester.gov.uk>
Cc: Neil Bayliss-Rowe <neil.bayliss-rowe@manchester.gov.uk>; Ian Knight <ian.knight@mcrlife.co.uk>; Edwards, Amelia <Amelia.Edwards@macegroup.com>; Chris Rushton <ChrisRushton@hydrock.com>
Subject: [Hydrock: 16857-TMBI] RE: Mobility Hub - Junction Assessments

Afternoon Richard/Andy,

I hope you are well.

Further to our recent meeting please find attached an updated technical note for your review. Much of the information is the same to that which we provided back on 23rd December 2020 but the key differences are:

- The size of the hub parking facility has provisionally increased to 407 spaces and the number/assessments have been updated to reflect this;
- We have presented a 'wider traffic impact' taking into the discussions of the 30 vehicle two-way development trips (**Appendix E)**. We would welcome TfGM's view on any additional junction assessments that may be required; and
- We have presented a potential speed mitigation scheme along Poland Street in **Appendix G**. We would welcome MCC's view on this type of proposal in this location.

As ever if there are any queries please do not hesitate to contact myself directly.

Kind regards

Sam Denby BA (Hons) MSc CMILT
Technical Director | Transportation

Hydrock
Northern Assurance Buildings, 9-21 Princess St, Albert Square, Manchester M2 4DN

Tel: (0161) 804 5550 Internal Ext: 5014
Mobile: 07584 081 586
Email: SamDenby@hydrock.com

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The Hanover Building
Corporation Street
Manchester
M4 4AH

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Fax: +44 (0)161 829 3800
www.deloitte.co.uk

Direct phone: +44 161 455 6350
kawray@deloitte.co.uk

Minutes

Meeting:	Ancoats and New Islington – Councillor Briefing Session
Held on:	Thursday 18 March
Location:	Microsoft Teams
Present:	Katie Wray, Andy Cowan, Hannah Graham, Cameron Radford (Deloitte)
	Ian Knight (Manchester Life Development Company)
	Stephanie Dylak (Great Places Housing Group)
	Andy Avery, Matthew Burl (Buttress)
	Cllr Emma Taylor, Cllr Majid Dar (Ancoats & Beswick Ward Councillors)
Copies to those invited but not in attendance:	Cllr Rosa Battle (Ancoats & Beswick Ward Councillor) Cllr June Hitchens, Cllr Carmine Grimshaw, Cllr John Flanagan (Miles Platting & Newton Heath Councillors)

Description	
1:	AC provided an overview of the sites that would be presented to Councillors today and an overview of other stakeholders that had been engaged with over the past few months to inform design development.
2:	A run through of the proposals for each Site that would be presented at the public consultation was given by Buttress, as explained below. For each Site, AC provided an overview of the feedback from the last public consultation exercise which took place between December 2020 and January 2021 including a discussion on how the proposals have responded to these.
3:	Eliza Yard and Ancoats Mobility Hub – Manchester Life Development Company (MLDC) schemes presented by MB, illustrating the latest development proposals and how the design had evolved since our last presentation to Councillors
	Downley Drive – a Great Places (GP) scheme presented by AA, , illustrating the latest development proposals and how the design had evolved since our last presentation to Councillors. SD also spoke about the background to Great Places acquiring the Site and their aspirations for the proposal to be an exemplar in terms of sustainability.

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4: AC also outlined Downley Drive's regeneration history highlighting its status as brownfield land to be brought forward for residential development in line with long-term aspirations held by Manchester City Council. It was noted that the Site that had previously been subject to planning permissions and referenced in MCC regeneration guidance since the early 2000s.

5: An opportunity was then given to Councillors to ask questions:

a. Cllr Dar noted that the proposals were good. He stated that he liked the terracotta and panelling and questioned whether the panelling is insulated. MB explained that the terracotta is a rain screen and therefore is not insulated.

b. Cllr Dar questioned whether the Eliza Yard development was 6 or 8 storeys. MB advised that the development is 8 storeys.

c. Cllr Dar questioned how many business units will be provided on the ground floor of the Eliza Yard development. MB advised that there are currently 5 commercial units at ground floor.

d. Cllr Dar questioned whether the Mobility Hub will be used by everyone or just for residents that live in the area and will there be different arrangements for residents. IK explained that the Mobility Hub is principally for the residential developments that will be coming forward but in the short-term may be used by everyone. IK stated that they will explore whether a season ticket could be an option for residents.

e. Cllr Taylor stated that she had no questions and advised that she will be stepping down as a Councillor for Ancoats and Beswick after the May elections in 9 weeks' time.

6: A final opportunity was given to GP and MLDC to comment prior to closing the session. Deloitte advised that a copy of the presentation will be shared with the Councillors and that the project team will inform the Councillors when the consultation goes 'live'.

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Appendix B Traffic Survey Data

Intelligent Data Collection Limited
Manchester

Client:	Hydrock
Project Number:	ID05555
Junction Number:	Site 1
Date of Survey:	03.11.2020
Junction Name:	Poland Street / A62 Oldham Road
Junction Type:	T-Junction

Quality Assurance and Issue Record

Quality Assurance

Revision	Rev A			
Date	06.11.2020			
Prepared by	Mathew Booth			
Signature				
Checked by	David Brown			
Signature				
Project Director	Paul O'Neill			
Signature				
Project number	ID05555			
File Ref	ID05555 Manchester - MCC Site 1 - 03.11.2020			

Issue Sheet

Issued to	Date			
	06.11.2020			
Sam Denby	E-mail			

Contents Page

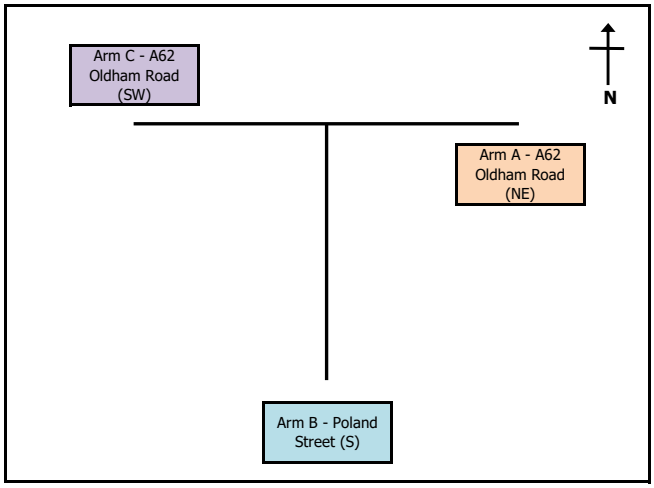
Location Plan & Summary
MCC Data
PCU Data

Intelligent Data Collection Limited

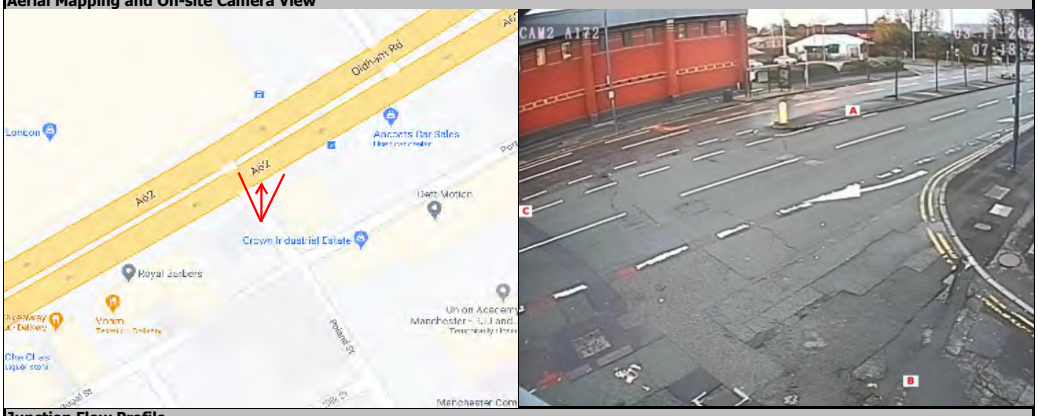
Client:	Hydrock	**Date of Survey:**	03.11.2020
Project Number:	ID05555	**Junction Name:**	Poland Street / A62 Oldham Road
Junction Number:	Site 1	**Junction Type:**	T-Junction

X Coordinate	Y Coordinate	Google Maps Link	
53.487220	-2.226278	Click Here	
AM Peak Conditions	**PM Peak Conditions**		
Sunny	Showers		

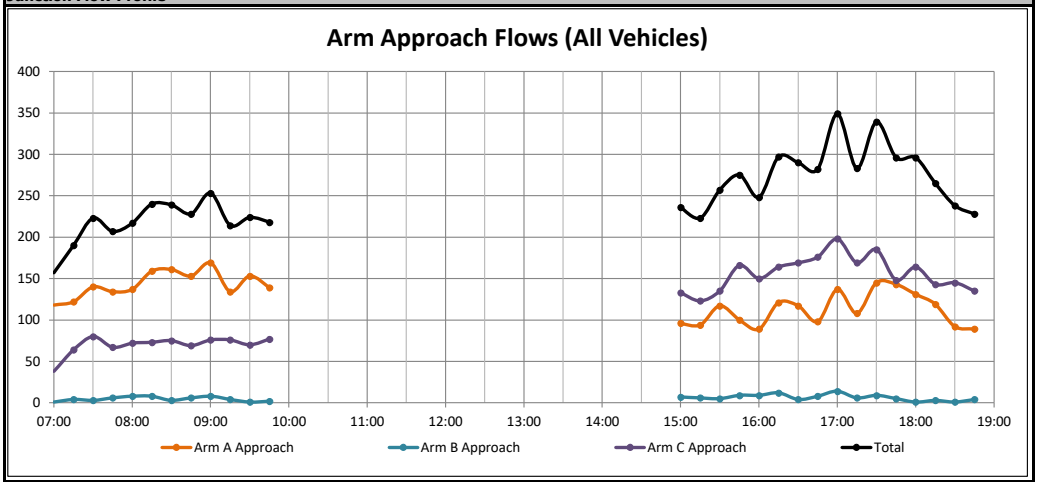
Junction Layout



Aerial Mapping and On-site Camera View



Junction Flow Profile



Additional Notes (Factors which may impact on survey results such as accidents, roadworks, special events):

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 1

Date of Survey: 03.11.2020
Junction Name: Poland Street / A62 Oldham Road
Junction Type: T-Junction

Arm A: A62 Oldham Road (NE)
Arm B: Poland Street (S)
Arm C: A62 Oldham Road (SW)

	A to A								A to C								A to B							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
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07:30								0	96	18	2	1	5	0	6	128	9	3	0	0	0	0	0	12
07:45								0	82	21	5	3	8	0	6	125	8	1	0	0	0	0	0	9
08:00								0	97	17	4	0	6	0	4	128	7	2	0	0	0	0	0	9
08:15								0	114	17	4	3	6	0	4	148	6	4	1	0	0	0	0	11
08:30								0	113	16	7	2	9	1	4	152	8	1	0	0	0	0	0	9
08:45								0	109	20	3	2	6	0	3	143	7	3	0	0	0	0	0	10
09:00								0	125	19	5	1	7	1	0	158	7	3	1	0	0	0	0	11
09:15								0	95	20	3	4	4	1	0	127	5	2	0	0	0	0	0	7
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09:45								0	94	16	6	3	6	1	1	127	6	5	1	0	0	0	0	12
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15:15								0	67	9	3	1	5	1	3	89	3	2	0	0	0	0	0	5
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Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 1

Date of Survey: 03.11.2020
Junction Name: Poland Street / A62 Oldham Road
Junction Type: T-Junction

Arm A: A62 Oldham Road (NE)
Arm B: Poland Street (S)
Arm C: A62 Oldham Road (SW)

	B to B								B to A								B to C							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
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07:15								0	4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
07:30								0	1	2	0	0	0	0	0	3	0	0	0	0	0	0	0	0
07:45								0	3	0	1	0	0	0	0	4	1	1	0	0	0	0	0	2
08:00								0	6	1	0	0	0	0	0	7	0	0	1	0	0	0	0	1
08:15								0	3	2	1	0	0	0	0	6	2	0	0	0	0	0	0	2
08:30								0	1	1	0	0	0	0	0	2	0	1	0	0	0	0	0	1
08:45								0	3	1	0	0	0	0	0	4	2	0	0	0	0	0	0	2
09:00								0	3	2	0	0	0	0	0	5	2	1	0	0	0	0	0	3
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09:45								0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
15:00								0	4	1	1	0	0	0	0	6	0	1	0	0	0	0	0	1
15:15								0	2	2	0	0	0	0	0	4	2	0	0	0	0	0	0	2
15:30								0	0	3	0	0	0	0	1	4	1	0	0	0	0	0	0	1
15:45								0	5	2	0	1	0	0	0	8	0	1	0	0	0	0	0	1
16:00								0	7	1	0	0	0	0	0	8	0	1	0	0	0	0	0	1
16:15								0	5	3	0	0	0	0	0	8	4	0	0	0	0	0	0	4
16:30								0	1	1	0	0	0	0	0	2	2	0	0	0	0	0	0	2
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18:45								0	2	2	0	0	0	0	0	4	0	0	0	0	0	0	0	0
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17:15	0	0	0	0	0	0	0	0	11	0	1	0	0	0	1	13	7	1	0	0	0	0	0	8
17:30	0	0	0	0	0	0	0	0	11	0	1	0	0	0	0	12	5	1	0	0	0	0	0	6
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18:00	0	0	0	0	0	0	0	0	6	2	0	0	0	0	0	8	1	0	0	0	0	0	0	1

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 1

Date of Survey: 03.11.2020
Junction Name: Poland Street / A62 Oldham Road
Junction Type: T-Junction

Arm A: A62 Oldham Road (NE)
Arm B: Poland Street (S)
Arm C: A62 Oldham Road (SW)

	C to C								C to B								C to A							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
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07:30								0	0	0	1	0	0	0	0	1	55	8	1	7	6	0	2	79
07:45								0	4	0	1	0	0	0	0	5	42	5	4	2	8	0	1	62
08:00								0	1	2	0	0	0	0	0	3	38	11	5	3	8	0	4	69
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08:30								0	2	0	0	0	0	0	0	2	48	11	5	1	6	0	2	73
08:45								0	7	0	0	0	0	0	0	7	39	8	1	2	10	1	1	62
09:00								0	0	0	0	0	0	0	0	0	56	10	4	2	4	0	0	76
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15:00								0	0	1	0	0	0	0	0	1	91	18	7	3	6	0	7	132
15:15								0	0	0	0	0	0	0	0	0	96	15	1	1	6	1	3	123
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16:00								0	0	1	0	0	0	0	0	1	107	29	3	2	5	0	3	149
16:15								0	1	0	0	0	0	0	0	1	129	17	3	1	7	1	5	163
16:30								0	3	0	0	0	0	0	0	3	127	22	2	3	8	2	2	166
16:45								0	0	0	0	0	0	0	0	0	146	19	5	0	5	0	1	176
17:00								0	5	2	0	0	0	0	0	7	153	23	2	1	5	2	5	191
17:15								0	1	0	0	0	0	0	0	1	135	20	2	0	6	1	4	168
17:30								0	3	0	0	0	0	0	0	3	159	14	1	1	5	0	2	182
17:45								0	0	0	0	0	0	0	0	0	122	8	1	2	8	3	4	148
18:00								0	0	0	0	0	0	0	0	0	148	6	0	1	4	1	4	164
18:15								0	2	0	0	0	0	0	0	2	122	6	2	1	6	1	3	141
18:30								0	3	0	0	0	0	0	0	3	127	3	3	1	5	1	2	142
18:45								0	1	0	0	0	0	0	0	1	109	6	5	0	9	1	4	134
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	0	0	0	0	0	0	0	0	7	0	2	0	0	0	0	9	164	27	9	10	24	0	6	240
07:15	0	0	0	0	0	0	0	0	8	2	2	0	0	0	0	12	176	32	12	13	28	0	10	271
07:30	0	0	0	0	0	0	0	0	7	2	2	0	0	0	0	11	187	31	12	14	28	0	9	281
07:45	0	0	0	0	0	0	0	0	9	2	1	0	0	0	0	12	180	34	16	8	28	0	9	275
08:00	0	0	0	0	0	0	0	0	12	2	0	0	0	0	0	14	177	37	13	8	30	1	9	275
08:15	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	11	195	36	12	7	26	1	5	282
08:30	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9	189	45	14	7	28	1	3	287
08:45	0	0	0	0	0	0	0	0	8	0	1	0	0	0	0	9	190	46	10	7	27	1	1	282
09:00	0	0	0	0	0	0	0	0	3	0	1	0	0	0	0	4	198	55	13	5	21	0	3	295
15:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	418	73	15	10	25	2	13	556
15:15	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	434	84	11	9	24	2	9	573
15:30	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	467	86	13	9	25	2	11	613
15:45	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	5	488	95	12	7	26	4	12	644
16:00	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	5	509	87	13	6	25	3	11	654
16:15	0	0	0	0	0	0	0	0	9	2	0	0	0	0	0	11	555	81	12	5	25	5	13	696
16:30	0	0	0	0	0	0	0	0	9	2	0	0	0	0	0	11	561	84	11	4	24	5	12	701
16:45	0	0	0	0	0	0	0	0	9	2	0	0	0	0	0	11	593	76	10	2	21	3	12	717
17:00	0	0	0	0	0	0	0	0	9	2	0	0	0	0	0	11	569	65	6	4	24	6	15	689
17:15	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	564	48	4	4	23	5	14	662
17:30	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	551	34	4	5	23	5	13	635
17:45	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	519	23	6	5	23	6	13	595
18:00	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	506	21	10	3	24	4	13	581

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 1

Date of Survey: 03.11.2020
Junction Name: Poland Street / A62 Oldham Road
Junction Type: T-Junction

	Arm A Approach								Arm A Exit							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	85	20	2	2	3	1	5	118	27	6	2	0	4	0	0	39
07:15	85	22	3	0	8	0	4	122	45	8	2	1	6	0	3	65
07:30	105	21	2	1	5	0	6	140	56	10	1	7	6	0	2	82
07:45	90	22	5	3	8	0	6	134	45	5	5	2	8	0	1	66
08:00	104	19	4	0	6	0	4	137	44	12	5	3	8	0	4	76
08:15	120	21	5	3	6	0	4	159	55	9	3	2	6	0	2	77
08:30	121	17	7	2	9	1	4	161	49	12	5	1	6	0	2	75
08:45	116	23	3	2	6	0	3	153	42	9	1	2	10	1	1	66
09:00	132	22	6	1	7	1	0	169	59	12	4	2	4	0	0	81
09:15	100	22	3	4	4	1	0	134	47	16	5	2	8	0	0	78
09:30	123	13	3	3	8	0	3	153	49	12	1	1	5	0	0	68
09:45	100	21	7	3	6	1	1	139	48	17	4	0	4	0	3	76
15:00	68	14	2	0	7	1	4	96	95	19	8	3	6	0	7	138
15:15	70	11	3	1	5	1	3	94	98	17	1	1	6	1	3	127
15:30	95	14	0	0	5	0	3	117	106	16	3	5	7	0	2	139
15:45	72	11	0	2	11	2	2	100	130	29	4	2	6	1	2	174
16:00	64	18	0	1	4	1	1	89	114	30	3	2	5	0	3	157
16:15	103	9	0	1	7	0	1	121	134	20	3	1	7	1	5	171
16:30	95	9	4	1	7	1	0	117	128	23	2	3	8	2	2	168
16:45	75	13	1	2	6	0	1	98	150	21	5	0	5	0	1	182
17:00	111	16	1	1	6	1	1	137	162	23	2	1	5	2	5	200
17:15	89	8	0	1	6	1	3	108	137	20	2	0	6	1	5	171
17:30	122	8	1	2	6	0	6	145	163	14	1	1	5	0	2	186
17:45	129	3	0	1	4	1	5	143	126	8	2	2	8	3	4	153
18:00	118	6	0	1	4	0	2	131	149	6	0	1	4	1	4	165
18:15	106	6	0	0	4	1	2	119	124	6	2	1	6	1	3	143
18:30	77	8	0	0	6	0	1	92	128	3	3	1	5	1	2	143
18:45	82	2	0	0	2	0	3	89	111	8	5	0	9	1	4	138
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	365	85	12	6	24	1	21	514	173	29	10	10	24	0	6	252
07:15	384	84	14	4	27	0	20	533	190	35	13	13	28	0	10	289
07:30	419	83	16	7	25	0	20	570	200	36	14	14	28	0	9	301
07:45	435	79	21	8	29	1	18	591	193	38	18	8	28	0	9	294
08:00	461	80	19	7	27	1	15	610	190	42	14	8	30	1	9	294
08:15	489	83	21	8	28	2	11	642	205	42	13	7	26	1	5	299
08:30	469	84	19	9	26	3	7	617	197	49	15	7	28	1	3	300
08:45	471	80	15	10	25	2	6	609	197	49	11	7	27	1	1	293
09:00	455	78	19	11	25	3	4	595	203	57	14	5	21	0	3	303
15:00	305	50	5	3	28	4	12	407	429	81	16	11	25	2	14	578
15:15	301	54	3	4	25	4	9	400	448	92	11	10	24	2	10	597
15:30	334	52	0	4	27	3	7	427	484	95	13	10	25	2	12	641
15:45	334	47	4	5	29	4	4	427	506	102	12	8	26	4	12	670
16:00	337	49	5	5	24	2	3	425	526	94	13	6	25	3	11	678
16:15	384	47	6	5	26	2	3	473	574	87	12	5	25	5	13	721
16:30	370	46	6	5	25	3	5	460	577	87	11	4	24	5	13	721
16:45	397	45	3	6	24	2	11	488	612	78	10	2	21	3	13	739
17:00	451	35	2	5	22	3	15	533	588	65	7	4	24	6	16	710
17:15	458	25	1	5	20	2	16	527	575	48	5	4	23	5	15	675
17:30	475	23	1	4	18	2	15	538	562	34	5	5	23	5	13	647
17:45	430	23	0	2	18	2	10	485	527	23	7	5	23	6	13	604
18:00	383	22	0	1	16	1	8	431	512	23	10	3	24	4	13	589

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 1

Date of Survey: 03.11.2020
Junction Name: Poland Street / A62 Oldham Road
Junction Type: T-Junction

	Arm B Approach								Arm B Exit							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	1	0	0	0	0	0	0	1	5	0	0	0	0	0	0	5
07:15	4	0	0	0	0	0	0	4	6	1	0	0	0	0	0	7
07:30	1	2	0	0	0	0	0	3	9	3	1	0	0	0	0	13
07:45	4	1	1	0	0	0	0	6	12	1	1	0	0	0	0	14
08:00	6	1	1	0	0	0	0	8	8	4	0	0	0	0	0	12
08:15	5	2	1	0	0	0	0	8	8	4	1	0	0	0	0	13
08:30	1	2	0	0	0	0	0	3	10	1	0	0	0	0	0	11
08:45	5	1	0	0	0	0	0	6	14	3	0	0	0	0	0	17
09:00	5	3	0	0	0	0	0	8	7	3	1	0	0	0	0	11
09:15	2	1	1	0	0	0	0	4	5	2	0	0	0	0	0	7
09:30	1	0	0	0	0	0	0	1	5	0	1	0	0	0	0	6
09:45	1	1	0	0	0	0	0	2	8	5	1	0	0	0	0	14
15:00	4	2	1	0	0	0	0	7	3	2	0	0	0	0	0	5
15:15	4	2	0	0	0	0	0	6	3	2	0	0	0	0	0	5
15:30	1	3	0	0	0	0	1	5	5	2	0	0	0	0	0	7
15:45	5	3	0	1	0	0	0	9	4	1	0	0	0	0	0	5
16:00	7	2	0	0	0	0	0	9	1	3	0	0	0	0	0	4
16:15	9	3	0	0	0	0	0	12	6	0	0	0	0	0	0	6
16:30	3	1	0	0	0	0	0	4	9	1	0	0	0	0	0	10
16:45	6	2	0	0	0	0	0	8	5	3	0	0	0	0	0	8
17:00	14	0	0	0	0	0	0	14	9	3	0	0	0	0	0	12
17:15	5	0	0	0	0	0	1	6	3	0	0	0	0	0	0	3
17:30	8	1	0	0	0	0	0	9	10	1	0	0	0	0	1	12
17:45	4	0	1	0	0	0	0	5	8	0	0	0	0	0	0	8
18:00	1	0	0	0	0	0	0	1	7	0	0	0	0	0	0	7
18:15	3	0	0	0	0	0	0	3	9	1	0	0	0	0	0	10
18:30	1	0	0	0	0	0	0	1	8	1	0	0	0	0	0	9
18:45	2	2	0	0	0	0	0	4	9	0	0	0	0	0	0	9
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	10	3	1	0	0	0	0	14	32	5	2	0	0	0	0	39
07:15	15	4	2	0	0	0	0	21	35	9	2	0	0	0	0	46
07:30	16	6	3	0	0	0	0	25	37	12	3	0	0	0	0	52
07:45	16	6	3	0	0	0	0	25	38	10	2	0	0	0	0	50
08:00	17	6	2	0	0	0	0	25	40	12	1	0	0	0	0	53
08:15	16	8	1	0	0	0	0	25	39	11	2	0	0	0	0	52
08:30	13	7	1	0	0	0	0	21	36	9	1	0	0	0	0	46
08:45	13	5	1	0	0	0	0	19	31	8	2	0	0	0	0	41
09:00	9	5	1	0	0	0	0	15	25	10	3	0	0	0	0	38
15:00	14	10	1	1	0	0	1	27	15	7	0	0	0	0	0	22
15:15	17	10	0	1	0	0	1	29	13	8	0	0	0	0	0	21
15:30	22	11	0	1	0	0	1	35	16	6	0	0	0	0	0	22
15:45	24	9	0	1	0	0	0	34	20	5	0	0	0	0	0	25
16:00	25	8	0	0	0	0	0	33	21	7	0	0	0	0	0	28
16:15	32	6	0	0	0	0	0	38	29	7	0	0	0	0	0	36
16:30	28	3	0	0	0	0	1	32	26	7	0	0	0	0	0	33
16:45	33	3	0	0	0	0	1	37	27	7	0	0	0	0	1	35
17:00	31	1	1	0	0	0	1	34	30	4	0	0	0	0	1	35
17:15	18	1	1	0	0	0	1	21	28	1	0	0	0	0	1	30
17:30	16	1	1	0	0	0	0	18	34	2	0	0	0	0	1	37
17:45	9	0	1	0	0	0	0	10	32	2	0	0	0	0	0	34
18:00	7	2	0	0	0	0	0	9	33	2	0	0	0	0	0	35

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 1

Date of Survey: 03.11.2020
Junction Name: Poland Street / A62 Oldham Road
Junction Type: T-Junction

	Arm C Approach								Arm C Exit							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	26	6	2	0	4	0	0	38	80	20	2	2	3	1	5	113
07:15	44	8	2	1	6	0	3	64	82	21	3	0	8	0	4	118
07:30	55	8	2	7	6	0	2	80	96	18	2	1	5	0	6	128
07:45	46	5	5	2	8	0	1	67	83	22	5	3	8	0	6	127
08:00	39	13	5	3	8	0	4	72	97	17	5	0	6	0	4	129
08:15	54	7	2	2	6	0	2	73	116	17	4	3	6	0	4	150
08:30	50	11	5	1	6	0	2	75	113	17	7	2	9	1	4	153
08:45	46	8	1	2	10	1	1	69	111	20	3	2	6	0	3	145
09:00	56	10	4	2	4	0	0	76	127	20	5	1	7	1	0	161
09:15	46	16	4	2	8	0	0	76	96	21	3	4	4	1	0	129
09:30	50	12	2	1	5	0	0	70	120	13	3	3	8	0	3	150
09:45	49	17	4	0	4	0	3	77	94	17	6	3	6	1	1	128
15:00	91	19	7	3	6	0	7	133	65	14	2	0	7	1	4	93
15:15	96	15	1	1	6	1	3	123	69	9	3	1	5	1	3	91
15:30	106	13	3	5	7	0	1	135	91	12	0	0	5	0	3	111
15:45	125	27	4	1	6	1	2	166	68	11	0	2	11	2	2	96
16:00	107	30	3	2	5	0	3	150	63	17	0	1	4	1	1	87
16:15	130	17	3	1	7	1	5	164	102	9	0	1	7	0	1	120
16:30	130	22	2	3	8	2	2	169	91	8	4	1	7	1	0	112
16:45	146	19	5	0	5	0	1	176	72	10	1	2	6	0	1	92
17:00	158	25	2	1	5	2	5	198	112	15	1	1	6	1	1	137
17:15	136	20	2	0	6	1	4	169	90	8	0	1	6	1	3	109
17:30	162	14	1	1	5	0	2	185	119	8	1	2	6	0	5	141
17:45	122	8	1	2	8	3	4	148	121	3	0	1	4	1	5	135
18:00	148	6	0	1	4	1	4	164	111	6	0	1	4	0	2	124
18:15	124	6	2	1	6	1	3	143	100	5	0	0	4	1	2	112
18:30	130	3	3	1	5	1	2	145	72	7	0	0	6	0	1	86
18:45	110	6	5	0	9	1	4	135	74	2	0	0	2	0	3	81
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	171	27	11	10	24	0	6	249	341	81	12	6	24	1	21	486
07:15	184	34	14	13	28	0	10	283	358	78	15	4	27	0	20	502
07:30	194	33	14	14	28	0	9	292	392	74	16	7	25	0	20	534
07:45	189	36	17	8	28	0	9	287	409	73	21	8	29	1	18	559
08:00	189	39	13	8	30	1	9	289	437	71	19	7	27	1	15	577
08:15	206	36	12	7	26	1	5	293	467	74	19	8	28	2	11	609
08:30	198	45	14	7	28	1	3	296	447	78	18	9	26	3	7	588
08:45	198	46	11	7	27	1	1	291	454	74	14	10	25	2	6	585
09:00	201	55	14	5	21	0	3	299	437	71	17	11	25	3	4	568
15:00	418	74	15	10	25	2	13	557	293	46	5	3	28	4	12	391
15:15	434	85	11	9	24	2	9	574	291	49	3	4	25	4	9	385
15:30	468	87	13	9	25	2	11	615	324	49	0	4	27	3	7	414
15:45	492	96	12	7	26	4	12	649	324	45	4	5	29	4	4	415
16:00	513	88	13	6	25	3	11	659	328	44	5	5	24	2	3	411
16:15	564	83	12	5	25	5	13	707	377	42	6	5	26	2	3	461
16:30	570	86	11	4	24	5	12	712	365	41	6	5	25	3	5	450
16:45	602	78	10	2	21	3	12	728	393	41	3	6	24	2	10	479
17:00	578	67	6	4	24	6	15	700	442	34	2	5	22	3	14	522
17:15	568	48	4	4	23	5	14	666	441	25	1	5	20	2	15	509
17:30	556	34	4	5	23	5	13	640	451	22	1	4	18	2	14	512
17:45	524	23	6	5	23	6	13	600	404	21	0	2	18	2	10	457
18:00	512	21	10	3	24	4	13	587	357	20	0	1	16	1	8	403

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 1

Date of Survey: 03.11.2020
Junction Name: Poland Street / A62 Oldham Road
Junction Type: T-Junction

	Total Junction Flow							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	112	26	4	2	7	1	5	157
07:15	133	30	5	1	14	0	7	190
07:30	161	31	4	8	11	0	8	223
07:45	140	28	11	5	16	0	7	207
08:00	149	33	10	3	14	0	8	217
08:15	179	30	8	5	12	0	6	240
08:30	172	30	12	3	15	1	6	239
08:45	167	32	4	4	16	1	4	228
09:00	193	35	10	3	11	1	0	253
09:15	148	39	8	6	12	1	0	214
09:30	174	25	5	4	13	0	3	224
09:45	150	39	11	3	10	1	4	218
15:00	163	35	10	3	13	1	11	236
15:15	170	28	4	2	11	2	6	223
15:30	202	30	3	5	12	0	5	257
15:45	202	41	4	4	17	3	4	275
16:00	178	50	3	3	9	1	4	248
16:15	242	29	3	2	14	1	6	297
16:30	228	32	6	4	15	3	2	290
16:45	227	34	6	2	11	0	2	282
17:00	283	41	3	2	11	3	6	349
17:15	230	28	2	1	12	2	8	283
17:30	292	23	2	3	11	0	8	339
17:45	255	11	2	3	12	4	9	296
18:00	267	12	0	2	8	1	6	296
18:15	233	12	2	1	10	2	5	265
18:30	208	11	3	1	11	1	3	238
18:45	194	10	5	0	11	1	7	228
Start Time	**Rolling Hour**							**Total**
07:00	546	115	24	16	48	1	27	777
07:15	583	122	30	17	55	0	30	837
07:30	629	122	33	21	53	0	29	887
07:45	640	121	41	16	57	1	27	903
08:00	667	125	34	15	57	2	24	924
08:15	711	127	34	15	54	3	16	960
08:30	680	136	34	16	54	4	10	934
08:45	682	131	27	17	52	3	7	919
09:00	665	138	34	16	46	3	7	909
15:00	737	134	21	14	53	6	26	991
15:15	752	149	14	14	49	6	19	1003
15:30	824	150	13	14	52	5	19	1077
15:45	850	152	16	13	55	8	16	1110
16:00	875	145	18	11	49	5	14	1117
16:15	980	136	18	10	51	7	16	1218
16:30	968	135	17	9	49	8	18	1204
16:45	1032	126	13	8	45	5	24	1253
17:00	1060	103	9	9	46	9	31	1267
17:15	1044	74	6	9	43	7	31	1214
17:30	1047	58	6	9	41	7	28	1196
17:45	963	46	7	7	41	8	23	1095
18:00	902	45	10	4	40	5	21	1027

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 1

Date of Survey: 03.11.2020
Junction Name: Poland Street / A62 Oldham Road
Junction Type: T-Junction

Arm A: A62 Oldham Road (NE) **Arm B:** Poland Street (S) **Arm C:** A62 Oldham Road (SW)

	PCU Summary								
Time	**A to A**	**A to C**	**A to B**	**B to B**	**B to A**	**B to C**	**C to C**	**C to B**	**C to A**
07:00	0	119	5	0	1	0	0	0	46
07:15	0	130	4	0	4	0	0	3	71
07:30	0	134	12	0	3	0	0	2	101
07:45	0	142	9	0	5	2	0	6	81
08:00	0	137	9	0	7	2	0	3	88
08:15	0	163	12	0	7	2	0	2	84
08:30	0	172	9	0	2	1	0	2	87
08:45	0	156	10	0	4	2	0	7	80
09:00	0	174	12	0	5	3	0	0	89
09:15	0	143	7	0	3	2	0	0	95
09:30	0	167	4	0	0	1	0	3	78
09:45	0	146	13	0	1	1	0	2	82
15:00	0	101	4	0	7	1	0	1	147
15:15	0	98	5	0	4	2	0	0	132
15:30	0	115	7	0	3	1	0	0	157
15:45	0	113	5	0	10	1	0	0	178
16:00	0	93	3	0	8	1	0	1	161
16:15	0	128	5	0	8	4	0	1	174
16:30	0	125	7	0	2	2	0	3	183
16:45	0	103	8	0	6	2	0	0	187
17:00	0	142	5	0	9	5	0	7	197
17:15	0	114	2	0	2	3	0	1	175
17:30	0	146	8	0	4	5	0	3	191
17:45	0	138	8	0	6	0	0	0	160
18:00	0	130	7	0	1	0	0	0	168
18:15	0	115	8	0	2	1	0	2	151
18:30	0	94	6	0	1	0	0	3	152
18:45	0	82	8	0	4	0	0	1	148
Start Time	**Rolling Hour**								
07:00	0	525	30	0	13	2	0	11	298
07:15	0	544	34	0	19	4	0	14	341
07:30	0	577	42	0	22	6	0	13	353
07:45	0	615	39	0	21	7	0	13	339
08:00	0	628	40	0	20	7	0	14	339
08:15	0	665	43	0	18	8	0	11	341
08:30	0	645	38	0	14	8	0	9	352
08:45	0	640	33	0	12	8	0	10	343
09:00	0	630	36	0	9	7	0	5	345
15:00	0	426	21	0	24	5	0	1	614
15:15	0	418	20	0	25	5	0	1	628
15:30	0	448	20	0	29	7	0	2	669
15:45	0	458	20	0	28	8	0	5	695
16:00	0	448	23	0	24	9	0	5	704
16:15	0	498	25	0	25	13	0	11	740
16:30	0	485	22	0	19	12	0	11	742
16:45	0	505	23	0	21	15	0	11	750
17:00	0	540	23	0	21	13	0	11	722
17:15	0	528	25	0	13	8	0	4	694
17:30	0	529	31	0	13	6	0	5	669
17:45	0	478	29	0	10	1	0	5	630
18:00	0	421	29	0	8	1	0	6	619

Intelligent Data Collection Limited
Manchester

Client:	Hydrock
Project Number:	ID05555
Junction Number:	Site 2
Date of Survey:	22.10.2020
Junction Name:	Bengal Street / A62 Oldham Road
Junction Type:	T-Junction

Quality Assurance and Issue Record

Quality Assurance

Revision	Rev A			
Date	06.11.2020			
Prepared by	Mathew Booth			
Signature				
Checked by	David Brown			
Signature				
Project Director	Paul O'Neill			
Signature				
Project number	ID05555			
File Ref	ID05555 Manchester - MCC Site 2 - 22.10.2020			

Issue Sheet

Issued to	Date			
	06.11.2020			
Sam Denby	E-mail			

Contents Page

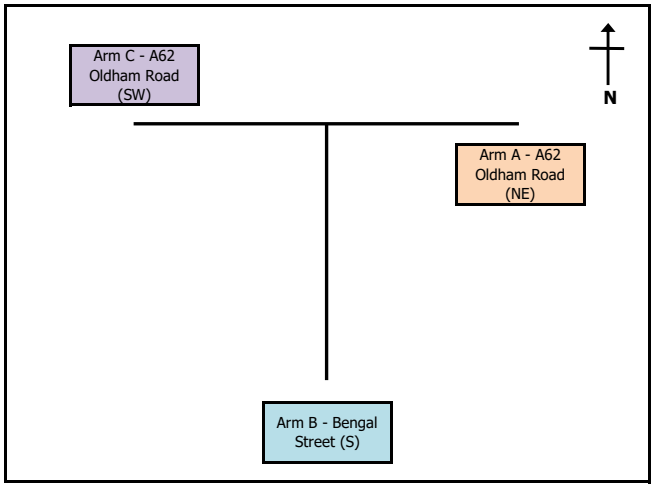
Location Plan & Summary
MCC Data
PCU Data

Intelligent Data Collection Limited

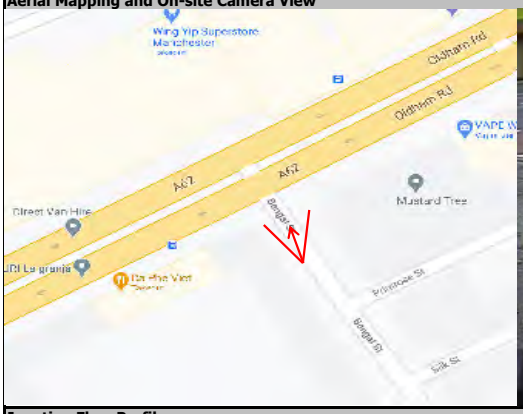
Client:	Hydrock	**Date of Survey:**	22.10.2020
Project Number:	ID05555	**Junction Name:**	Bengal Street / A62 Oldham Road
Junction Number:	Site 2	**Junction Type:**	T-Junction

X Coordinate	Y Coordinate	Google Maps Link	
53.486391	-2.228492	Click Here	
AM Peak Conditions	**PM Peak Conditions**		
Clear	Clear		

Junction Layout

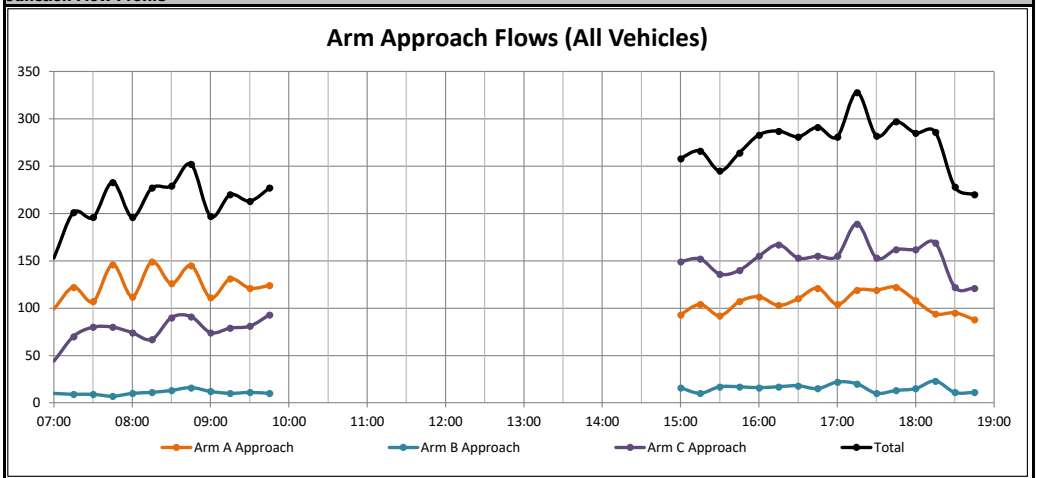


Aerial Mapping and On-site Camera View





Junction Flow Profile



Additional Notes (Factors which may impact on survey results such as accidents, roadworks, special events):

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 2

Date of Survey: 22.10.2020
Junction Name: Bengal Street / A62 Oldham Road
Junction Type: T-Junction

Arm A: A62 Oldham Road (NE)
Arm B: Bengal Street (S)
Arm C: A62 Oldham Road (SW)

	A to A								A to C								A to B							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00								0	63	21	1	0	3	1	3	92	4	1	0	0	0	0	2	7
07:15								0	78	15	2	1	7	0	3	106	10	5	0	0	0	0	1	16
07:30								0	66	17	3	1	4	0	6	97	7	3	0	0	0	0	0	10
07:45								0	87	23	1	5	8	0	5	129	15	2	0	0	0	0	0	17
08:00								0	64	20	2	1	5	1	3	96	13	3	0	0	0	0	0	16
08:15								0	91	21	5	2	6	0	3	128	18	3	0	0	0	0	0	21
08:30								0	78	9	5	0	7	2	4	105	15	6	0	0	0	0	0	21
08:45								0	82	26	2	4	8	0	6	128	15	2	0	0	0	0	0	17
09:00								0	70	16	0	3	4	0	1	94	11	4	1	0	0	0	1	17
09:15								0	85	16	4	1	7	0	3	116	15	0	0	0	0	0	0	15
09:30								0	80	15	3	0	5	1	2	106	12	3	0	0	0	0	0	15
09:45								0	74	12	7	3	7	0	0	103	16	5	0	0	0	0	0	21
15:00								0	49	10	5	0	10	2	0	76	13	3	1	0	0	0	0	17
15:15								0	68	11	4	1	3	0	0	87	14	3	0	0	0	0	0	17
15:30								0	50	10	2	1	7	0	1	71	18	1	0	0	0	0	2	21
15:45								0	66	11	1	1	8	0	2	89	15	3	0	0	0	0	0	18
16:00								0	77	12	2	2	7	0	3	103	6	3	0	0	0	0	0	9
16:15								0	69	10	1	0	7	0	1	88	13	2	0	0	0	0	0	15
16:30								0	77	5	2	1	8	1	2	96	12	1	0	0	0	0	1	14
16:45								0	84	6	2	0	4	0	2	98	18	4	0	0	0	1	0	23
17:00								0	58	9	2	0	8	0	3	80	20	3	0	0	0	0	1	24
17:15								0	78	8	1	2	7	1	2	99	19	0	0	0	0	0	1	20
17:30								0	80	7	3	1	4	0	2	97	20	2	0	0	0	0	0	22
17:45								0	84	11	0	1	6	0	2	104	16	1	0	0	0	0	1	18
18:00								0	76	9	0	0	4	0	0	89	19	0	0	0	0	0	0	19
18:15								0	67	5	0	0	5	1	2	80	13	1	0	0	0	0	0	14
18:30								0	74	2	0	1	5	1	1	84	11	0	0	0	0	0	0	11
18:45								0	72	1	0	2	1	0	2	78	7	3	0	0	0	0	0	10
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	0	0	0	0	0	0	0	0	294	76	7	7	22	1	17	424	36	11	0	0	0	0	3	50
07:15	0	0	0	0	0	0	0	0	295	75	8	8	24	1	17	428	45	13	0	0	0	0	1	59
07:30	0	0	0	0	0	0	0	0	308	81	11	9	23	1	17	450	53	11	0	0	0	0	0	64
07:45	0	0	0	0	0	0	0	0	320	73	13	8	26	3	15	458	61	14	0	0	0	0	0	75
08:00	0	0	0	0	0	0	0	0	315	76	14	7	26	3	16	457	61	14	0	0	0	0	0	75
08:15	0	0	0	0	0	0	0	0	321	72	12	9	25	2	14	455	59	15	1	0	0	0	1	76
08:30	0	0	0	0	0	0	0	0	315	67	11	8	26	2	14	443	56	12	1	0	0	0	1	70
08:45	0	0	0	0	0	0	0	0	317	73	9	8	24	1	12	444	53	9	1	0	0	0	1	64
09:00	0	0	0	0	0	0	0	0	309	59	14	7	23	1	6	419	54	12	1	0	0	0	1	68
15:00	0	0	0	0	0	0	0	0	233	42	12	3	28	2	3	323	60	10	1	0	0	0	2	73
15:15	0	0	0	0	0	0	0	0	261	44	9	5	25	0	6	350	53	10	0	0	0	0	2	65
15:30	0	0	0	0	0	0	0	0	262	43	6	4	29	0	7	351	52	9	0	0	0	0	2	63
15:45	0	0	0	0	0	0	0	0	289	38	6	4	30	1	8	376	46	9	0	0	0	0	1	56
16:00	0	0	0	0	0	0	0	0	307	33	7	3	26	1	8	385	49	10	0	0	0	1	1	61
16:15	0	0	0	0	0	0	0	0	288	30	7	1	27	1	8	362	63	10	0	0	0	1	2	76
16:30	0	0	0	0	0	0	0	0	297	28	7	3	27	2	9	373	69	8	0	0	0	1	3	81
16:45	0	0	0	0	0	0	0	0	300	30	8	3	23	1	9	374	77	9	0	0	0	1	2	89
17:00	0	0	0	0	0	0	0	0	300	35	6	4	25	1	9	380	75	6	0	0	0	0	3	84
17:15	0	0	0	0	0	0	0	0	318	35	4	4	21	1	6	389	74	3	0	0	0	0	2	79
17:30	0	0	0	0	0	0	0	0	307	32	3	2	19	1	6	370	68	4	0	0	0	0	1	73
17:45	0	0	0	0	0	0	0	0	301	27	0	2	20	2	5	357	59	2	0	0	0	0	1	62
18:00	0	0	0	0	0	0	0	0	289	17	0	3	15	2	5	331	50	4	0	0	0	0	0	54

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 2

Date of Survey: 22.10.2020
Junction Name: Bengal Street / A62 Oldham Road
Junction Type: T-Junction

Arm A: A62 Oldham Road (NE)
Arm B: Bengal Street (S)
Arm C: A62 Oldham Road (SW)

	B to B								B to A								B to C							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00								0	2	1	0	0	0	0	0	3	6	1	0	0	0	0	0	7
07:15								0	7	0	0	0	0	0	0	7	1	1	0	0	0	0	0	2
07:30								0	4	0	0	0	0	0	0	4	2	1	2	0	0	0	0	5
07:45								0	0	3	0	0	0	0	0	3	4	0	0	0	0	0	0	4
08:00								0	7	0	0	0	0	0	0	7	2	1	0	0	0	0	0	3
08:15								0	7	1	0	0	0	0	0	8	3	0	0	0	0	0	0	3
08:30								0	7	0	0	0	0	0	0	7	3	2	1	0	0	0	0	6
08:45								0	4	2	0	0	0	0	0	6	7	3	0	0	0	0	0	10
09:00								0	4	1	0	0	0	0	0	5	5	2	0	0	0	0	0	7
09:15								0	4	1	0	0	0	0	0	5	3	1	1	0	0	0	0	5
09:30								0	5	0	0	0	0	0	0	5	5	0	0	0	0	0	1	6
09:45								0	2	1	0	0	0	1	0	4	4	1	0	0	0	0	1	6
15:00								0	7	2	0	0	0	0	0	9	6	1	0	0	0	0	0	7
15:15								0	5	1	0	0	0	0	0	6	4	0	0	0	0	0	0	4
15:30								0	13	2	0	0	0	0	0	15	2	0	0	0	0	0	0	2
15:45								0	6	1	0	0	0	0	0	7	8	1	0	0	0	0	1	10
16:00								0	11	2	0	0	0	0	0	13	1	2	0	0	0	0	0	3
16:15								0	6	1	0	0	0	0	0	7	9	1	0	0	0	0	0	10
16:30								0	2	5	0	0	0	0	0	7	10	1	0	0	0	0	0	11
16:45								0	7	1	0	0	0	0	0	8	6	1	0	0	0	0	0	7
17:00								0	8	2	0	0	0	0	1	11	10	1	0	0	0	0	0	11
17:15								0	10	2	0	0	0	0	0	12	8	0	0	0	0	0	0	8
17:30								0	5	0	0	0	0	0	0	5	5	0	0	0	0	0	0	5
17:45								0	6	2	0	0	0	1	1	10	2	0	0	0	0	0	1	3
18:00								0	10	0	0	0	0	0	1	11	4	0	0	0	0	0	0	4
18:15								0	15	1	0	0	0	0	0	16	7	0	0	0	0	0	0	7
18:30								0	5	1	0	0	0	0	1	7	4	0	0	0	0	0	0	4
18:45								0	8	1	0	0	0	0	0	9	1	1	0	0	0	0	0	2
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	0	0	0	0	0	0	0	0	13	4	0	0	0	0	0	17	13	3	2	0	0	0	0	18
07:15	0	0	0	0	0	0	0	0	18	3	0	0	0	0	0	21	9	3	2	0	0	0	0	14
07:30	0	0	0	0	0	0	0	0	18	4	0	0	0	0	0	22	11	2	2	0	0	0	0	15
07:45	0	0	0	0	0	0	0	0	21	4	0	0	0	0	0	25	12	3	1	0	0	0	0	16
08:00	0	0	0	0	0	0	0	0	25	3	0	0	0	0	0	28	15	6	1	0	0	0	0	22
08:15	0	0	0	0	0	0	0	0	22	4	0	0	0	0	0	26	18	7	1	0	0	0	0	26
08:30	0	0	0	0	0	0	0	0	19	4	0	0	0	0	0	23	18	8	2	0	0	0	0	28
08:45	0	0	0	0	0	0	0	0	17	4	0	0	0	0	0	21	20	6	1	0	0	0	1	28
09:00	0	0	0	0	0	0	0	0	15	3	0	0	0	1	0	19	17	4	1	0	0	0	2	24
15:00	0	0	0	0	0	0	0	0	31	6	0	0	0	0	0	37	20	2	0	0	0	0	1	23
15:15	0	0	0	0	0	0	0	0	35	6	0	0	0	0	0	41	15	3	0	0	0	0	1	19
15:30	0	0	0	0	0	0	0	0	36	6	0	0	0	0	0	42	20	4	0	0	0	0	1	25
15:45	0	0	0	0	0	0	0	0	25	9	0	0	0	0	0	34	28	5	0	0	0	0	1	34
16:00	0	0	0	0	0	0	0	0	26	9	0	0	0	0	0	35	26	5	0	0	0	0	0	31
16:15	0	0	0	0	0	0	0	0	23	9	0	0	0	0	1	33	35	4	0	0	0	0	0	39
16:30	0	0	0	0	0	0	0	0	27	10	0	0	0	0	1	38	34	3	0	0	0	0	0	37
16:45	0	0	0	0	0	0	0	0	30	5	0	0	0	0	1	36	29	2	0	0	0	0	0	31
17:00	0	0	0	0	0	0	0	0	29	6	0	0	0	1	2	38	25	1	0	0	0	0	1	27
17:15	0	0	0	0	0	0	0	0	31	4	0	0	0	1	2	38	19	0	0	0	0	0	1	20
17:30	0	0	0	0	0	0	0	0	36	3	0	0	0	1	2	42	18	0	0	0	0	0	1	19
17:45	0	0	0	0	0	0	0	0	36	4	0	0	0	1	3	44	17	0	0	0	0	0	1	18
18:00	0	0	0	0	0	0	0	0	38	3	0	0	0	0	2	43	16	1	0	0	0	0	0	17

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 2

Date of Survey: 22.10.2020
Junction Name: Bengal Street / A62 Oldham Road
Junction Type: T-Junction

Arm A: A62 Oldham Road (NE)
Arm B: Bengal Street (S)
Arm C: A62 Oldham Road (SW)

	C to C								C to B								C to A							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00								0	9	0	0	0	0	0	0	9	23	4	2	1	4	0	1	35
07:15								0	9	4	0	0	0	0	0	13	43	5	2	0	6	0	1	57
07:30								0	9	2	0	0	0	0	0	11	45	9	3	4	5	1	2	69
07:45								0	11	3	0	0	0	0	0	14	44	8	3	1	7	0	3	66
08:00								0	14	4	1	0	0	0	1	20	35	7	4	1	6	0	1	54
08:15								0	10	2	0	0	0	0	0	12	33	5	6	1	9	0	1	55
08:30								0	20	4	0	0	0	0	0	24	44	8	5	0	7	0	2	66
08:45								0	17	2	0	0	0	0	1	20	45	6	5	4	11	0	0	71
09:00								0	5	4	0	0	0	0	0	9	43	12	2	2	6	0	0	65
09:15								0	9	1	1	0	0	0	0	11	43	15	1	2	6	0	1	68
09:30								0	10	4	0	0	0	0	0	14	44	9	4	4	6	0	0	67
09:45								0	10	4	0	0		0	0	14	54	9	7	2	6	1	0	79
15:00								0	15	2	0	0	0	0	0	17	96	23	1	4	7	1	0	132
15:15								0	13	3	0	0	0	0	0	16	96	27	3	1	5	1	3	136
15:30								0	16	1	0	0	0	0	0	17	88	18	3	0	8	0	2	119
15:45								0	13	2	1	0	0	0	0	16	86	21	4	3	6	3	1	124
16:00								0	15	4	0	0	0	0	0	19	96	27	1	0	6	2	4	136
16:15								0	15	1	0	0	0	0	0	16	118	16	4	1	7	1	4	151
16:30								0	12	1	0	0	0	0	1	14	109	17	0	2	8	1	2	139
16:45								0	16	3	0	0	0	0	1	20	91	26	7	2	6	2	1	135
17:00								0	17	3	0	0	0	0	0	20	109	11	2	1	6	1	5	135
17:15								0	20	2	0	0	0	0	0	22	137	18	0	0	7	1	4	167
17:30								0	12	2	0	0	0	0	0	14	117	11	1	0	6	0	4	139
17:45								0	19	2	0	0	0	1	0	22	118	7	0	1	6	2	6	140
18:00								0	23	4	0	0	0	0	0	27	120	5	3	0	4	0	3	135
18:15								0	30	1	0	0	0	0	0	31	119	6	2	1	5	3	2	138
18:30								0	18	1	0	0	0	1	0	20	86	3	3	0	9	0	1	102
18:45								0	13	1	0	0	0	0	0	14	81	6	4	2	7	1	6	107
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	0	0	0	0	0	0	0	0	38	9	0	0	0	0	0	47	155	26	10	6	22	1	7	227
07:15	0	0	0	0	0	0	0	0	43	13	1	0	0	0	1	58	167	29	12	6	24	1	7	246
07:30	0	0	0	0	0	0	0	0	44	11	1	0	0	0	1	57	157	29	16	7	27	1	7	244
07:45	0	0	0	0	0	0	0	0	55	13	1	0	0	0	1	70	156	28	18	3	29	0	7	241
08:00	0	0	0	0	0	0	0	0	61	12	1	0	0	0	2	76	157	26	20	6	33	0	4	246
08:15	0	0	0	0	0	0	0	0	52	12	0	0	0	0	1	65	165	31	18	7	33	0	3	257
08:30	0	0	0	0	0	0	0	0	51	11	1	0	0	0	1	64	175	41	13	8	30	0	3	270
08:45	0	0	0	0	0	0	0	0	41	11	1	0	0	0	1	54	175	42	12	12	29	0	1	271
09:00	0	0	0	0	0	0	0	0	34	13	1	0	0	0	0	48	184	45	14	10	24	1	1	279
15:00	0	0	0	0	0	0	0	0	57	8	1	0	0	0	0	66	366	89	11	8	26	5	6	511
15:15	0	0	0	0	0	0	0	0	57	10	1	0	0	0	0	68	366	93	11	4	25	6	10	515
15:30	0	0	0	0	0	0	0	0	59	8	1	0	0	0	0	68	388	82	12	4	27	6	11	530
15:45	0	0	0	0	0	0	0	0	55	8	1	0	0	0	1	65	409	81	9	6	27	7	11	550
16:00	0	0	0	0	0	0	0	0	58	9	0	0	0	0	2	69	414	86	12	5	27	6	11	561
16:15	0	0	0	0	0	0	0	0	60	8	0	0	0	0	2	70	427	70	13	6	27	5	12	560
16:30	0	0	0	0	0	0	0	0	65	9	0	0	0	0	2	76	446	72	9	5	27	5	12	576
16:45	0	0	0	0	0	0	0	0	65	10	0	0	0	0	1	76	454	66	10	3	25	4	14	576
17:00	0	0	0	0	0	0	0	0	68	9	0	0	0	1	0	78	481	47	3	2	25	4	19	581
17:15	0	0	0	0	0	0	0	0	74	10	0	0	0	1	0	85	492	41	4	1	23	3	17	581
17:30	0	0	0	0	0	0	0	0	84	9	0	0	0	1	0	94	474	29	6	2	21	5	15	552
17:45	0	0	0	0	0	0	0	0	90	8	0	0	0	2	0	100	443	21	8	2	24	5	12	515
18:00	0	0	0	0	0	0	0	0	84	7	0	0	0	1	0	92	406	20	12	3	25	4	12	482

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 2

Date of Survey: 22.10.2020
Junction Name: Bengal Street / A62 Oldham Road
Junction Type: T-Junction

	Arm A Approach								Arm A Exit							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	67	22	1	0	3	1	5	99	25	5	2	1	4	0	1	38
07:15	88	20	2	1	7	0	4	122	50	5	2	0	6	0	1	64
07:30	73	20	3	1	4	0	6	107	49	9	3	4	5	1	2	73
07:45	102	25	1	5	8	0	5	146	44	11	3	1	7	0	3	69
08:00	77	23	2	1	5	1	3	112	42	7	4	1	6	0	1	61
08:15	109	24	5	2	6	0	3	149	40	6	6	1	9	0	1	63
08:30	93	15	5	0	7	2	4	126	51	8	5	0	7	0	2	73
08:45	97	28	2	4	8	0	6	145	49	8	5	4	11	0	0	77
09:00	81	20	1	3	4	0	2	111	47	13	2	2	6	0	0	70
09:15	100	16	4	1	7	0	3	131	47	16	1	2	6	0	1	73
09:30	92	18	3	0	5	1	2	121	49	9	4	4	6	0	0	72
09:45	90	17	7	3	7	0	0	124	56	10	7	2	6	2	0	83
15:00	62	13	6	0	10	2	0	93	103	25	1	4	7	1	0	141
15:15	82	14	4	1	3	0	0	104	101	28	3	1	5	1	3	142
15:30	68	11	2	1	7	0	3	92	101	20	3	0	8	0	2	134
15:45	81	14	1	1	8	0	2	107	92	22	4	3	6	3	1	131
16:00	83	15	2	2	7	0	3	112	107	29	1	0	6	2	4	149
16:15	82	12	1	0	7	0	1	103	124	17	4	1	7	1	4	158
16:30	89	6	2	1	8	1	3	110	111	22	0	2	8	1	2	146
16:45	102	10	2	0	4	1	2	121	98	27	7	2	6	2	1	143
17:00	78	12	2	0	8	0	4	104	117	13	2	1	6	1	6	146
17:15	97	8	1	2	7	1	3	119	147	20	0	0	7	1	4	179
17:30	100	9	3	1	4	0	2	119	122	11	1	0	6	0	4	144
17:45	100	12	0	1	6	0	3	122	124	9	0	1	6	3	7	150
18:00	95	9	0	0	4	0	0	108	130	5	3	0	4	0	4	146
18:15	80	6	0	0	5	1	2	94	134	7	2	1	5	3	2	154
18:30	85	2	0	1	5	1	1	95	91	4	3	0	9	0	2	109
18:45	79	4	0	2	1	0	2	88	89	7	4	2	7	1	6	116
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	330	87	7	7	22	1	20	474	168	30	10	6	22	1	7	244
07:15	340	88	8	8	24	1	18	487	185	32	12	6	24	1	7	267
07:30	361	92	11	9	23	1	17	514	175	33	16	7	27	1	7	266
07:45	381	87	13	8	26	3	15	533	177	32	18	3	29	0	7	266
08:00	376	90	14	7	26	3	16	532	182	29	20	6	33	0	4	274
08:15	380	87	13	9	25	2	15	531	187	35	18	7	33	0	3	283
08:30	371	79	12	8	26	2	15	513	194	45	13	8	30	0	3	293
08:45	370	82	10	8	24	1	13	508	192	46	12	12	29	0	1	292
09:00	363	71	15	7	23	1	7	487	199	48	14	10	24	2	1	298
15:00	293	52	13	3	28	2	5	396	397	95	11	8	26	5	6	548
15:15	314	54	9	5	25	0	8	415	401	99	11	4	25	6	10	556
15:30	314	52	6	4	29	0	9	414	424	88	12	4	27	6	11	572
15:45	335	47	6	4	30	1	9	432	434	90	9	6	27	7	11	584
16:00	356	43	7	3	26	2	9	446	440	95	12	5	27	6	11	596
16:15	351	40	7	1	27	2	10	438	450	79	13	6	27	5	13	593
16:30	366	36	7	3	27	3	12	454	473	82	9	5	27	5	13	614
16:45	377	39	8	3	23	2	11	463	484	71	10	3	25	4	15	612
17:00	375	41	6	4	25	1	12	464	510	53	3	2	25	5	21	619
17:15	392	38	4	4	21	1	8	468	523	45	4	1	23	4	19	619
17:30	375	36	3	2	19	1	7	443	510	32	6	2	21	6	17	594
17:45	360	29	0	2	20	2	6	419	479	25	8	2	24	6	15	559
18:00	339	21	0	3	15	2	5	385	444	23	12	3	25	4	14	525

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 2

Date of Survey: 22.10.2020
Junction Name: Bengal Street / A62 Oldham Road
Junction Type: T-Junction

	Arm B Approach								Arm B Exit							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	8	2	0	0	0	0	0	10	13	1	0	0	0	0	2	16
07:15	8	1	0	0	0	0	0	9	19	9	0	0	0	0	1	29
07:30	6	1	2	0	0	0	0	9	16	5	0	0	0	0	0	21
07:45	4	3	0	0	0	0	0	7	26	5	0	0	0	0	0	31
08:00	9	1	0	0	0	0	0	10	27	7	1	0	0	0	1	36
08:15	10	1	0	0	0	0	0	11	28	5	0	0	0	0	0	33
08:30	10	2	1	0	0	0	0	13	35	10	0	0	0	0	0	45
08:45	11	5	0	0	0	0	0	16	32	4	0	0	0	0	1	37
09:00	9	3	0	0	0	0	0	12	16	8	1	0	0	0	1	26
09:15	7	2	1	0	0	0	0	10	24	1	1	0	0	0	0	26
09:30	10	0	0	0	0	0	1	11	22	7	0	0	0	0	0	29
09:45	6	2	0	0	0	1	1	10	26	9	0	0	0	0	0	35
15:00	13	3	0	0	0	0	0	16	28	5	1	0	0	0	0	34
15:15	9	1	0	0	0	0	0	10	27	6	0	0	0	0	0	33
15:30	15	2	0	0	0	0	0	17	34	2	0	0	0	0	2	38
15:45	14	2	0	0	0	0	1	17	28	5	1	0	0	0	0	34
16:00	12	4	0	0	0	0	0	16	21	7	0	0	0	0	0	28
16:15	15	2	0	0	0	0	0	17	28	3	0	0	0	0	0	31
16:30	12	6	0	0	0	0	0	18	24	2	0	0	0	0	2	28
16:45	13	2	0	0	0	0	0	15	34	7	0	0	0	1	1	43
17:00	18	3	0	0	0	0	1	22	37	6	0	0	0	0	1	44
17:15	18	2	0	0	0	0	0	20	39	2	0	0	0	0	1	42
17:30	10	0	0	0	0	0	0	10	32	4	0	0	0	0	0	36
17:45	8	2	0	0	0	1	2	13	35	3	0	0	0	1	1	40
18:00	14	0	0	0	0	0	1	15	42	4	0	0	0	0	0	46
18:15	22	1	0	0	0	0	0	23	43	2	0	0	0	0	0	45
18:30	9	1	0	0	0	0	1	11	29	1	0	0	0	1	0	31
18:45	9	2	0	0	0	0	0	11	20	4	0	0	0	0	0	24
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	26	7	2	0	0	0	0	35	74	20	0	0	0	0	3	97
07:15	27	6	2	0	0	0	0	35	88	26	1	0	0	0	2	117
07:30	29	6	2	0	0	0	0	37	97	22	1	0	0	0	1	121
07:45	33	7	1	0	0	0	0	41	116	27	1	0	0	0	1	145
08:00	40	9	1	0	0	0	0	50	122	26	1	0	0	0	2	151
08:15	40	11	1	0	0	0	0	52	111	27	1	0	0	0	2	141
08:30	37	12	2	0	0	0	0	51	107	23	2	0	0	0	2	134
08:45	37	10	1	0	0	0	1	49	94	20	2	0	0	0	2	118
09:00	32	7	1	0	0	1	2	43	88	25	2	0	0	0	1	116
15:00	51	8	0	0	0	0	1	60	117	18	2	0	0	0	2	139
15:15	50	9	0	0	0	0	1	60	110	20	1	0	0	0	2	133
15:30	56	10	0	0	0	0	1	67	111	17	1	0	0	0	2	131
15:45	53	14	0	0	0	0	1	68	101	17	1	0	0	0	2	121
16:00	52	14	0	0	0	0	0	66	107	19	0	0	0	1	3	130
16:15	58	13	0	0	0	0	1	72	123	18	0	0	0	1	4	146
16:30	61	13	0	0	0	0	1	75	134	17	0	0	0	1	5	157
16:45	59	7	0	0	0	0	1	67	142	19	0	0	0	1	3	165
17:00	54	7	0	0	0	1	3	65	143	15	0	0	0	1	3	162
17:15	50	4	0	0	0	1	3	58	148	13	0	0	0	1	2	164
17:30	54	3	0	0	0	1	3	61	152	13	0	0	0	1	1	167
17:45	53	4	0	0	0	1	4	62	149	10	0	0	0	2	1	162
18:00	54	4	0	0	0	0	2	60	134	11	0	0	0	1	0	146

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 2

Date of Survey: 22.10.2020
Junction Name: Bengal Street / A62 Oldham Road
Junction Type: T-Junction

	Arm C Approach								Arm C Exit							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	32	4	2	1	4	0	1	44	69	22	1	0	3	1	3	99
07:15	52	9	2	0	6	0	1	70	79	16	2	1	7	0	3	108
07:30	54	11	3	4	5	1	2	80	68	18	5	1	4	0	6	102
07:45	55	11	3	1	7	0	3	80	91	23	1	5	8	0	5	133
08:00	49	11	5	1	6	0	2	74	66	21	2	1	5	1	3	99
08:15	43	7	6	1	9	0	1	67	94	21	5	2	6	0	3	131
08:30	64	12	5	0	7	0	2	90	81	11	6	0	7	2	4	111
08:45	62	8	5	4	11	0	1	91	89	29	2	4	8	0	6	138
09:00	48	16	2	2	6	0	0	74	75	18	0	3	4	0	1	101
09:15	52	16	2	2	6	0	1	79	88	17	5	1	7	0	3	121
09:30	54	13	4	4	6	0	0	81	85	15	3	0	5	1	3	112
09:45	64	13	7	2	6	1	0	93	78	13	7	3	7	0	1	109
15:00	111	25	1	4	7	1	0	149	55	11	5	0	10	2	0	83
15:15	109	30	3	1	5	1	3	152	72	11	4	1	3	0	0	91
15:30	104	19	3	0	8	0	2	136	52	10	2	1	7	0	1	73
15:45	99	23	5	3	6	3	1	140	74	12	1	1	8	0	3	99
16:00	111	31	1	0	6	2	4	155	78	14	2	2	7	0	3	106
16:15	133	17	4	1	7	1	4	167	78	11	1	0	7	0	1	98
16:30	121	18	0	2	8	1	3	153	87	6	2	1	8	1	2	107
16:45	107	29	7	2	6	2	2	155	90	7	2	0	4	0	2	105
17:00	126	14	2	1	6	1	5	155	68	10	2	0	8	0	3	91
17:15	157	20	0	0	7	1	4	189	86	8	1	2	7	1	2	107
17:30	129	13	1	0	6	0	4	153	85	7	3	1	4	0	2	102
17:45	137	9	0	1	6	3	6	162	86	11	0	1	6	0	3	107
18:00	143	9	3	0	4	0	3	162	80	9	0	0	4	0	0	93
18:15	149	7	2	1	5	3	2	169	74	5	0	0	5	1	2	87
18:30	104	4	3	0	9	1	1	122	78	2	0	1	5	1	1	88
18:45	94	7	4	2	7	1	6	121	73	2	0	2	1	0	2	80
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	193	35	10	6	22	1	7	274	307	79	9	7	22	1	17	442
07:15	210	42	13	6	24	1	8	304	304	78	10	8	24	1	17	442
07:30	201	40	17	7	27	1	8	301	319	83	13	9	23	1	17	465
07:45	211	41	19	3	29	0	8	311	332	76	14	8	26	3	15	474
08:00	218	38	21	6	33	0	6	322	330	82	15	7	26	3	16	479
08:15	217	43	18	7	33	0	4	322	339	79	13	9	25	2	14	481
08:30	226	52	14	8	30	0	4	334	333	75	13	8	26	2	14	471
08:45	216	53	13	12	29	0	2	325	337	79	10	8	24	1	13	472
09:00	218	58	15	10	24	1	1	327	326	63	15	7	23	1	8	443
15:00	423	97	12	8	26	5	6	577	253	44	12	3	28	2	4	346
15:15	423	103	12	4	25	6	10	583	276	47	9	5	25	0	7	369
15:30	447	90	13	4	27	6	11	598	282	47	6	4	29	0	8	376
15:45	464	89	10	6	27	7	12	615	317	43	6	4	30	1	9	410
16:00	472	95	12	5	27	6	13	630	333	38	7	3	26	1	8	416
16:15	487	78	13	6	27	5	14	630	323	34	7	1	27	1	8	401
16:30	511	81	9	5	27	5	14	652	331	31	7	3	27	2	9	410
16:45	519	76	10	3	25	4	15	652	329	32	8	3	23	1	9	405
17:00	549	56	3	2	25	5	19	659	325	36	6	4	25	1	10	407
17:15	566	51	4	1	23	4	17	666	337	35	4	4	21	1	7	409
17:30	558	38	6	2	21	6	15	646	325	32	3	2	19	1	7	389
17:45	533	29	8	2	24	7	12	615	318	27	0	2	20	2	6	375
18:00	490	27	12	3	25	5	12	574	305	18	0	3	15	2	5	348

Intelligent Data Collection Limited



Client: Hydrock
Project Number: ID05555
Junction Number: Site 2

Date of Survey: 22.10.2020
Junction Name: Bengal Street / A62 Oldham Road
Junction Type: T-Junction

	Total Junction Flow							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	107	28	3	1	7	1	6	153
07:15	148	30	4	1	13	0	5	201
07:30	133	32	8	5	9	1	8	196
07:45	161	39	4	6	15	0	8	233
08:00	135	35	7	2	11	1	5	196
08:15	162	32	11	3	15	0	4	227
08:30	167	29	11	0	14	2	6	229
08:45	170	41	7	8	19	0	7	252
09:00	138	39	3	5	10	0	2	197
09:15	159	34	7	3	13	0	4	220
09:30	156	31	7	4	11	1	3	213
09:45	160	32	14	5	13	2	1	227
15:00	186	41	7	4	17	3	0	258
15:15	200	45	7	2	8	1	3	266
15:30	187	32	5	1	15	0	5	245
15:45	194	39	6	4	14	3	4	264
16:00	206	50	3	2	13	2	7	283
16:15	230	31	5	1	14	1	5	287
16:30	222	30	2	3	16	2	6	281
16:45	222	41	9	2	10	3	4	291
17:00	222	29	4	1	14	1	10	281
17:15	272	30	1	2	14	2	7	328
17:30	239	22	4	1	10	0	6	282
17:45	245	23	0	2	12	4	11	297
18:00	252	18	3	0	8	0	4	285
18:15	251	14	2	1	10	4	4	286
18:30	198	7	3	1	14	2	3	228
18:45	182	13	4	4	8	1	8	220
Start Time	**Rolling Hour**							**Total**
07:00	549	129	19	13	44	2	27	783
07:15	577	136	23	14	48	2	26	826
07:30	591	138	30	16	50	2	25	852
07:45	625	135	33	11	55	3	23	885
08:00	634	137	36	13	59	3	22	904
08:15	637	141	32	16	58	2	19	905
08:30	634	143	28	16	56	2	19	898
08:45	623	145	24	20	53	1	16	882
09:00	613	136	31	17	47	3	10	857
15:00	767	157	25	11	54	7	12	1033
15:15	787	166	21	9	50	6	19	1058
15:30	817	152	19	8	56	6	21	1079
15:45	852	150	16	10	57	8	22	1115
16:00	880	152	19	8	53	8	22	1142
16:15	896	131	20	7	54	7	25	1140
16:30	938	130	16	8	54	8	27	1181
16:45	955	122	18	6	48	6	27	1182
17:00	978	104	9	6	50	7	34	1188
17:15	1008	93	8	5	44	6	28	1192
17:30	987	77	9	4	40	8	25	1150
17:45	946	62	8	4	44	10	22	1096
18:00	883	52	12	6	40	7	19	1019

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 2

Date of Survey: 22.10.2020
Junction Name: Bengal Street / A62 Oldham Road
Junction Type: T-Junction

Arm A: A62 Oldham Road (NE) **Arm B:** Bengal Street (S) **Arm C:** A62 Oldham Road (SW)

	PCU Summary								
Time	**A to A**	**A to C**	**A to B**	**B to B**	**B to A**	**B to C**	**C to C**	**C to B**	**C to A**
07:00	0	94	5	0	3	7	0	9	44
07:15	0	118	15	0	7	2	0	13	67
07:30	0	103	10	0	4	7	0	11	85
07:45	0	147	17	0	3	4	0	14	79
08:00	0	104	16	0	7	3	0	20	68
08:15	0	143	21	0	8	3	0	12	75
08:30	0	116	21	0	7	7	0	24	79
08:45	0	145	17	0	6	10	0	19	100
09:00	0	105	17	0	5	7	0	9	80
09:15	0	130	15	0	5	6	0	12	81
09:30	0	114	15	0	5	5	0	14	87
09:45	0	126	21	0	3	5	0	14	98
15:00	0	94	18	0	9	7	0	17	150
15:15	0	97	17	0	6	4	0	16	145
15:30	0	84	19	0	15	2	0	17	132
15:45	0	102	18	0	7	9	0	17	140
16:00	0	117	9	0	13	3	0	19	142
16:15	0	99	15	0	7	10	0	16	163
16:30	0	110	13	0	7	11	0	13	153
16:45	0	104	22	0	8	7	0	19	152
17:00	0	91	23	0	10	11	0	20	143
17:15	0	112	19	0	12	8	0	22	174
17:30	0	106	22	0	5	5	0	14	146
17:45	0	113	17	0	9	2	0	21	145
18:00	0	95	19	0	10	4	0	27	141
18:15	0	85	14	0	16	7	0	31	146
18:30	0	92	11	0	6	4	0	19	117
18:45	0	82	10	0	9	2	0	14	120
Start Time	**Rolling Hour**								
07:00	0	462	48	0	17	20	0	47	274
07:15	0	472	58	0	21	16	0	58	298
07:30	0	497	64	0	22	17	0	57	306
07:45	0	510	75	0	25	17	0	70	301
08:00	0	507	75	0	28	23	0	75	322
08:15	0	508	76	0	26	27	0	64	334
08:30	0	495	70	0	23	30	0	64	340
08:45	0	493	64	0	21	28	0	54	347
09:00	0	474	68	0	18	23	0	49	345
15:00	0	378	72	0	37	22	0	67	567
15:15	0	400	63	0	41	18	0	69	558
15:30	0	402	61	0	42	24	0	69	577
15:45	0	427	55	0	34	33	0	65	597
16:00	0	429	60	0	35	31	0	67	609
16:15	0	404	74	0	32	39	0	68	611
16:30	0	417	78	0	37	37	0	74	622
16:45	0	414	87	0	35	31	0	75	615
17:00	0	423	82	0	36	26	0	77	607
17:15	0	426	77	0	36	19	0	84	606
17:30	0	400	72	0	40	18	0	93	578
17:45	0	386	61	0	41	17	0	99	549
18:00	0	354	54	0	41	17	0	91	524

Intelligent Data Collection Limited
Manchester

Client:	Hydrock
Project Number:	ID05555
Junction Number:	Site 3
Date of Survey:	03.11.2020
Junction Name:	Poland Street / Jersey Street
Junction Type:	Crossroads

Quality Assurance and Issue Record

Quality Assurance

Revision	Rev A			
Date	06.11.2020			
Prepared by	Mathew Booth			
Signature				
Checked by	David Brown			
Signature				
Project Director	Paul O'Neill			
Signature				
Project number	ID05555			
File Ref	ID05555 Manchester - MCC Site 3 - 03.11.2020			

Issue Sheet

Issued to	Date			
	06.11.2020			
Sam Denby	E-mail			

Contents Page

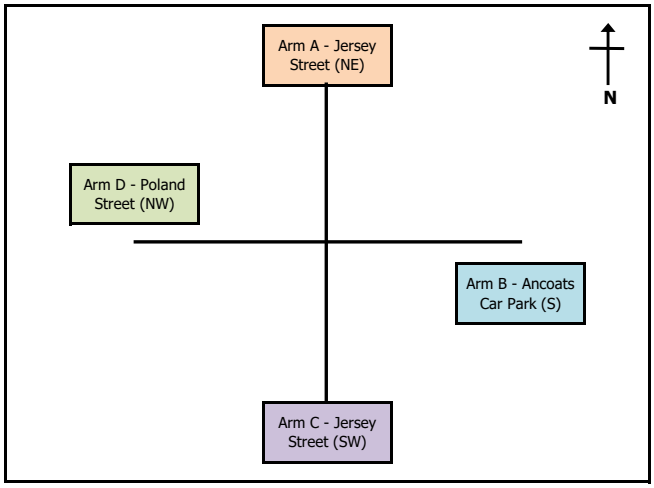
Location Plan & Summary
MCC Data
PCU Data

Intelligent Data Collection Limited

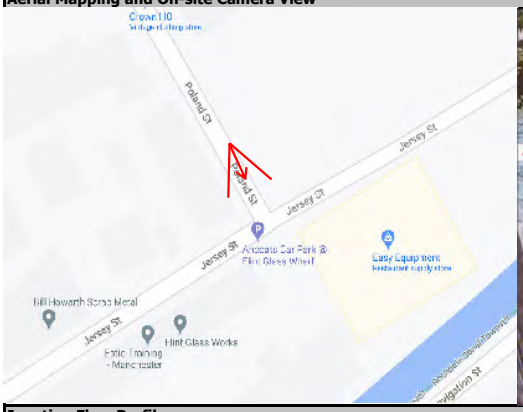
Client:	Hydrock	**Date of Survey:**	03.11.2020
Project Number:	ID05555	**Junction Name:**	Poland Street / Jersey Street
Junction Number:	Site 3	**Junction Type:**	Crossroads

X Coordinate	Y Coordinate	Google Maps Link	
53.485455	-2.224441	Click Here	
AM Peak Conditions	**PM Peak Conditions**		
Sunny	Showers		

Junction Layout

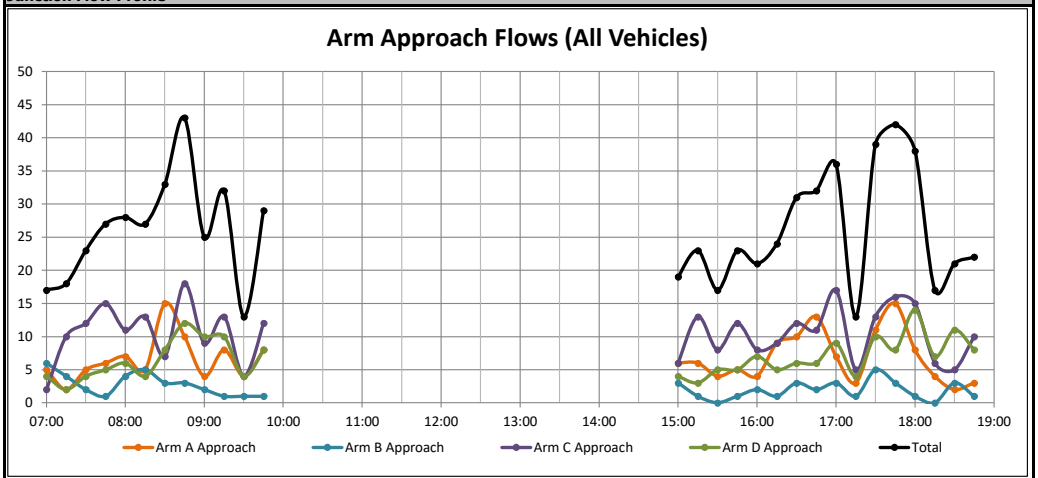


Aerial Mapping and On-site Camera View





Junction Flow Profile



Additional Notes (Factors which may impact on survey results such as accidents, roadworks, special events):

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 3

Date of Survey: 03.11.2020
Junction Name: Poland Street / Jersey Street
Junction Type: Crossroads

Arm A: Jersey Street (NE)
Arm B: Ancoats Car Park (S)
Arm C: Jersey Street (SW)
Arm D: Poland Street (NW)

	A to A								A to D								A to C							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00								0	0	1	0	0	0	0	0	1	2	2	0	0	0	0	0	4
07:15								0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
07:30								0	2	0	0	0	0	0	0	2	2	0	1	0	0	0	0	3
07:45								0	1	0	0	0	0	0	0	1	4	1	0	0	0	0	0	5
08:00								0	1	1	0	0	0	0	0	2	3	1	0	0	0	0	1	5
08:15								0	0	2	0	0	0	0	0	2	2	1	0	0	0	0	0	3
08:30								0	3	0	0	0	0	0	0	3	8	1	0	0	0	0	3	12
08:45								0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10
09:00								0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	4
09:15								0	3	0	0	0	0	0	0	3	4	0	0	0	0	0	1	5
09:30								0	0	1	0	0	0	0	0	1	2	1	0	0	0	0	0	3
09:45								0	1	2	0	0	0	0	0	3	4	0	0	0	0	0	1	5
15:00								0	1	0	0	0	0	0	0	1	4	1	0	0	0	0	0	5
15:15								0	2	0	0	0	0	0	0	2	4	0	0	0	0	0	0	4
15:30								0	0	1	0	1	0	0	0	2	1	1	0	0	0	0	0	2
15:45								0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5
16:00								0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	4
16:15								0	1	0	0	0	0	0	0	1	7	0	0	0	0	0	1	8
16:30								0	1	0	0	0	0	0	0	1	8	0	0	0	0	0	1	9
16:45								0	2	0	0	0	0	0	0	2	10	0	0	0	0	0	1	11
17:00								0	1	0	0	0	0	0	0	1	4	1	0	0	0	0	0	5
17:15								0	0	1	0	0	0	0	0	1	2	0	0	0	0	0	0	2
17:30								0	1	0	0	0	0	0	0	1	10	0	0	0	0	0	0	10
17:45								0	0	0	0	0	0	0	0	0	14	1	0	0	0	0	0	15
18:00								0	0	1	0	0	0	0	2	3	3	0	0	0	0	0	2	5
18:15								0	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0	2
18:30								0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
18:45								0	2	0	0	0	0	0	0	2	1	0	0	0	0	0	0	1
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	5	9	3	1	0	0	0	0	13
07:15	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	6	10	2	1	0	0	0	1	14
07:30	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0	7	11	3	1	0	0	0	1	16
07:45	0	0	0	0	0	0	0	0	5	3	0	0	0	0	0	8	17	4	0	0	0	0	4	25
08:00	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0	7	23	3	0	0	0	0	4	30
08:15	0	0	0	0	0	0	0	0	3	2	0	0	0	0	0	5	22	4	0	0	0	0	3	29
08:30	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	24	3	0	0	0	0	4	31
08:45	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	4	18	3	0	0	0	0	1	22
09:00	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0	7	12	3	0	0	0	0	2	17
15:00	0	0	0	0	0	0	0	0	3	1	0	1	0	0	0	5	14	2	0	0	0	0	0	16
15:15	0	0	0	0	0	0	0	0	2	1	0	1	0	0	0	4	11	2	0	0	0	0	2	15
15:30	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	3	14	2	0	0	0	0	3	19
15:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	21	1	0	0	0	0	4	26
16:00	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	26	1	0	0	0	0	5	32
16:15	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	29	1	0	0	0	0	3	33
16:30	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	5	24	1	0	0	0	0	2	27
16:45	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	5	26	1	0	0	0	0	1	28
17:00	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3	30	2	0	0	0	0	0	32
17:15	0	0	0	0	0	0	0	0	1	2	0	0	0	0	2	5	29	1	0	0	0	0	2	32
17:30	0	0	0	0	0	0	0	0	2	1	0	0	0	0	2	5	29	1	0	0	0	0	2	32
17:45	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	4	21	1	0	0	0	0	2	24
18:00	0	0	0	0	0	0	0	0	3	1	0	0	0	0	2	6	8	0	0	0	0	0	2	10

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 3

Date of Survey: 03.11.2020
Junction Name: Poland Street / Jersey Street
Junction Type: Crossroads

Arm A: Jersey Street (NE)
Arm B: Ancoats Car Park (S)
Arm C: Jersey Street (SW)
Arm D: Poland Street (NW)

	A to B								B to B								B to A							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	0	0	0	0	0	0	0	0								0	1	0	0	0	0	0	0	1
07:15	0	0	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0								0	1	0	0	0	0	0	0	1
07:45	0	0	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0								0	1	0	0	0	0	0	0	1
08:30	0	0	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0								0	1	0	0	0	0	0	0	1
16:15	0	0	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0
17:00	1	0	0	0	0	0	0	1								0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0								0	1	0	0	0	0	0	0	1
18:15	1	0	0	0	0	0	0	1								0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0								0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0								0	1	0	0	0	0	0	0	1
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
16:15	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
17:30	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
17:45	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
18:00	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 3

Date of Survey: 03.11.2020
Junction Name: Poland Street / Jersey Street
Junction Type: Crossroads

Arm A: Jersey Street (NE)
Arm B: Ancoats Car Park (S)
Arm C: Jersey Street (SW)
Arm D: Poland Street (NW)

	B to D								B to C								C to C							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	1	0	0	0	0	0	0	1	4	0	0	0	0	0	0	4								0
07:15	1	0	0	0	0	0	0	1	3	0	0	0	0	0	0	3								0
07:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1								0
07:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1								0
08:00	1	0	0	0	0	0	0	1	3	0	0	0	0	0	0	3								0
08:15	1	0	0	0	0	0	0	1	3	0	0	0	0	0	0	3								0
08:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	3								0
08:45	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0	2								0
09:00	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0								0
09:15	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0								0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1								0
09:45	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0								0
15:00	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3								0
15:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1								0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
15:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1								0
16:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1								0
16:15	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0								0
16:30	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0	2								0
16:45	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0								0
17:00	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0								0
17:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1								0
17:30	4	0	0	0	0	0	0	4	0	0	0	0	0	0	1	1								0
17:45	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0	2								0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
18:30	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3								0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	2	0	0	0	0	0	0	2	9	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0
07:15	2	0	0	0	0	0	0	2	8	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0
07:30	2	0	0	0	0	0	0	2	8	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0
07:45	2	0	0	0	0	0	0	2	9	0	0	0	0	0	1	10	0	0	0	0	0	0	0	0
08:00	3	0	0	0	0	0	0	3	10	0	0	0	0	0	1	11	0	0	0	0	0	0	0	0
08:15	4	0	0	0	0	0	0	4	7	0	0	0	0	0	1	8	0	0	0	0	0	0	0	0
08:30	4	0	0	0	0	0	0	4	4	0	0	0	0	0	1	5	0	0	0	0	0	0	0	0
08:45	4	0	0	0	0	0	0	4	2	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0
09:00	4	0	0	0	0	0	0	4	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
15:30	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
15:45	2	0	0	0	0	0	0	2	4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
16:00	4	0	0	0	0	0	0	4	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
16:15	7	0	0	0	0	0	0	7	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
16:30	6	0	0	0	0	0	0	6	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
16:45	9	0	0	0	0	0	0	9	1	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0
17:00	8	0	0	0	0	0	0	8	3	0	0	0	0	0	1	4	0	0	0	0	0	0	0	0
17:15	5	0	0	0	0	0	0	5	3	0	0	0	0	0	1	4	0	0	0	0	0	0	0	0
17:30	5	0	0	0	0	0	0	5	2	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0
17:45	1	0	0	0	0	0	0	1	5	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 3

Date of Survey: 03.11.2020
Junction Name: Poland Street / Jersey Street
Junction Type: Crossroads

Arm A: Jersey Street (NE)
Arm B: Ancoats Car Park (S)
Arm C: Jersey Street (SW)
Arm D: Poland Street (NW)

	C to B								C to A								C to D							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	1
07:15	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9	1	0	0	0	0	0	0	1
07:30	1	0	0	0	0	0	0	1	7	1	0	0	0	0	0	8	1	1	1	0	0	0	0	3
07:45	1	0	0	0	0	0	0	1	5	1	0	0	0	0	0	6	7	1	0	0	0	0	0	8
08:00	0	0	0	0	0	0	0	0	4	2	0	0	0	0	1	7	4	0	0	0	0	0	0	4
08:15	1	0	0	0	0	0	0	1	6	1	0	0	0	0	0	7	2	3	0	0	0	0	0	5
08:30	2	0	0	0	0	0	0	2	4	0	0	0	0	0	0	4	1	0	0	0	0	0	0	1
08:45	2	0	0	0	0	0	1	3	9	0	0	0	0	0	1	10	3	1	0	0	0	0	1	5
09:00	0	0	0	0	0	0	0	0	5	0	1	0	0	0	0	6	2	0	1	0	0	0	0	3
09:15	4	0	0	0	0	0	0	4	6	2	0	0	0	0	0	8	1	0	0	0	0	0	0	1
09:30	0	0	0	0	0	1	0	1	2	0	0	0	0	0	0	2	1	0	0	0	0	0	0	1
09:45	0	0	0	0	0	0	0	0	9	0	0	1	0	0	0	10	2	0	0	0	0	0	0	2
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	0	0	0	0	0	0	4
15:15	2	0	0	0	0	0	0	2	8	1	0	0	0	0	1	10	0	1	0	0	0	0	0	1
15:30	1	0	0	0	0	0	0	1	7	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0
15:45	1	0	0	0	0	0	0	1	7	2	0	0	0	0	1	10	1	0	0	0	0	0	0	1
16:00	0	0	0	0	0	0	0	0	5	2	0	0	0	0	0	7	1	0	0	0	0	0	0	1
16:15	1	0	0	0	0	0	0	1	7	0	0	0	0	0	0	7	1	0	0	0	0	0	0	1
16:30	2	0	0	0	0	0	0	2	8	0	0	0	0	1	0	9	1	0	0	0	0	0	0	1
16:45	1	0	0	0	0	0	0	1	4	0	0	0	0	0	1	5	3	2	0	0	0	0	0	5
17:00	2	0	0	0	0	0	1	3	6	3	0	0	0	0	1	10	3	1	0	0	0	0	0	4
17:15	1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	2	2	0	0	0	0	0	0	2
17:30	2	0	0	0	0	0	0	2	8	0	0	0	0	0	1	9	2	0	0	0	0	0	0	2
17:45	2	0	0	0	0	0	0	2	9	1	0	0	0	0	1	11	3	0	0	0	0	0	0	3
18:00	5	0	0	0	0	0	0	5	7	1	0	0	0	0	0	8	2	0	0	0	0	0	0	2
18:15	0	0	0	0	0	0	0	0	2	1	0	0	0	0	1	4	2	0	0	0	0	0	0	2
18:30	1	0	0	0	0	0	0	1	3	0	0	0	0	0	0	3	1	0	0	0	0	0	0	1
18:45	3	0	0	0	0	0	0	3	5	1	0	0	0	0	0	6	1	0	0	0	0	0	0	1
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	2	0	0	0	0	0	0	2	21	3	0	0	0	0	0	24	9	3	1	0	0	0	0	13
07:15	2	0	0	0	0	0	0	2	25	4	0	0	0	0	1	30	13	2	1	0	0	0	0	16
07:30	3	0	0	0	0	0	0	3	22	5	0	0	0	0	1	28	14	5	1	0	0	0	0	20
07:45	4	0	0	0	0	0	0	4	19	4	0	0	0	0	1	24	14	4	0	0	0	0	0	18
08:00	5	0	0	0	0	0	1	6	23	3	0	0	0	0	2	28	10	4	0	0	0	0	1	15
08:15	5	0	0	0	0	0	1	6	24	1	1	0	0	0	1	27	8	4	1	0	0	0	1	14
08:30	8	0	0	0	0	0	1	9	24	2	1	0	0	0	1	28	7	1	1	0	0	0	1	10
08:45	6	0	0	0	0	1	1	8	22	2	1	0	0	0	1	26	7	1	1	0	0	0	1	10
09:00	4	0	0	0	0	1	0	5	22	2	1	1	0	0	0	26	6	0	1	0	0	0	0	7
15:00	4	0	0	0	0	0	0	4	22	3	0	0	0	0	4	29	5	1	0	0	0	0	0	6
15:15	4	0	0	0	0	0	0	4	27	5	0	0	0	0	2	34	2	1	0	0	0	0	0	3
15:30	3	0	0	0	0	0	0	3	26	4	0	0	0	0	1	31	3	0	0	0	0	0	0	3
15:45	4	0	0	0	0	0	0	4	27	4	0	0	0	1	1	33	4	0	0	0	0	0	0	4
16:00	4	0	0	0	0	0	0	4	24	2	0	0	0	1	1	28	6	2	0	0	0	0	0	8
16:15	6	0	0	0	0	0	1	7	25	3	0	0	0	1	2	31	8	3	0	0	0	0	0	11
16:30	6	0	0	0	0	0	1	7	19	4	0	0	0	1	2	26	9	3	0	0	0	0	0	12
16:45	6	0	0	0	0	0	1	7	19	4	0	0	0	0	3	26	10	3	0	0	0	0	0	13
17:00	7	0	0	0	0	0	1	8	24	5	0	0	0	0	3	32	10	1	0	0	0	0	0	11
17:15	10	0	0	0	0	0	0	10	25	3	0	0	0	0	2	30	9	0	0	0	0	0	0	9
17:30	9	0	0	0	0	0	0	9	26	3	0	0	0	0	3	32	9	0	0	0	0	0	0	9
17:45	8	0	0	0	0	0	0	8	21	3	0	0	0	0	2	26	8	0	0	0	0	0	0	8
18:00	9	0	0	0	0	0	0	9	17	3	0	0	0	0	1	21	6	0	0	0	0	0	0	6

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 3

Date of Survey: 03.11.2020
Junction Name: Poland Street / Jersey Street
Junction Type: Crossroads

Arm A: Jersey Street (NE)
Arm B: Ancoats Car Park (S)
Arm C: Jersey Street (SW)
Arm D: Poland Street (NW)

	D to D								D to C								D to B							
Time	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	Total
07:00								0	4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
07:15								0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
07:30								0	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
07:45								0	1	1	0	0	0	0	0	2	1	0	0	0	0	0	0	1
08:00								0	4	2	0	0	0	0	0	6	0	0	0	0	0	0	0	0
08:15								0	3	1	0	0	0	0	0	4	0	0	0	0	0	0	0	0
08:30								0	3	3	0	0	0	0	0	6	1	0	0	0	0	0	0	1
08:45								0	7	1	0	0	0	0	1	9	2	0	0	0	0	0	0	2
09:00								0	6	1	0	0	0	0	0	7	1	0	0	0	0	0	0	1
09:15								0	2	5	0	0	0	0	0	7	1	0	0	0	0	0	0	1
09:30								0	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
09:45								0	2	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0
15:00								0	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
15:15								0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
15:30								0	3	1	0	0	0	0	0	4	0	0	0	0	0	0	0	0
15:45								0	1	2	0	0	0	0	0	3	0	0	0	0	0	0	0	0
16:00								0	4	1	0	0	0	0	0	5	0	0	0	0	0	0	0	0
16:15								0	2	0	0	0	0	0	0	2	1	0	0	0	0	0	0	1
16:30								0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
16:45								0	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
17:00								0	7	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0
17:15								0	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
17:30								0	6	0	0	0	0	0	1	7	1	0	0	0	0	0	0	1
17:45								0	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
18:00								0	10	0	0	0	0	0	0	10	2	0	0	0	0	0	0	2
18:15								0	6	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0
18:30								0	10	0	0	0	0	0	0	10	1	0	0	0	0	0	0	1
18:45								0	7	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	0	0	0	0	0	0	0	0	10	1	0	0	0	0	0	11	1	0	0	0	0	0	0	1
07:15	0	0	0	0	0	0	0	0	10	3	0	0	0	0	0	13	1	0	0	0	0	0	0	1
07:30	0	0	0	0	0	0	0	0	11	4	0	0	0	0	0	15	1	0	0	0	0	0	0	1
07:45	0	0	0	0	0	0	0	0	11	7	0	0	0	0	0	18	2	0	0	0	0	0	0	2
08:00	0	0	0	0	0	0	0	0	17	7	0	0	0	0	1	25	3	0	0	0	0	0	0	3
08:15	0	0	0	0	0	0	0	0	19	6	0	0	0	0	1	26	4	0	0	0	0	0	0	4
08:30	0	0	0	0	0	0	0	0	18	10	0	0	0	0	1	29	5	0	0	0	0	0	0	5
08:45	0	0	0	0	0	0	0	0	18	7	0	0	0	0	1	26	4	0	0	0	0	0	0	4
09:00	0	0	0	0	0	0	0	0	13	7	0	0	0	0	0	20	2	0	0	0	0	0	0	2
15:00	0	0	0	0	0	0	0	0	8	3	0	0	0	0	0	11	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	9	4	0	0	0	0	0	13	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	10	4	0	0	0	0	0	14	1	0	0	0	0	0	0	1
15:45	0	0	0	0	0	0	0	0	9	3	0	0	0	0	0	12	1	0	0	0	0	0	0	1
16:00	0	0	0	0	0	0	0	0	10	1	0	0	0	0	0	11	1	0	0	0	0	0	0	1
16:15	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	13	1	0	0	0	0	0	0	1
16:30	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	18	0	0	0	0	0	1	19	1	0	0	0	0	0	0	1
17:00	0	0	0	0	0	0	0	0	19	0	0	0	0	0	1	20	1	0	0	0	0	0	0	1
17:15	0	0	0	0	0	0	0	0	22	0	0	0	0	0	1	23	3	0	0	0	0	0	0	3
17:30	0	0	0	0	0	0	0	0	25	0	0	0	0	0	1	26	3	0	0	0	0	0	0	3
17:45	0	0	0	0	0	0	0	0	29	0	0	0	0	0	0	29	3	0	0	0	0	0	0	3
18:00	0	0	0	0	0	0	0	0	33	0	0	0	0	0	0	33	3	0	0	0	0	0	0	3

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 3

Date of Survey: 03.11.2020
Junction Name: Poland Street / Jersey Street
Junction Type: Crossroads

Arm A: Jersey Street (NE)
Arm B: Ancoats Car Park (S)
Arm C: Jersey Street (SW)
Arm D: Poland Street (NW)

	D to A							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	1	0	0	0	0	1
07:45	2	0	0	0	0	0	0	2
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	1	0	0	0	0	0	1
08:45	0	1	0	0	0	0	0	1
09:00	1	1	0	0	0	0	0	2
09:15	2	0	0	0	0	0	0	2
09:30	1	0	0	0	0	0	0	1
09:45	5	0	0	0	0	0	0	5
15:00	0	1	0	0	0	0	0	1
15:15	2	0	0	0	0	0	0	2
15:30	1	0	0	0	0	0	0	1
15:45	1	1	0	0	0	0	0	2
16:00	1	1	0	0	0	0	0	2
16:15	1	1	0	0	0	0	0	2
16:30	2	2	0	0	0	0	0	4
16:45	2	2	0	0	0	0	0	4
17:00	1	1	0	0	0	0	0	2
17:15	1	0	0	0	0	0	0	1
17:30	2	0	0	0	0	0	0	2
17:45	3	0	0	0	0	0	2	5
18:00	1	1	0	0	0	0	0	2
18:15	1	0	0	0	0	0	0	1
18:30	0	0	0	0	0	0	0	0
18:45	1	0	0	0	0	0	0	1
Start Time	**Rolling Hour**							**Total**
07:00	2	0	1	0	0	0	0	3
07:15	2	0	1	0	0	0	0	3
07:30	2	0	1	0	0	0	0	3
07:45	2	1	0	0	0	0	0	3
08:00	0	2	0	0	0	0	0	2
08:15	1	3	0	0	0	0	0	4
08:30	3	3	0	0	0	0	0	6
08:45	4	2	0	0	0	0	0	6
09:00	9	1	0	0	0	0	0	10
15:00	4	2	0	0	0	0	0	6
15:15	5	2	0	0	0	0	0	7
15:30	4	3	0	0	0	0	0	7
15:45	5	5	0	0	0	0	0	10
16:00	6	6	0	0	0	0	0	12
16:15	6	6	0	0	0	0	0	12
16:30	6	5	0	0	0	0	0	11
16:45	6	3	0	0	0	0	0	9
17:00	7	1	0	0	0	0	2	10
17:15	7	1	0	0	0	0	2	10
17:30	7	1	0	0	0	0	2	10
17:45	5	1	0	0	0	0	2	8
18:00	3	1	0	0	0	0	0	4

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 3

Date of Survey: 03.11.2020
Junction Name: Poland Street / Jersey Street
Junction Type: Crossroads

	Arm A Approach								Arm A Exit							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	2	3	0	0	0	0	0	5	1	1	0	0	0	0	0	2
07:15	2	0	0	0	0	0	0	2	9	0	0	0	0	0	0	9
07:30	4	0	1	0	0	0	0	5	8	1	1	0	0	0	0	10
07:45	5	1	0	0	0	0	0	6	7	1	0	0	0	0	0	8
08:00	4	2	0	0	0	0	1	7	4	2	0	0	0	0	1	7
08:15	2	3	0	0	0	0	0	5	7	1	0	0	0	0	0	8
08:30	11	1	0	0	0	0	3	15	4	1	0	0	0	0	0	5
08:45	10	0	0	0	0	0	0	10	9	1	0	0	0	0	1	11
09:00	2	2	0	0	0	0	0	4	6	1	1	0	0	0	0	8
09:15	7	0	0	0	0	0	1	8	8	2	0	0	0	0	0	10
09:30	2	2	0	0	0	0	0	4	3	0	0	0	0	0	0	3
09:45	5	2	0	0	0	0	1	8	14	0	0	1	0	0	0	15
15:00	5	1	0	0	0	0	0	6	0	1	0	0	0	0	2	3
15:15	6	0	0	0	0	0	0	6	10	1	0	0	0	0	1	12
15:30	1	2	0	1	0	0	0	4	8	0	0	0	0	0	0	8
15:45	5	0	0	0	0	0	0	5	8	3	0	0	0	0	1	12
16:00	1	1	0	0	0	0	2	4	7	3	0	0	0	0	0	10
16:15	8	0	0	0	0	0	1	9	8	1	0	0	0	0	0	9
16:30	9	0	0	0	0	0	1	10	10	2	0	0	0	1	0	13
16:45	12	0	0	0	0	0	1	13	6	2	0	0	0	0	1	9
17:00	6	1	0	0	0	0	0	7	7	4	0	0	0	0	1	12
17:15	2	1	0	0	0	0	0	3	2	1	0	0	0	0	0	3
17:30	11	0	0	0	0	0	0	11	10	0	0	0	0	0	1	11
17:45	14	1	0	0	0	0	0	15	12	1	0	0	0	0	3	16
18:00	3	1	0	0	0	0	4	8	9	2	0	0	0	0	0	11
18:15	4	0	0	0	0	0	0	4	3	1	0	0	0	0	1	5
18:30	2	0	0	0	0	0	0	2	3	0	0	0	0	0	0	3
18:45	3	0	0	0	0	0	0	3	7	1	0	0	0	0	0	8
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	13	4	1	0	0	0	0	18	25	3	1	0	0	0	0	29
07:15	15	3	1	0	0	0	1	20	28	4	1	0	0	0	1	34
07:30	15	6	1	0	0	0	1	23	26	5	1	0	0	0	1	33
07:45	22	7	0	0	0	0	4	33	22	5	0	0	0	0	1	28
08:00	27	6	0	0	0	0	4	37	24	5	0	0	0	0	2	31
08:15	25	6	0	0	0	0	3	34	26	4	1	0	0	0	1	32
08:30	30	3	0	0	0	0	4	37	27	5	1	0	0	0	1	34
08:45	21	4	0	0	0	0	1	26	26	4	1	0	0	0	1	32
09:00	16	6	0	0	0	0	2	24	31	3	1	1	0	0	0	36
15:00	17	3	0	1	0	0	0	21	26	5	0	0	0	0	4	35
15:15	13	3	0	1	0	0	2	19	33	7	0	0	0	0	2	42
15:30	15	3	0	1	0	0	3	22	31	7	0	0	0	0	1	39
15:45	23	1	0	0	0	0	4	28	33	9	0	0	0	1	1	44
16:00	30	1	0	0	0	0	5	36	31	8	0	0	0	1	1	41
16:15	35	1	0	0	0	0	3	39	31	9	0	0	0	1	2	43
16:30	29	2	0	0	0	0	2	33	25	9	0	0	0	1	2	37
16:45	31	2	0	0	0	0	1	34	25	7	0	0	0	0	3	35
17:00	33	3	0	0	0	0	0	36	31	6	0	0	0	0	5	42
17:15	30	3	0	0	0	0	4	37	33	4	0	0	0	0	4	41
17:30	32	2	0	0	0	0	4	38	34	4	0	0	0	0	5	43
17:45	23	2	0	0	0	0	4	29	27	4	0	0	0	0	4	35
18:00	12	1	0	0	0	0	4	17	22	4	0	0	0	0	1	27

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 3

Date of Survey: 03.11.2020
Junction Name: Poland Street / Jersey Street
Junction Type: Crossroads

	Arm B Approach								Arm B Exit							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	6	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0
07:15	4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
07:30	2	0	0	0	0	0	0	2	1	0	0	0	0	0	0	1
07:45	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0	2
08:00	4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
08:15	5	0	0	0	0	0	0	5	1	0	0	0	0	0	0	1
08:30	2	0	0	0	0	0	1	3	3	0	0	0	0	0	0	3
08:45	3	0	0	0	0	0	0	3	4	0	0	0	0	0	1	5
09:00	2	0	0	0	0	0	0	2	1	0	0	0	0	0	0	1
09:15	1	0	0	0	0	0	0	1	5	0	0	0	0	0	0	5
09:30	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
09:45	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
15:00	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
15:15	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0	2
15:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
15:45	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
16:00	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
16:15	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0	2
16:30	3	0	0	0	0	0	0	3	2	0	0	0	0	0	0	2
16:45	2	0	0	0	0	0	0	2	1	0	0	0	0	0	0	1
17:00	3	0	0	0	0	0	0	3	3	0	0	0	0	0	1	4
17:15	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
17:30	4	0	0	0	0	0	1	5	3	0	0	0	0	0	0	3
17:45	3	0	0	0	0	0	0	3	2	0	0	0	0	0	0	2
18:00	1	0	0	0	0	0	0	1	7	0	0	0	0	0	0	7
18:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
18:30	3	0	0	0	0	0	0	3	2	0	0	0	0	0	0	2
18:45	1	0	0	0	0	0	0	1	3	0	0	0	0	0	0	3
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	13	0	0	0	0	0	0	13	3	0	0	0	0	0	0	3
07:15	11	0	0	0	0	0	0	11	3	0	0	0	0	0	0	3
07:30	12	0	0	0	0	0	0	12	4	0	0	0	0	0	0	4
07:45	12	0	0	0	0	0	1	13	6	0	0	0	0	0	0	6
08:00	14	0	0	0	0	0	1	15	8	0	0	0	0	0	1	9
08:15	12	0	0	0	0	0	1	13	9	0	0	0	0	0	1	10
08:30	8	0	0	0	0	0	1	9	13	0	0	0	0	0	1	14
08:45	6	0	0	0	0	1	0	7	10	0	0	0	0	1	1	12
09:00	4	0	0	0	0	1	0	5	6	0	0	0	0	1	0	7
15:00	5	0	0	0	0	0	0	5	4	0	0	0	0	0	0	4
15:15	4	0	0	0	0	0	0	4	4	0	0	0	0	0	0	4
15:30	4	0	0	0	0	0	0	4	4	0	0	0	0	0	0	4
15:45	7	0	0	0	0	0	0	7	5	0	0	0	0	0	0	5
16:00	8	0	0	0	0	0	0	8	5	0	0	0	0	0	0	5
16:15	9	0	0	0	0	0	0	9	8	0	0	0	0	0	1	9
16:30	9	0	0	0	0	0	0	9	7	0	0	0	0	0	1	8
16:45	10	0	0	0	0	0	1	11	8	0	0	0	0	0	1	9
17:00	11	0	0	0	0	0	1	12	9	0	0	0	0	0	1	10
17:15	9	0	0	0	0	0	1	10	13	0	0	0	0	0	0	13
17:30	8	0	0	0	0	0	1	9	13	0	0	0	0	0	0	13
17:45	7	0	0	0	0	0	0	7	12	0	0	0	0	0	0	12
18:00	5	0	0	0	0	0	0	5	13	0	0	0	0	0	0	13

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 3

Date of Survey: 03.11.2020
Junction Name: Poland Street / Jersey Street
Junction Type: Crossroads

	Arm C Approach								Arm C Exit							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	0	2	0	0	0	0	0	2	10	2	0	0	0	0	0	12
07:15	10	0	0	0	0	0	0	10	6	0	0	0	0	0	0	6
07:30	9	2	1	0	0	0	0	12	6	0	1	0	0	0	0	7
07:45	13	2	0	0	0	0	0	15	6	2	0	0	0	0	0	8
08:00	8	2	0	0	0	0	1	11	10	3	0	0	0	0	1	14
08:15	9	4	0	0	0	0	0	13	8	2	0	0	0	0	0	10
08:30	7	0	0	0	0	0	0	7	13	4	0	0	0	0	4	21
08:45	14	1	0	0	0	0	3	18	19	1	0	0	0	0	1	21
09:00	7	0	2	0	0	0	0	9	8	3	0	0	0	0	0	11
09:15	11	2	0	0	0	0	0	13	6	5	0	0	0	0	1	12
09:30	3	0	0	0	0	1	0	4	5	1	0	0	0	1	0	7
09:45	11	0	0	1	0	0	0	12	6	1	0	0	0	0	1	8
15:00	4	0	0	0	0	0	2	6	10	1	0	0	0	0	0	11
15:15	10	2	0	0	0	0	1	13	6	0	0	0	0	0	0	6
15:30	8	0	0	0	0	0	0	8	4	2	0	0	0	0	0	6
15:45	9	2	0	0	0	0	1	12	7	2	0	0	0	0	0	9
16:00	6	2	0	0	0	0	0	8	6	2	0	0	0	0	2	10
16:15	9	0	0	0	0	0	0	9	9	0	0	0	0	0	1	10
16:30	11	0	0	0	0	1	0	12	12	0	0	0	0	0	1	13
16:45	8	2	0	0	0	0	1	11	12	0	0	0	0	0	1	13
17:00	11	4	0	0	0	0	2	17	11	1	0	0	0	0	0	12
17:15	4	1	0	0	0	0	0	5	6	0	0	0	0	0	0	6
17:30	12	0	0	0	0	0	1	13	16	0	0	0	0	0	2	18
17:45	14	1	0	0	0	0	1	16	19	1	0	0	0	0	0	20
18:00	14	1	0	0	0	0	0	15	13	0	0	0	0	0	2	15
18:15	4	1	0	0	0	0	1	6	8	0	0	0	0	0	0	8
18:30	5	0	0	0	0	0	0	5	15	0	0	0	0	0	0	15
18:45	9	1	0	0	0	0	0	10	8	0	0	0	0	0	0	8
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	32	6	1	0	0	0	0	39	28	4	1	0	0	0	0	33
07:15	40	6	1	0	0	0	1	48	28	5	1	0	0	0	1	35
07:30	39	10	1	0	0	0	1	51	30	7	1	0	0	0	1	39
07:45	37	8	0	0	0	0	1	46	37	11	0	0	0	0	5	53
08:00	38	7	0	0	0	0	4	49	50	10	0	0	0	0	6	66
08:15	37	5	2	0	0	0	3	47	48	10	0	0	0	0	5	63
08:30	39	3	2	0	0	0	3	47	46	13	0	0	0	0	6	65
08:45	35	3	2	0	0	1	3	44	38	10	0	0	0	1	2	51
09:00	32	2	2	1	0	1	0	38	25	10	0	0	0	1	2	38
15:00	31	4	0	0	0	0	4	39	27	5	0	0	0	0	0	32
15:15	33	6	0	0	0	0	2	41	23	6	0	0	0	0	2	31
15:30	32	4	0	0	0	0	1	37	26	6	0	0	0	0	3	35
15:45	35	4	0	0	0	1	1	41	34	4	0	0	0	0	4	42
16:00	34	4	0	0	0	1	1	40	39	2	0	0	0	0	5	46
16:15	39	6	0	0	0	1	3	49	44	1	0	0	0	0	3	48
16:30	34	7	0	0	0	1	3	45	41	1	0	0	0	0	2	44
16:45	35	7	0	0	0	0	4	46	45	1	0	0	0	0	3	49
17:00	41	6	0	0	0	0	4	51	52	2	0	0	0	0	2	56
17:15	44	3	0	0	0	0	2	49	54	1	0	0	0	0	4	59
17:30	44	3	0	0	0	0	3	50	56	1	0	0	0	0	4	61
17:45	37	3	0	0	0	0	2	42	55	1	0	0	0	0	2	58
18:00	32	3	0	0	0	0	1	36	44	0	0	0	0	0	2	46

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 3

Date of Survey: 03.11.2020
Junction Name: Poland Street / Jersey Street
Junction Type: Crossroads

	Arm D Approach								Arm D Exit							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	4	0	0	0	0	0	0	4	1	2	0	0	0	0	0	3
07:15	2	0	0	0	0	0	0	2	3	0	0	0	0	0	0	3
07:30	3	0	1	0	0	0	0	4	3	1	1	0	0	0	0	5
07:45	4	1	0	0	0	0	0	5	8	1	0	0	0	0	0	9
08:00	4	2	0	0	0	0	0	6	6	1	0	0	0	0	0	7
08:15	3	1	0	0	0	0	0	4	3	5	0	0	0	0	0	8
08:30	4	4	0	0	0	0	0	8	4	0	0	0	0	0	0	4
08:45	9	2	0	0	0	0	1	12	4	1	0	0	0	0	1	6
09:00	8	2	0	0	0	0	0	10	4	0	1	0	0	0	0	5
09:15	5	5	0	0	0	0	0	10	5	0	0	0	0	0	0	5
09:30	4	0	0	0	0	0	0	4	1	1	0	0	0	0	0	2
09:45	7	1	0	0	0	0	0	8	4	2	0	0	0	0	0	6
15:00	3	1	0	0	0	0	0	4	5	0	0	0	0	0	0	5
15:15	3	0	0	0	0	0	0	3	2	1	0	0	0	0	0	3
15:30	4	1	0	0	0	0	0	5	0	1	0	1	0	0	0	2
15:45	2	3	0	0	0	0	0	5	1	0	0	0	0	0	0	1
16:00	5	2	0	0	0	0	0	7	1	0	0	0	0	0	0	1
16:15	4	1	0	0	0	0	0	5	3	0	0	0	0	0	0	3
16:30	4	2	0	0	0	0	0	6	3	0	0	0	0	0	0	3
16:45	4	2	0	0	0	0	0	6	7	2	0	0	0	0	0	9
17:00	8	1	0	0	0	0	0	9	7	1	0	0	0	0	0	8
17:15	4	0	0	0	0	0	0	4	2	1	0	0	0	0	0	3
17:30	9	0	0	0	0	0	1	10	7	0	0	0	0	0	0	7
17:45	6	0	0	0	0	0	2	8	4	0	0	0	0	0	0	4
18:00	13	1	0	0	0	0	0	14	2	1	0	0	0	0	2	5
18:15	7	0	0	0	0	0	0	7	3	0	0	0	0	0	0	3
18:30	11	0	0	0	0	0	0	11	1	0	0	0	0	0	0	1
18:45	8	0	0	0	0	0	0	8	3	0	0	0	0	0	0	3
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	13	1	1	0	0	0	0	15	15	4	1	0	0	0	0	20
07:15	13	3	1	0	0	0	0	17	20	3	1	0	0	0	0	24
07:30	14	4	1	0	0	0	0	19	20	8	1	0	0	0	0	29
07:45	15	8	0	0	0	0	0	23	21	7	0	0	0	0	0	28
08:00	20	9	0	0	0	0	1	30	17	7	0	0	0	0	1	25
08:15	24	9	0	0	0	0	1	34	15	6	1	0	0	0	1	23
08:30	26	13	0	0	0	0	1	40	17	1	1	0	0	0	1	20
08:45	26	9	0	0	0	0	1	36	14	2	1	0	0	0	1	18
09:00	24	8	0	0	0	0	0	32	14	3	1	0	0	0	0	18
15:00	12	5	0	0	0	0	0	17	8	2	0	1	0	0	0	11
15:15	14	6	0	0	0	0	0	20	4	2	0	1	0	0	0	7
15:30	15	7	0	0	0	0	0	22	5	1	0	1	0	0	0	7
15:45	15	8	0	0	0	0	0	23	8	0	0	0	0	0	0	8
16:00	17	7	0	0	0	0	0	24	14	2	0	0	0	0	0	16
16:15	20	6	0	0	0	0	0	26	20	3	0	0	0	0	0	23
16:30	20	5	0	0	0	0	0	25	19	4	0	0	0	0	0	23
16:45	25	3	0	0	0	0	1	29	23	4	0	0	0	0	0	27
17:00	27	1	0	0	0	0	3	31	20	2	0	0	0	0	0	22
17:15	32	1	0	0	0	0	3	36	15	2	0	0	0	0	2	19
17:30	35	1	0	0	0	0	3	39	16	1	0	0	0	0	2	19
17:45	37	1	0	0	0	0	2	40	10	1	0	0	0	0	2	13
18:00	39	1	0	0	0	0	0	40	9	1	0	0	0	0	2	12

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 3

Date of Survey: 03.11.2020
Junction Name: Poland Street / Jersey Street
Junction Type: Crossroads

	Total Junction Flow							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	12	5	0	0	0	0	0	17
07:15	18	0	0	0	0	0	0	18
07:30	18	2	3	0	0	0	0	23
07:45	23	4	0	0	0	0	0	27
08:00	20	6	0	0	0	0	2	28
08:15	19	8	0	0	0	0	0	27
08:30	24	5	0	0	0	0	4	33
08:45	36	3	0	0	0	0	4	43
09:00	19	4	2	0	0	0	0	25
09:15	24	7	0	0	0	0	1	32
09:30	9	2	0	0	0	2	0	13
09:45	24	3	0	1	0	0	1	29
15:00	15	2	0	0	0	0	2	19
15:15	20	2	0	0	0	0	1	23
15:30	13	3	0	1	0	0	0	17
15:45	17	5	0	0	0	0	1	23
16:00	14	5	0	0	0	0	2	21
16:15	22	1	0	0	0	0	1	24
16:30	27	2	0	0	0	1	1	31
16:45	26	4	0	0	0	0	2	32
17:00	28	6	0	0	0	0	2	36
17:15	11	2	0	0	0	0	0	13
17:30	36	0	0	0	0	0	3	39
17:45	37	2	0	0	0	0	3	42
18:00	31	3	0	0	0	0	4	38
18:15	15	1	0	0	0	0	1	17
18:30	21	0	0	0	0	0	0	21
18:45	21	1	0	0	0	0	0	22
Start Time	**Rolling Hour**							**Total**
07:00	71	11	3	0	0	0	0	85
07:15	79	12	3	0	0	0	2	96
07:30	80	20	3	0	0	0	2	105
07:45	86	23	0	0	0	0	6	115
08:00	99	22	0	0	0	0	10	131
08:15	98	20	2	0	0	0	8	128
08:30	103	19	2	0	0	0	9	133
08:45	88	16	2	0	0	2	5	113
09:00	76	16	2	1	0	2	2	99
15:00	65	12	0	1	0	0	4	82
15:15	64	15	0	1	0	0	4	84
15:30	66	14	0	1	0	0	4	85
15:45	80	13	0	0	0	1	5	99
16:00	89	12	0	0	0	1	6	108
16:15	103	13	0	0	0	1	6	123
16:30	92	14	0	0	0	1	5	112
16:45	101	12	0	0	0	0	7	120
17:00	112	10	0	0	0	0	8	130
17:15	115	7	0	0	0	0	10	132
17:30	119	6	0	0	0	0	11	136
17:45	104	6	0	0	0	0	8	118
18:00	88	5	0	0	0	0	5	98

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 3

Date of Survey: 03.11.2020
Junction Name: Poland Street / Jersey Street
Junction Type: Crossroads

Arm A: Jersey Street (NE) **Arm B:** Ancoats Car Park (S) **Arm C:** Jersey Street (SW) **Arm D:** Poland Street (NW)

	PCU Summary															
Time	**A to A**	**A to D**	**A to C**	**A to B**	**B to B**	**B to A**	**B to D**	**B to C**	**C to C**	**C to B**	**C to A**	**C to D**	**D to D**	**D to C**	**D to B**	**D to A**
07:00	0	1	4	0	0	1	1	4	0	0	1	1	0	4	0	0
07:15	0	1	1	0	0	0	1	3	0	0	9	1	0	2	0	0
07:30	0	2	4	0	0	1	0	1	0	1	8	4	0	3	0	2
07:45	0	1	5	0	0	0	0	1	0	1	6	8	0	2	1	2
08:00	0	2	4	0	0	0	1	3	0	0	6	4	0	6	0	0
08:15	0	2	3	0	0	1	1	3	0	1	7	5	0	4	0	0
08:30	0	3	10	0	0	0	0	2	0	2	4	1	0	6	1	1
08:45	0	0	10	0	0	0	1	2	0	2	9	4	0	8	2	1
09:00	0	0	4	0	0	0	2	0	0	0	7	4	0	7	1	2
09:15	0	3	4	0	0	0	1	0	0	4	8	1	0	7	1	2
09:30	0	1	3	0	0	0	0	0	0	0	2	1	0	3	0	1
09:45	0	3	4	0	0	0	1	0	0	0	12	2	0	3	0	5
15:00	0	1	5	0	0	0	0	3	0	0	0	4	0	3	0	1
15:15	0	2	4	0	0	0	0	1	0	2	9	1	0	1	0	2
15:30	0	4	2	0	0	0	0	0	0	1	7	0	0	4	0	1
15:45	0	0	5	0	0	0	0	1	0	1	9	1	0	3	0	2
16:00	0	0	2	0	0	1	0	1	0	0	7	1	0	5	0	2
16:15	0	1	7	0	0	0	1	0	0	1	7	1	0	2	1	2
16:30	0	1	8	0	0	0	1	2	0	2	8	1	0	2	0	4
16:45	0	2	10	0	0	0	2	0	0	1	4	5	0	2	0	4
17:00	0	1	5	1	0	0	3	0	0	2	9	4	0	7	0	2
17:15	0	1	2	0	0	0	0	1	0	1	2	2	0	3	0	1
17:30	0	1	10	0	0	0	4	0	0	2	8	2	0	6	1	2
17:45	0	0	15	0	0	0	1	2	0	2	10	3	0	3	0	3
18:00	0	1	3	0	0	1	0	0	0	5	8	2	0	10	2	2
18:15	0	1	2	1	0	0	0	0	0	0	3	2	0	6	0	1
18:30	0	0	2	0	0	0	0	3	0	1	3	1	0	10	1	0
18:45	0	2	1	0	0	1	0	0	0	3	6	1	0	7	0	1
Start Time	**Rolling Hour**															
07:00	0	5	14	0	0	2	2	9	0	2	24	14	0	11	1	4
07:15	0	6	14	0	0	1	2	8	0	2	29	17	0	13	1	4
07:30	0	7	16	0	0	2	2	8	0	3	27	21	0	15	1	4
07:45	0	8	22	0	0	1	2	9	0	4	23	18	0	18	2	3
08:00	0	7	27	0	0	1	3	10	0	5	26	14	0	24	3	2
08:15	0	5	27	0	0	1	4	7	0	5	27	14	0	25	4	4
08:30	0	6	28	0	0	0	4	4	0	8	28	10	0	28	5	6
08:45	0	4	21	0	0	0	4	2	0	7	26	10	0	25	4	6
09:00	0	7	15	0	0	0	4	0	0	4	29	8	0	20	2	10
15:00	0	7	16	0	0	0	0	5	0	4	26	6	0	11	0	6
15:15	0	6	13	0	0	1	0	3	0	4	32	3	0	13	0	7
15:30	0	5	17	0	0	1	1	2	0	3	30	3	0	14	1	7
15:45	0	2	23	0	0	1	2	4	0	4	32	4	0	12	1	10
16:00	0	4	28	0	0	1	4	3	0	4	27	8	0	11	1	12
16:15	0	5	31	1	0	0	7	2	0	6	29	11	0	13	1	12
16:30	0	5	25	1	0	0	6	3	0	6	24	12	0	14	0	11
16:45	0	5	27	1	0	0	9	1	0	6	24	13	0	18	1	9
17:00	0	3	32	1	0	0	8	3	0	7	30	11	0	19	1	8
17:15	0	3	30	0	0	1	5	3	0	10	28	9	0	22	3	8
17:30	0	3	30	1	0	1	5	2	0	9	30	9	0	25	3	8
17:45	0	2	22	1	0	1	1	5	0	8	24	8	0	29	3	6
18:00	0	4	8	1	0	2	0	3	0	9	20	6	0	33	3	4

Intelligent Data Collection Limited
Manchester

Client:	Hydrock
Project Number:	ID05555
Junction Number:	Site 4
Date of Survey:	22.10.2020
Junction Name:	A665 Great Ancoats Street / Jersey Street / A665 Ring Road
Junction Type:	T-Junction

Quality Assurance and Issue Record

Quality Assurance

Revision	Rev A			
Date	06.11.2020			
Prepared by	Mathew Booth			
Signature				
Checked by	David Brown			
Signature				
Project Director	Paul O'Neill			
Signature				
Project number	ID05555			
File Ref	ID05555 Manchester - MCC Site 4 - 22.10.2020			

Issue Sheet

Issued to	Date			
	06.11.2020			
Sam Denby	E-mail			

Contents Page

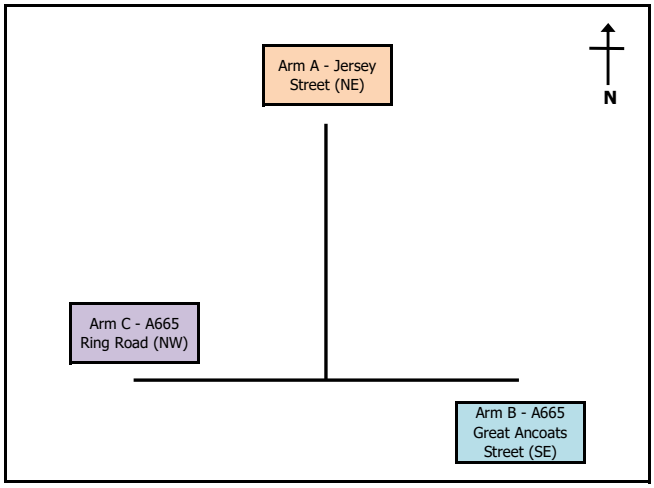
Location Plan & Summary
MCC Data
PCU Data

Intelligent Data Collection Limited

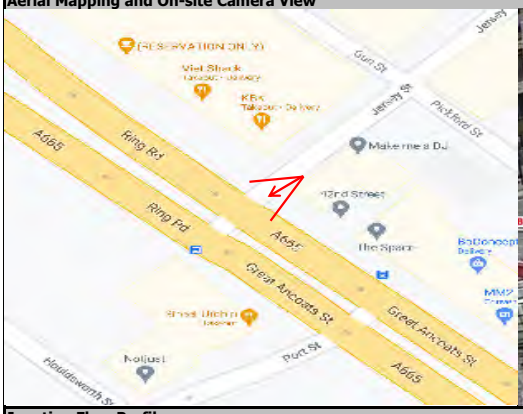
Client:	Hydrock	**Date of Survey:**	22.10.2020
Project Number:	ID05555	**Junction Name:**	A665 Great Ancoats Street / Jersey Street / A665 Ring Road
Junction Number:	Site 4	**Junction Type:**	T-Junction

X Coordinate	Y Coordinate	Google Maps Link	
53.483201	-2.229644	Click Here	
AM Peak Conditions	**PM Peak Conditions**		
Clear	Clear		

Junction Layout

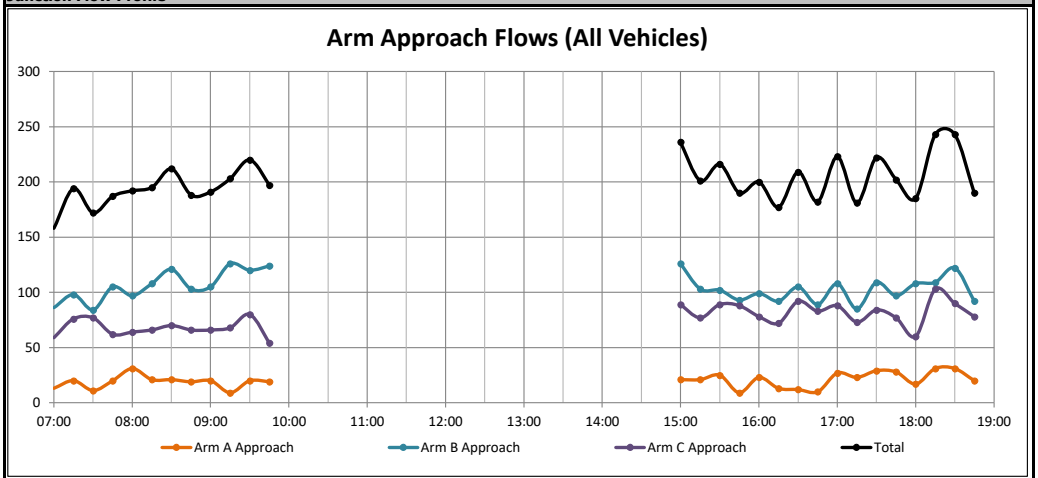


Aerial Mapping and On-site Camera View





Junction Flow Profile



Additional Notes (Factors which may impact on survey results such as accidents, roadworks, special events):

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 4

Date of Survey: 22.10.2020
Junction Name: A665 Great Ancoats Street / Jersey Street / A665 Ring Road
Junction Type: T-Junction

Arm A: Jersey Street (NE)
Arm B: A665 Great Ancoats Street (SE)
Arm C: A665 Ring Road (NW)

	A to A								A to C								A to B							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00								0	6	0	0	0	0	0	1	7	4	2	0	0	0	0	0	6
07:15								0	4	3	0	0	0	0	0	7	10	3	0	0	0	0	0	13
07:30								0	2	0	0	0	0	0	0	2	8	1	0	0	0	0	0	9
07:45								0	3	2	0	0	0	0	1	6	13	0	0	0	0	1	0	14
08:00								0	6	1	0	0	0	1	1	9	18	4	0	0	0	0	0	22
08:15								0	4	1	0	0	0	0	0	5	14	2	0	0	0	0	0	16
08:30								0	7	1	0	0	0	0	1	9	11	1	0	0	0	0	0	12
08:45								0	3	3	0	0	0	0	1	7	11	1	0	0	0	0	0	12
09:00								0	3	1	0	0	0	0	1	5	12	2	0	0	0	0	1	15
09:15								0	2	1	0	0	0	0	0	3	6	0	0	0	0	0	0	6
09:30								0	5	2	1	0	0	0	1	9	8	2	0	0	0	0	1	11
09:45								0	4	3	0	0	0	0	0	7	8	4	0	0	0	0	0	12
15:00								0	6	1	0	0	0	0	0	7	11	3	0	0	0	0	0	14
15:15								0	3	0	0	0	0	0	0	3	15	3	0	0	0	0	0	18
15:30								0	9	1	0	0	0	0	1	11	10	4	0	0	0	0	0	14
15:45								0	1	3	0	0	0	0	0	4	3	2	0	0	0	0	0	5
16:00								0	3	1	0	0	0	0	0	4	15	3	0	0	0	0	1	19
16:15								0	3	0	0	0	0	0	3	6	6	1	0	0	0	0	0	7
16:30								0	3	1	0	0	0	0	1	5	7	0	0	0	0	0	0	7
16:45								0	2	0	0	0	0	0	0	2	7	0	0	0	0	0	1	8
17:00								0	5	0	0	0	0	0	0	5	18	2	0	0	0	1	1	22
17:15								0	6	1	0	0	0	0	3	10	9	4	0	0	0	0	0	13
17:30								0	3	2	0	0	0	0	0	5	17	4	1	0	0	0	2	24
17:45								0	6	0	0	0	0	0	1	7	17	1	0	0	0	0	3	21
18:00								0	2	0	0	0	0	0	1	3	13	1	0	0	0	0	0	14
18:15								0	8	0	0	0	0	0	0	8	21	1	0	0	0	0	1	23
18:30								0	7	0	0	0	0	0	2	9	21	1	0	0	0	0	0	22
18:45								0	2	1	0	0	0	0	3	6	13	1	0	0	0	0	0	14
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	0	0	0	0	0	0	0	0	15	5	0	0	0	0	2	22	35	6	0	0	0	1	0	42
07:15	0	0	0	0	0	0	0	0	15	6	0	0	0	1	2	24	49	8	0	0	0	1	0	58
07:30	0	0	0	0	0	0	0	0	15	4	0	0	0	1	2	22	53	7	0	0	0	1	0	61
07:45	0	0	0	0	0	0	0	0	20	5	0	0	0	1	3	29	56	7	0	0	0	1	0	64
08:00	0	0	0	0	0	0	0	0	20	6	0	0	0	1	3	30	54	8	0	0	0	0	0	62
08:15	0	0	0	0	0	0	0	0	17	6	0	0	0	0	3	26	48	6	0	0	0	0	1	55
08:30	0	0	0	0	0	0	0	0	15	6	0	0	0	0	3	24	40	4	0	0	0	0	1	45
08:45	0	0	0	0	0	0	0	0	13	7	1	0	0	0	3	24	37	5	0	0	0	0	2	44
09:00	0	0	0	0	0	0	0	0	14	7	1	0	0	0	2	24	34	8	0	0	0	0	2	44
15:00	0	0	0	0	0	0	0	0	19	5	0	0	0	0	1	25	39	12	0	0	0	0	0	51
15:15	0	0	0	0	0	0	0	0	16	5	0	0	0	0	1	22	43	12	0	0	0	0	1	56
15:30	0	0	0	0	0	0	0	0	16	5	0	0	0	0	4	25	34	10	0	0	0	0	1	45
15:45	0	0	0	0	0	0	0	0	10	5	0	0	0	0	4	19	31	6	0	0	0	0	1	38
16:00	0	0	0	0	0	0	0	0	11	2	0	0	0	0	4	17	35	4	0	0	0	0	2	41
16:15	0	0	0	0	0	0	0	0	13	1	0	0	0	0	4	18	38	3	0	0	0	1	2	44
16:30	0	0	0	0	0	0	0	0	16	2	0	0	0	0	4	22	41	6	0	0	0	1	2	50
16:45	0	0	0	0	0	0	0	0	16	3	0	0	0	0	3	22	51	10	1	0	0	1	4	67
17:00	0	0	0	0	0	0	0	0	20	3	0	0	0	0	4	27	61	11	1	0	0	1	6	80
17:15	0	0	0	0	0	0	0	0	17	3	0	0	0	0	5	25	56	10	1	0	0	0	5	72
17:30	0	0	0	0	0	0	0	0	19	2	0	0	0	0	2	23	68	7	1	0	0	0	6	82
17:45	0	0	0	0	0	0	0	0	23	0	0	0	0	0	4	27	72	4	0	0	0	0	4	80
18:00	0	0	0	0	0	0	0	0	19	1	0	0	0	0	6	26	68	4	0	0	0	0	1	73

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 4

Date of Survey: 22.10.2020
Junction Name: A665 Great Ancoats Street / Jersey Street / A665 Ring Road
Junction Type: T-Junction

Arm A: Jersey Street (NE)
Arm B: A665 Great Ancoats Street (SE)
Arm C: A665 Ring Road (NW)

	B to B								B to A								B to C							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00								0	3	1	0	0	0	0	0	4	59	12	3	3	2	1	2	82
07:15								0	0	0	0	0	0	0	0	0	76	12	6	1	0	0	3	98
07:30								0	1	0	0	0	0	0	0	1	63	12	4	2	0	1	1	83
07:45								0	1	1	0	0	0	0	0	2	72	24	2	3	0	0	2	103
08:00								0	1	0	0	0	0	0	0	1	66	24	2	1	1	0	2	96
08:15								0	1	2	0	0	0	0	0	3	70	28	5	0	0	1	1	105
08:30								0	0	1	0	0	0	0	0	1	90	20	5	1	1	1	2	120
08:45								0	3	1	0	0	0	0	1	5	72	23	2	1	0	0	0	98
09:00								0	4	2	0	0	0	0	0	6	75	15	4	2	0	1	2	99
09:15								0	1	1	0	0	0	0	0	2	93	26	5	0	0	0	0	124
09:30								0	2	0	1	0	0	0	1	4	80	27	2	3	0	2	2	116
09:45								0	1	0	0	0	0	0	0	1	87	28	5	0	0	1	2	123
15:00								0	2	2	0	0	0	0	0	4	99	19	2	1	0	0	1	122
15:15								0	3	1	0	0	0	0	0	4	78	17	1	1	0	0	2	99
15:30								0	0	1	0	0	0	0	0	1	70	26	3	1	0	0	1	101
15:45								0	1	0	0	0	0	0	0	1	76	11	1	1	0	2	1	92
16:00								0	3	1	0	0	0	0	0	4	77	18	0	0	0	0	0	95
16:15								0	0	1	0	0	0	0	0	1	75	12	1	0	0	1	2	91
16:30								0	1	0	0	0	0	0	0	1	89	14	0	0	0	1	0	104
16:45								0	2	2	0	0	0	0	1	5	70	10	2	0	0	0	2	84
17:00								0	2	1	0	0	0	1	0	4	87	10	0	1	0	2	4	104
17:15								0	1	0	0	0	0	0	0	1	77	6	0	0	0	0	1	84
17:30								0	0	0	0	0	0	0	0	0	93	7	1	0	0	3	5	109
17:45								0	5	0	0	0	0	0	0	5	82	5	1	1	1	0	2	92
18:00								0	3	0	0	0	0	0	0	3	98	5	0	0	0	1	1	105
18:15								0	3	0	0	0	0	0	0	3	96	7	0	0	0	2	1	106
18:30								0	8	0	0	0	0	0	1	9	103	7	1	1	0	0	1	113
18:45								0	2	1	0	0	0	0	0	3	80	6	0	0	0	0	3	89
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	0	0	0	0	0	0	0	0	5	2	0	0	0	0	0	7	270	60	15	9	2	2	8	366
07:15	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	4	277	72	14	7	1	1	8	380
07:30	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0	7	271	88	13	6	1	2	6	387
07:45	0	0	0	0	0	0	0	0	3	4	0	0	0	0	0	7	298	96	14	5	2	2	7	424
08:00	0	0	0	0	0	0	0	0	5	4	0	0	0	0	1	10	298	95	14	3	2	2	5	419
08:15	0	0	0	0	0	0	0	0	8	6	0	0	0	0	1	15	307	86	16	4	1	3	5	422
08:30	0	0	0	0	0	0	0	0	8	5	0	0	0	0	1	14	330	84	16	4	1	2	4	441
08:45	0	0	0	0	0	0	0	0	10	4	1	0	0	0	2	17	320	91	13	6	0	3	4	437
09:00	0	0	0	0	0	0	0	0	8	3	1	0	0	0	1	13	335	96	16	5	0	4	6	462
15:00	0	0	0	0	0	0	0	0	6	4	0	0	0	0	0	10	323	73	7	4	0	2	5	414
15:15	0	0	0	0	0	0	0	0	7	3	0	0	0	0	0	10	301	72	5	3	0	2	4	387
15:30	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0	7	298	67	5	2	0	3	4	379
15:45	0	0	0	0	0	0	0	0	5	2	0	0	0	0	0	7	317	55	2	1	0	4	3	382
16:00	0	0	0	0	0	0	0	0	6	4	0	0	0	0	1	11	311	54	3	0	0	2	4	374
16:15	0	0	0	0	0	0	0	0	5	4	0	0	0	1	1	11	321	46	3	1	0	4	8	383
16:30	0	0	0	0	0	0	0	0	6	3	0	0	0	1	1	11	323	40	2	1	0	3	7	376
16:45	0	0	0	0	0	0	0	0	5	3	0	0	0	1	1	10	327	33	3	1	0	5	12	381
17:00	0	0	0	0	0	0	0	0	8	1	0	0	0	1	0	10	339	28	2	2	1	5	12	389
17:15	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9	350	23	2	1	1	4	9	390
17:30	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	11	369	24	2	1	1	6	9	412
17:45	0	0	0	0	0	0	0	0	19	0	0	0	0	0	1	20	379	24	2	2	1	3	5	416
18:00	0	0	0	0	0	0	0	0	16	1	0	0	0	0	1	18	377	25	1	1	0	3	6	413

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 4

Date of Survey: 22.10.2020
Junction Name: A665 Great Ancoats Street / Jersey Street / A665 Ring Road
Junction Type: T-Junction

Arm A: Jersey Street (NE)
Arm B: A665 Great Ancoats Street (SE)
Arm C: A665 Ring Road (NW)

	C to C								C to B								C to A							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00								0	39	13	1	1	4	1	0	59	0	0	0	0	0	0	0	0
07:15								0	55	15	1	2	3	0	0	76	0	0	0	0	0	0	0	0
07:30								0	52	13	3	2	4	1	0	75	1	1	0	0	0	0	0	2
07:45								0	46	9	1	0	3	0	2	61	0	1	0	0	0	0	0	1
08:00								0	49	8	4	1	1	0	1	64	0	0	0	0	0	0	0	0
08:15								0	49	9	1	1	4	0	1	65	1	0	0	0	0	0	0	1
08:30								0	52	11	3	0	3	0	1	70	0	0	0	0	0	0	0	0
08:45								0	42	11	5	3	3	0	0	64	1	0	0	0	0	0	1	2
09:00								0	47	10	2	3	3	0	1	66	0	0	0	0	0	0	0	0
09:15								0	48	14	1	1	4	0	0	68	0	0	0	0	0	0	0	0
09:30								0	48	19	7	0	3	1	1	79	1	0	0	0	0	0	0	1
09:45								0	39	8	3	0	4	0	0	54	0	0	0	0	0	0	0	0
15:00								0	63	13	2	1	4	1	0	84	1	0	0	0	0	0	4	5
15:15								0	52	12	4	1	2	0	1	72	4	1	0	0	0	0	0	5
15:30								0	72	8	1	2	3	1	0	87	1	0	0	0	0	0	1	2
15:45								0	68	16	1	0	1	0	0	86	2	0	0	0	0	0	0	2
16:00								0	60	4	0	2	4	1	3	74	2	1	0	0	0	0	1	4
16:15								0	53	11	2	0	2	0	2	70	1	0	0	0	0	0	1	2
16:30								0	76	9	1	1	4	0	0	91	1	0	0	0	0	0	0	1
16:45								0	66	9	1	0	2	0	3	81	2	0	0	0	0	0	0	2
17:00								0	71	10	1	0	3	0	2	87	1	0	0	0	0	0	0	1
17:15								0	56	5	1	1	3	1	5	72	1	0	0	0	0	0	0	1
17:30								0	68	7	0	1	4	0	1	81	3	0	0	0	0	0	0	3
17:45								0	64	6	0	0	2	1	3	76	0	0	0	0	0	0	1	1
18:00								0	53	3	1	0	2	0	0	59	1	0	0	0	0	0	0	1
18:15								0	88	3	0	0	3	2	6	102	1	0	0	0	0	0	0	1
18:30								0	77	5	0	0	2	2	2	88	1	0	0	0	0	0	1	2
18:45								0	60	7	0	1	2	0	2	72	6	0	0	0	0	0	0	6
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	0	0	0	0	0	0	0	0	192	50	6	5	14	2	2	271	1	2	0	0	0	0	0	3
07:15	0	0	0	0	0	0	0	0	202	45	9	5	11	1	3	276	1	2	0	0	0	0	0	3
07:30	0	0	0	0	0	0	0	0	196	39	9	4	12	1	4	265	2	2	0	0	0	0	0	4
07:45	0	0	0	0	0	0	0	0	196	37	9	2	11	0	5	260	1	1	0	0	0	0	0	2
08:00	0	0	0	0	0	0	0	0	192	39	13	5	11	0	3	263	2	0	0	0	0	0	1	3
08:15	0	0	0	0	0	0	0	0	190	41	11	7	13	0	3	265	2	0	0	0	0	0	1	3
08:30	0	0	0	0	0	0	0	0	189	46	11	7	13	0	2	268	1	0	0	0	0	0	1	2
08:45	0	0	0	0	0	0	0	0	185	54	15	7	13	1	2	277	2	0	0	0	0	0	1	3
09:00	0	0	0	0	0	0	0	0	182	51	13	4	14	1	2	267	1	0	0	0	0	0	0	1
15:00	0	0	0	0	0	0	0	0	255	49	8	4	10	2	1	329	8	1	0	0	0	0	5	14
15:15	0	0	0	0	0	0	0	0	252	40	6	5	10	2	4	319	9	2	0	0	0	0	2	13
15:30	0	0	0	0	0	0	0	0	253	39	4	4	10	2	5	317	6	1	0	0	0	0	3	10
15:45	0	0	0	0	0	0	0	0	257	40	4	3	11	1	5	321	6	1	0	0	0	0	2	9
16:00	0	0	0	0	0	0	0	0	255	33	4	3	12	1	8	316	6	1	0	0	0	0	2	9
16:15	0	0	0	0	0	0	0	0	266	39	5	1	11	0	7	329	5	0	0	0	0	0	1	6
16:30	0	0	0	0	0	0	0	0	269	33	4	2	12	1	10	331	5	0	0	0	0	0	0	5
16:45	0	0	0	0	0	0	0	0	261	31	3	2	12	1	11	321	7	0	0	0	0	0	0	7
17:00	0	0	0	0	0	0	0	0	259	28	2	2	12	2	11	316	5	0	0	0	0	0	1	6
17:15	0	0	0	0	0	0	0	0	241	21	2	2	11	2	9	288	5	0	0	0	0	0	1	6
17:30	0	0	0	0	0	0	0	0	273	19	1	1	11	3	10	318	5	0	0	0	0	0	1	6
17:45	0	0	0	0	0	0	0	0	282	17	1	0	9	5	11	325	3	0	0	0	0	0	2	5
18:00	0	0	0	0	0	0	0	0	278	18	1	1	9	4	10	321	9	0	0	0	0	0	1	10

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 4

Date of Survey: 22.10.2020
Junction Name: A665 Great Ancoats Street / Jersey Street / A665 Ring Road
Junction Type: T-Junction

	Arm A Approach								Arm A Exit							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	10	2	0	0	0	0	1	13	3	1	0	0	0	0	0	4
07:15	14	6	0	0	0	0	0	20	0	0	0	0	0	0	0	0
07:30	10	1	0	0	0	0	0	11	2	1	0	0	0	0	0	3
07:45	16	2	0	0	0	1	1	20	1	2	0	0	0	0	0	3
08:00	24	5	0	0	0	1	1	31	1	0	0	0	0	0	0	1
08:15	18	3	0	0	0	0	0	21	2	2	0	0	0	0	0	4
08:30	18	2	0	0	0	0	1	21	0	1	0	0	0	0	0	1
08:45	14	4	0	0	0	0	1	19	4	1	0	0	0	0	2	7
09:00	15	3	0	0	0	0	2	20	4	2	0	0	0	0	0	6
09:15	8	1	0	0	0	0	0	9	1	1	0	0	0	0	0	2
09:30	13	4	1	0	0	0	2	20	3	0	1	0	0	0	1	5
09:45	12	7	0	0	0	0	0	19	1	0	0	0	0	0	0	1
15:00	17	4	0	0	0	0	0	21	3	2	0	0	0	0	4	9
15:15	18	3	0	0	0	0	0	21	7	2	0	0	0	0	0	9
15:30	19	5	0	0	0	0	1	25	1	1	0	0	0	0	1	3
15:45	4	5	0	0	0	0	0	9	3	0	0	0	0	0	0	3
16:00	18	4	0	0	0	0	1	23	5	2	0	0	0	0	1	8
16:15	9	1	0	0	0	0	3	13	1	1	0	0	0	0	1	3
16:30	10	1	0	0	0	0	1	12	2	0	0	0	0	0	0	2
16:45	9	0	0	0	0	0	1	10	4	2	0	0	0	0	1	7
17:00	23	2	0	0	0	1	1	27	3	1	0	0	0	1	0	5
17:15	15	5	0	0	0	0	3	23	2	0	0	0	0	0	0	2
17:30	20	6	1	0	0	0	2	29	3	0	0	0	0	0	0	3
17:45	23	1	0	0	0	0	4	28	5	0	0	0	0	0	1	6
18:00	15	1	0	0	0	0	1	17	4	0	0	0	0	0	0	4
18:15	29	1	0	0	0	0	1	31	4	0	0	0	0	0	0	4
18:30	28	1	0	0	0	0	2	31	9	0	0	0	0	0	2	11
18:45	15	2	0	0	0	0	3	20	8	1	0	0	0	0	0	9
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	50	11	0	0	0	1	2	64	6	4	0	0	0	0	0	10
07:15	64	14	0	0	0	2	2	82	4	3	0	0	0	0	0	7
07:30	68	11	0	0	0	2	2	83	6	5	0	0	0	0	0	11
07:45	76	12	0	0	0	2	3	93	4	5	0	0	0	0	0	9
08:00	74	14	0	0	0	1	3	92	7	4	0	0	0	0	2	13
08:15	65	12	0	0	0	0	4	81	10	6	0	0	0	0	2	18
08:30	55	10	0	0	0	0	4	69	9	5	0	0	0	0	2	16
08:45	50	12	1	0	0	0	5	68	12	4	1	0	0	0	3	20
09:00	48	15	1	0	0	0	4	68	9	3	1	0	0	0	1	14
15:00	58	17	0	0	0	0	1	76	14	5	0	0	0	0	5	24
15:15	59	17	0	0	0	0	2	78	16	5	0	0	0	0	2	23
15:30	50	15	0	0	0	0	5	70	10	4	0	0	0	0	3	17
15:45	41	11	0	0	0	0	5	57	11	3	0	0	0	0	2	16
16:00	46	6	0	0	0	0	6	58	12	5	0	0	0	0	3	20
16:15	51	4	0	0	0	1	6	62	10	4	0	0	0	1	2	17
16:30	57	8	0	0	0	1	6	72	11	3	0	0	0	1	1	16
16:45	67	13	1	0	0	1	7	89	12	3	0	0	0	1	1	17
17:00	81	14	1	0	0	1	10	107	13	1	0	0	0	1	1	16
17:15	73	13	1	0	0	0	10	97	14	0	0	0	0	0	1	15
17:30	87	9	1	0	0	0	8	105	16	0	0	0	0	0	1	17
17:45	95	4	0	0	0	0	8	107	22	0	0	0	0	0	3	25
18:00	87	5	0	0	0	0	7	99	25	1	0	0	0	0	2	28

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 4

Date of Survey: 22.10.2020
Junction Name: A665 Great Ancoats Street / Jersey Street / A665 Ring Road
Junction Type: T-Junction

	Arm B Approach								Arm B Exit							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	62	13	3	3	2	1	2	86	43	15	1	1	4	1	0	65
07:15	76	12	6	1	0	0	3	98	65	18	1	2	3	0	0	89
07:30	64	12	4	2	0	1	1	84	60	14	3	2	4	1	0	84
07:45	73	25	2	3	0	0	2	105	59	9	1	0	3	1	2	75
08:00	67	24	2	1	1	0	2	97	67	12	4	1	1	0	1	86
08:15	71	30	5	0	0	1	1	108	63	11	1	1	4	0	1	81
08:30	90	21	5	1	1	1	2	121	63	12	3	0	3	0	1	82
08:45	75	24	2	1	0	0	1	103	53	12	5	3	3	0	0	76
09:00	79	17	4	2	0	1	2	105	59	12	2	3	3	0	2	81
09:15	94	27	5	0	0	0	0	126	54	14	1	1	4	0	0	74
09:30	82	27	3	3	0	2	3	120	56	21	7	0	3	1	2	90
09:45	88	28	5	0	0	1	2	124	47	12	3	0	4	0	0	66
15:00	101	21	2	1	0	0	1	126	74	16	2	1	4	1	0	98
15:15	81	18	1	1	0	0	2	103	67	15	4	1	2	0	1	90
15:30	70	27	3	1	0	0	1	102	82	12	1	2	3	1	0	101
15:45	77	11	1	1	0	2	1	93	71	18	1	0	1	0	0	91
16:00	80	19	0	0	0	0	0	99	75	7	0	2	4	1	4	93
16:15	75	13	1	0	0	1	2	92	59	12	2	0	2	0	2	77
16:30	90	14	0	0	0	1	0	105	83	9	1	1	4	0	0	98
16:45	72	12	2	0	0	0	3	89	73	9	1	0	2	0	4	89
17:00	89	11	0	1	0	3	4	108	89	12	1	0	3	1	3	109
17:15	78	6	0	0	0	0	1	85	65	9	1	1	3	1	5	85
17:30	93	7	1	0	0	3	5	109	85	11	1	1	4	0	3	105
17:45	87	5	1	1	1	0	2	97	81	7	0	0	2	1	6	97
18:00	101	5	0	0	0	1	1	108	66	4	1	0	2	0	0	73
18:15	99	7	0	0	0	2	1	109	109	4	0	0	3	2	7	125
18:30	111	7	1	1	0	0	2	122	98	6	0	0	2	2	2	110
18:45	82	7	0	0	0	0	3	92	73	8	0	1	2	0	2	86
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	275	62	15	9	2	2	8	373	227	56	6	5	14	3	2	313
07:15	280	73	14	7	1	1	8	384	251	53	9	5	11	2	3	334
07:30	275	91	13	6	1	2	6	394	249	46	9	4	12	2	4	326
07:45	301	100	14	5	2	2	7	431	252	44	9	2	11	1	5	324
08:00	303	99	14	3	2	2	6	429	246	47	13	5	11	0	3	325
08:15	315	92	16	4	1	3	6	437	238	47	11	7	13	0	4	320
08:30	338	89	16	4	1	2	5	455	229	50	11	7	13	0	3	313
08:45	330	95	14	6	0	3	6	454	222	59	15	7	13	1	4	321
09:00	343	99	17	5	0	4	7	475	216	59	13	4	14	1	4	311
15:00	329	77	7	4	0	2	5	424	294	61	8	4	10	2	1	380
15:15	308	75	5	3	0	2	4	397	295	52	6	5	10	2	5	375
15:30	302	70	5	2	0	3	4	386	287	49	4	4	10	2	6	362
15:45	322	57	2	1	0	4	3	389	288	46	4	3	11	1	6	359
16:00	317	58	3	0	0	2	5	385	290	37	4	3	12	1	10	357
16:15	326	50	3	1	0	5	9	394	304	42	5	1	11	1	9	373
16:30	329	43	2	1	0	4	8	387	310	39	4	2	12	2	12	381
16:45	332	36	3	1	0	6	13	391	312	41	4	2	12	2	15	388
17:00	347	29	2	2	1	6	12	399	320	39	3	2	12	3	17	396
17:15	359	23	2	1	1	4	9	399	297	31	3	2	11	2	14	360
17:30	380	24	2	1	1	6	9	423	341	26	2	1	11	3	16	400
17:45	398	24	2	2	1	3	6	436	354	21	1	0	9	5	15	405
18:00	393	26	1	1	0	3	7	431	346	22	1	1	9	4	11	394

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 4

Date of Survey: 22.10.2020
Junction Name: A665 Great Ancoats Street / Jersey Street / A665 Ring Road
Junction Type: T-Junction

	Arm C Approach								Arm C Exit							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	39	13	1	1	4	1	0	59	65	12	3	3	2	1	3	89
07:15	55	15	1	2	3	0	0	76	80	15	6	1	0	0	3	105
07:30	53	14	3	2	4	1	0	77	65	12	4	2	0	1	1	85
07:45	46	10	1	0	3	0	2	62	75	26	2	3	0	0	3	109
08:00	49	8	4	1	1	0	1	64	72	25	2	1	1	1	3	105
08:15	50	9	1	1	4	0	1	66	74	29	5	0	0	1	1	110
08:30	52	11	3	0	3	0	1	70	97	21	5	1	1	1	3	129
08:45	43	11	5	3	3	0	1	66	75	26	2	1	0	0	1	105
09:00	47	10	2	3	3	0	1	66	78	16	4	2	0	1	3	104
09:15	48	14	1	1	4	0	0	68	95	27	5	0	0	0	0	127
09:30	49	19	7	0	3	1	1	80	85	29	3	3	0	2	3	125
09:45	39	8	3	0	4	0	0	54	91	31	5	0	0	1	2	130
15:00	64	13	2	1	4	1	4	89	105	20	2	1	0	0	1	129
15:15	56	13	4	1	2	0	1	77	81	17	1	1	0	0	2	102
15:30	73	8	1	2	3	1	1	89	79	27	3	1	0	0	2	112
15:45	70	16	1	0	1	0	0	88	77	14	1	1	0	2	1	96
16:00	62	5	0	2	4	1	4	78	80	19	0	0	0	0	0	99
16:15	54	11	2	0	2	0	3	72	78	12	1	0	0	1	5	97
16:30	77	9	1	1	4	0	0	92	92	15	0	0	0	1	1	109
16:45	68	9	1	0	2	0	3	83	72	10	2	0	0	0	2	86
17:00	72	10	1	0	3	0	2	88	92	10	0	1	0	2	4	109
17:15	57	5	1	1	3	1	5	73	83	7	0	0	0	0	4	94
17:30	71	7	0	1	4	0	1	84	96	9	1	0	0	3	5	114
17:45	64	6	0	0	2	1	4	77	88	5	1	1	1	0	3	99
18:00	54	3	1	0	2	0	0	60	100	5	0	0	0	1	2	108
18:15	89	3	0	0	3	2	6	103	104	7	0	0	0	2	1	114
18:30	78	5	0	0	2	2	3	90	110	7	1	1	0	0	3	122
18:45	66	7	0	1	2	0	2	78	82	7	0	0	0	0	6	95
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	193	52	6	5	14	2	2	274	285	65	15	9	2	2	10	388
07:15	203	47	9	5	11	1	3	279	292	78	14	7	1	2	10	404
07:30	198	41	9	4	12	1	4	269	286	92	13	6	1	3	8	409
07:45	197	38	9	2	11	0	5	262	318	101	14	5	2	3	10	453
08:00	194	39	13	5	11	0	4	266	318	101	14	3	2	3	8	449
08:15	192	41	11	7	13	0	4	268	324	92	16	4	1	3	8	448
08:30	190	46	11	7	13	0	3	270	345	90	16	4	1	2	7	465
08:45	187	54	15	7	13	1	3	280	333	98	14	6	0	3	7	461
09:00	183	51	13	4	14	1	2	268	349	103	17	5	0	4	8	486
15:00	263	50	8	4	10	2	6	343	342	78	7	4	0	2	6	439
15:15	261	42	6	5	10	2	6	332	317	77	5	3	0	2	5	409
15:30	259	40	4	4	10	2	8	327	314	72	5	2	0	3	8	404
15:45	263	41	4	3	11	1	7	330	327	60	2	1	0	4	7	401
16:00	261	34	4	3	12	1	10	325	322	56	3	0	0	2	8	391
16:15	271	39	5	1	11	0	8	335	334	47	3	1	0	4	12	401
16:30	274	33	4	2	12	1	10	336	339	42	2	1	0	3	11	398
16:45	268	31	3	2	12	1	11	328	343	36	3	1	0	5	15	403
17:00	264	28	2	2	12	2	12	322	359	31	2	2	1	5	16	416
17:15	246	21	2	2	11	2	10	294	367	26	2	1	1	4	14	415
17:30	278	19	1	1	11	3	11	324	388	26	2	1	1	6	11	435
17:45	285	17	1	0	9	5	13	330	402	24	2	2	1	3	9	443
18:00	287	18	1	1	9	4	11	331	396	26	1	1	0	3	12	439

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 4

Date of Survey: 22.10.2020
Junction Name: A665 Great Ancoats Street / Jersey Street / A665 Ring Road
Junction Type: T-Junction

	Total Junction Flow							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	111	28	4	4	6	2	3	158
07:15	145	33	7	3	3	0	3	194
07:30	127	27	7	4	4	2	1	172
07:45	135	37	3	3	3	1	5	187
08:00	140	37	6	2	2	1	4	192
08:15	139	42	6	1	4	1	2	195
08:30	160	34	8	1	4	1	4	212
08:45	132	39	7	4	3	0	3	188
09:00	141	30	6	5	3	1	5	191
09:15	150	42	6	1	4	0	0	203
09:30	144	50	11	3	3	3	6	220
09:45	139	43	8	0	4	1	2	197
15:00	182	38	4	2	4	1	5	236
15:15	155	34	5	2	2	0	3	201
15:30	162	40	4	3	3	1	3	216
15:45	151	32	2	1	1	2	1	190
16:00	160	28	0	2	4	1	5	200
16:15	138	25	3	0	2	1	8	177
16:30	177	24	1	1	4	1	1	209
16:45	149	21	3	0	2	0	7	182
17:00	184	23	1	1	3	4	7	223
17:15	150	16	1	1	3	1	9	181
17:30	184	20	2	1	4	3	8	222
17:45	174	12	1	1	3	1	10	202
18:00	170	9	1	0	2	1	2	185
18:15	217	11	0	0	3	4	8	243
18:30	217	13	1	1	2	2	7	243
18:45	163	16	0	1	2	0	8	190
Start Time	**Rolling Hour**							**Total**
07:00	518	125	21	14	16	5	12	711
07:15	547	134	23	12	12	4	13	745
07:30	541	143	22	10	13	5	12	746
07:45	574	150	23	7	13	4	15	786
08:00	571	152	27	8	13	3	13	787
08:15	572	145	27	11	14	3	14	786
08:30	583	145	27	11	14	2	12	794
08:45	567	161	30	13	13	4	14	802
09:00	574	165	31	9	14	5	13	811
15:00	650	144	15	8	10	4	12	843
15:15	628	134	11	8	10	4	12	807
15:30	611	125	9	6	10	5	17	783
15:45	626	109	6	4	11	5	15	776
16:00	624	98	7	3	12	3	21	768
16:15	648	93	8	2	11	6	23	791
16:30	660	84	6	3	12	6	24	795
16:45	667	80	7	3	12	8	31	808
17:00	692	71	5	4	13	9	34	828
17:15	678	57	5	3	12	6	29	790
17:30	745	52	4	2	12	9	28	852
17:45	778	45	3	2	10	8	27	873
18:00	767	49	2	2	9	7	25	861

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 4

Date of Survey: 22.10.2020
Junction Name: A665 Great Ancoats Street / Jersey Street / A665 Ring Road
Junction Type: T-Junction

Arm A: Jersey Street (NE) **Arm B:** A665 Great Ancoats Street (SE) **Arm C:** A665 Ring Road (NW)

	PCU Summary								
Time	**A to A**	**A to C**	**A to B**	**B to B**	**B to A**	**B to C**	**C to C**	**C to B**	**C to A**
07:00	0	6	6	0	4	91	0	67	0
07:15	0	7	13	0	0	103	0	85	0
07:30	0	2	9	0	1	89	0	87	2
07:45	0	5	13	0	2	109	0	65	1
08:00	0	8	22	0	1	100	0	70	0
08:15	0	5	16	0	3	108	0	73	1
08:30	0	8	12	0	1	126	0	76	0
08:45	0	6	12	0	4	102	0	79	1
09:00	0	4	14	0	6	104	0	77	0
09:15	0	3	6	0	2	129	0	77	0
09:30	0	9	10	0	4	121	0	88	1
09:45	0	7	12	0	1	125	0	63	0
15:00	0	7	14	0	4	125	0	93	2
15:15	0	3	18	0	4	100	0	80	5
15:30	0	10	14	0	1	105	0	96	1
15:45	0	4	5	0	1	93	0	88	2
16:00	0	4	18	0	4	95	0	81	3
16:15	0	4	7	0	1	90	0	73	1
16:30	0	4	7	0	1	103	0	100	1
16:45	0	2	7	0	4	84	0	83	2
17:00	0	5	21	0	3	102	0	91	1
17:15	0	8	13	0	1	83	0	75	1
17:30	0	5	23	0	0	104	0	88	3
17:45	0	6	19	0	5	95	0	76	0
18:00	0	2	14	0	3	104	0	63	1
18:15	0	8	22	0	3	104	0	101	1
18:30	0	7	22	0	8	115	0	88	1
18:45	0	4	14	0	3	87	0	75	6
Start Time	**Rolling Hour**								
07:00	0	20	41	0	7	392	0	304	3
07:15	0	22	57	0	4	400	0	307	3
07:30	0	20	60	0	7	406	0	295	4
07:45	0	26	63	0	7	442	0	284	2
08:00	0	27	62	0	9	435	0	298	2
08:15	0	24	54	0	14	440	0	305	2
08:30	0	22	44	0	13	460	0	309	1
08:45	0	23	42	0	16	455	0	321	2
09:00	0	23	42	0	13	479	0	305	1
15:00	0	24	51	0	10	423	0	357	10
15:15	0	21	55	0	10	393	0	345	11
15:30	0	22	44	0	7	382	0	338	8
15:45	0	16	37	0	7	381	0	342	7
16:00	0	14	39	0	10	372	0	336	7
16:15	0	15	42	0	10	379	0	346	5
16:30	0	19	48	0	10	372	0	348	5
16:45	0	20	64	0	9	373	0	336	7
17:00	0	24	76	0	9	384	0	330	5
17:15	0	21	69	0	9	386	0	302	5
17:30	0	21	78	0	11	406	0	328	5
17:45	0	24	77	0	19	417	0	328	3
18:00	0	21	72	0	17	409	0	327	9

Intelligent Data Collection Limited
Manchester

Client:	Hydrock
Project Number:	ID05555
Junction Number:	Site 5
Date of Survey:	22.10.2020
Junction Name:	A62 Oldham Road / A665 Ring Road / Oldham Street
Junction Type:	5-arm Signalised Junction

Quality Assurance and Issue Record

Quality Assurance

Revision	Rev A			
Date	06.11.2020			
Prepared by	Mathew Booth			
Signature				
Checked by	David Brown			
Signature				
Project Director	Paul O'Neill			
Signature				
Project number	ID05555			
File Ref	ID05555 Manchester - MCC Site 5 - 22.10.2020			

Issue Sheet

	Date			
Issued to	06.11.2020			
Sam Denby	E-mail			

Contents Page

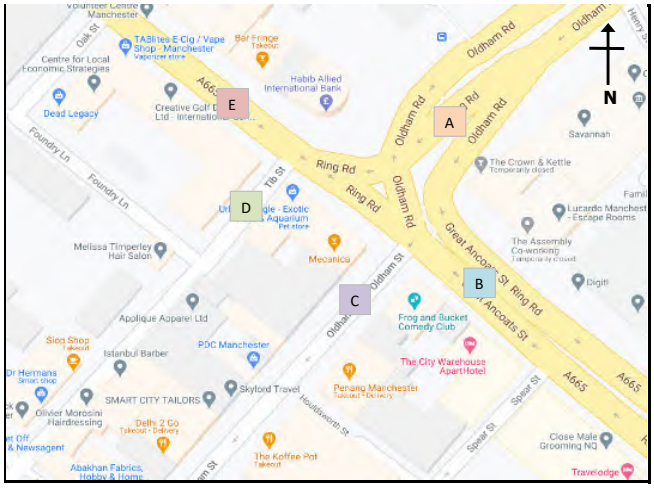
Location Plan & Summary
MCC Data
PCU Data

Intelligent Data Collection Limited

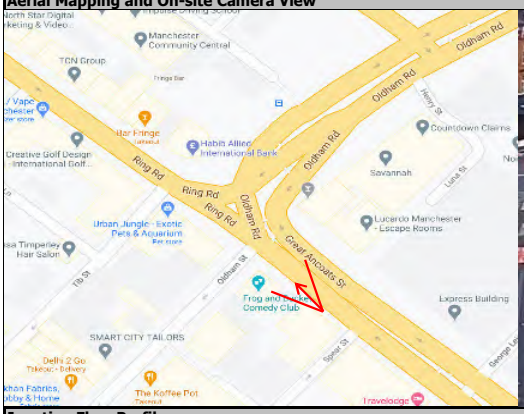
Client:	Hydrock	**Date of Survey:**	22.10.2020
Project Number:	ID05555	**Junction Name:**	A62 Oldham Road / A665 Ring Road / Oldham Street
Junction Number:	Site 5	**Junction Type:**	5-arm Signalised Junction

X Coordinate	Y Coordinate	Google Maps Link	
53.484920	-2.232847	Click Here	
AM Peak Conditions	**PM Peak Conditions**		
Clear	Clear		

Junction Layout

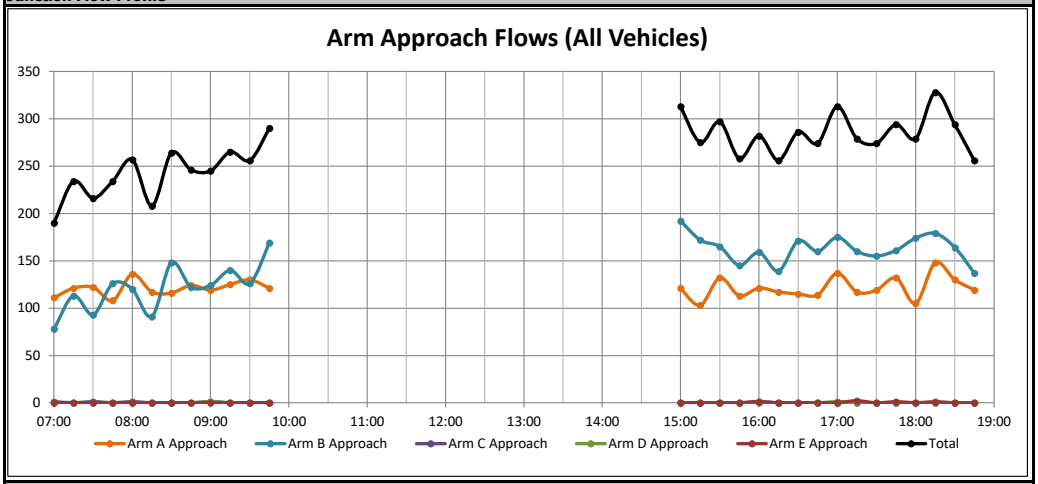


Aerial Mapping and On-site Camera View





Junction Flow Profile



Additional Notes (Factors which may impact on survey results such as accidents, roadworks, special events):

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 5

Date of Survey: 22.10.2020
Junction Name: A62 Oldham Road / A665 Ring Road / Oldham Street
Junction Type: 5-arm Signalised Junction

Arm A: A62 Oldham Road (N)
Arm B: A665 Ring Road (E)
Arm C: Oldham Street (S)
Arm D: Tib Street (S)
Arm E: A665 Ring Road (W)

	A to A								A to E								A to D							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00								0	10	4	0	0	0	1	0	15	5	3	0	0	0	0	1	9
07:15								0	13	3	1	0	0	0	1	18	9	4	0	0	0	0	1	14
07:30								0	12	7	2	0	0	0	1	22	3	0	1	0	0	0	0	4
07:45								0	14	5	0	2	0	0	0	21	5	2	0	0	0	1	0	8
08:00								0	17	6	0	1	0	0	1	25	12	2	0	0	0	1	0	15
08:15								0	21	6	1	1	0	1	0	30	8	3	0	0	0	0	1	12
08:30								0	16	6	3	0	0	1	1	27	14	0	1	0	0	0	0	15
08:45								0	16	7	1	0	0	1	0	25	15	1	0	0	0	0	1	17
09:00								0	17	3	0	0	0	0	0	20	9	4	0	0	0	0	0	13
09:15								0	23	6	1	0	0	0	1	31	8	4	1	0	0	0	1	14
09:30								0	22	6	0	0	0	0	0	28	8	1	0	0	0	0	2	11
09:45								0	22	4	0	1	0	0	0	27	21	2	0	0	0	0	0	23
15:00								0	17	6	0	0	0	1	0	24	6	3	0	0	0	0	0	9
15:15								0	16	1	2	1	0	0	0	20	6	0	0	0	0	0	0	6
15:30								0	17	6	0	0	0	0	0	23	7	2	0	0	0	0	0	9
15:45								0	18	3	0	0	0	0	0	21	11	1	0	0	0	0	0	12
16:00								0	16	8	1	1	0	0	2	28	8	2	0	0	0	0	0	10
16:15								0	24	1	0	0	0	0	0	25	11	2	0	0	0	0	1	14
16:30								0	17	0	0	0	0	0	1	18	11	0	0	0	0	0	0	11
16:45								0	23	1	0	0	0	1	0	25	8	0	0	0	0	0	0	8
17:00								0	27	2	0	0	0	0	2	31	11	0	0	0	0	0	0	11
17:15								0	19	1	0	0	0	0	1	21	5	1	1	0	0	0	0	7
17:30								0	25	4	0	0	0	1	1	31	8	2	0	0	0	0	0	10
17:45								0	17	3	0	0	0	0	3	23	13	0	0	0	0	0	0	13
18:00								0	22	2	0	0	0	0	0	24	8	0	0	0	0	0	0	8
18:15								0	21	2	0	0	0	0	0	23	16	3	0	0	0	0	0	19
18:30								0	23	1	0	0	0	0	0	24	13	1	0	0	0	0	0	14
18:45								0	29	2	0	1	0	1	1	34	9	0	0	0	0	0	0	9
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	0	0	0	0	0	0	0	0	49	19	3	2	0	1	2	76	22	9	1	0	0	1	2	35
07:15	0	0	0	0	0	0	0	0	56	21	3	3	0	0	3	86	29	8	1	0	0	2	1	41
07:30	0	0	0	0	0	0	0	0	64	24	3	4	0	1	2	98	28	7	1	0	0	2	1	39
07:45	0	0	0	0	0	0	0	0	68	23	4	4	0	2	2	103	39	7	1	0	0	2	1	50
08:00	0	0	0	0	0	0	0	0	70	25	5	2	0	3	2	107	49	6	1	0	0	1	2	59
08:15	0	0	0	0	0	0	0	0	70	22	5	1	0	3	1	102	46	8	1	0	0	0	2	57
08:30	0	0	0	0	0	0	0	0	72	22	5	0	0	2	2	103	46	9	2	0	0	0	2	59
08:45	0	0	0	0	0	0	0	0	78	22	2	0	0	1	1	104	40	10	1	0	0	0	4	55
09:00	0	0	0	0	0	0	0	0	84	19	1	1	0	0	1	106	46	11	1	0	0	0	3	61
15:00	0	0	0	0	0	0	0	0	68	16	2	1	0	1	0	88	30	6	0	0	0	0	0	36
15:15	0	0	0	0	0	0	0	0	67	18	3	2	0	0	2	92	32	5	0	0	0	0	0	37
15:30	0	0	0	0	0	0	0	0	75	18	1	1	0	0	2	97	37	7	0	0	0	0	1	45
15:45	0	0	0	0	0	0	0	0	75	12	1	1	0	0	3	92	41	5	0	0	0	0	1	47
16:00	0	0	0	0	0	0	0	0	80	10	1	1	0	1	3	96	38	4	0	0	0	0	1	43
16:15	0	0	0	0	0	0	0	0	91	4	0	0	0	1	3	99	41	2	0	0	0	0	1	44
16:30	0	0	0	0	0	0	0	0	86	4	0	0	0	1	4	95	35	1	1	0	0	0	0	37
16:45	0	0	0	0	0	0	0	0	94	8	0	0	0	2	4	108	32	3	1	0	0	0	0	36
17:00	0	0	0	0	0	0	0	0	88	10	0	0	0	1	7	106	37	3	1	0	0	0	0	41
17:15	0	0	0	0	0	0	0	0	83	10	0	0	0	1	5	99	34	3	1	0	0	0	0	38
17:30	0	0	0	0	0	0	0	0	85	11	0	0	0	1	4	101	45	5	0	0	0	0	0	50
17:45	0	0	0	0	0	0	0	0	83	8	0	0	0	0	3	94	50	4	0	0	0	0	0	54
18:00	0	0	0	0	0	0	0	0	95	7	0	1	0	1	1	105	46	4	0	0	0	0	0	50

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 5

Date of Survey: 22.10.2020
Junction Name: A62 Oldham Road / A665 Ring Road / Oldham Street
Junction Type: 5-arm Signalised Junction

Arm A: A62 Oldham Road (N)
Arm B: A665 Ring Road (E)
Arm C: Oldham Street (S)
Arm D: Tib Street (S)
Arm E: A665 Ring Road (W)

	A to C								A to B								B to B							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	4	1	0	0	5	0	4	14	49	18	4	1	0	1	0	73								0
07:15	1	1	0	0	4	0	1	7	63	14	2	2	1	0	0	82								0
07:30	4	0	0	0	9	0	1	14	52	22	5	2	0	1	0	82								0
07:45	2	1	0	0	7	0	3	13	54	9	0	0	0	1	2	66								0
08:00	2	1	0	0	6	0	1	10	62	15	6	1	0	0	2	86								0
08:15	4	3	0	0	6	0	1	14	49	8	1	0	1	0	2	61								0
08:30	0	1	0	0	7	1	3	12	49	10	3	0	0	0	0	62								0
08:45	5	1	0	0	7	0	1	14	55	7	2	4	0	0	0	68								0
09:00	5	1	0	0	4	0	1	11	51	15	3	4	0	0	2	75								0
09:15	1	0	0	0	5	0	1	7	58	14	0	1	0	0	0	73								0
09:30	9	2	0	0	8	0	0	19	49	15	6	0	0	1	1	72								0
09:45	4	0	0	1	6	0	0	11	47	9	3	1	0	0	0	60								0
15:00	6	2	0	0	8	1	0	17	56	10	3	1	0	1	0	71								0
15:15	7	2	0	0	5	0	0	14	51	7	3	1	0	0	1	63								0
15:30	6	0	0	0	9	0	1	16	72	9	1	2	0	0	0	84								0
15:45	7	1	0	0	7	0	1	16	54	9	1	0	0	0	0	64								0
16:00	4	0	0	0	7	0	2	13	65	3	0	2	0	0	0	70								0
16:15	4	1	0	0	5	0	0	10	54	12	2	0	0	0	0	68								0
16:30	5	2	0	0	8	0	0	15	63	6	0	1	0	0	1	71								0
16:45	6	1	0	0	7	0	1	15	54	9	2	0	1	0	0	66								0
17:00	4	0	0	0	8	0	2	14	72	8	1	0	0	0	0	81								0
17:15	11	1	0	0	4	0	0	16	62	7	1	1	0	1	1	73								0
17:30	4	1	0	0	6	0	0	11	61	5	0	1	0	0	0	67								0
17:45	8	1	0	0	6	0	2	17	72	5	0	0	0	1	1	79								0
18:00	5	0	0	0	3	0	1	9	58	4	1	0	0	1	0	64								0
18:15	5	1	0	0	7	0	0	13	88	3	0	0	0	1	1	93								0
18:30	7	0	0	0	4	0	1	12	72	6	0	0	0	1	1	80								0
18:45	7	0	0	0	2	0	2	11	61	2	1	1	0	0	0	65								0
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	11	3	0	0	25	0	9	48	218	63	11	5	1	3	2	303	0	0	0	0	0	0	0	0
07:15	9	3	0	0	26	0	6	44	231	60	13	5	1	2	4	316	0	0	0	0	0	0	0	0
07:30	12	5	0	0	28	0	6	51	217	54	12	3	1	2	6	295	0	0	0	0	0	0	0	0
07:45	8	6	0	0	26	1	8	49	214	42	10	1	1	1	6	275	0	0	0	0	0	0	0	0
08:00	11	6	0	0	26	1	6	50	215	40	12	5	1	0	4	277	0	0	0	0	0	0	0	0
08:15	14	6	0	0	24	1	6	51	204	40	9	8	1	0	4	266	0	0	0	0	0	0	0	0
08:30	11	3	0	0	23	1	6	44	213	46	8	9	0	0	2	278	0	0	0	0	0	0	0	0
08:45	20	4	0	0	24	0	3	51	213	51	11	9	0	1	3	288	0	0	0	0	0	0	0	0
09:00	19	3	0	1	23	0	2	48	205	53	12	6	0	1	3	280	0	0	0	0	0	0	0	0
15:00	26	5	0	0	29	1	2	63	233	35	8	4	0	1	1	282	0	0	0	0	0	0	0	0
15:15	24	3	0	0	28	0	4	59	242	28	5	5	0	0	1	281	0	0	0	0	0	0	0	0
15:30	21	2	0	0	28	0	4	55	245	33	4	4	0	0	0	286	0	0	0	0	0	0	0	0
15:45	20	4	0	0	27	0	3	54	236	30	3	3	0	0	1	273	0	0	0	0	0	0	0	0
16:00	19	4	0	0	27	0	3	53	236	30	4	3	1	0	1	275	0	0	0	0	0	0	0	0
16:15	19	4	0	0	28	0	3	54	243	35	5	1	1	0	1	286	0	0	0	0	0	0	0	0
16:30	26	4	0	0	27	0	3	60	251	30	4	2	1	1	2	291	0	0	0	0	0	0	0	0
16:45	25	3	0	0	25	0	3	56	249	29	4	2	1	1	1	287	0	0	0	0	0	0	0	0
17:00	27	3	0	0	24	0	4	58	267	25	2	2	0	2	2	300	0	0	0	0	0	0	0	0
17:15	28	3	0	0	19	0	3	53	253	21	2	2	0	3	2	283	0	0	0	0	0	0	0	0
17:30	22	3	0	0	22	0	3	50	279	17	1	1	0	3	2	303	0	0	0	0	0	0	0	0
17:45	25	2	0	0	20	0	4	51	290	18	1	0	0	4	3	316	0	0	0	0	0	0	0	0
18:00	24	1	0	0	16	0	4	45	279	15	2	1	0	3	2	302	0	0	0	0	0	0	0	0

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 5

Date of Survey: 22.10.2020
Junction Name: A62 Oldham Road / A665 Ring Road / Oldham Street
Junction Type: 5-arm Signalised Junction

Arm A: A62 Oldham Road (N)
Arm B: A665 Ring Road (E)
Arm C: Oldham Street (S)
Arm D: Tib Street (S)
Arm E: A665 Ring Road (W)

	B to A								B to E								B to D							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	11	1	2	1	5	0	1	21	41	6	2	0	1	0	0	50	3	0	0	0	0	0	0	3
07:15	22	1	1	0	6	0	0	30	56	9	2	1	1	0	5	74	4	1	0	0	0	0	0	5
07:30	18	2	1	2	6	0	0	29	43	6	3	0	0	0	0	52	5	1	0	0	0	0	0	6
07:45	21	3	1	0	6	0	0	31	58	14	2	2	0	0	3	79	6	3	0	1	0	0	0	10
08:00	7	5	2	0	8	0	1	23	57	14	2	1	1	1	3	79	10	3	1	0	0	0	0	14
08:15	12	2	2	0	6	0	0	22	36	13	2	0	0	1	2	54	4	3	0	0	0	0	0	7
08:30	20	4	2	0	8	0	0	34	71	18	4	1	0	1	3	98	6	1	0	0	0	0	0	7
08:45	16	4	1	1	9	0	0	31	53	13	3	1	0	1	1	72	8	2	1	0	0	0	0	11
09:00	21	6	1	1	7	0	0	36	57	9	2	0	0	1	2	71	5	2	0	0	0	0	0	7
09:15	25	13	4	1	4	0	0	47	60	17	2	0	0	0	0	79	6	1	0	0	0	0	0	7
09:30	17	9	1	2	6	0	0	35	56	20	2	0	0	2	0	80	2	2	0	0	0	0	0	4
09:45	30	6	2	1	5	0	0	44	78	21	3	0	0	1	3	106	8	2	0	0	0	0	1	11
15:00	42	12	0	2	6	1	0	63	90	14	2	1	0	1	0	108	6	0	0	0	0	1	1	8
15:15	38	12	1	1	5	0	1	58	86	15	1	0	0	0	0	102	7	0	0	0	0	0	0	7
15:30	30	10	1	0	6	0	1	48	75	21	1	1	1	0	0	99	7	0	0	0	0	0	0	7
15:45	27	6	0	1	7	2	0	43	64	16	0	1	0	0	2	83	5	1	0	0	0	0	0	6
16:00	33	9	1	0	5	0	0	48	77	20	0	0	0	1	0	98	4	1	0	0	0	0	0	5
16:15	27	7	1	0	6	0	2	43	67	15	0	0	0	0	5	87	5	0	0	0	0	0	0	5
16:30	38	9	0	0	7	0	0	54	89	12	1	0	0	2	1	105	5	1	0	0	0	0	0	6
16:45	28	8	1	0	7	0	0	44	78	11	2	0	1	0	4	96	6	2	1	0	0	0	0	9
17:00	41	1	0	1	4	0	0	47	87	20	0	0	0	2	2	111	9	1	0	0	0	0	0	10
17:15	39	2	0	0	7	0	2	50	83	12	0	0	1	0	3	99	9	0	0	0	0	0	0	9
17:30	31	5	0	0	6	0	3	45	80	7	0	0	1	1	1	90	10	0	0	0	0	0	0	10
17:45	32	4	0	1	5	3	2	47	90	5	1	0	0	0	1	97	5	0	0	0	0	0	1	6
18:00	50	1	1	0	4	0	3	59	89	8	0	0	0	0	2	99	6	0	0	0	0	1	0	7
18:15	34	2	0	0	6	3	1	46	109	8	0	0	0	3	1	121	7	0	0	0	0	0	0	7
18:30	35	2	0	0	6	0	4	47	88	4	0	1	0	1	4	98	9	2	0	0	0	0	0	11
18:45	27	4	1	0	7	0	1	40	74	4	0	0	0	0	2	80	9	0	0	0	0	0	0	9
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	72	7	5	3	23	0	1	111	198	35	9	3	2	0	8	255	18	5	0	1	0	0	0	24
07:15	68	11	5	2	26	0	1	113	214	43	9	4	2	1	11	284	25	8	1	1	0	0	0	35
07:30	58	12	6	2	26	0	1	105	194	47	9	3	1	2	8	264	25	10	1	1	0	0	0	37
07:45	60	14	7	0	28	0	1	110	222	59	10	4	1	3	11	310	26	10	1	1	0	0	0	38
08:00	55	15	7	1	31	0	1	110	217	58	11	3	1	4	9	303	28	9	2	0	0	0	0	39
08:15	69	16	6	2	30	0	0	123	217	53	11	2	0	4	8	295	23	8	1	0	0	0	0	32
08:30	82	27	8	3	28	0	0	148	241	57	11	2	0	3	6	320	25	6	1	0	0	0	0	32
08:45	79	32	7	5	26	0	0	149	226	59	9	1	0	4	3	302	21	7	1	0	0	0	0	29
09:00	93	34	8	5	22	0	0	162	251	67	9	0	0	4	5	336	21	7	0	0	0	0	1	29
15:00	137	40	2	4	24	3	2	212	315	66	4	3	1	1	2	392	25	1	0	0	0	1	1	28
15:15	128	37	3	2	23	2	2	197	302	72	2	2	1	1	2	382	23	2	0	0	0	0	0	25
15:30	117	32	3	1	24	2	3	182	283	72	1	2	1	1	7	367	21	2	0	0	0	0	0	23
15:45	125	31	2	1	25	2	2	188	297	63	1	1	0	3	8	373	19	3	0	0	0	0	0	22
16:00	126	33	3	0	25	0	2	189	311	58	3	0	1	3	10	386	20	4	1	0	0	0	0	25
16:15	134	25	2	1	24	0	2	188	321	58	3	0	1	4	12	399	25	4	1	0	0	0	0	30
16:30	146	20	1	1	25	0	2	195	337	55	3	0	2	4	10	411	29	4	1	0	0	0	0	34
16:45	139	16	1	1	24	0	5	186	328	50	2	0	3	3	10	396	34	3	1	0	0	0	0	38
17:00	143	12	0	2	22	3	7	189	340	44	1	0	2	3	7	397	33	1	0	0	0	0	1	35
17:15	152	12	1	1	22	3	10	201	342	32	1	0	2	1	7	385	30	0	0	0	0	1	1	32
17:30	147	12	1	1	21	6	9	197	368	28	1	0	1	4	5	407	28	0	0	0	0	1	1	30
17:45	151	9	1	1	21	6	10	199	376	25	1	1	0	4	8	415	27	2	0	0	0	1	1	31
18:00	146	9	2	0	23	3	9	192	360	24	0	1	0	4	9	398	31	2	0	0	0	1	0	34

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 5

Date of Survey: 22.10.2020
Junction Name: A62 Oldham Road / A665 Ring Road / Oldham Street
Junction Type: 5-arm Signalised Junction

Arm A: A62 Oldham Road (N)
Arm B: A665 Ring Road (E)
Arm C: Oldham Street (S)
Arm D: Tib Street (S)
Arm E: A665 Ring Road (W)

	B to C								C to C								C to B							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	0	1	0	0	3	0	0	4								0	0	0	0	0	0	0	0	0
07:15	1	2	0	0	1	0	0	4								0	0	0	0	0	0	0	0	0
07:30	2	1	1	0	2	0	0	6								0	0	0	0	0	0	0	0	0
07:45	1	2	0	0	3	0	0	6								0	0	0	0	0	0	0	0	0
08:00	0	2	0	0	2	0	0	4								0	0	0	0	0	0	0	0	0
08:15	2	0	1	0	5	0	0	8								0	0	0	0	0	0	0	0	0
08:30	2	3	0	0	4	0	0	9								0	0	0	0	0	0	0	0	0
08:45	4	2	0	0	2	0	0	8								0	0	0	0	0	0	0	0	0
09:00	3	1	1	0	5	0	0	10								0	0	0	0	0	0	0	0	0
09:15	4	1	1	0	1	0	0	7								0	0	0	0	0	0	0	0	0
09:30	4	0	0	0	3	0	0	7								0	0	0	0	0	0	0	0	0
09:45	3	2	1	0	1	0	1	8								0	0	0	0	0	0	0	0	0
15:00	9	2	1	0	1	0	0	13								0	0	0	0	0	0	0	0	0
15:15	1	1	0	0	3	0	0	5								0	0	0	0	0	0	0	0	0
15:30	7	1	0	0	2	1	0	11								0	0	0	0	0	0	0	0	0
15:45	5	3	0	0	5	0	0	13								0	0	0	0	0	0	0	0	0
16:00	5	3	0	0	0	0	0	8								0	0	0	0	0	0	0	0	0
16:15	4	0	0	0	0	0	0	4								0	0	0	0	0	0	0	0	0
16:30	4	2	0	0	0	0	0	6								0	0	0	0	0	0	0	0	0
16:45	9	1	0	0	1	0	0	11								0	0	0	0	0	0	0	0	0
17:00	7	0	0	0	0	0	0	7								0	0	0	0	0	0	0	0	0
17:15	1	0	0	0	0	1	0	2								0	0	0	0	0	0	0	0	0
17:30	7	0	0	0	2	0	1	10								0	0	0	0	0	0	0	0	0
17:45	10	0	0	0	0	0	1	11								0	0	0	0	0	0	0	0	0
18:00	9	0	0	0	0	0	0	9								0	0	0	0	0	0	0	0	0
18:15	5	0	0	0	0	0	0	5								0	0	0	0	0	0	0	0	0
18:30	6	0	0	0	2	0	0	8								0	0	0	0	0	0	0	0	0
18:45	4	1	0	0	1	0	2	8								0	0	0	0	0	0	0	0	0
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	4	6	1	0	9	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	4	7	1	0	8	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	5	5	2	0	12	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	5	7	1	0	14	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	8	7	1	0	13	0	0	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	11	6	2	0	16	0	0	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	13	7	2	0	12	0	0	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	15	4	2	0	11	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	14	4	3	0	10	0	1	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	22	7	1	0	11	1	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	18	8	0	0	10	1	0	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	21	7	0	0	7	1	0	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	18	8	0	0	5	0	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	22	6	0	0	1	0	0	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	24	3	0	0	1	0	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	21	3	0	0	1	1	0	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	24	1	0	0	3	1	1	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	25	0	0	0	2	1	2	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	27	0	0	0	2	1	2	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	31	0	0	0	2	0	2	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	30	0	0	0	2	0	1	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	24	1	0	0	3	0	2	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 5

Date of Survey: 22.10.2020
Junction Name: A62 Oldham Road / A665 Ring Road / Oldham Street
Junction Type: 5-arm Signalised Junction

Arm A: A62 Oldham Road (N)
Arm B: A665 Ring Road (E)
Arm C: Oldham Street (S)
Arm D: Tib Street (S)
Arm E: A665 Ring Road (W)

	C to A								C to E								C to D							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 5

Date of Survey: 22.10.2020
Junction Name: A62 Oldham Road / A665 Ring Road / Oldham Street
Junction Type: 5-arm Signalised Junction

Arm A: A62 Oldham Road (N)
Arm B: A665 Ring Road (E)
Arm C: Oldham Street (S)
Arm D: Tib Street (S)
Arm E: A665 Ring Road (W)

	D to D								D to C								D to B							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45								0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 5

Date of Survey: 22.10.2020
Junction Name: A62 Oldham Road / A665 Ring Road / Oldham Street
Junction Type: 5-arm Signalised Junction

Arm A: A62 Oldham Road (N)
Arm B: A665 Ring Road (E)
Arm C: Oldham Street (S)
Arm D: Tib Street (S)
Arm E: A665 Ring Road (W)

	D to A								D to E								E to E							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1								0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
17:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1								0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								0
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 5

Date of Survey: 22.10.2020
Junction Name: A62 Oldham Road / A665 Ring Road / Oldham Street
Junction Type: 5-arm Signalised Junction

Arm A: A62 Oldham Road (N)
Arm B: A665 Ring Road (E)
Arm C: Oldham Street (S)
Arm D: Tib Street (S)
Arm E: A665 Ring Road (W)

	E to D								E to C								E to B							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 5

Date of Survey: 22.10.2020
Junction Name: A62 Oldham Road / A665 Ring Road / Oldham Street
Junction Type: 5-arm Signalised Junction

Arm A: A62 Oldham Road (N)
Arm B: A665 Ring Road (E)
Arm C: Oldham Street (S)
Arm D: Tib Street (S)
Arm E: A665 Ring Road (W)

	E to A							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	1	1
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	2	2
17:30	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	1	1
18:00	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	1	1
18:30	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0
Start Time	**Rolling Hour**							**Total**
07:00	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	1	1
15:30	0	0	0	0	0	0	1	1
15:45	0	0	0	0	0	0	1	1
16:00	0	0	0	0	0	0	1	1
16:15	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	2	2
16:45	0	0	0	0	0	0	2	2
17:00	0	0	0	0	0	0	3	3
17:15	0	0	0	0	0	0	3	3
17:30	0	0	0	0	0	0	2	2
17:45	0	0	0	0	0	0	2	2
18:00	0	0	0	0	0	0	1	1

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 5

Date of Survey: 22.10.2020
Junction Name: A62 Oldham Road / A665 Ring Road / Oldham Street
Junction Type: 5-arm Signalised Junction

	Arm A Approach								Arm A Exit							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	68	26	4	1	5	2	5	111	11	1	2	1	5	0	2	22
07:15	86	22	3	2	5	0	3	121	22	1	1	0	6	0	0	30
07:30	71	29	8	2	9	1	2	122	18	2	1	2	6	0	1	30
07:45	75	17	0	2	7	2	5	108	21	3	1	0	6	0	0	31
08:00	93	24	6	2	6	1	4	136	7	5	2	0	8	0	1	23
08:15	82	20	2	1	7	1	4	117	12	2	2	0	6	0	0	22
08:30	79	17	7	0	7	2	4	116	20	4	2	0	8	0	0	34
08:45	91	16	3	4	7	1	2	124	16	4	1	1	9	0	0	31
09:00	82	23	3	4	4	0	3	119	21	6	1	1	7	0	0	36
09:15	90	24	2	1	5	0	3	125	25	13	4	1	4	0	0	47
09:30	88	24	6	0	8	1	3	130	17	9	1	2	6	0	0	35
09:45	94	15	3	3	6	0	0	121	30	6	2	1	5	0	0	44
15:00	85	21	3	1	8	3	0	121	42	12	0	2	6	1	0	63
15:15	80	10	5	2	5	0	1	103	38	12	1	1	5	0	1	58
15:30	102	17	1	2	9	0	1	132	30	10	1	0	6	0	1	48
15:45	90	14	1	0	7	0	1	113	27	6	0	1	7	2	0	43
16:00	93	13	1	3	7	0	4	121	33	9	1	0	5	0	2	50
16:15	93	16	2	0	5	0	1	117	27	7	1	0	6	0	2	43
16:30	96	8	0	1	8	0	2	115	38	9	0	0	7	0	0	54
16:45	91	11	2	0	8	1	1	114	28	8	1	0	7	0	0	44
17:00	114	10	1	0	8	0	4	137	41	1	0	1	4	0	0	47
17:15	97	10	2	1	4	1	2	117	39	2	0	0	7	0	4	52
17:30	98	12	0	1	6	1	1	119	31	5	0	0	6	0	3	45
17:45	110	9	0	0	6	1	6	132	32	4	0	1	5	3	3	48
18:00	93	6	1	0	3	1	1	105	50	1	1	0	4	0	3	59
18:15	130	9	0	0	7	1	1	148	34	2	0	0	6	3	2	47
18:30	115	8	0	0	4	1	2	130	35	2	0	0	6	0	4	47
18:45	106	4	1	2	2	1	3	119	27	4	1	0	7	0	1	40
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	300	94	15	7	26	5	15	462	72	7	5	3	23	0	3	113
07:15	325	92	17	8	27	4	14	487	68	11	5	2	26	0	2	114
07:30	321	90	16	7	29	5	15	483	58	12	6	2	26	0	2	106
07:45	329	78	15	5	27	6	17	477	60	14	7	0	28	0	1	110
08:00	345	77	18	7	27	5	14	493	55	15	7	1	31	0	1	110
08:15	334	76	15	9	25	4	13	476	69	16	6	2	30	0	0	123
08:30	342	80	15	9	23	3	12	484	82	27	8	3	28	0	0	148
08:45	351	87	14	9	24	2	11	498	79	32	7	5	26	0	0	149
09:00	354	86	14	8	23	1	9	495	93	34	8	5	22	0	0	162
15:00	357	62	10	5	29	3	3	469	137	40	2	4	24	3	2	212
15:15	365	54	8	7	28	0	7	469	128	37	3	2	23	2	4	199
15:30	378	60	5	5	28	0	7	483	117	32	3	1	24	2	5	184
15:45	372	51	4	4	27	0	8	466	125	31	2	1	25	2	4	190
16:00	373	48	5	4	28	1	8	467	126	33	3	0	25	0	4	191
16:15	394	45	5	1	29	1	8	483	134	25	2	1	24	0	2	188
16:30	398	39	5	2	28	2	9	483	146	20	1	1	25	0	4	197
16:45	400	43	5	2	26	3	8	487	139	16	1	1	24	0	7	188
17:00	419	41	3	2	24	3	13	505	143	12	0	2	22	3	10	192
17:15	398	37	3	2	19	4	10	473	152	12	1	1	22	3	13	204
17:30	431	36	1	1	22	4	9	504	147	12	1	1	21	6	11	199
17:45	448	32	1	0	20	4	10	515	151	9	1	1	21	6	12	201
18:00	444	27	2	2	16	4	7	502	146	9	2	0	23	3	10	193

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 5

Date of Survey: 22.10.2020
Junction Name: A62 Oldham Road / A665 Ring Road / Oldham Street
Junction Type: 5-arm Signalised Junction

	Arm B Approach								Arm B Exit							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	55	8	4	1	9	0	1	78	49	18	4	1	0	1	0	73
07:15	83	13	3	1	8	0	5	113	63	14	2	2	1	0	0	82
07:30	68	10	5	2	8	0	0	93	52	22	5	2	0	1	0	82
07:45	86	22	3	3	9	0	3	126	54	9	0	0	0	1	2	66
08:00	74	24	5	1	11	1	4	120	62	15	6	1	0	0	2	86
08:15	54	18	5	0	11	1	2	91	49	8	1	0	1	0	2	61
08:30	99	26	6	1	12	1	3	148	49	10	3	0	0	0	0	62
08:45	81	21	5	2	11	1	1	122	55	7	2	4	0	0	0	68
09:00	86	18	4	1	12	1	2	124	51	15	3	4	0	0	2	75
09:15	95	32	7	1	5	0	0	140	58	14	0	1	0	0	0	73
09:30	79	31	3	2	9	2	0	126	49	15	6	0	0	1	1	72
09:45	119	31	6	1	6	1	5	169	47	9	3	1	0	0	0	60
15:00	147	28	3	3	7	3	1	192	56	10	3	1	0	1	0	71
15:15	132	28	2	1	8	0	1	172	51	7	3	1	0	0	1	63
15:30	119	32	2	1	9	1	1	165	72	9	1	2	0	0	0	84
15:45	101	26	0	2	12	2	2	145	54	9	1	0	0	0	0	64
16:00	119	33	1	0	5	1	0	159	65	3	0	2	0	0	0	70
16:15	103	22	1	0	6	0	7	139	54	12	2	0	0	0	0	68
16:30	136	24	1	0	7	2	1	171	63	6	0	1	0	0	1	71
16:45	121	22	4	0	9	0	4	160	54	9	2	0	1	0	0	66
17:00	144	22	0	1	4	2	2	175	72	8	1	0	0	0	0	81
17:15	132	14	0	0	8	1	5	160	62	7	1	1	0	1	1	73
17:30	128	12	0	0	9	1	5	155	61	5	0	1	0	0	0	67
17:45	137	9	1	1	5	3	5	161	72	5	0	0	0	1	1	79
18:00	154	9	1	0	4	1	5	174	58	4	1	0	0	1	0	64
18:15	155	10	0	0	6	6	2	179	88	3	0	0	0	1	1	93
18:30	138	8	0	1	8	1	8	164	72	6	0	0	0	1	1	80
18:45	114	9	1	0	8	0	5	137	61	2	1	1	0	0	0	65
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	292	53	15	7	34	0	9	410	218	63	11	5	1	3	2	303
07:15	311	69	16	7	36	1	12	452	231	60	13	5	1	2	4	316
07:30	282	74	18	6	39	2	9	430	217	54	12	3	1	2	6	295
07:45	313	90	19	5	43	3	12	485	214	42	10	1	1	1	6	275
08:00	308	89	21	4	45	4	10	481	215	40	12	5	1	0	4	277
08:15	320	83	20	4	46	4	8	485	204	40	9	8	1	0	4	266
08:30	361	97	22	5	40	3	6	534	213	46	8	9	0	0	2	278
08:45	341	102	19	6	37	4	3	512	213	51	11	9	0	1	3	288
09:00	379	112	20	5	32	4	7	559	205	53	12	6	0	1	3	280
15:00	499	114	7	7	36	6	5	674	233	35	8	4	0	1	1	282
15:15	471	119	5	4	34	4	4	641	242	28	5	5	0	0	1	281
15:30	442	113	4	3	32	4	10	608	245	33	4	4	0	0	0	286
15:45	459	105	3	2	30	5	10	614	236	30	3	3	0	0	1	273
16:00	479	101	7	0	27	3	12	629	236	30	4	3	1	0	1	275
16:15	504	90	6	1	26	4	14	645	243	35	5	1	1	0	1	286
16:30	533	82	5	1	28	5	12	666	251	30	4	2	1	1	2	291
16:45	525	70	4	1	30	4	16	650	249	29	4	2	1	1	1	287
17:00	541	57	1	2	26	7	17	651	267	25	2	2	0	2	2	300
17:15	551	44	2	1	26	6	20	650	253	21	2	2	0	3	2	283
17:30	574	40	2	1	24	11	17	669	279	17	1	1	0	3	2	303
17:45	584	36	2	2	23	11	20	678	290	18	1	0	0	4	3	316
18:00	561	36	2	1	26	8	20	654	279	15	2	1	0	3	2	302

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 5

Date of Survey: 22.10.2020
Junction Name: A62 Oldham Road / A665 Ring Road / Oldham Street
Junction Type: 5-arm Signalised Junction

	Arm C Approach								Arm C Exit							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	0	0	0	0	0	0	1	1	4	2	0	0	8	0	4	18
07:15	0	0	0	0	0	0	0	0	2	3	0	0	5	0	1	11
07:30	0	0	0	0	0	0	1	1	6	1	1	0	11	0	1	20
07:45	0	0	0	0	0	0	0	0	3	3	0	0	10	0	3	19
08:00	0	0	0	0	0	0	1	1	2	3	0	0	8	0	1	14
08:15	0	0	0	0	0	0	0	0	6	3	1	0	11	0	1	22
08:30	0	0	0	0	0	0	0	0	2	4	0	0	11	1	3	21
08:45	0	0	0	0	0	0	0	0	9	3	0	0	9	0	1	22
09:00	0	0	0	0	0	0	1	1	8	2	1	0	9	0	1	21
09:15	0	0	0	0	0	0	0	0	5	1	1	0	6	0	1	14
09:30	0	0	0	0	0	0	0	0	13	2	0	0	11	0	0	26
09:45	0	0	0	0	0	0	0	0	7	2	1	1	7	0	1	19
15:00	0	0	0	0	0	0	0	0	15	4	1	0	9	1	0	30
15:15	0	0	0	0	0	0	0	0	8	3	0	0	8	0	0	19
15:30	0	0	0	0	0	0	0	0	13	1	0	0	11	1	1	27
15:45	0	0	0	0	0	0	0	0	12	4	0	0	12	0	1	29
16:00	0	0	0	0	0	0	1	1	9	3	0	0	7	0	2	21
16:15	0	0	0	0	0	0	0	0	8	1	0	0	5	0	0	14
16:30	0	0	0	0	0	0	0	0	9	4	0	0	8	0	0	21
16:45	0	0	0	0	0	0	0	0	15	2	0	0	8	0	1	26
17:00	0	0	0	0	0	0	0	0	11	0	0	0	8	0	2	21
17:15	0	0	0	0	0	0	0	0	12	1	0	0	4	1	0	18
17:30	0	0	0	0	0	0	0	0	11	1	0	0	8	0	1	21
17:45	0	0	0	0	0	0	0	0	18	1	0	0	6	0	3	28
18:00	0	0	0	0	0	0	0	0	14	0	0	0	3	0	1	18
18:15	0	0	0	0	0	0	0	0	10	1	0	0	7	0	0	18
18:30	0	0	0	0	0	0	0	0	13	0	0	0	6	0	1	20
18:45	0	0	0	0	0	0	0	0	11	1	0	0	3	0	4	19
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	0	0	0	0	0	0	2	2	15	9	1	0	34	0	9	68
07:15	0	0	0	0	0	0	2	2	13	10	1	0	34	0	6	64
07:30	0	0	0	0	0	0	2	2	17	10	2	0	40	0	6	75
07:45	0	0	0	0	0	0	1	1	13	13	1	0	40	1	8	76
08:00	0	0	0	0	0	0	1	1	19	13	1	0	39	1	6	79
08:15	0	0	0	0	0	0	1	1	25	12	2	0	40	1	6	86
08:30	0	0	0	0	0	0	1	1	24	10	2	0	35	1	6	78
08:45	0	0	0	0	0	0	1	1	35	8	2	0	35	0	3	83
09:00	0	0	0	0	0	0	1	1	33	7	3	1	33	0	3	80
15:00	0	0	0	0	0	0	0	0	48	12	1	0	40	2	2	105
15:15	0	0	0	0	0	0	1	1	42	11	0	0	38	1	4	96
15:30	0	0	0	0	0	0	1	1	42	9	0	0	35	1	4	91
15:45	0	0	0	0	0	0	1	1	38	12	0	0	32	0	3	85
16:00	0	0	0	0	0	0	1	1	41	10	0	0	28	0	3	82
16:15	0	0	0	0	0	0	0	0	43	7	0	0	29	0	3	82
16:30	0	0	0	0	0	0	0	0	47	7	0	0	28	1	3	86
16:45	0	0	0	0	0	0	0	0	49	4	0	0	28	1	4	86
17:00	0	0	0	0	0	0	0	0	52	3	0	0	26	1	6	88
17:15	0	0	0	0	0	0	0	0	55	3	0	0	21	1	5	85
17:30	0	0	0	0	0	0	0	0	53	3	0	0	24	0	5	85
17:45	0	0	0	0	0	0	0	0	55	2	0	0	22	0	5	84
18:00	0	0	0	0	0	0	0	0	48	2	0	0	19	0	6	75

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 5

Date of Survey: 22.10.2020
Junction Name: A62 Oldham Road / A665 Ring Road / Oldham Street
Junction Type: 5-arm Signalised Junction

	Arm D Approach								Arm D Exit							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	0	0	0	0	0	0	0	0	8	3	0	0	0	0	1	12
07:15	0	0	0	0	0	0	0	0	13	5	0	0	0	0	1	19
07:30	0	0	0	0	0	0	0	0	8	1	1	0	0	0	0	10
07:45	0	0	0	0	0	0	0	0	11	5	0	1	0	1	0	18
08:00	0	0	0	0	0	0	0	0	22	5	1	0	0	1	0	29
08:15	0	0	0	0	0	0	0	0	12	6	0	0	0	0	1	19
08:30	0	0	0	0	0	0	0	0	20	1	1	0	0	0	0	22
08:45	0	0	0	0	0	0	0	0	23	3	1	0	0	0	1	28
09:00	0	0	0	0	0	0	1	1	14	6	0	0	0	0	0	20
09:15	0	0	0	0	0	0	0	0	14	5	1	0	0	0	1	21
09:30	0	0	0	0	0	0	0	0	10	3	0	0	0	0	2	15
09:45	0	0	0	0	0	0	0	0	29	4	0	0	0	0	1	34
15:00	0	0	0	0	0	0	0	0	12	3	0	0	0	1	1	17
15:15	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	13
15:30	0	0	0	0	0	0	0	0	14	2	0	0	0	0	0	16
15:45	0	0	0	0	0	0	0	0	16	2	0	0	0	0	0	18
16:00	0	0	0	0	0	0	0	0	12	3	0	0	0	0	0	15
16:15	0	0	0	0	0	0	0	0	16	2	0	0	0	0	1	19
16:30	0	0	0	0	0	0	0	0	16	1	0	0	0	0	0	17
16:45	0	0	0	0	0	0	0	0	14	2	1	0	0	0	0	17
17:00	1	0	0	0	0	0	0	1	20	1	0	0	0	0	0	21
17:15	0	0	0	0	0	0	0	0	14	1	1	0	0	0	0	16
17:30	0	0	0	0	0	0	0	0	18	2	0	0	0	0	0	20
17:45	0	0	0	0	0	0	0	0	18	0	0	0	0	0	1	19
18:00	0	0	0	0	0	0	0	0	14	0	0	0	0	1	0	15
18:15	0	0	0	0	0	0	0	0	23	3	0	0	0	0	0	26
18:30	0	0	0	0	0	0	0	0	22	3	0	0	0	0	0	25
18:45	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	18
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	0	0	0	0	0	0	0	0	40	14	1	1	0	1	2	59
07:15	0	0	0	0	0	0	0	0	54	16	2	1	0	2	1	76
07:30	0	0	0	0	0	0	0	0	53	17	2	1	0	2	1	76
07:45	0	0	0	0	0	0	0	0	65	17	2	1	0	2	1	88
08:00	0	0	0	0	0	0	0	0	77	15	3	0	0	1	2	98
08:15	0	0	0	0	0	0	1	1	69	16	2	0	0	0	2	89
08:30	0	0	0	0	0	0	1	1	71	15	3	0	0	0	2	91
08:45	0	0	0	0	0	0	1	1	61	17	2	0	0	0	4	84
09:00	0	0	0	0	0	0	1	1	67	18	1	0	0	0	4	90
15:00	0	0	0	0	0	0	0	0	55	7	0	0	0	1	1	64
15:15	0	0	0	0	0	0	0	0	55	7	0	0	0	0	0	62
15:30	0	0	0	0	0	0	0	0	58	9	0	0	0	0	1	68
15:45	0	0	0	0	0	0	0	0	60	8	0	0	0	0	1	69
16:00	0	0	0	0	0	0	0	0	58	8	1	0	0	0	1	68
16:15	1	0	0	0	0	0	0	1	66	6	1	0	0	0	1	74
16:30	1	0	0	0	0	0	0	1	64	5	2	0	0	0	0	71
16:45	1	0	0	0	0	0	0	1	66	6	2	0	0	0	0	74
17:00	1	0	0	0	0	0	0	1	70	4	1	0	0	0	1	76
17:15	0	0	0	0	0	0	0	0	64	3	1	0	0	1	1	70
17:30	0	0	0	0	0	0	0	0	73	5	0	0	0	1	1	80
17:45	0	0	0	0	0	0	0	0	77	6	0	0	0	1	1	85
18:00	0	0	0	0	0	0	0	0	77	6	0	0	0	1	0	84

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 5

Date of Survey: 22.10.2020
Junction Name: A62 Oldham Road / A665 Ring Road / Oldham Street
Junction Type: 5-arm Signalised Junction

	Arm E Approach								Arm E Exit							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	0	0	0	0	0	0	0	0	51	10	2	0	1	1	0	65
07:15	0	0	0	0	0	0	0	0	69	12	3	1	1	0	6	92
07:30	0	0	0	0	0	0	0	0	55	13	5	0	0	0	1	74
07:45	0	0	0	0	0	0	0	0	72	19	2	4	0	0	3	100
08:00	0	0	0	0	0	0	0	0	74	20	2	2	1	1	5	105
08:15	0	0	0	0	0	0	0	0	57	19	3	1	0	2	2	84
08:30	0	0	0	0	0	0	0	0	87	24	7	1	0	2	4	125
08:45	0	0	0	0	0	0	0	0	69	20	4	1	0	2	1	97
09:00	0	0	0	0	0	0	0	0	74	12	2	0	0	1	4	93
09:15	0	0	0	0	0	0	0	0	83	23	3	0	0	0	1	110
09:30	0	0	0	0	0	0	0	0	78	26	2	0	0	2	0	108
09:45	0	0	0	0	0	0	0	0	100	25	3	1	0	1	3	133
15:00	0	0	0	0	0	0	0	0	107	20	2	1	0	2	0	132
15:15	0	0	0	0	0	0	0	0	102	16	3	1	0	0	0	122
15:30	0	0	0	0	0	0	0	0	92	27	1	1	1	0	0	122
15:45	0	0	0	0	0	0	0	0	82	19	0	1	0	0	2	104
16:00	0	0	0	0	0	0	1	1	93	28	1	1	0	1	2	126
16:15	0	0	0	0	0	0	0	0	91	16	0	0	0	0	5	112
16:30	0	0	0	0	0	0	0	0	106	12	1	0	0	2	2	123
16:45	0	0	0	0	0	0	0	0	101	12	2	0	1	1	4	121
17:00	0	0	0	0	0	0	0	0	115	22	0	0	0	2	4	143
17:15	0	0	0	0	0	0	2	2	102	13	0	0	1	0	4	120
17:30	0	0	0	0	0	0	0	0	105	11	0	0	1	2	2	121
17:45	0	0	0	0	0	0	1	1	107	8	1	0	0	0	4	120
18:00	0	0	0	0	0	0	0	0	111	10	0	0	0	0	2	123
18:15	0	0	0	0	0	0	1	1	130	10	0	0	0	3	1	144
18:30	0	0	0	0	0	0	0	0	111	5	0	1	0	1	4	122
18:45	0	0	0	0	0	0	0	0	103	6	0	1	0	1	3	114
Start Time	**Rolling Hour**							**Total**	**Rolling Hour**							**Total**
07:00	0	0	0	0	0	0	0	0	247	54	12	5	2	1	10	331
07:15	0	0	0	0	0	0	0	0	270	64	12	7	2	1	15	371
07:30	0	0	0	0	0	0	0	0	258	71	12	7	1	3	11	363
07:45	0	0	0	0	0	0	0	0	290	82	14	8	1	5	14	414
08:00	0	0	0	0	0	0	0	0	287	83	16	5	1	7	12	411
08:15	0	0	0	0	0	0	0	0	287	75	16	3	0	7	11	399
08:30	0	0	0	0	0	0	0	0	313	79	16	2	0	5	10	425
08:45	0	0	0	0	0	0	0	0	304	81	11	1	0	5	6	408
09:00	0	0	0	0	0	0	0	0	335	86	10	1	0	4	8	444
15:00	0	0	0	0	0	0	0	0	383	82	6	4	1	2	2	480
15:15	0	0	0	0	0	0	1	1	369	90	5	4	1	1	4	474
15:30	0	0	0	0	0	0	1	1	358	90	2	3	1	1	9	464
15:45	0	0	0	0	0	0	1	1	372	75	2	2	0	3	11	465
16:00	0	0	0	0	0	0	1	1	391	68	4	1	1	4	13	482
16:15	0	0	0	0	0	0	0	0	413	62	3	0	1	5	15	499
16:30	0	0	0	0	0	0	2	2	424	59	3	0	2	5	14	507
16:45	0	0	0	0	0	0	2	2	423	58	2	0	3	5	14	505
17:00	0	0	0	0	0	0	3	3	429	54	1	0	2	4	14	504
17:15	0	0	0	0	0	0	3	3	425	42	1	0	2	2	12	484
17:30	0	0	0	0	0	0	2	2	453	39	1	0	1	5	9	508
17:45	0	0	0	0	0	0	2	2	459	33	1	1	0	4	11	509
18:00	0	0	0	0	0	0	1	1	455	31	0	2	0	5	10	503

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 5

Date of Survey: 22.10.2020
Junction Name: A62 Oldham Road / A665 Ring Road / Oldham Street
Junction Type: 5-arm Signalised Junction

	Total Junction Flow							
Time	**Cars**	**LGV**	**OGV1**	**OGV2**	**Buses**	**M/C**	**Cycle**	**Total**
07:00	123	34	8	2	14	2	7	190
07:15	169	35	6	3	13	0	8	234
07:30	139	39	13	4	17	1	3	216
07:45	161	39	3	5	16	2	8	234
08:00	167	48	11	3	17	2	9	257
08:15	136	38	7	1	18	2	6	208
08:30	178	43	13	1	19	3	7	264
08:45	172	37	8	6	18	2	3	246
09:00	168	41	7	5	16	1	7	245
09:15	185	56	9	2	10	0	3	265
09:30	167	55	9	2	17	3	3	256
09:45	213	46	9	4	12	1	5	290
15:00	232	49	6	4	15	6	1	313
15:15	212	38	7	3	13	0	2	275
15:30	221	49	3	3	18	1	2	297
15:45	191	40	1	2	19	2	3	258
16:00	212	46	2	3	12	1	6	282
16:15	196	38	3	0	11	0	8	256
16:30	232	32	1	1	15	2	3	286
16:45	212	33	6	0	17	1	5	274
17:00	259	32	1	1	12	2	6	313
17:15	229	24	2	1	12	2	9	279
17:30	226	24	0	1	15	2	6	274
17:45	247	18	1	1	11	4	12	294
18:00	247	15	2	0	7	2	6	279
18:15	285	19	0	0	13	7	4	328
18:30	253	16	0	1	12	2	10	294
18:45	220	13	2	2	10	1	8	256
Start Time	**Rolling Hour**							**Total**
07:00	592	147	30	14	60	5	26	874
07:15	636	161	33	15	63	5	28	941
07:30	603	164	34	13	68	7	26	915
07:45	642	168	34	10	70	9	30	963
08:00	653	166	39	11	72	9	25	975
08:15	654	159	35	13	71	8	23	963
08:30	703	177	37	14	63	6	20	1020
08:45	692	189	33	15	61	6	16	1012
09:00	733	198	34	13	55	5	18	1056
15:00	856	176	17	12	65	9	8	1143
15:15	836	173	13	11	62	4	13	1112
15:30	820	173	9	8	60	4	19	1093
15:45	831	156	7	6	57	5	20	1082
16:00	852	149	12	4	55	4	22	1098
16:15	899	135	11	2	55	5	22	1129
16:30	932	121	10	3	56	7	23	1152
16:45	926	113	9	3	56	7	26	1140
17:00	961	98	4	4	50	10	33	1160
17:15	949	81	5	3	45	10	33	1126
17:30	1005	76	3	2	46	15	28	1175
17:45	1032	68	3	2	43	15	32	1195
18:00	1005	63	4	3	42	12	28	1157

Intelligent Data Collection Limited

Client: Hydrock
Project Number: ID05555
Junction Number: Site 5

Date of Survey: 22.10.2020
Junction Name: A62 Oldham Road / A665 Ring Road / Oldham Street
Junction Type: 5-arm Signalised Junction

Arm A: A62 Oldham Road (N) **Arm B:** A665 Ring Road (E) **Arm C:** Oldham Street (S) **Arm D:** Tib Street (S) **Arm E:** A665 Ring Road (W)

	PCU Summary																								
Time	**A to A**	**A to E**	**A to D**	**A to C**	**A to B**	**B to B**	**B to A**	**B to E**	**B to D**	**B to C**	**C to C**	**C to B**	**C to A**	**C to E**	**C to D**	**D to D**	**D to C**	**D to B**	**D to A**	**D to E**	**E to E**	**E to D**	**E to C**	**E to B**	**E to A**
07:00	0	14	8	18	78	0	31	53	3	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	18	13	12	89	0	40	75	5	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	23	5	27	90	0	43	55	6	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	25	7	21	64	0	41	82	12	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	26	14	18	92	0	36	81	15	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	32	11	22	62	0	33	54	7	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	28	16	20	65	0	48	101	7	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	25	16	24	77	0	47	75	12	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	20	13	16	84	0	49	71	7	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	31	14	14	75	0	59	81	7	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	28	9	31	76	0	49	81	4	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	29	23	22	65	0	55	106	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	23	9	28	75	0	75	111	7	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	24	6	22	67	0	68	103	7	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	23	9	29	89	0	57	103	7	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	21	12	26	65	0	54	83	6	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	29	10	22	74	0	56	97	5	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	25	13	18	70	0	51	83	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	17	11	27	72	0	65	104	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	24	8	25	69	0	55	96	10	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	29	11	24	82	0	55	108	10	7	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
17:15	0	20	8	22	74	0	59	98	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	30	10	20	69	0	52	90	10	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	21	13	24	78	0	53	97	5	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	24	8	13	64	0	64	97	6	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	23	19	24	92	0	52	118	7	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	24	14	17	79	0	53	96	11	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	35	9	12	68	0	51	78	9	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Time	**Rolling Hour**																								
07:00	0	80	34	78	321	0	155	265	26	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	92	40	78	334	0	160	293	38	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	106	38	88	307	0	152	272	40	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	111	49	81	282	0	158	318	41	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	112	58	84	296	0	164	311	41	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	106	56	82	288	0	177	300	33	61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	105	59	73	301	0	203	327	33	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	104	53	85	312	0	204	307	30	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	108	60	83	299	0	212	338	28	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	91	36	104	295	0	254	401	27	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	97	37	98	294	0	235	387	25	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	98	44	94	297	0	219	367	23	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	92	46	92	281	0	226	368	22	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	96	42	91	285	0	228	380	26	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	96	43	94	293	0	226	391	31	30	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
16:30	0	91	38	98	298	0	234	406	35	27	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
16:45	0	104	37	91	295	0	221	393	39	33	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
17:00	0	100	42	91	303	0	218	394	34	31	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
17:15	0	94	39	79	285	0	227	383	31	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
17:30	0	97	50	81	302	0	221	403	29	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	92	54	78	312	0	222	409	30	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	106	50	66	302	0	219	390	33	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix C Stage 1 - RSA

Matt Chamberlain Associates Ltd
t: +44 7452 705047
e:matt.chamberlain.uk@gmail.com

STAGE 1 ROAD SAFETY AUDIT

Highway Improvements

Ancoats Green Mobility Hub

Manchester

Hydrock

FINAL

February 2021

Project Title: STAGE 1 ROAD SAFETY AUDIT ACCESS WORKS ANCOATS GREEN MOBILITY HUB

Client: HYDROCK

This document has been issued and amended as follows:

Rev	Issue	Prepared by	Reviewed by	Approved by	Date
1.0	Final	M Chamberlain	Ed Parry	M Chamberlain	22/02/2021

CONTENTS

1	**INTRODUCTION**	**1**
1.1	Scheme Description	1
1.2	Scheme Location	2
2	**PROBLEMS RAISED AT THIS STAGE 1 ROAD SAFETY AUDIT**	**3**
4	**AUDIT TEAM STATEMENT**	**4**
APPENDIX A AUDIT KEY PLAN		**1**

1 INTRODUCTION

1.1 Scheme Description

This report results from a Stage 1 Road Safety Audit carried out on the proposed highway improvements associated with a new mobility hub on Poland Street, Ancoats, Manchester.

The proposed works involve providing a mobility hub with car and cycle parking. The hub will be served by a vehicular access and a separate delivery access. The associated proposed highway works comprise of two raised tables at the junctions of Poland Street and George Leigh Street. The whole site sits within an existing 20mph zone.

This Audit has been carried out on the instruction of Hydrock.

The Audit Team membership was as follows: -

- Audit Team Leader: Matt Chamberlain BSc (Hons) FIHE MCIHT MSoRSA HE RSA CERT COMP
- Audit Team Member: Ed Parry BSc (Hons), MCIHT

This report is presented based upon the checklist contained in ***Appendix B*** of DMRB GG119. The team has examined and reported only on the road safety implications of the Preliminary design and has not examined or verified the compliance of the layout to any other criteria, in accordance with GG119.

The Audit was conducted at the home office of the Audit Team and a visit to the site was made on Thursday 18th February 2021 between 11.30 and 12.15 hours when the weather was fine, and the road surface was dry.

Traffic conditions were light at the time of the site visit but this could have been due to local road closures on Oldham Road.

Collision data provided for the 5-year period 2015-2019 shows one slight injury collision occurred on Poland Street at the junction of Portugal Street.

Trip generation figures provided to the Audit Team estimate that in Year 1 of opening, the hub will expect 94 in and out movements in the am peak and 92 in the pm. Although, it is anticipated the number of commuter trips will fall in subsequent years.

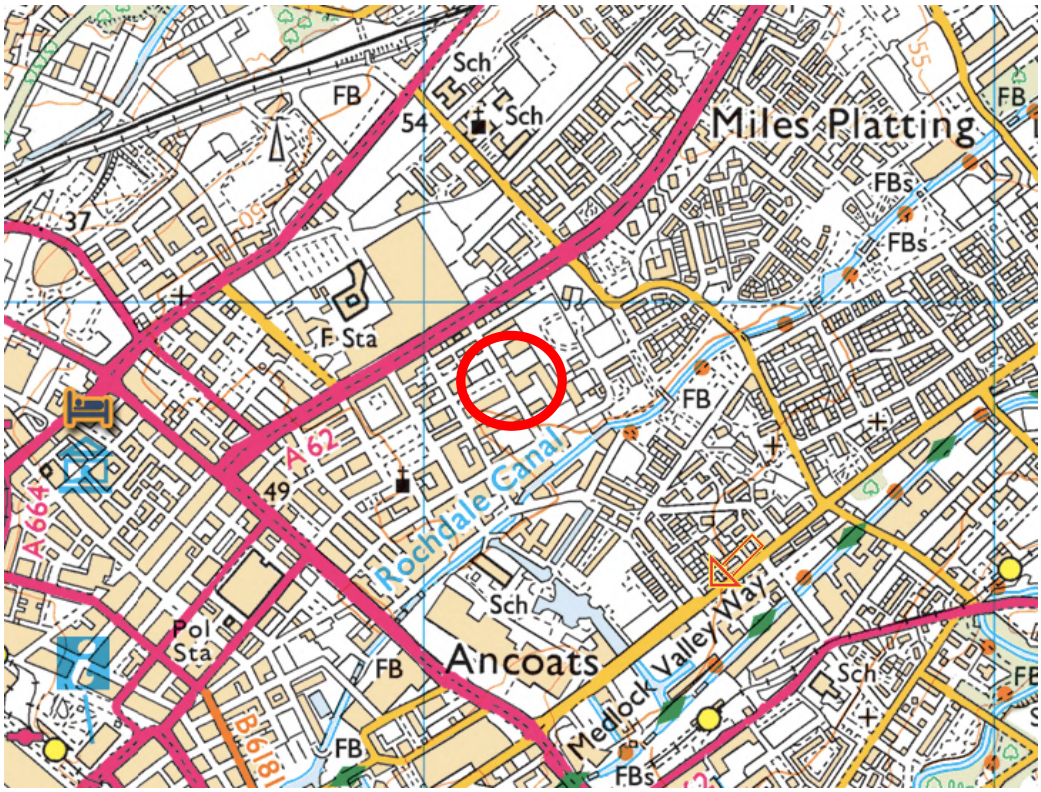
No Departures from Standard have been submitted to the Audit Team.

1.2 Approach

The following drawings and documents were submitted to the Audit Team for review:

- 16481-HYD-XX-XX-M2-TP-0009_0013 Proposed Traffic Calming Rev P1.2
- 16857-HYD-XX-XX-RP-TP-1002 Technical Design Note Rev P1.1

1.3 Scheme Location



2 PROBLEMS RAISED AT THIS STAGE 1 ROAD SAFETY AUDIT

2.1 PROBLEM

Location: Proposed Raised Tables

Summary: Insufficient highway drainage could lead to standing water that could freeze during the winter months

During the site visit it was noted that the existing levels are such that water from George Leigh Street currently drains to a gully on Poland Street. Under the proposals, the raised table would prevent water from reaching the current positive drainage which could lead to standing water on George Leigh Street. Standing water may freeze during winter months creating a hazard for all road users.



George Leigh Street looking towards Poland Street

Recommendation:

It is recommended that at detailed design, the highway drainage provision is assessed in the vicinity of the raised tables so that no standing water will occur. This may require additional gullies being provided or existing gullies being relocated.

4 AUDIT TEAM STATEMENT

I certify that this audit has been carried out in accordance with DMRD GG119.

Audit Team Leader

Name: Matt Chamberlain Signed: 

Dated: 22/02/2021

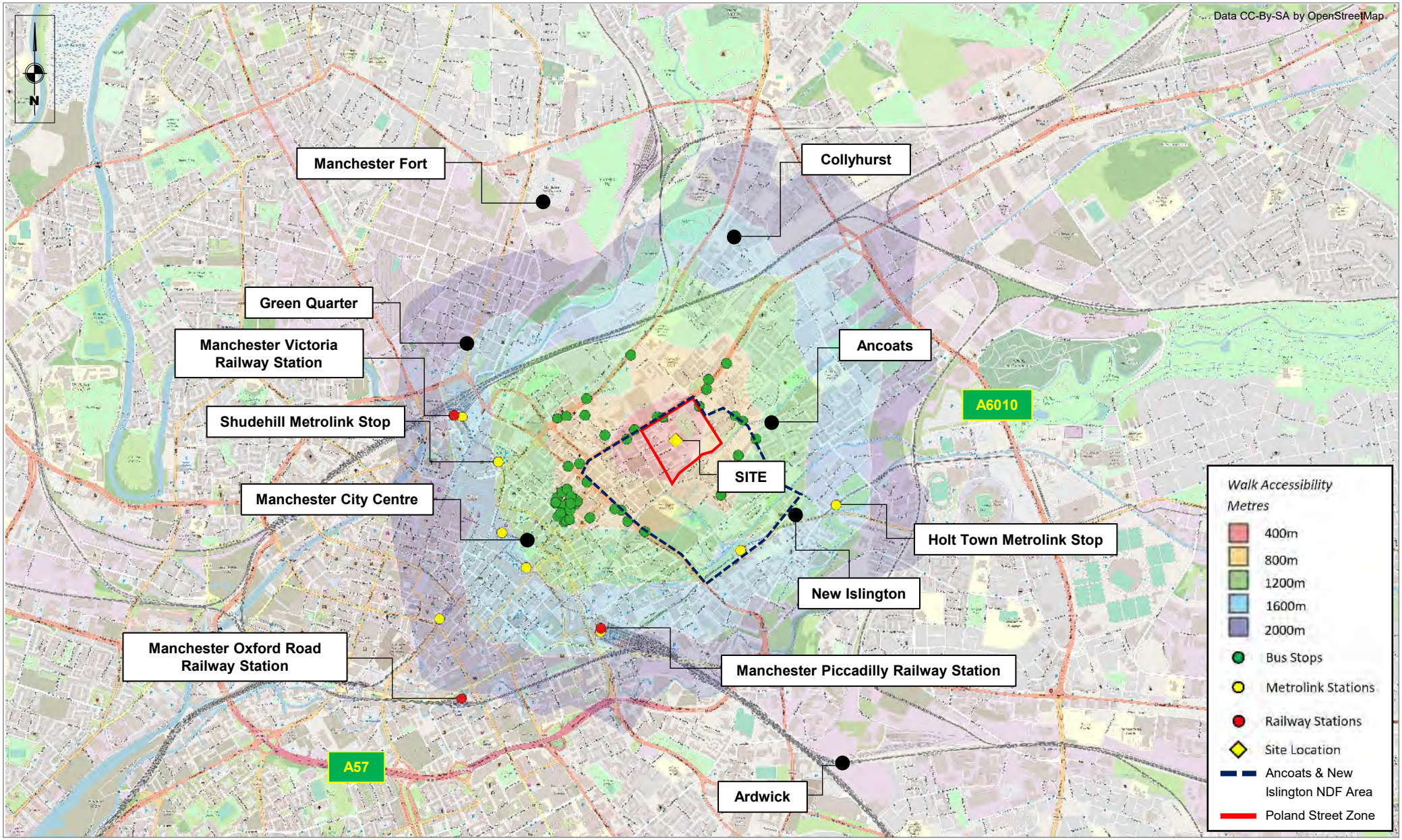
Audit Team Member

Name: Ed Parry Signed: 

APPENDIX A AUDIT KEY PLAN


2.1
Hydrock
MANCHESTER LIFE
ANCOATS MOBILITY HUB
PROPOSED TRAFFIC CALMING
C-16431
1:250
INFORMATION
S2
16481-HYD-XX-XX-DR-TP-0013
P1.2

Appendix D GIS Accessibility Plans

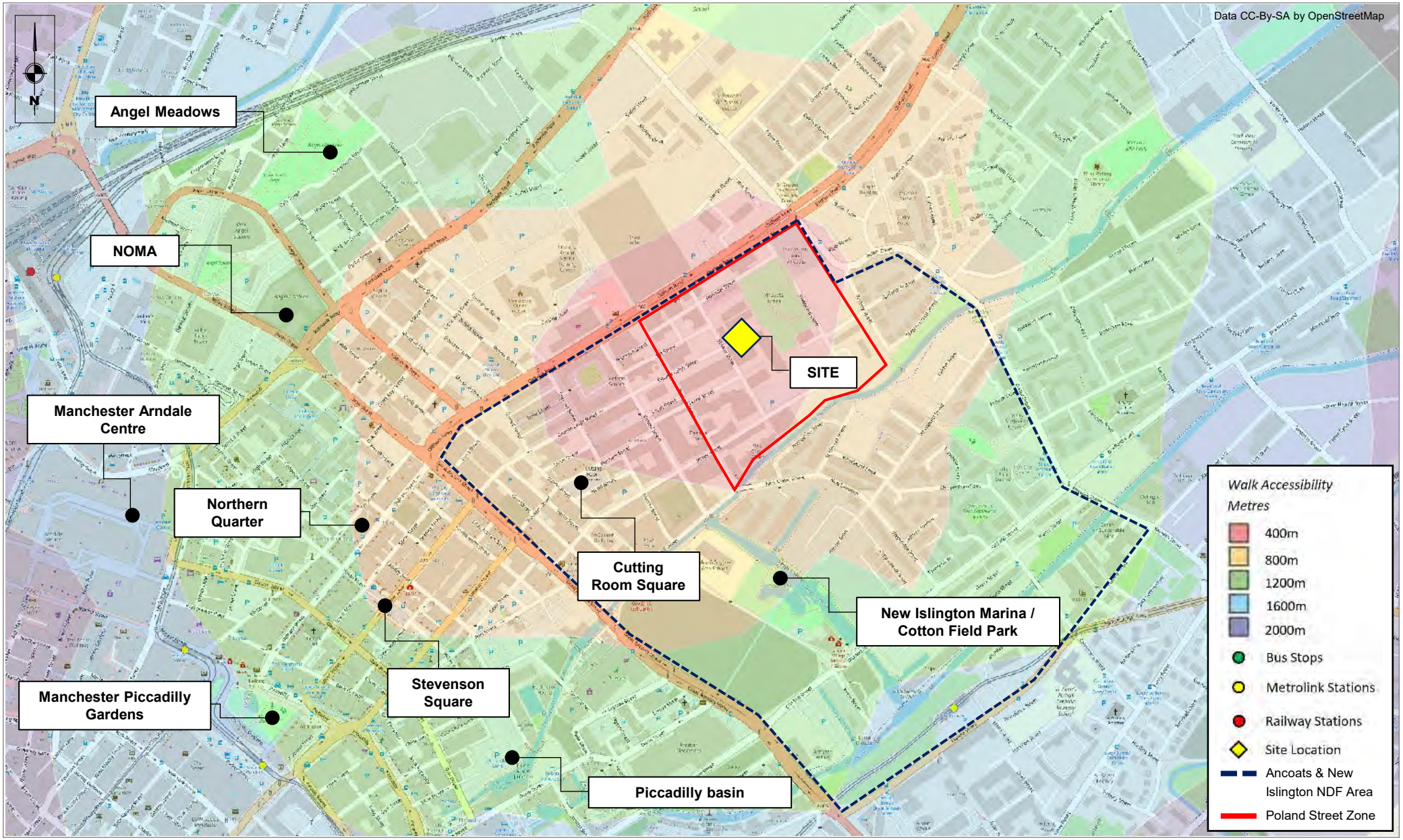


Hydrock

Project Title	Manchester Life, Ancoats Mobility Hub
Drawing Title	Accessibility: 2km Walking Catchment
Job Number	C16857
By	SG
Date	11.09.2020
Checked	CR
Scale	NTS
Status	-

Rev	Description	Date	By
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Drawing No.	APPENDIX D
Figure	1

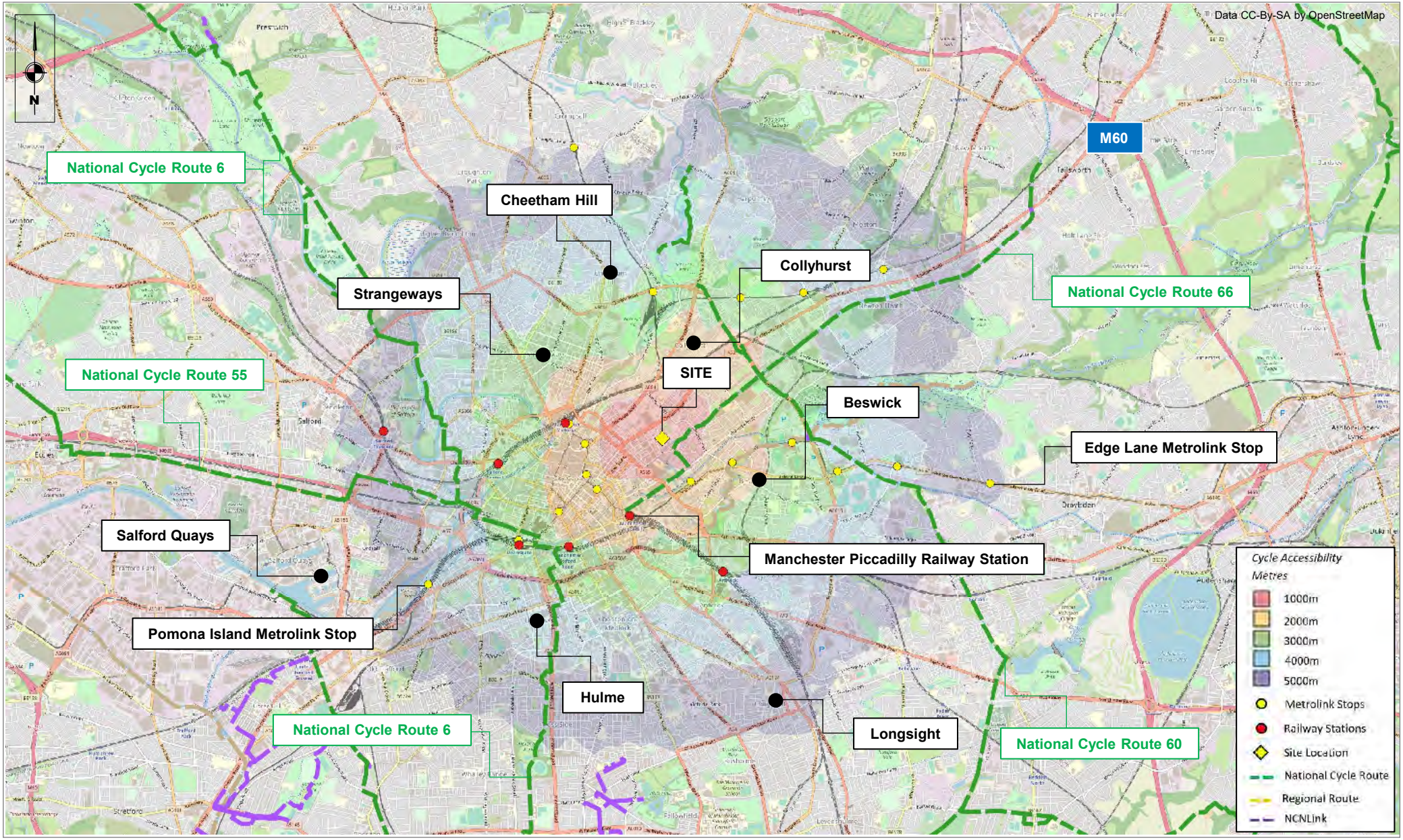


Hydrock

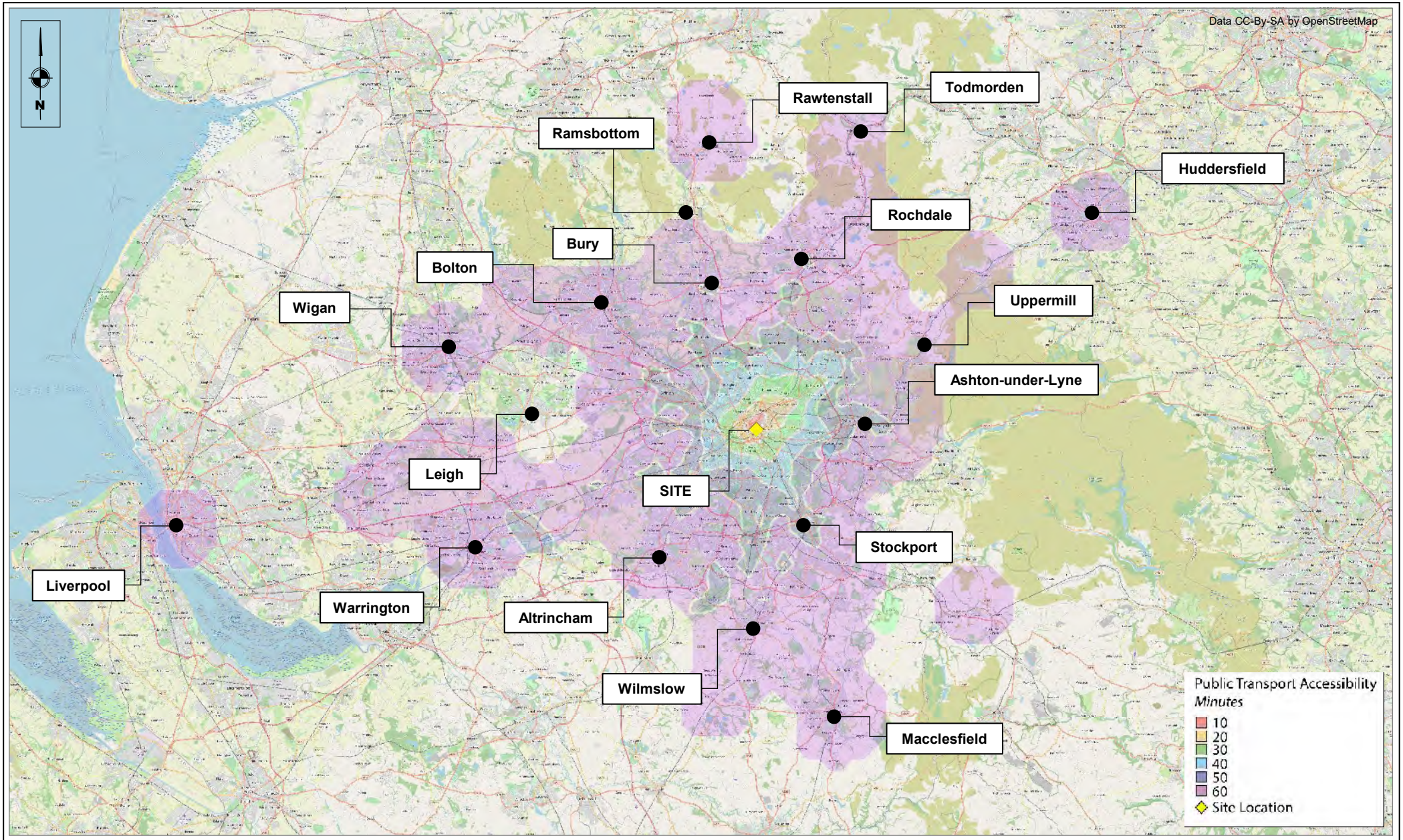
Project Title	Manchester Life, Ancoats Mobility Hub
Drawing Title	Accessibility: 800m Walking Catchment
Job Number	C16857
By	SG
Date	21.10.2020
Checked	CR
Scale	NTS
Status	-

Rev	Description	Date	By
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Drawing No.	APPENDIX D
Figure	2



Hydrock	Project Title: Manchester Life, Ancoats Mobility Hub	Drawing Title: Accessibility: 5km Cycling Catchment	Job Number: C16857	By: SG	Rev	Description	Date	By	Drawing No.: APPENDIX D
			Date: 11.09.2020	Checked: CR	-	-	-	-	
			Scale: NTS	Status: -	-	-	-	-	Figure: 3
					-	-	-	-	
					-	-	-	-	



Hydrock	Project Title: Manchester Life, Ancoats Mobility Hub	Drawing Title: Accessibility: 60minute Public Transport Catchment	Job Number: C16857	By: SG	Rev	Description	Date	By	Drawing No.: APPENDIX D
			Date: 11.09.2020	Checked: CR	-	-	-	-	
			Scale: NTS	Status: -	-	-	-	-	Figure: 4
					-	-	-	-	
					-	-	-	-	

Appendix E Snap Shot Car Park Survey

July 2019 – Poland Street Car Park



Radium Street – Jul 2019



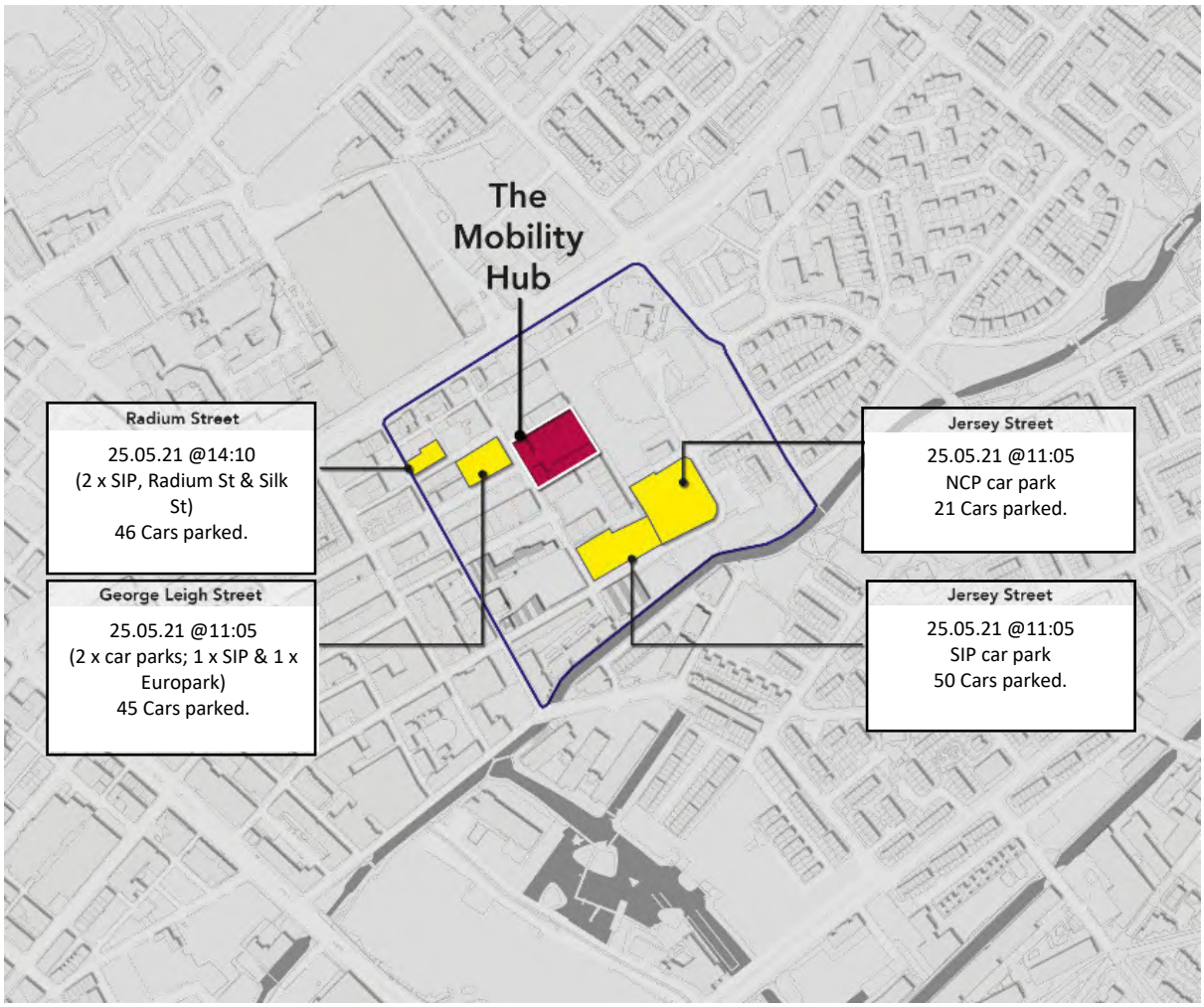
July 2019 – Jersey Street Sip



July 2019 – Jersey Street BPP



Poland Street Zone Parking Survey, 25th May 2021 @1105.



Jersey Street SIP (50 cars parked)









Jersey Street NCP (21 cars parked)





SIP Car Park - Radium Street / Silk Street (46 cars parked)













Silk Street (on Street) (4 cars parked).



SIP – Europark – George Leigh Street (45 cars parked)











George Leigh Street (between Poland Street and Connell Street) (32 cars parked).
Note 8 x formal bays avoided between Poland and Radium Street in favour of free fly parking on the other side of the road.









Radium Street – (21 Cars Parked)













Jersey Street / Wadeford Close / Rodney Street (47 cars ‘fly parked’ where there are no TRO yellow lines)









Jersey Street Mozart Close corner – (5 x cars double ‘fly -parked’ where no TRO yellow lines).



Jersey Street (14 Cars Parked)





Murray St (2 x cars parked 1 x delivery vehicles dropping off on double yellow lines).



Blossom Street (7 cars parked).



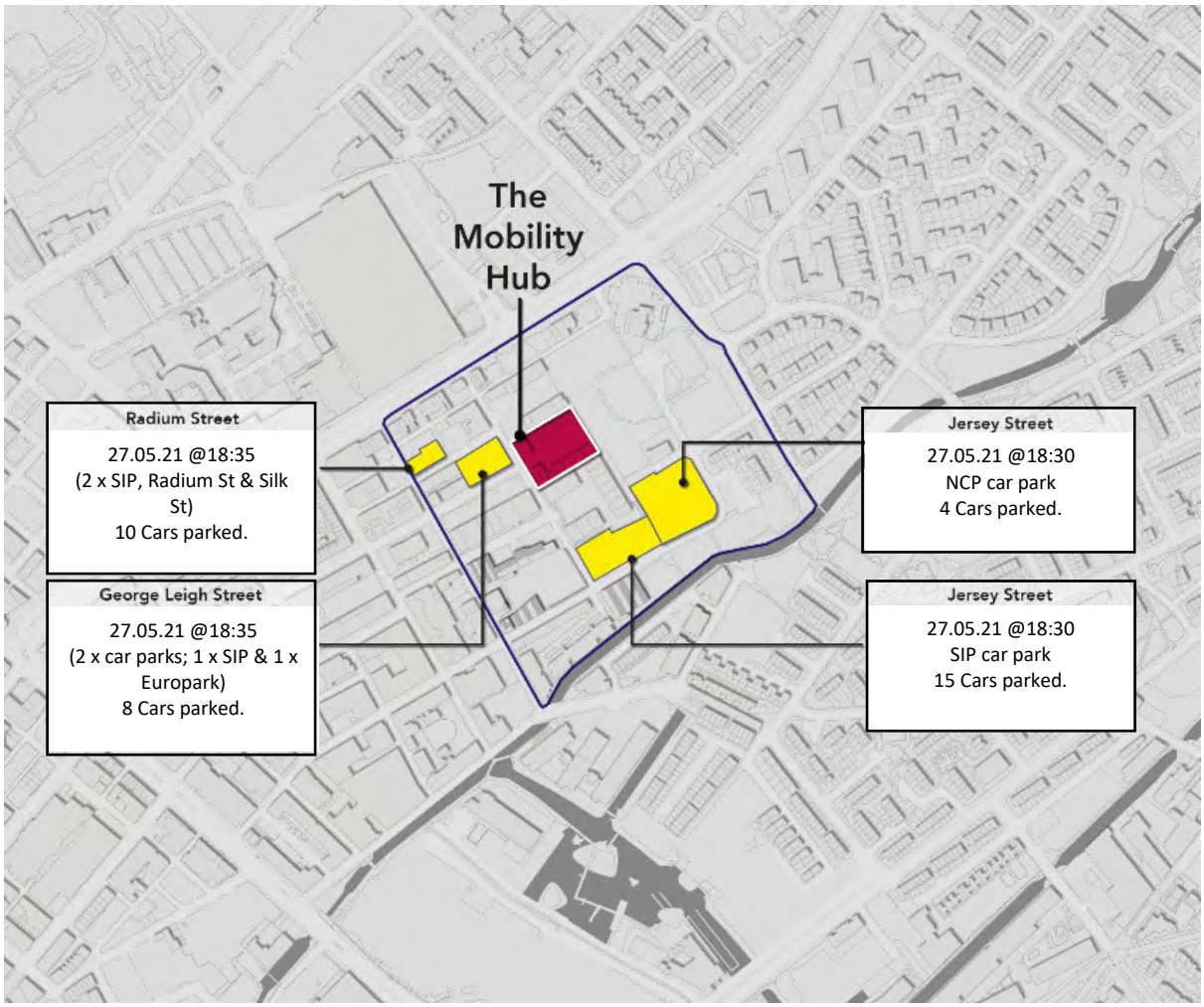
Sherratt Street (8 cars parked).



Bengal Street (5 cars parked)



Poland Street Zone Parking Survey, 27th May 2021 @18:30.



Jersey Street SIP (15 cars parked)



Jersey Street NCP (4 cars parked)



SIP Car Park - Radium Street / Silk Street (10 cars parked)

SIP – Europark – George Leigh Street (8 cars parked)



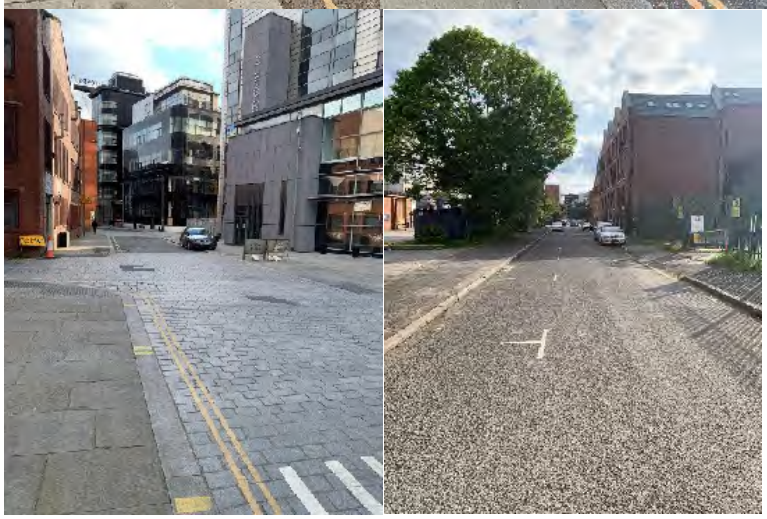
George Leigh Street (between Poland Street and Cornell Street) (32 cars parked).

Note 12 x formal bays between Poland St and Radium St -2 occupied, 4 car parked on single yellow lines on the opposite side of the road.

8 x resident parking bays free between Sherrat St and Cornell Street – one way system still ignored by cars coming from Great Ancoats Street.

3 out of 20 car parking bays free between Bengal St and Sherrat St.





Radium Street – (11 cars parked on single yellow lines) Did notice cars circling looking for a parking space.



Jersey Street / Wadeford Close / Rodney Street (12 cars 'fly parked' where there are no TRO yellow lines) – Note it is hard to differentiate between resident parking who live in these houses, parking for those who live in the apartments and commuter fly parking. Did observe some apartment residents returning from work to their cars and back to their apartments.



Jersey Street Mozart Close corner – (6 x cars double 'fly -parked' where no TRO yellow lines). Hard to differentiate between local resident parking, apartment resident parking and commuter fly parking.



Jersey Street (14 Cars Parked)
3 cars parked in 3 bays outside of Sawmill Court, 8 car parked in 8 bays outside of Jactin House, 6/7 bays parked in outside Beehive Mill.
2/8 cars parked in spaces outside of Flint Glass, 1 parked on single yellows, 1 on the pavement.



Murray St (No cars parked – double yellows on both sides of the carriageway)

Blossom Street (6 cars parked in bays – two parked on double yellow lines [8 cars in total])



Sherratt Street (11 cars parked – 6 free spaces.).



Bengal Street (6 cars parked in 6 parking bays, 1 car parking on double yellow lines waiting to pick up)



Naval Street – No parking bays -3 cars parked on single yellow lines, 2 of which on the pavement





Appendix F Impact Study Technical Note

TECHNICAL DESIGN NOTE

Hydrock

Project name	Ancoats Mobility Hub		
Design note title	Wider Neighbourhood Development Framework Traffic Study		
Document reference	16857-HYD-XX-XX-TP-RP-1003		
Author	Chris Peachey BA (Hons)		
Checker(s)	Chris Rushton BA (Hons) CMILT / Sam Denby BA (Hons) MSc CMILT		
Revision	P1.05		
Date	11 May 2021	Approved	✓

1. INTRODUCTION

1.1 Background

1.1.1 Hydrock have been instructed by Manchester Life Strategic Development Company Limited to undertake a study that quantifies the impact of the Back of Ancoats Neighbourhood Development Framework [NDF] without the provision of the proposed Mobility Hub.

1.1.2 This Technical Note outlines the impact of the NDF developments on the following junctions:

- A665 Great Ancoats Street/ Jersey Street;
- A62 Oldham Road/ A665 Swan Street;
- A62 Oldham Road/ Bengal Street;
- A62 Oldham Road/ Poland Street; and
- Poland Street/ Jersey Street.

1.2 Assumptions Informing the Methodology

1.2.1 The indicative number of residential apartments within the NDF are presented in **Table 1.1**, the number of units are an estimate based upon the potential height and scale achievable on each plot. Based upon the assumption that each development will provide 30% parking for their developments the associated parking number is also presented.

Table 1.1 Back of Ancoats Quanta of Development

Plots	No. Residential Units	30% Parking Provision
Total	1,612	484

1.2.2 Within the NDF area it is estimated that there will be 1,612 apartments developed in the coming years and thus based on a 30% parking provision, there is requirement for 484 parking spaces spread throughout the masterplan area.

1.2.3 A car parking provision of the 30% is deemed to be appropriate in Ancoats. Ancoats is an edge of city centre neighbourhood with excellent access into the city core. There are observed lower levels of car ownership and travel to work data suggests 29% of people used a car as their primary mode of transport. Similar planning applications within similar city centre settings have had a parking provision of 30% or less.

1.2.4 The Mobility Hub will provide 410 parking spaces for residents, visitors and commuter use (inclusive of electric vehicle charging and car club bays), 150 cycle parking spaces (inclusive of TfGM cycle hire and changing facilities), parcel delivery services and some elements of employment/ retail/ hospitality. The 410 spaces represent an approximate parking provision of 25% for residents.

1.2.5 25% provision is appropriate for the Mobility Hub given that the Mobility Hub provides a suite of alternative travel options, including car club spaces, cycle hire, substantial cycle parking and associated changing facilities.

1.3 Methodology

1.3.1 An exercise has been undertaken using TRICS the industry standard software to understand the total number of vehicle trips associated with the developments. The TRICS outputs are presented in **Table 1.2** below.

Table 1.2 TRICS Person Trip Generation

	AM		PM	
	Arrivals	Departures	Arrivals	Departures
Person Trip Rate	0.104	0.519	0.451	0.218
Person Trip Generation (1,612 dwellings)	168	837	727	351

1.3.2 The person trip rate generated by TRICS has been factored by the 2011 Census Travel to Work data for Manchester (054) for Car Driver (29%). The resultant trips for the NDF developments are presented in **Table 1.3** below. The TRICS outputs are available in **Appendix B.**

Table 1.3 Trip Generation

Units	AM			PM		
	Arrivals	Departures	2-way	Arrivals	Departures	2-way
1612	49	243	291	211	102	313

1.3.3 Within the weekday AM peak period (08:30-09:30) it is forecast that there will be 291 two-way vehicular movements associated with the developments. Whilst in the weekday PM peak (17:00-18:00) 313 two-way vehicular movements are associated with the residential developments without the Hub.

1.3.4 The Trip Generation for the Hub is based upon TRICS and a First Principles Approach, discussed in more detail within the Mobility Hub Transport Assessment [TA] which provides the precise details of the methodology used to calculate the trip generation for the Mobility Hub, with the resultant Trip Generation numbers presented in **Table 1.4** below.

1.3.5 In summary, the Mobility Hub is assumed to be in its fifth year of operation after completion, whereby the majority of spaces designated for local residents are occupied. The Mobility Hub scenario recognises that each plot may provide a small amount of disabled parking bays, the number of trips generated by these bays is not considered to impact traffic flows throughout the NDF area.

1.3.6 The Mobility Hub will also act as parcel consolidation centre for apartment buildings within Ancoats and the NDF area, as such trips associated with parcel deliveries have also been added to the trip generation to ascertain the total number of trips to the area.

Table 1.4 Trip Generation Mobility Hub (Year 5)

YEAR 5						
Trip Categories	AM Peak (08:30-09:30)			PM Peak (17:00-18:00)		
	Arrivals	Departures	2-way	Arrivals	Departures	2-way
Existing Residents	26	114	140	104	55	159
*Visitors	0	0	0	0	0	0
Working Commuters	51	4	55	6	46	52
Parcel Delivery	49	49	98	36	36	72
TOTAL	**126**	**167**	**293**	**146**	**138**	**283**

**Note - would typically travel outside of Peak Hours*

1.3.7 It should be noted that the number of parcel trips has been informed by a study conducted by Manchester Life whereby the number of deliveries over the course of week was monitored at its existing sites within Ancoats. It is assumed that without the Mobility Hub, the parcel deliveries will be present on the local highway network and will still be associated with the NDF developments.

1.3.8 A comparison between the trip generation 'with' and 'without' the Hub is presented in Table 1.5 below.

Table 1.5 Trip Generation Comparison

	AM Peak		PM Peak	
	Hub	No Hub	Hub	No Hub
Residential / Commuters - Two-way trip gen	195	291	211	313
Parcels Two-way trip gen	98	98	72	72
Total Trip Gen	293	389	283	385

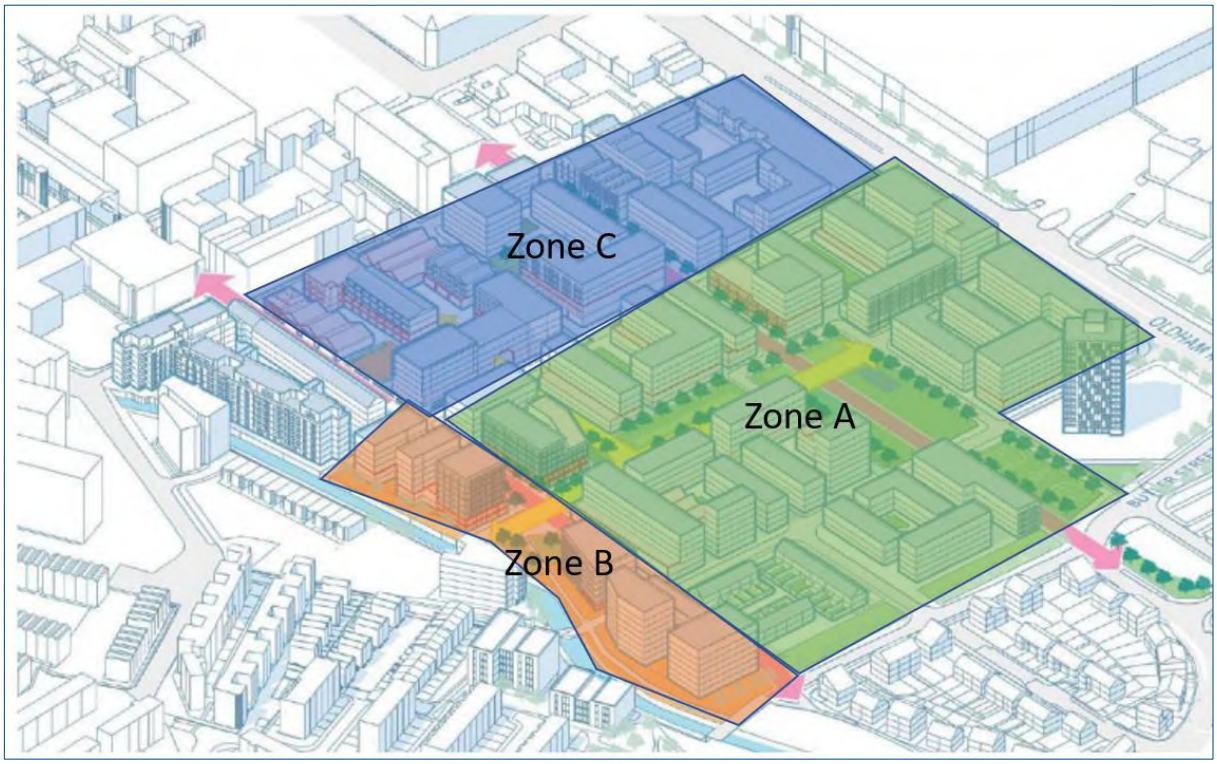
1.3.9 The trip generation exercise including forecast parcel deliveries suggests that within the weekday AM peak there will be 293 movements associated with the Mobility Hub and 389 if the Mobility Hub was not in situ, an increase in the study network of 96 movements.

1.3.10 Within the weekday PM peak, 283 movements are associated with the Mobility Hub and 385 without the Mobility Hub, an increase of 102 movements.

1.4 Trip Distribution

1.4.1 Trips associated with the NDF area plots have been consolidated into different zones for the purpose of this study. This is demonstrated in **Figure 1.1**. It is assumed that trips from the north west heading to the zones will route along Poland Street, whilst trips from the south will access the zones through the Great Ancoats Street/ Jersey Street junction.

Figure 1.1 NDF Zones



Source: Back of Ancoats Neighbourhood Development Framework.

1.4.2 The flows for the development sites have been distributed along the study network using a distribution profile based on the 2011 Journey to Work Census data. This is set out in the corresponding Transport Assessment.

2. ASSESSMENT

2.1.1 The resultant trip generation demonstrated in **Table 1.4** for the Mobility Hub has been compared against the full build out of the study area with a parking provision of 30% and distributed through the Base highway network. The resultant impacts on the five junctions within the study area is presented in **Table 2.1.**

2.1.2 The associated Base Network, Trip Distribution, and Trip Generation for the Hub and the NDF areas are presented in **Appendix A**.

Table 2.1 Junction Assessment

Junction	AM Peak			PM Peak		
	No Hub	Hub	% Difference	No Hub	Hub	% Difference
A665 Great Ancoats St Jersey Street	1,409	1,360	-3.5%	1,375	1,258	-8.5%
A62 Oldham Road / Swan Street	3,258	3,248	-0.3%	3,741	3,747	+0.2%
A62 Oldham Road/ Bengal St	1,767	1,753	-0.8%	1,867	1,850	-0.9%
A62 Oldham Road/ Poland St	1,718	1,677	-2.4%	2,095	2,052	-2.1%
Poland St/ Jersey St	398	324	-18.6%	392	313	-20%

2.1.3 The above table demonstrates that the provision of the Mobility Hub reduces the number of vehicle movements through all five junctions within the study area within the weekday AM peak and increases the movements through the Oldham Road and Swan Street Junction by a negligible amount within the weekday PM peak.

2.1.4 The Average Annual Daily Traffic (AADT) flows for the provision of the Mobility Hub and without the mobility Hub are presented in Table 2.2.

Table 2.2 AADT Junction Assessments

	No Hub	Hub	% Difference
A665 Great Ancoats Street / Jersey Street	18,267	17,746	-2.8%
A62 Oldham Road/ Swan Street	23,117	22,938	-0.9%
A62 Oldham Road/ Bengal Street	22,629	22,331	-1.3%
A62 Oldham Road/ Poland Street	25,193	24,672	-2.1%
Poland Street/ Jersey Street	5,039	4,096	-18.7%

2.1.5 Over the course of a 24-hour period, the provision of the Mobility Hub is forecast to reduce the number of movements through all of the junctions within the study area as the vehicle movements are consolidated to one site rather than routeing through the entirety of Ancoats.

2.1.6 It is likely that movements associated with the Mobility Hub will access and egress through the Oldham Road and Poland Street Junction. Trips associated with the wider NDF developments would likely route along Poland Street to Jersey Street to access the development plots before leaving the area through the Jersey Street and Great Ancoats Street junction.

2.1.7 A significant reduction within the peak periods and over a 24-hour period is noted at the junction of Poland Street and Jersey Street. This junction is constrained by a narrow carriageway width and will be flanked on three sides by future residential developments. The reduction in traffic through this junction with the provision of the Mobility Hub will help to reduce any conflict between users that may arise as developments are completed.

2.1.8 A public realm masterplan is also proposed for the NDF area that prioritises walking and cycling throughout Ancoats, the reduction in traffic throughout the wider masterplan area will aid in the realisation of the public realm ambitions and will reduce the traffic dominance of the space.

2.1.9 The Mobility Hub will provide 150 secure cycle parking spaces, cycle hire and changing facilities which will promote cycling as an attractive means of transport.

2.2 Distance Travelled

2.2.1 The provision of the Mobility Hub also reduces the distance travelled within the masterplan area. The Mobility Hub is located approximately 110m from Oldham Road and the Key Route Network and would capture trips here. The Mobility Hub is approximately 500m from Great Ancoats Street marking the boundary with the City Core, and is therefore in an accessible location for City Centre amenities. Without the Mobility Hub there would be an increase in the vehicular distance travelled within the NDF area and wider Ancoats.

- From the location of the Mobility Hub to the junction of Poland Street and Jersey Street is an additional 140m,
- And from the Poland Street/ Jersey Street junction to the junction with Great Ancoats Street is approximately 430m,

2.2.2 Thus, a total of 570m travelled by per vehicle accessing the developments within Zone B and leaving developments within Zones A and C. The total number of vehicles associated with the developments using this route is presented in Table 2.3.

Table 2.3 Distance Travelled

Link	AM (Distance travelled)	PM (Distance travelled)	24 hours (Distance travelled)
From George Leigh St/ Poland St Junction to the Poland St/ Jersey St Junction*	21,014m	20,218m	254,495m
Poland St/ Jersey St Junction to Great Ancoats St/ Jersey St Junction**	77,067m	75,725m	943,067m
Total (metres)	98,081m	95,943m	1,197,563m
Total (Km)	98.08km	95.94km	1,197.56km

** Calculation [AM: 150 vehicles*140m, PM:144 vehicles* 140m, 24hr: 1817 vehicles*140m]*

*** Calculation [AM 179 vehicles*430m, PM: 176 vehicles*430m, 24hr: 2193 vehicles*430m]*

2.2.3 Based upon a simple distribution of trips through the study area and the distances between key junctions, the provision of the Mobility Hub reduces the total distance travelled by vehicles associated with the NDF developments by 1,197km over a 24-hour period. This represents a significant reduction in distances travelled by private car and parcel delivery and has wider environmental benefits for the NDF area and wider Ancoats.

2.3 Benefits of the Hub

2.3.1 The Mobility Hub will provide 410 car parking spaces for residents, visitors and commuters and includes car club bays and electric vehicle charging points. This equates to an approximate parking provision of 25% for the masterplan area. The provision of Car Club bays within the Mobility Hub provide a viable alternative to private car use, wherein a car is not needed or used on daily basis by an individual.

2.3.2 Hydrock has reviewed the latest edition (2017/2018) of the 'England & Wales car Club Annual Survey'. The survey of car club members found that one car club space resulted in a reduction of 6 private cars with car ownership falling as new members join a car club. The car club spaces within the Mobility Hub can be reserved the proposed digital platform and are available 24 hours, 7 days a week.

2.3.3 With regards to potential "rat-running" to and from the Mobility Hub, the Ancoats NDF area will benefit from a traffic regulation order [TRO] review and a public realm strategy. The Mobility Hub will also have a signage and wayfinding strategy associated with it, to encourage users to use specific routes to and from the site.

2.3.4 The Mobility Hub will also provide cycle hire facilities in addition to 150 cycle parking spaces and associated changing facilities that encourages cycling as an attractive alternative to private car usage within the Ancoats and the wider City Centre.

2.3.5 The Mobility Hub will play an important role in connecting cyclists to the proposed Bee Network and North Eastern Cycle Route through Ancoats. The Mobility Hub also provides a central hub for parking (car and cycle), packages, whilst providing connections and improving upon local green spaces.

2.4 Wider Benefits

2.4.1 The provision of the Mobility Hub and the forecast reduction in movements through the study area is a significant benefit to the NDF area and the established community within Ancoats.

2.4.2 Ancoats by the nature of its design and demographic is a low traffic area with high amounts of pedestrians and cyclists, and a successful hospitality offering that benefits from a strong sense of place and public realm provision. The Covid-19 pandemic and the road closures to traffic further cemented the success of the area by reallocating space from vehicles towards space for people.

2.4.3 The Mobility Hub is complimentary to the TRO review and public realm masterplans being developed independently to the Mobility Hub. The strategies will seek to reduce the availability of on-street parking throughout the NDF area to provide improved public realm and amenity. The Mobility Hub also provides an opportunity to replace some of the removed on-street parking spaces.

2.4.4 Ancoats and New Islington is also home to the City Centre's first primary school, with children walking to school through Ancoats from the wider City Centre. The reduction in vehicle movements throughout the study area due to the provision of the Mobility Hub will result in social and environmental benefits.

2.4.5 The extended outdoor seating areas and the associated road closures to vehicles will likely be a feature of Ancoats in the future, to create larger areas for pedestrian and hospitality use. The consolidation of deliveries at the Mobility Hub will reduce the need for delivery vehicles to access pedestrian dominated spaces.

2.4.6 A consultation on Cutting Room Square was launched in 2020 with the results expected in 2021. Within the consultation there was reference to the desire to further pedestrianise parts of the Square permanently. If this ambition is achieved to further enhance the public realm offering within Ancoats, the Mobility Hub will play an important role in logistics within Ancoats.

2.4.7 Furthermore, the existing residential buildings will also benefit from the Mobility Hub as parcel deliveries can be consolidated and the associated vehicular movements removed from the local road network.

3. CONCLUSIONS

3.1.1 The provision of the Mobility Hub is forecast to reduce the number of vehicles throughout the NDF area and wider Ancoats when compared to each individual plot providing a parking provision of 30%.

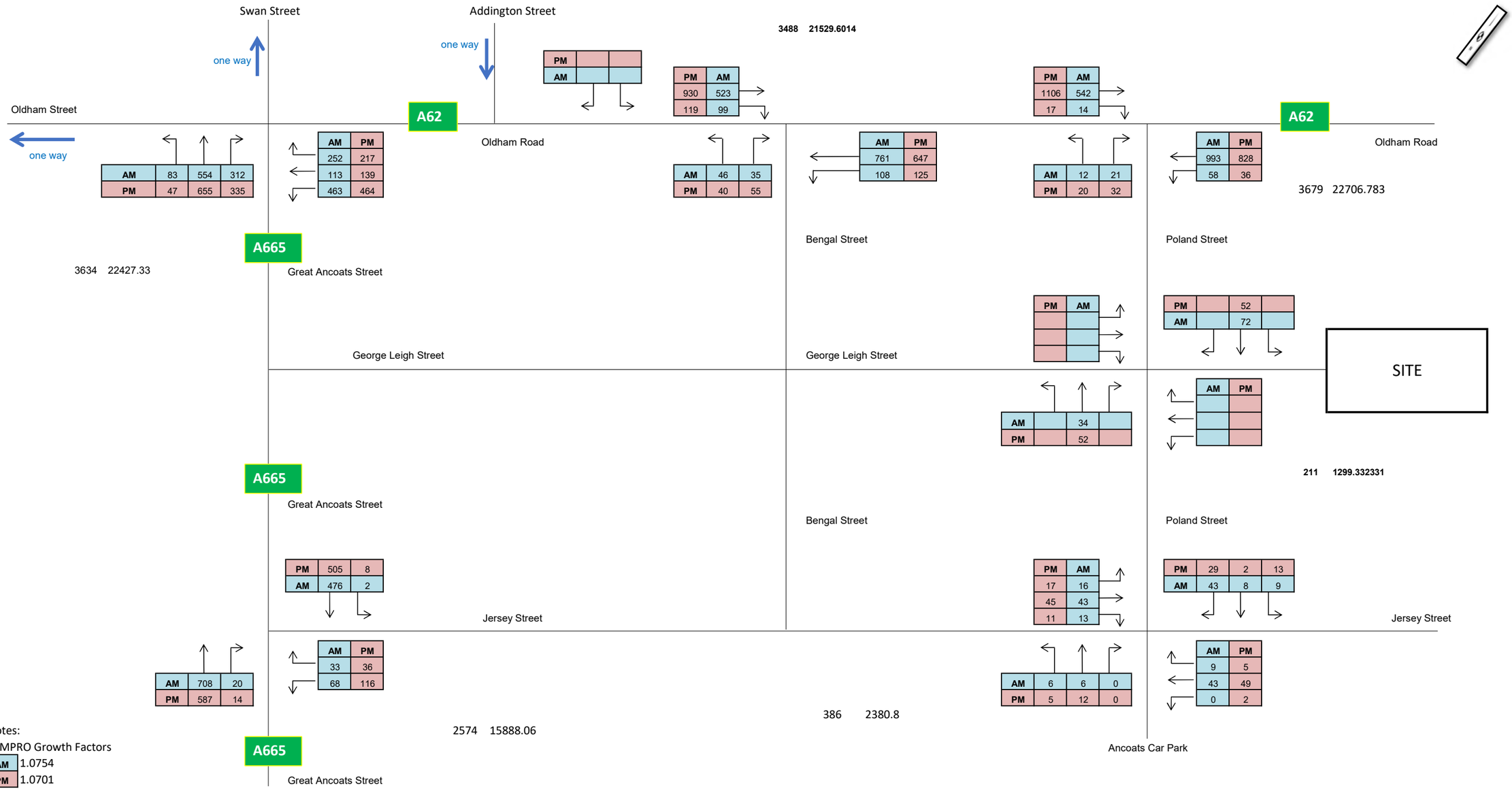
3.1.2 Within the weekday AM peak period all of the junctions are forecast to benefit from a reduction in vehicles flows, whilst in the weekday PM peak one junction is forecast to experience a minor increase. Over a 24-hour period, the provision of the Mobility Hub is forecast to reduce the number of vehicles throughout the NDF area and wider Ancoats.

3.1.3 The provision of the Mobility Hub also reduces the distances travelled within the NDF area by 1,197km over a 24-hour period, a significant reduction in vehicle distances and vehicles routeing through the masterplan area.

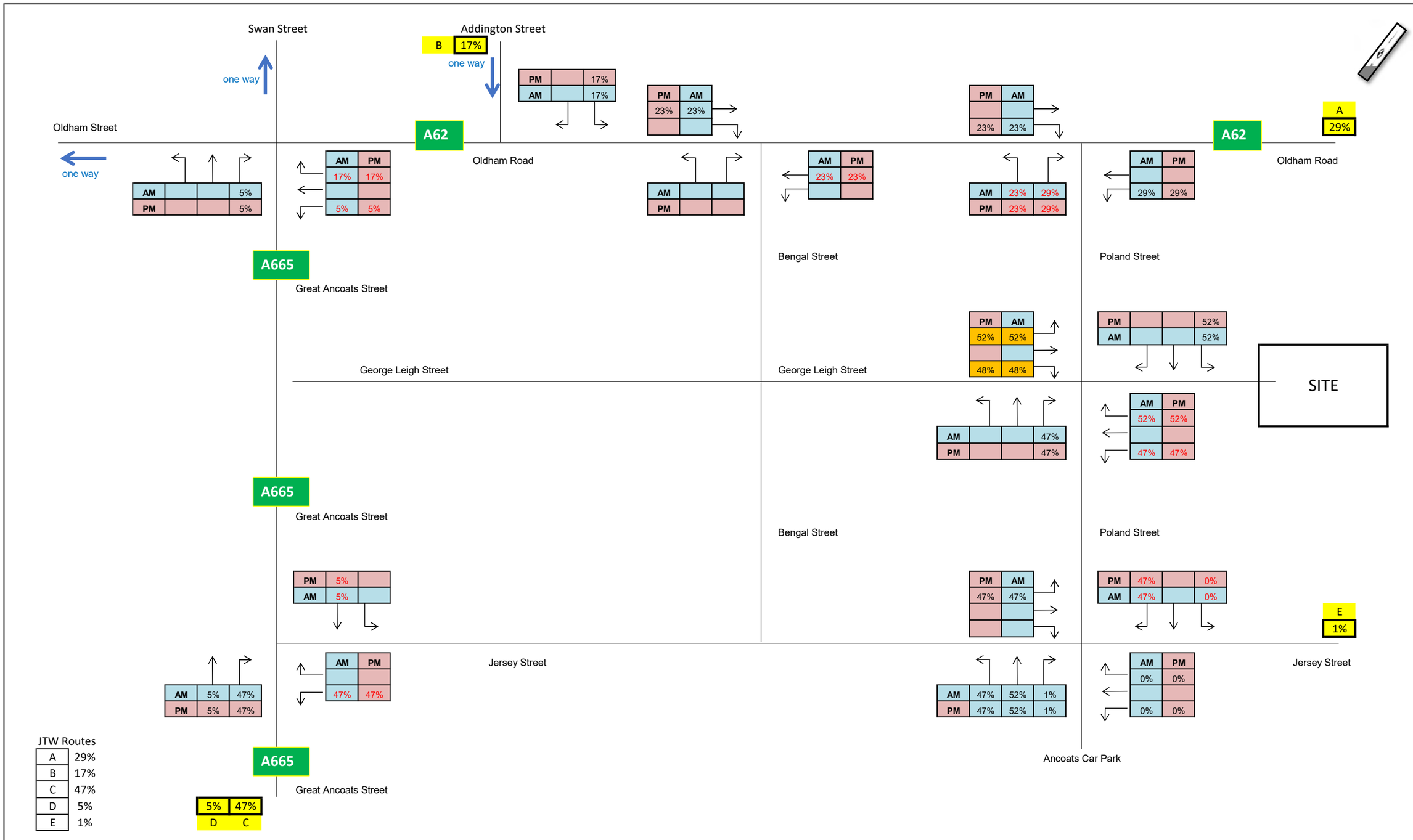
3.1.4 The Mobility Hub is complimentary to the wider Traffic Regulation Order and public realm strategies being developed within the area.

3.1.5 Without the provision of the Mobility Hub, parking provision will be spread throughout the NDF area and encourages vehicles to route through areas of public realm impacting on pedestrian and cycling amenity. Additionally, parcel deliveries will continue in an uncoordinated manner throughout the NDF area.

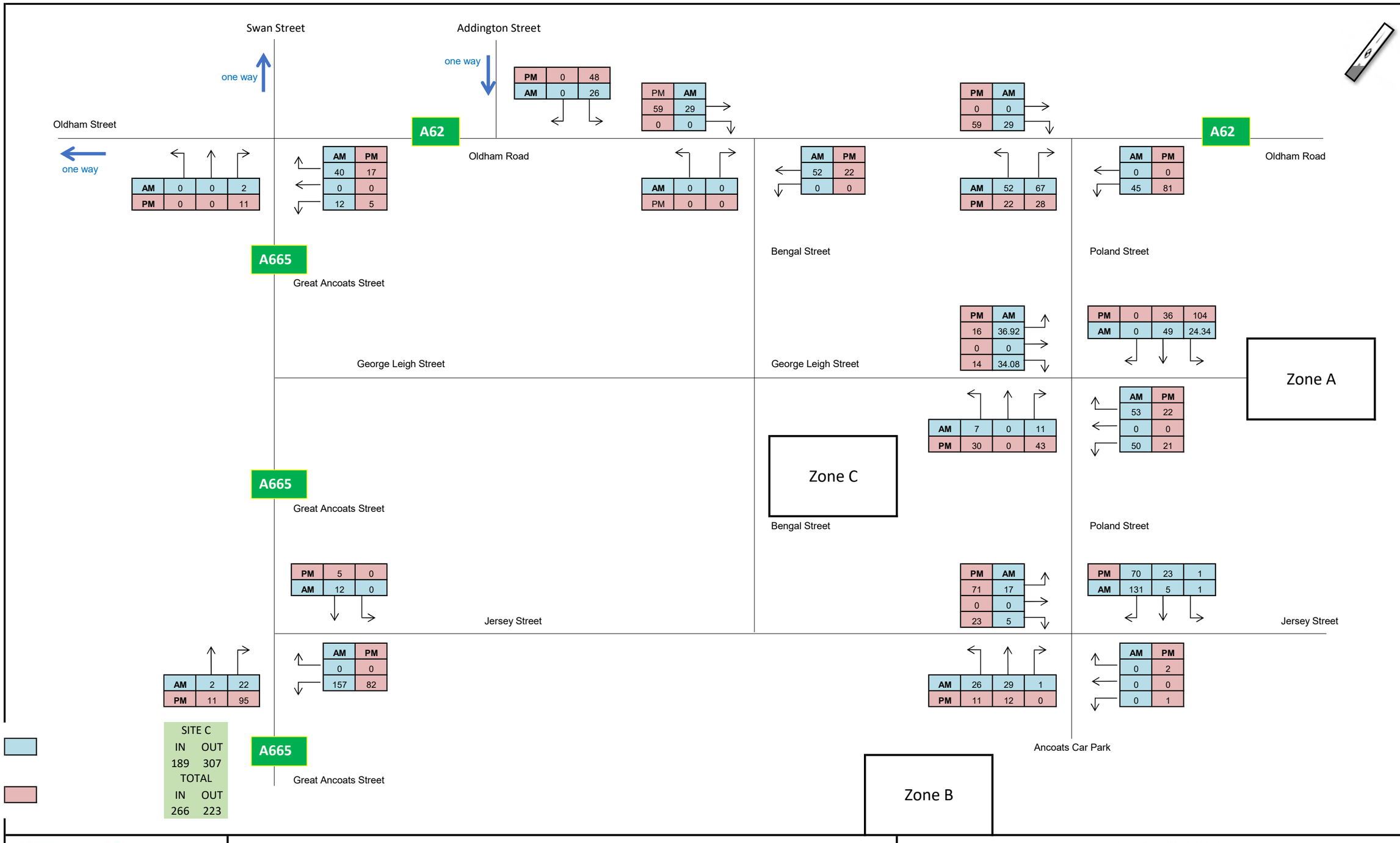
3.1.6 The provision of the Mobility Hub will provide a betterment in traffic terms for the NDF area and wider Ancoats, by consolidating vehicle trips in close proximity to Oldham Road and the Key Route Network.



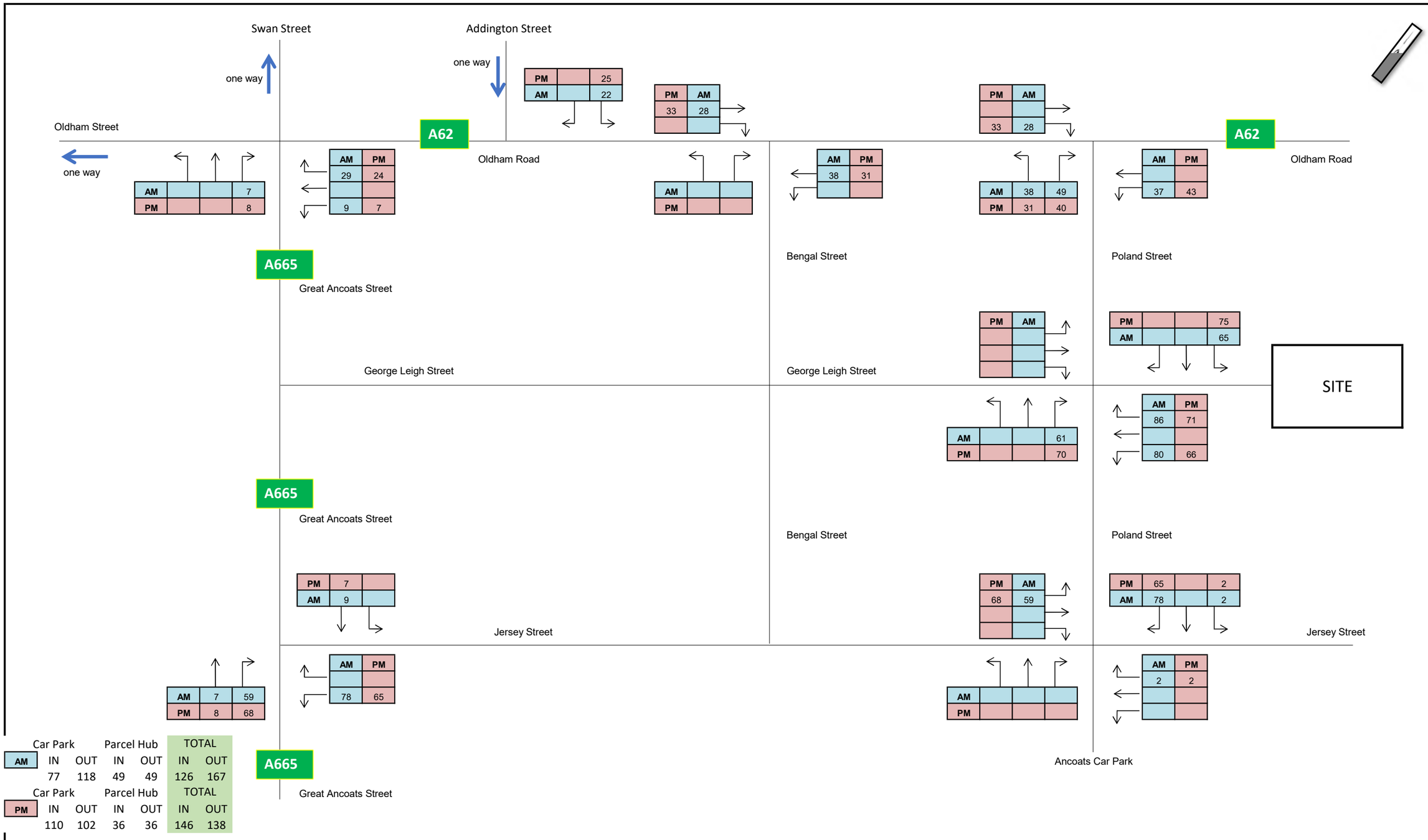
Hydrock	**Base Traffic Flows**	**07 April 2021**
		Job Number - C16857
	Proposed Mobility Hub Development, Poland Street, Ancoats	**Figure 1**



Hydrock	**AM & PM Peak Hour - Car %Trip Distribution**
	Proposed Mobility Hub Development, Poland Street, Ancoats
	07 April 2021
	Job Number - C16857
	Figure 2



Hydrock	**AM & PM Peak Hour - Total Area Trips and Parcels**	**07 April 2021**
		Job Number - C16857
	Proposed Mobility Hub Development, Poland Street, Ancoats	**Figure 3**



	Car Park		Parcel Hub		TOTAL	
AM	IN	OUT	IN	OUT	IN	OUT
	77	118	49	49	126	167
	Car Park		Parcel Hub		TOTAL	
PM	IN	OUT	IN	OUT	IN	OUT
	110	102	36	36	146	138

Hydrock

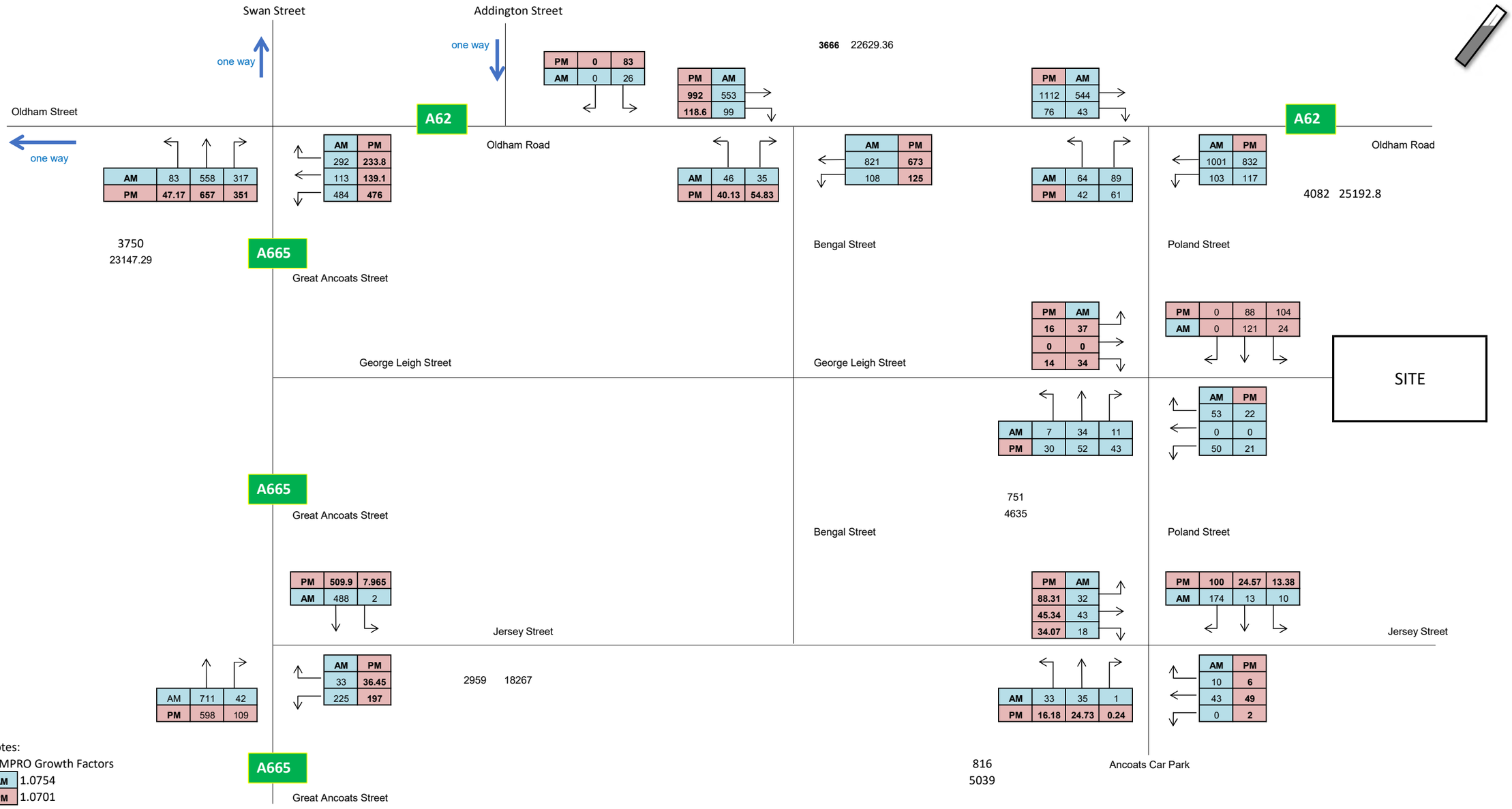
AM & PM Peak Hour - Hub Trips

Proposed Mobility Hub Development, Poland Street, Ancoats

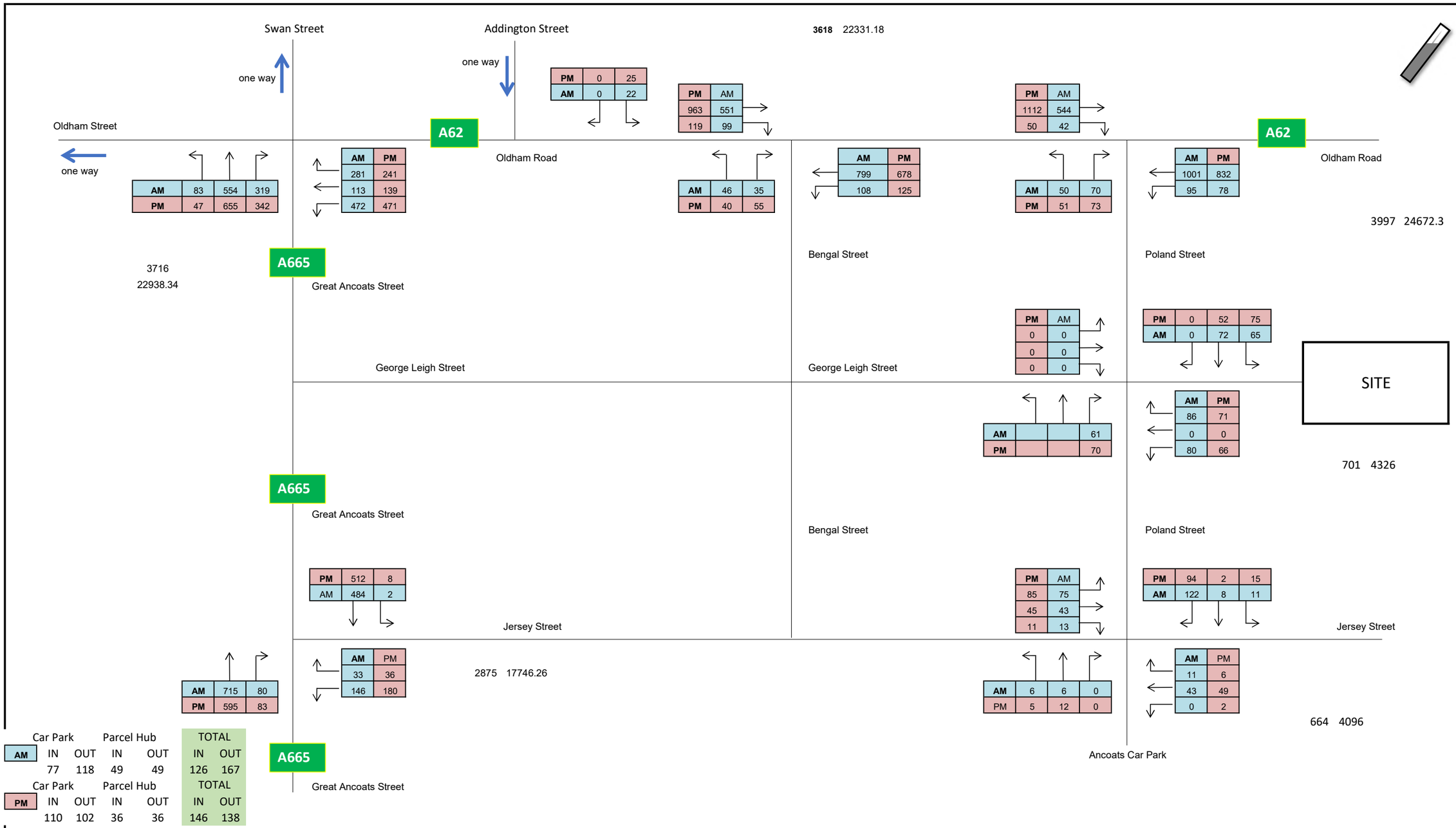
07 April 2021

Job Number - C16857

Figure 4

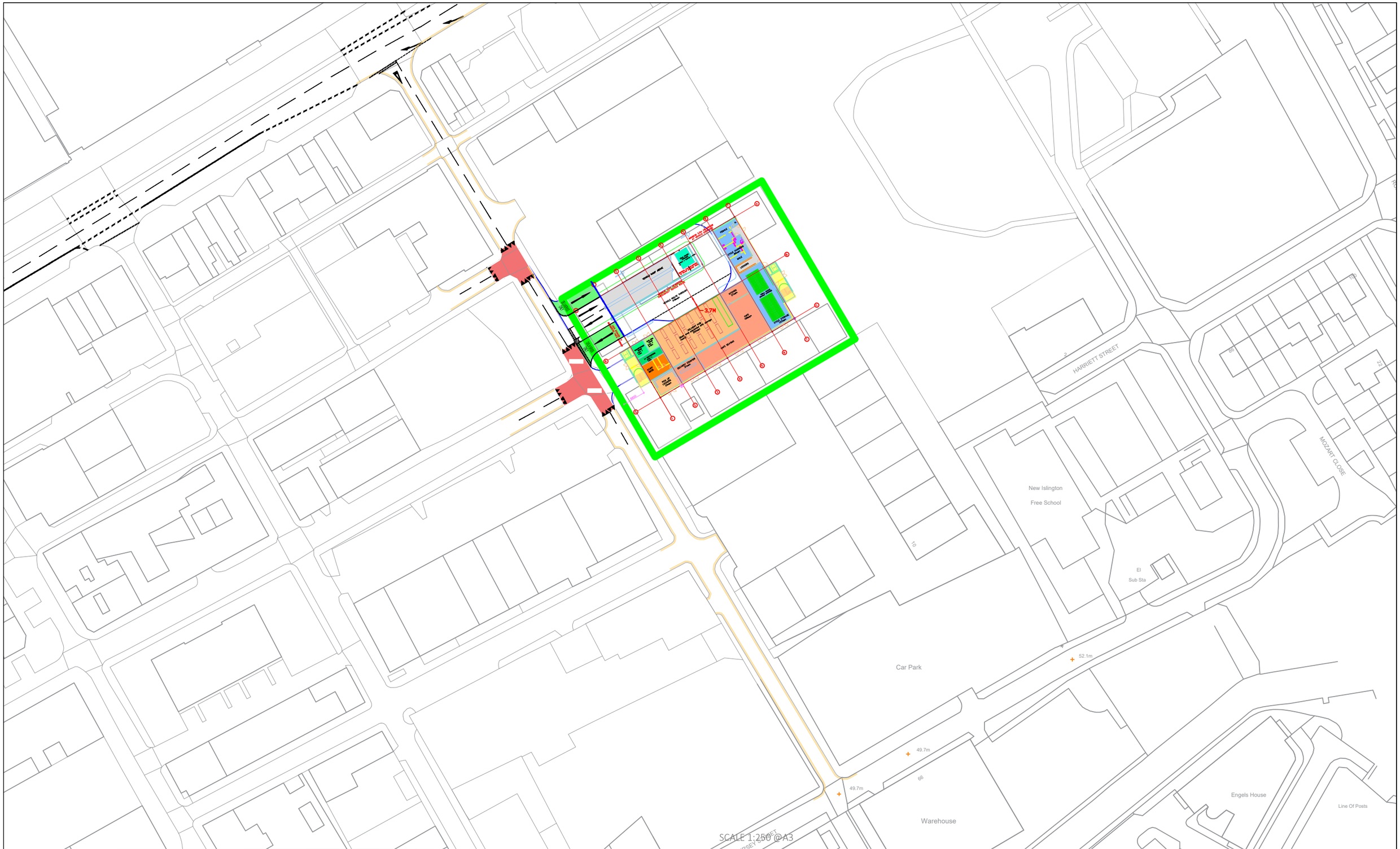


Hydrock	**AM & PM Peak Hour - Total Development Trips**	**07 April 2021**
		Job Number - C16857
	Proposed Mobility Hub Development, Poland Street, Ancoats	**Figure 5**



Hydrock	**AM & PM Peak Hour - Total Hub Trips**	**07 April 2021**
		Job Number - C16857
	Proposed Mobility Hub Development, Poland Street, Ancoats	**Figure 6**

Appendix G Proposed TRO / Speed Mitigation Plan



KEY PLAN

NOTES

NOTES *(CONTINUED)*

REVISIONS *(CONTINUED)*

REVISIONS

P1.1	FIRST ISSUE					
	CR	22.02.21	CR	22.02.21	SD	22.02.21

Hydrock

CLIENT
MANCHESTER LIFE

PROJECT
ANCOATS MOBILITY HUB

TITLE
PROPOSED TRO PLAN

HYDROCK PROJECT NO.
C-16481

SCALE @ A3
1:1000

STATUS DESCRIPTION
INFORMATION

STATUS
S0

DRAWING NO.
16481-HYD-XX-XX-DR-TP-0015

REVISION
P1.1

Appendix H Proposed Site Layout



Ground Floor GA Plan

1 : 200

2 0 2 4 6 8 10 m

SCALE 1:200

Note:
Do Not Scale from this drawing.
Dimensions are to be checked on site.
If in doubt please ask.

NOTE:

Areas are appropriate to the current design stage and are liable to change as a result of design development.

Layouts are indicative and subject to further review.

Rev	Date	Intls	Details
P9	11/03/21	AMP	Stage 3 Issue - Dry riser inlet indicated, future battery location indicated, distance to site boundary indicated, glazing between cycle store and cafe omitted, entry column/ANPR/barrier indicated, stair core 2 (ancoats green) arrangement flipped
P8	26/02/21	MWG	Stage 3 Issue
P7	24/02/21	MWG	Stair cores updated
P6	19/02/21	AMP	Stair cores offset from main building
P5	16/02/21	MWG	Stair cores offset from main structure
P4	15/01/21	MWG	WCs, kitchen store & glazed screen/doors added to Cafe. Secondary bin store added in Delivery Hub.
P3	21/12/20	AMP	Gridline 1-2 increased to 7700mm and Gridline 6-7 increased to 7700mm
P2	11/12/20	AMP	Bin Store area, delivery hub access door added to west elevation and internal wall added to delivery hub
P1	25/11/20	MWG	Updated as Option 4 layout

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Buttress

41 Bengal Street
Manchester
M4 6AF

T 0161 236 3303
E contact@buttress.net
Wwww.buttress.net

Project Title	Ancoats Hub
Client	Manchester Life
Location	Poland Street Manchester
Drawing ref	Ground Floor GA Plan

Date	23/03/2021 10:53:52	**Scale**	1 : 200
Checker	Checker	**Orig Paper Size**	A2
Job No:	**9032**	**Status**	**STAGE 3**

Project: Origin: Zone: Level: Type: Disc: Number: Rev:

9032-BA-XX-00-DR-A- (04)000- P9



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NOTES:
1. Do not scale from this drawing.
2. Always work to noted dimensions.
3. All dimensions are in millimetres unless otherwise stated.
4. All setting out, levels and dimensions to be agreed on site.
5. The dimensions of all materials must be checked on site before being laid out.
6. This drawing must be read with the relevant specification clauses and detail drawings.
7. Order of construction and setting out to be agreed on site.

KEY

- Rain Garden Planting
- Ornamental Planting
- Hedging
  1.2m Griselinia evergreen hedging
- Tree Planting
- C1 — INSITU CONCRETE PAVING WITH EXPOSED AGGREGATE
  Material: Cast insitu concrete
  Location: Pedestrian footpaths
  Product: Articimo Exposed by Aggregate Industries or other equal and approved.
  Colour: Ivory coloured bespoke matrix colour and aggregate mix
  Colour to be developed with supplier.
  Aggregate sizes 6-10mm.
- C2 — INSITU CONCRETE PAVING WITH EXPOSED AGGREGATE
  Material: Cast insitu concrete
  Location: Pedestrian footpaths
  Product: Articimo Exposed by Aggregate Industries or other equal and approved.
  Colour: Buff coloured bespoke matrix colour and aggregate mix
  Colour to be developed with supplier.
  Aggregate sizes 6-10mm.
- S1 — FEATURE SLAB PAVING
  Product: Dedale paving
  Location: Pedestrian active ground floor space
  Material: Concrete paving
  Colour: Grey range- to be confirmed by client
  Finish: Sandblasted and ribbed - to be confirmed by client
  Laid: Tesselating bond
  Supplier: Urbastyle or other equal and approved
- AM1 — Asphalt macadam surface
  To engineer's specification and details.
- TP1 — TACTILE PAVING
  Product: Corduroy tactile paving
  Material: Concrete
  Location: All steps to include concrete tactile corduroy to top and bottom of steps.
  Dimensions: 400mm(W) x 400mm(L) x 50mm(D)
  Colour: Charcoal
  Pattern: Stack bond
  Laid: Flexibly
  Supplier: Marshalls or other equal and approved

STEPS

- ST1 — CONCRETE STEPS
  Product: Solid concretesteps
  To include a contrasting 55x55mm strip to front nose of step. Concrete strip recessed and infilled with a darker colour resin inlay.
- Lighting Bollard
- Sculptural Lighting Column
- Catenary Lighting
- Inground Tree Uplight
- Flexible Linear luminaire
- Timber bench
- Timber bike chain shaped seating
- External Cafe Seating
- F1 — HANDRAILS TO STAIRS
  Galvanised steel
  1100mm (H) x 50mm (W)

Revision	Date	Description	Drawn	Apprvd.
S4-P02	16/03/21	Updated Public realm after change to building location	CS	KR
S4-P01	26/02/21	First Issue	CS	KR

Planit I.E. Limited
E: info@planit-ie.com **W:** planit-ie.com
MANCHESTER
2 Back Grafton St , Altrincham, WA14 1DY
T: 0161 928 9281
LONDON
Unit 6 Waterside, 44-48 Wharf Road,London, N1 7UX
T: 0207 253 5678
LIVERPOOL
Tempest 5.3, 12 Tithebarn Street, Liverpool, L2 2DT
T: 0151 363 1230

Client Manchester Life

Project Ancoats Mobility Hub

Drg Title Landscape General Arrangement

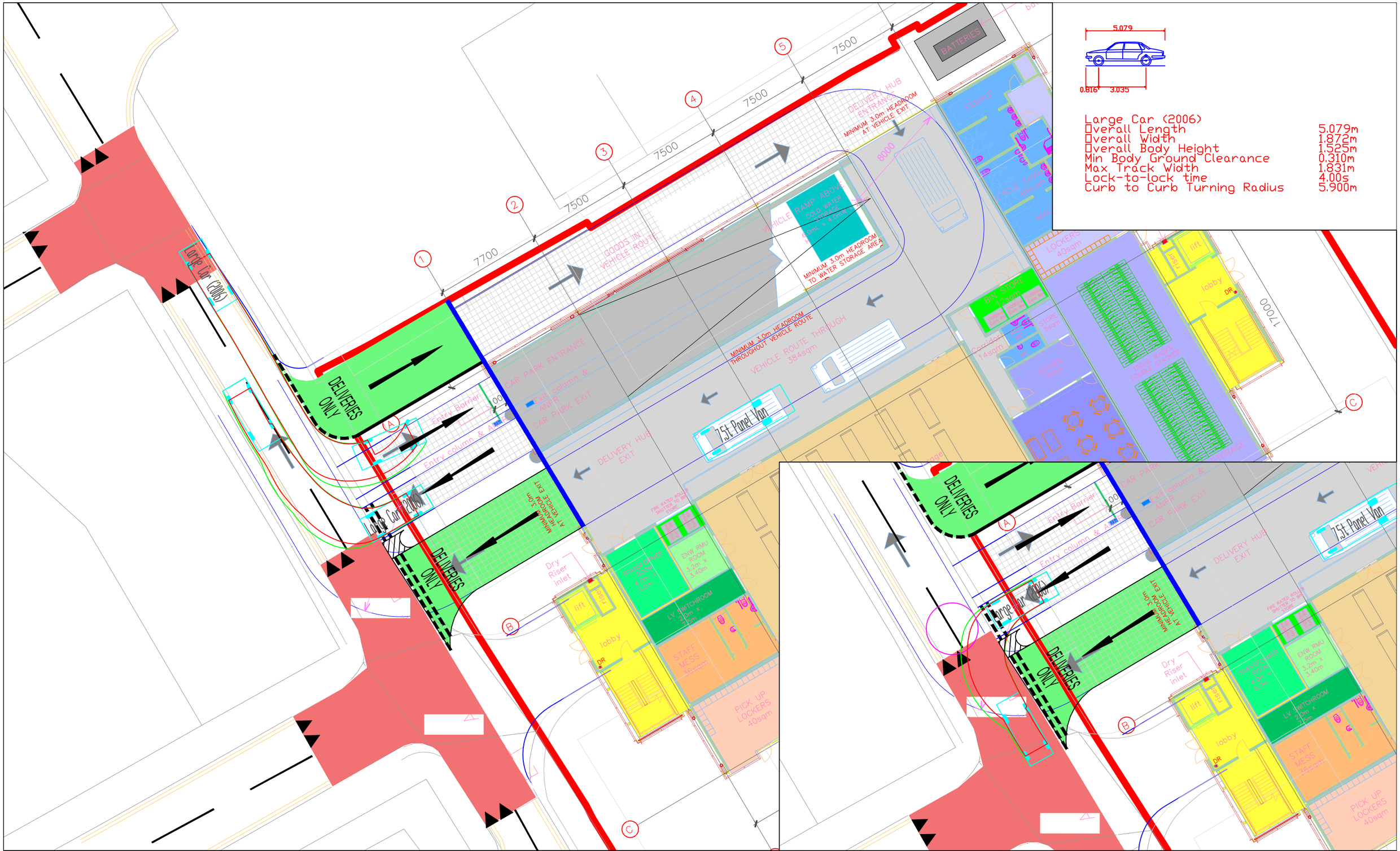
Created on	Created by	Approved by
26/02/2021	CS	KR

Scale	Size	Workstage
1:200	A1	Stage 3

Drg No.	Suitability	Revision
2522-PLA-00-00-DR-L-0001	S4	P02

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Appendix I Proposed Site Access



Large Car (2006)	
Overall Length	5.079m
Overall Width	1.872m
Overall Body Height	1.525m
Min Body Ground Clearance	0.310m
Max Track Width	1.831m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	5.900m

KEY PLAN

NOTES

NOTES *(CONTINUED)*

REVISIONS *(CONTINUED)*

REVISIONS

P1.1	FIRST ISSUE					
	CR	18.03.21	CR	18.03.21	SD	18.03.21

Hydrock

CLIENT
MANCHESTER LIFE

PROJECT
ANCOATS MOBILITY HUB

TITLE
PROPOSED SITE ACCESS - SWEPT PATH ANALYSIS (LARGE CAR)

HYDROCK PROJECT NO.
C-16481

SCALE @ A3
1:250

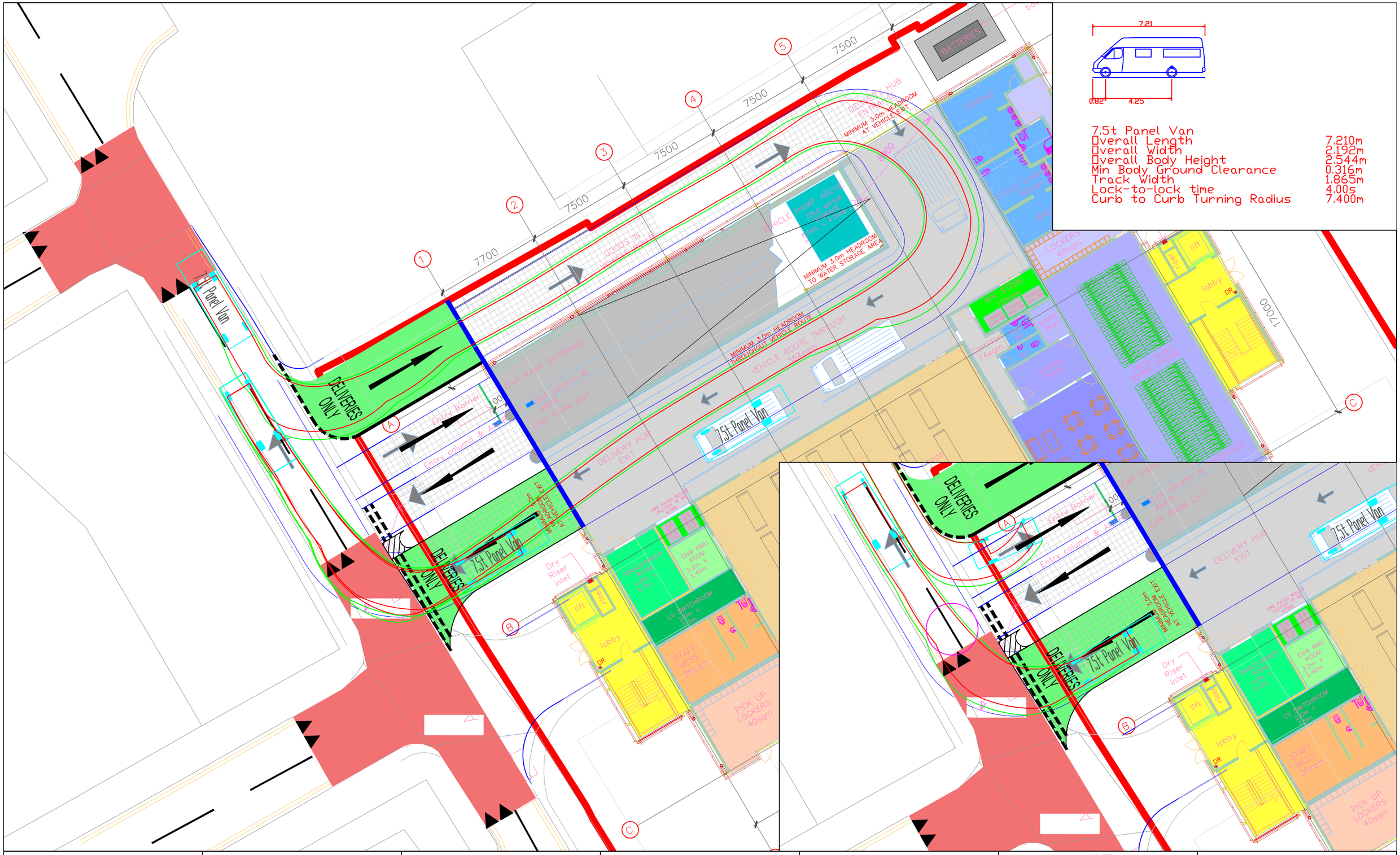
STATUS DESCRIPTION
INFORMATION

STATUS
S0

DRAWING NO.
16481-HYD-XX-XX-DR-TP-0017

REVISION
P1.1

Appendix J Swept Path Analysis - Waste Collection, Deliveries and Additional Vehicles



KEY PLAN	NOTES	NOTES *(CONTINUED)*	REVISIONS *(CONTINUED)*	REVISIONS	
				P1.1 FIRST ISSUE CR 18.03.21 CR 18.03.21 SD 18.03.21	

Hydrock

CLIENT: MANCHESTER LIFE

PROJECT: ANCOATS MOBILITY HUB

TITLE: PROPOSED SITE ACCESS - SWEPT PATH ANALYSIS (7.5T PANEL VAN)

HYDROCK PROJECT NO.: C-16481

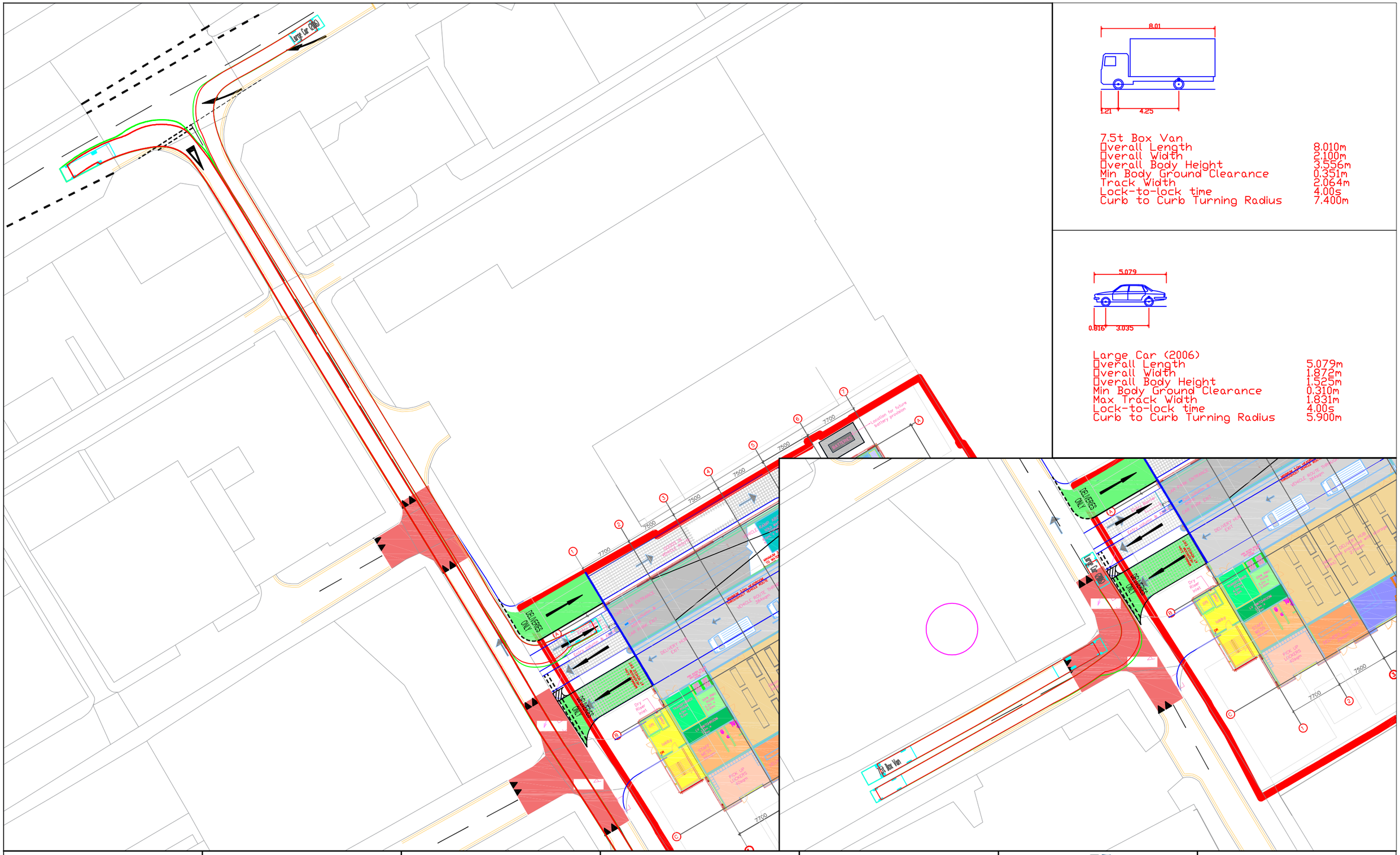
SCALE @ A3: 1:250

STATUS DESCRIPTION: INFORMATION

STATUS: S0

DRAWING NO.: 16481-HYD-XX-XX-DR-TP-0018

REVISION: P1.1



7.5t Box Van

Overall Length	8.010m
Overall Width	2.100m
Overall Body Height	3.556m
Min Body Ground Clearance	0.351m
Track Width	2.064m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	7.400m

Large Car (2006)

Overall Length	5.079m
Overall Width	1.872m
Overall Body Height	1.525m
Min Body Ground Clearance	0.310m
Max Track Width	1.831m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	5.900m

KEY PLAN

NOTES

NOTES *(CONTINUED)*

REVISIONS *(CONTINUED)*

REVISIONS

P1.1	FIRST ISSUE					
	CR	19.04.21	CR	19.04.21	SD	19.04.21

Hydrock

CLIENT

MANCHESTER LIFE

PROJECT

ANCOATS MOBILITY HUB

TITLE

ADDITIONAL VEHICLE - SWEPT PATH ANALYSIS (7.5T BOX VAN & LARGE CAR)

HYDROCK PROJECT NO.
C-16481

SCALE @ A3
1:250

STATUS DESCRIPTION
INFORMATION

STATUS
S0

DRAWING NO.
16481-HYD-XX-XX-DR-TP-0019

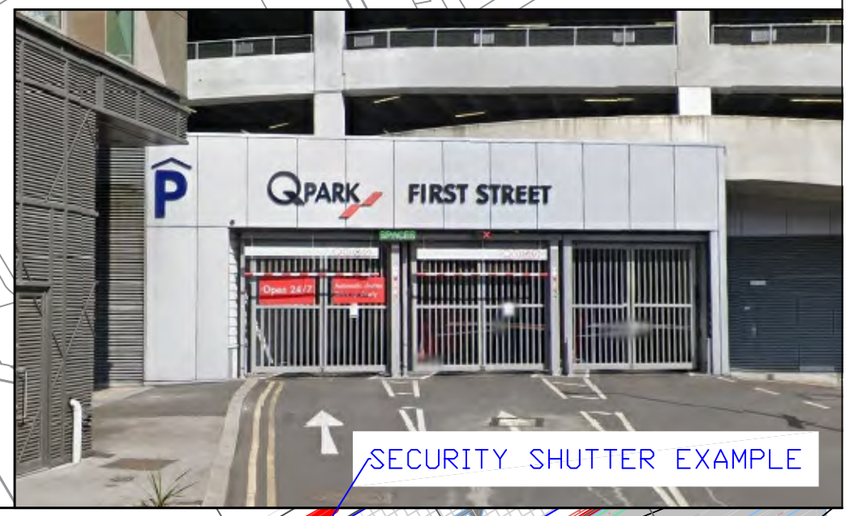
REVISION
P1.1

Appendix K Proposed Signage

BESPOKE ANCOATS HUB SIGNAGE

IN

OUT



SECURITY SHUTTER EXAMPLE

SCALE 1:250 @A3

KEY PLAN	NOTES	NOTES *(CONTINUED)*	REVISIONS *(CONTINUED)*

REVISIONS

P1.2	FIRST ISSUE	CR	19.04.21	CR	19.04.21	SD	19.04.21
P1.1	FIRST ISSUE	CR	22.02.21	CR	22.02.21	SD	22.02.21

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CLIENT: MANCHESTER LIFE

PROJECT: ANCOATS MOBILITY HUB

TITLE: PROPOSED SIGNAGE / ACCESS DESIGN

HYDROCK PROJECT NO.: C-16481

SCALE @ A3: 1:1000

STATUS DESCRIPTION: INFORMATION

STATUS: S0

DRAWING NO.: 16481-HYD-XX-XX-DR-TP-0014

REVISION: P1.2

Appendix L MLSDCL Technical Note

Sam Denby BA (Hons) MSc CMILT
Technical Director Transportation
Hydrock
Northern Assurance Buildings,
9-21 Princess St,
Albert Square,
Manchester,
M2 4DN

Manchester Life Development Company Limited
Unit 5, Royal Mill, 17 Redhill Street
Manchester
M4 5BA
T (0) 161 302 9765
www.mcrlife.co.uk

Date 12/03/21

Dear Sam,

Reference: Ancoats Mobility Hub, residential parking assumptions.

Our assumptions on the parking requirement for new residential and commercial units in the Back of Ancoats are based upon the updated Ancoats and New Islington Neighbourhood Development Framework (NDF). The NDF update was approved by Manchester City Council's (MCC) Executive Committee in November 2019 and describes the potential for up to 1612 new homes and 31,000 sqm of new commercial space in the Back of Ancoats. On that basis, if a 30% car parking allowance is assumed for the residential developments, this generates a requirement for 483 car parking spaces.

Whilst we note that this is more spaces than proposed at the Mobility Hub, the alternative mobility options proposed at the AMH provide options other than car ownership. This is designed to encourage a modal shift away from car ownership. In addition to that, a tenure model is being designed to allow car parking sold by residents back to the operator should they find more sustainable means of transport. On that basis, we are confident of the facilities capacity.

The AMH has been developed to aggregate the residential and commercial parking for all developments coming forward under the NDF. MCC are progressing a Collaboration Agreement with local landowners to confirm those commitments to the AMH.

At this point, the assumptions in relation to the timing of known developments coming forward in response to the NDF update, are an estimate informed by high level discussions with landowners. The below table summarises our understanding of the likely sequence of developments and the number of car parking spaces each will occupy in the AMH. These assumptions have been carried forward into the viability appraisal for the AMH.

Mobility Hub operational	Mar 2023	408 Spaces operational*
MLDC Eliza Yard	Aug 2023	40 Spaces taken (368 remain)
MLDC Jersey Wharf	Jan 2026	60 Spaces taken (308 remain)
Rodney Street	Jan 27	40 Spaces taken (268 remain
MLDC Plot A	Jan 2027	70 Spaces taken (198 remain)
Plot 16	Oct 2027	60 Spaces taken (138 remain)
Plot 10	Mar 2029	60 Spaces taken, (78 remain)

* Whilst the Mobility Hub will be complete in advance of Eliza Yard, MLDC will buy the Eliza Yard spaces on completion of the Mobility Hub.

Whilst the above does suggest a total of 78 spaces would remain following developments, it is important to note that the above table does not represent all the development sites identified in the NDF update. It only represents those which we understand are currently being progressed through a design process by respective landowners.

It is also worth noting that MCC are developing a Public Realm & Transport Management Strategy which will propose a holistic, area-based approach to public realm, street hierarchy, traffic flow and parking management in the Back of Ancoats. This strategy is being developed in the context of the AMH being one of the developments coming forward.

I trust the above provides sufficient rationale for the assumptions made in relation to parking uptake at the AMH.

Sincerely,



Ian Knight

Manchester Life
Programme Manager

Appendix M TRICS Data

Calculation Reference: AUDIT-540501-210511-0503

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : A - OFFICE

TOTAL VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	ES	EAST SUSSEX	1 days
	HF	HERTFORDSHIRE	1 days
	SO	SLOUGH	1 days
04	**EAST ANGLIA**		
	CA	CAMBRIDGESHIRE	2 days
	NF	NORFOLK	1 days
05	**EAST MIDLANDS**		
	LE	LEICESTERSHIRE	1 days
	NR	NORTHAMPTONSHIRE	1 days
06	**WEST MIDLANDS**		
	WO	WORCESTERSHIRE	1 days
08	**NORTH WEST**		
	GM	GREATER MANCHESTER	1 days
	MS	MERSEYSIDE	1 days
09	**NORTH**		
	DH	DURHAM	1 days
10	**WALES**		
	CO	CONWY	1 days
	PS	POWYS	1 days
11	**SCOTLAND**		
	DU	DUNDEE CITY	1 days
	EB	CITY OF EDINBURGH	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: Gross floor area
Actual Range: 3200 to 11250 (units: sqm)
Range Selected by User: 3000 to 15000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/14 to 22/10/20

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:

Monday	1 days
Tuesday	5 days
Wednesday	4 days
Thursday	6 days

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

Selected survey types:

Manual count	16 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:

Town Centre	3
Edge of Town Centre	7
Edge of Town	6

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:

Industrial Zone	1
Commercial Zone	4

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.

Secondary Filtering selection:

Use Class:

Not Known	16 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Site Operations Breakdown:
All Surveys Included

Population within 500m Range:
All Surveys Included

Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	3 days
10,001 to 15,000	2 days
15,001 to 20,000	2 days
25,001 to 50,000	6 days
50,001 to 100,000	1 days

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	1 days
50,001 to 75,000	2 days
75,001 to 100,000	1 days
100,001 to 125,000	2 days
125,001 to 250,000	6 days
250,001 to 500,000	1 days
500,001 or More	2 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	8 days
1.1 to 1.5	5 days
1.6 to 2.0	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	14 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	16 days

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

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1 **CA-02-A-05** **OFFICES** **CAMBRIDGESHIRE**
NEW ROAD
PETERBOROUGH

Town Centre
Built-Up Zone
Total Gross floor area: 8793 sqm
Survey date: TUESDAY *16/12/14* *Survey Type: MANUAL*

2 **CA-02-A-06** **OFFICES** **CAMBRIDGESHIRE**
LYNCH WOOD
PETERBOROUGH

Edge of Town
Commercial Zone
Total Gross floor area: 4040 sqm
Survey date: WEDNESDAY *19/10/16* *Survey Type: MANUAL*

3 **CO-02-A-01** **GOVERNMENT OFFICES** **CONWY**
NARROW LANE
LLANDUDNO JUNCTION

Edge of Town
Commercial Zone
Total Gross floor area: 6186 sqm
Survey date: WEDNESDAY *28/03/18* *Survey Type: MANUAL*

4 **DH-02-A-03** **ENGINEERING COMPANY** **DURHAM**
ALDERMAN BEST WAY
DARLINGTON

Edge of Town
No Sub Category
Total Gross floor area: 3530 sqm
Survey date: THURSDAY *18/10/18* *Survey Type: MANUAL*

5 **DU-02-A-01** **OFFICES** **DUNDEE CITY**
GREENMARKET
DUNDEE

Edge of Town Centre
Development Zone
Total Gross floor area: 3200 sqm
Survey date: THURSDAY *27/04/17* *Survey Type: MANUAL*

6 **EB-02-A-06** **REGUS OFFICES** **CITY OF EDINBURGH**
ST ANDREW SQUARE
EDINBURGH

Town Centre
Built-Up Zone
Total Gross floor area: 4500 sqm
Survey date: WEDNESDAY *16/03/16* *Survey Type: MANUAL*

7 **ES-02-A-12** **COUNCIL OFFICES** **EAST SUSSEX**
VICARAGE LANE
HAILSHAM

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 3640 sqm
Survey date: THURSDAY *26/11/15* *Survey Type: MANUAL*

8 **GM-02-A-08** **REGUS** **GREATER MANCHESTER**
FOUNTAIN STREET
MANCHESTER

Town Centre
Built-Up Zone
Total Gross floor area: 3960 sqm
Survey date: MONDAY *26/09/16* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 **HF-02-A-04** **OFFICES** **HERTFORDSHIRE**
STATION WAY
ST ALBANS

Edge of Town Centre
Residential Zone
Total Gross floor area: 5000 sqm
Survey date: THURSDAY *02/10/14* *Survey Type: MANUAL*

10 **LE-02-A-04** **COUNCIL OFFICES** **LEICESTERSHIRE**
BURTON STREET
MELTON MOWBRAY

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 3981 sqm
Survey date: WEDNESDAY *30/11/16* *Survey Type: MANUAL*

11 **MS-02-A-02** **SCIENCE PARK OFFICES** **MERSEYSIDE**
MOUNT PLEASANT
LIVERPOOL

Edge of Town
Built-Up Zone
Total Gross floor area: 11250 sqm
Survey date: TUESDAY *13/11/18* *Survey Type: MANUAL*

12 **NF-02-A-03** **OFFICES** **NORFOLK**
NORTH QUAY
GREAT YARMOUTH

Edge of Town Centre
Commercial Zone
Total Gross floor area: 5500 sqm
Survey date: TUESDAY *12/09/17* *Survey Type: MANUAL*

13 **NR-02-A-01** **OFFICES** **NORTHAMPTONSHIRE**
THE LAKES
NORTHAMPTON

Edge of Town
Commercial Zone
Total Gross floor area: 9225 sqm
Survey date: THURSDAY *22/10/20* *Survey Type: MANUAL*

14 **PS-02-A-01** **COUNCIL OFFICES** **POWYS**
SEVERN ROAD
WELSHPOOL

Edge of Town Centre
No Sub Category
Total Gross floor area: 3920 sqm
Survey date: TUESDAY *12/05/15* *Survey Type: MANUAL*

15 **SO-02-A-02** **COUNCIL OFFICES** **SLOUGH**
BATH ROAD
SLOUGH

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 5050 sqm
Survey date: THURSDAY *27/02/14* *Survey Type: MANUAL*

16 **WO-02-A-03** **IT SERVICES** **WORCESTERSHIRE**
STOURPORT ROAD
KIDDERMINSTER

Edge of Town
Industrial Zone
Total Gross floor area: 5945 sqm
Survey date: TUESDAY *13/10/20* *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 02 - EMPLOYMENT/A - OFFICE

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	15	5452	0.099	15	5452	0.015	15	5452	0.114
07:30 - 08:00	15	5452	0.308	15	5452	0.039	15	5452	0.347
08:00 - 08:30	15	5452	0.488	15	5452	0.048	15	5452	0.536
08:30 - 09:00	**16**	**5483**	**0.640**	16	5483	0.075	**16**	**5483**	**0.715**
09:00 - 09:30	16	5483	0.500	16	5483	0.095	16	5483	0.595
09:30 - 10:00	16	5483	0.274	16	5483	0.101	16	5483	0.375
10:00 - 10:30	16	5483	0.144	16	5483	0.092	16	5483	0.236
10:30 - 11:00	16	5483	0.111	16	5483	0.089	16	5483	0.200
11:00 - 11:30	16	5483	0.107	16	5483	0.089	16	5483	0.196
11:30 - 12:00	16	5483	0.088	16	5483	0.089	16	5483	0.177
12:00 - 12:30	16	5483	0.112	16	5483	0.180	16	5483	0.292
12:30 - 13:00	16	5483	0.152	16	5483	0.177	16	5483	0.329
13:00 - 13:30	16	5483	0.174	16	5483	0.158	16	5483	0.332
13:30 - 14:00	16	5483	0.138	16	5483	0.114	16	5483	0.252
14:00 - 14:30	16	5483	0.115	16	5483	0.099	16	5483	0.214
14:30 - 15:00	16	5483	0.082	16	5483	0.148	16	5483	0.230
15:00 - 15:30	16	5483	0.083	16	5483	0.142	16	5483	0.225
15:30 - 16:00	16	5483	0.071	16	5483	0.156	16	5483	0.227
16:00 - 16:30	16	5483	0.060	16	5483	0.266	16	5483	0.326
16:30 - 17:00	16	5483	0.074	16	5483	0.303	16	5483	0.377
17:00 - 17:30	16	5483	0.050	**16**	**5483**	**0.610**	16	5483	0.660
17:30 - 18:00	16	5483	0.047	16	5483	0.399	16	5483	0.446
18:00 - 18:30	16	5483	0.024	16	5483	0.277	16	5483	0.301
18:30 - 19:00	16	5483	0.014	16	5483	0.092	16	5483	0.106
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			3.955			3.853			7.808

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:	3200 - 11250 (units: sqm)
Survey date date range:	01/01/14 - 22/10/20
Number of weekdays (Monday-Friday):	16
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
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.

Calculation Reference: AUDIT-540501-210511-0534

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : C - FLATS PRIVATELY OWNED

TOTAL VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	BD	BEDFORDSHIRE	3 days
	EX	ESSEX	1 days
	HC	HAMPSHIRE	1 days
	HF	HERTFORDSHIRE	1 days
04	**EAST ANGLIA**		
	SF	SUFFOLK	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	SY	SOUTH YORKSHIRE	1 days
08	**NORTH WEST**		
	GM	GREATER MANCHESTER	1 days
11	**SCOTLAND**		
	SR	STIRLING	2 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: 62 to 175 (units:)
Range Selected by User: 60 to 400 (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: 01/01/10 to 08/09/20

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	7 days
Wednesday	1 days
Thursday	3 days

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

Selected survey types:

Manual count	11 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:

Town Centre	1
Edge of Town Centre	9
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	4
Built-Up Zone	5
No Sub Category	2

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.

Secondary Filtering selection:

Use Class:

C3	11 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
10,001 to 15,000	1 days
15,001 to 20,000	1 days
25,001 to 50,000	7 days
50,001 to 100,000	1 days

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

Population within 5 miles:

50,001 to 75,000	4 days
75,001 to 100,000	1 days
125,001 to 250,000	3 days
250,001 to 500,000	2 days
500,001 or More	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	4 days
1.1 to 1.5	7 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	9 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	11 days

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

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1 **BD-03-C-01** **BLOCKS OF FLATS** **BEDFORDSHIRE**
WING ROAD
LEIGHTON BUZZARD
LINSLADE
Edge of Town Centre
Residential Zone
Total No of Dwellings: 175
Survey date: TUESDAY *15/05/18* *Survey Type: MANUAL*

2 **BD-03-C-02** **BLOCKS OF FLATS** **BEDFORDSHIRE**
STANBRIDGE ROAD
LEIGHTON BUZZARD

Edge of Town Centre
Residential Zone
Total No of Dwellings: 62
Survey date: TUESDAY *15/05/18* *Survey Type: MANUAL*

3 **BD-03-C-03** **BLOCKS OF FLATS** **BEDFORDSHIRE**
COURT DRIVE
DUNSTABLE

Edge of Town Centre
No Sub Category
Total No of Dwellings: 146
Survey date: TUESDAY *15/05/18* *Survey Type: MANUAL*

4 **EX-03-C-02** **BLOCK OF FLATS** **ESSEX**
WESTCLIFF PARADE
SOUTHEND-ON-SEA
WESTCLIFF
Edge of Town Centre
Residential Zone
Total No of Dwellings: 94
Survey date: TUESDAY *22/10/13* *Survey Type: MANUAL*

5 **GM-03-C-02** **BLOCK OF FLATS** **GREATER MANCHESTER**
WHITWORTH STREET W.
MANCHESTER

Town Centre
Built-Up Zone
Total No of Dwellings: 154
Survey date: THURSDAY *13/10/11* *Survey Type: MANUAL*

6 **HC-03-C-01** **BLOCKS OF FLATS** **HAMPSHIRE**
CROSS STREET
PORTSMOUTH

Edge of Town Centre
Built-Up Zone
Total No of Dwellings: 90
Survey date: TUESDAY *05/06/18* *Survey Type: MANUAL*

7 **HF-03-C-03** **BLOCK OF FLATS** **HERTFORDSHIRE**
SHENLEY ROAD
BOREHAMWOOD

Edge of Town Centre
Built-Up Zone
Total No of Dwellings: 91
Survey date: THURSDAY *14/11/19* *Survey Type: MANUAL*

8 **SF-03-C-01** **BLOCKS OF FLATS** **SUFFOLK**
STATION HILL
BURY ST EDMUNDS

Edge of Town Centre
Built-Up Zone
Total No of Dwellings: 85
Survey date: THURSDAY *18/12/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9	**SR-03-C-01**	**FLATS**	**STIRLING**
	FORTHSIDE WAY		
	STIRLING		
	Edge of Town Centre		
	No Sub Category		
	Total No of Dwellings:	80	
	Survey date: WEDNESDAY	*18/06/14*	*Survey Type: MANUAL*
10	**SR-03-C-03**	**BLOCK OF FLATS & TERRACED**	**STIRLING**
	KERSEBONNY ROAD		
	STIRLING		
	CAMBUSBARRON		
	Edge of Town		
	Residential Zone		
	Total No of Dwellings:	82	
	Survey date: TUESDAY	*01/09/20*	*Survey Type: MANUAL*
11	**SY-03-C-01**	**BLOCKS OF FLATS**	**SOUTH YORKSHIRE**
	HEELIS STREET		
	BARNSLEY		
	Edge of Town Centre		
	Built-Up Zone		
	Total No of Dwellings:	112	
	Survey date: TUESDAY	*08/09/20*	*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/C - FLATS PRIVATELY OWNED

TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	11	106	0.026	11	106	0.121	11	106	0.147
08:00 - 09:00	11	106	0.045	**11**	**106**	**0.144**	11	106	0.189
09:00 - 10:00	11	106	0.047	11	106	0.061	11	106	0.108
10:00 - 11:00	11	106	0.053	11	106	0.072	11	106	0.125
11:00 - 12:00	11	106	0.053	11	106	0.073	11	106	0.126
12:00 - 13:00	11	106	0.105	11	106	0.084	11	106	0.189
13:00 - 14:00	11	106	0.073	11	106	0.075	11	106	0.148
14:00 - 15:00	11	106	0.061	11	106	0.069	11	106	0.130
15:00 - 16:00	11	106	0.076	11	106	0.050	11	106	0.126
16:00 - 17:00	11	106	0.100	11	106	0.064	11	106	0.164
17:00 - 18:00	**11**	**106**	**0.146**	11	106	0.072	11	106	0.218
18:00 - 19:00	11	106	0.144	11	106	0.085	**11**	**106**	**0.229**
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.929			0.970			1.899

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:	62 - 175 (units:)
Survey date date range:	01/01/10 - 08/09/20
Number of weekdays (Monday-Friday):	11
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
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 N MLSDCL Parcel Data

Manchester Life - Parcel receipt tracker

- Key: - A (amazon), H (Hermes), Y (Yodel), RM (Royal Mail), PF (Parcel Force), DHL, UPS, DPD, TNT, FEx (FedEx), F (groceries various), Id (Independent) , Oth (Other)
- Others included: - DX, APS, Interflora, Bloom and Wild, Omega, Argos, EDD, Riverford.
- Food included: - Tesco, Asda, Able and Cole

Date	Site	06:00:00													07:00:00													08:00:00													HR TOTAL
		A	H	Y	DPD	RM	PF	DHL	UPS	TNT	ID	F	Oth	FEx	A	H	Y	DPD	RM	PF	DHL	UPS	TNT	ID	F	Oth	FEx	A	H	Y	DPD	RM	PF	DHL	UPS	TNT	ID	F	Oth	FEx	
Monday 12/10/20 Delivery Count	CFW (302 units)																											4				20		1							25
	SMC (158 units)																																								0
	SY (199 units)																																								0
	WEQ (201 units)																															13									13
Mon	Total all sites	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	33	0	1	0	0	0	0	0	0	38
Tuesday 06/10/20 Delivery Count	CFW																								2							22									22
	SMC																																								0
	SY																								1																0
	WEQ																															15									15
Tue	Total all sites	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	37	0	0	0	0	0	0	0	0	37
Wednesday 07/10/20 Delivery Count	CFW																											1				24					1				26
	SMC																																								0
	SY																																						1		1
	WEQ																															21		1							22
Wed	Total all sites	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	45	0	1	0	0	1	0	1	0	49
Thursday 08/10/20 Delivery Count	CFW																															24									24
	SMC																																								0
	SY																																						1		1
	WEQ																															9							1		10
Thur	Total all sites	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	0	0	2	0	35
Friday 09/10/20 Delivery Count	CFW																															30									30
	SMC																									1															0
	SY																																								0
	WEQ														1											3						13							2		15
Fri	Total all sites	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	43	0	0	0	0	0	0	2	0	45

Date	Site	09:00:00													10:00:00													11:00:00													HR TOTAL
		A	H	Y	DPD	RM	PF	DHL	UPS	TNT	ID	F	Oth	FEx	A	H	Y	DPD	RM	PF	DHL	UPS	TNT	ID	F	Oth	FEx	A	H	Y	DPD	RM	PF	DHL	UPS	TNT	ID	F	Oth	FEx	
Monday 12/10/20 Delivery Count	CFW (302 units)				1						1		1		3									1					31						4						35
	SMC (158 units)					14		1													3								9						2	1					12
	SY (199 units)	9				23	1																												5						5
	WEQ (201 units)				5										3					1			1					11	13												24
Mon	Total all sites	9	0	0	6	37	1	1	0	0	1	0	1	0	6	0	0	0	0	1	3	0	1	1	0	0	0	11	53	0	0	0	0	0	11	1	0	0	0	0	76
Tuesday 06/10/20 Delivery Count	CFW															26					2							2		6						3		2			13
	SMC															25					1																			1	1
	SY															20				1	3																				0
	WEQ															18		5														1	1								2
Tue	Total all sites	0	0	0	0	0	0	0	0	0	0	0	0	0	0	89	0	5	0	1	6	0	0	0	0	0	0	2	0	6	0	1	1	0	0	3	0	2	0	1	16
Wednesday 07/10/20 Delivery Count	CFW				1			3												3						1		6	27		4							3			40
	SMC																			4									10												10
	SY				1																								17												17
	WEQ							1										4		3																					0
Wed	Total all sites	0	0	0	2	0	0	4	0	0	0	0	0	0	0	0	0	4	0	10	0	0	0	0	0	1	0	6	54	0	4	0	0	0	0	0	0	3	0	0	67
Thursday 08/10/20 Delivery Count	CFW																			3	2								21												21
	SMC				1																								14												14
	SY				1																1								14		1										15
	WEQ																	1			2								23												23
Thur	Total all sites	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	5	0	0	0	0	0	0	0	72	0	1	0	0	0	0	0	0	0	0	0	73
Friday 09/10/20 Delivery Count	CFW																												25		8				4						37
	SMC																	3	1																						0
	SY							3					1					4		3									17												17
	WEQ							5																				15	14												29
Fri	Total all sites	0	0	0	0	0	0	8	0	0	0	0	1	0	0	0	0	7	1	3	0	0	0	0	0	0	0	15	56	0	8	0	0	0	4	0	0	0	0	0	83

Date	Site	12:00:00													13:00:00													14:00:00												
		A	H	Y	DPD	RM	PF	DHL	UPS	TNT	ID	F	Oth	FEx	A	H	Y	DPD	RM	PF	DHL	UPS	TNT	ID	F	Oth	FEx	A	H	Y	DPD	RM	PF	DHL	UPS	TNT	ID	F	Oth	FEx
Monday 12/10/20 Delivery Count	CFW (302 units)																	1	4																					
	SMC (158 units)	8													3			5			2																			
	SY (199 units)	12	14															7			1													1						
	WEQ (201 units)					3			1									1			2							3											1	
Mon	Total all sites	20	14	0	0	3	0	0	1	0	0	0	0	0	3	0	0	14	4	0	5	0	0	0	0	0	0	3	0	0	0	0	0	1	0	0	0	0	1	0
Tuesday 06/10/20 Delivery Count	CFW				5		1								22			10	3		1														6					
	SMC	6				22	1						3		23			8												3									1	
	SY					32									14						2							3		2										
	WEQ					1									11							5												2		2				
Tue	Total all sites	6	0	0	5	55	2	0	0	0	0	0	3	0	70	0	0	18	3	0	3	5	0	0	0	0	0	3	0	5	0	0	0	2	6	2	0	0	1	0
Wednesday 07/10/20 Delivery Count	CFW				18							2	1															31				11			4	1				
	SMC					14												3													2									
	SY					1												7																3						
	WEQ				4										2											1														
Wed	Total all sites	0	0	0	22	15	0	0	0	0	0	2	1	0	2	0	0	10	0	0	0	0	0	0	0	1	0	31	0	0	2	11	0	3	4	1	0	0	0	0
Thursday 08/10/20 Delivery Count	CFW				18				5																		2													
	SMC	7			5	20		1										1																						
	SY	21			3	3		6										1				3																		
	WEQ				2																4						1													
Thur	Total all sites	28	0	0	28	23	0	7	5	0	0	0	0	0	0	0	0	2	0	0	4	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
Friday 09/10/20 Delivery Count	CFW													1				13																						
	SMC	1	14		2			1											15							1									1					
	SY				5									2	1				22																					
	WEQ				5													2				2					2													
Fri	Total all sites	1	14	0	12	0	0	1	0	0	0	0	0	3	1	0	0	15	37	0	0	2	0	0	0	1	2	0	0	0	0	0	0	0	1	0	0	0	0	0

15:00:00													16:00:00													17:00:00														18:00:00													19:00:00													20:00:00													21:00:00													Daily Site Parcel total
A	H	Y	DPD	RM	PF	DHL	UPS	TNT	ID	F	Oth	FEx	A	H	Y	DPD	RM	PF	DHL	UPS	TNT	ID	F	Oth	FEx	A	H	Y	DPD	RM	PF	DHL	UPS	TNT	ID	F	Oth	FEx	HR TOTAL	A	H	Y	DPD	RM	PF	DHL	UPS	TNT	ID	F	Oth	FEx	A	H	Y	DPD	RM	PF	DHL	UPS	TNT	ID	F	Oth	FEx	A	H	Y	DPD	RM	PF	DHL	UPS	TNT	ID	F	Oth	FEx	A	H	Y	DPD	RM	PF	DHL	UPS	TNT	ID	F	Oth	FEx	
													1		3				1																				0																																																					137
		4																																					0																																							1													65
		3																																					0																																																					81
1															2											2			1										3																																																					104
1	0	7	0	0	0	0	0	0	0	0	0	0	1	0	5	0	0	0	1	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	387
12		5																																					0	5																																																				170
			1				1																																0		1																																																			98
																																							0																																																					78
			3										1		6											3													3																																																					94
12	0	5	4	0	0	0	1	0	0	0	0	0	1	0	6	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	440
2		4															4									2													2																									2																												224
24							1								4											2													2	1													1																																							78
12																																							0																																																					60
															2															4							1		5	12														18		4								1																												106
38	0	4	0	0	0	0	1	0	0	0	0	0	0	0	6	0	4	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	1	0	9	13	0	0	0	0	0	0	0	0	0	0	0	0	1	18	0	4	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	468
													25													9		9											18																											1									1																	183
															5									1		7													7																																																					83
															6																								0																																																					77
																								3		9		2											11	10													9																																							120
0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	11	0	0	0	0	0	0	0	0	4	0	25	0	11	0	0	0	0	0	0	0	0	0	0	36	10	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	463
20															5																								0																																																					173
3													15															2											2																																																					62
5							2						9		3																								0																																																					94
3																											1	3											4																																																					119
31	0	0	0	0	0	0	2	0	0	0	0	0	24	0	8	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	448

Appendix O JTW Census Data

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

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

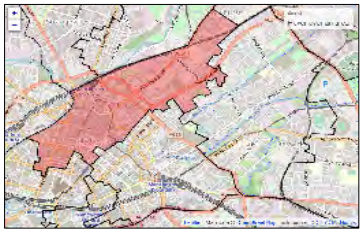
usual residence : 2011 super output area - middle layer	**E02006902**	**Manchester 054**		Main Route		Alternative Route
Adur 001	E02006534	5	0.0%	C		D
Adur 004	E02006537	7	0.0%	C		D
Adur 005	E02006538	4	0.0%			
Adur 007	E02006540	3	0.0%	C		D
Barnsley 024	E02001532	3	0.0%			
Barnsley 027	E02001535	3	0.0%	A	A1	
Blackburn with Darwen 001	E02002615	7	0.0%	A	A1	
Blackburn with Darwen 002	E02002616	5	0.0%	A	A2	
Blackburn with Darwen 003	E02002617	6	0.0%	A	A2	
Blackburn with Darwen 004	E02002618	3	0.0%	A	A2	
Blackburn with Darwen 006	E02002620	4	0.0%	A	A2	
Blackburn with Darwen 009	E02002623	3	0.0%	A	A2	
Blackburn with Darwen 010	E02002624	6	0.0%	A	A2	
Blackburn with Darwen 011	E02002625	8	0.0%	A	A2	
Blackburn with Darwen 013	E02002627	4	0.0%	A	A2	
Blackburn with Darwen 016	E02002630	6	0.0%	A	A2	
Blackburn with Darwen 017	E02002631	10	0.1%	B		C
Blackburn with Darwen 018	E02002632	23	0.1%	B		C
Blackpool 001	E02002633	3	0.0%	B		C
Blackpool 018	E02002650	3	0.0%	B		C
Bolton 001	E02000984	19	0.1%	B		C
Bolton 002	E02000985	28	0.2%	B		C
Bolton 003	E02000986	27	0.2%	B		C
Bolton 004	E02000987	12	0.1%	B		C
Bolton 005	E02000988	25	0.2%	B		C
Bolton 006	E02000989	30	0.2%	B		C
Bolton 007	E02000990	17	0.1%	B		C
Bolton 008	E02000991	23	0.1%	B		C
Bolton 009	E02000992	20	0.1%	B		C
Bolton 010	E02000993	5	0.0%	B		C
Bolton 011	E02000994	15	0.1%	B		C
Bolton 012	E02000995	24	0.1%	B		C
Bolton 013	E02000996	14	0.1%	B		C
Bolton 014	E02000997	8	0.0%	B		C
Bolton 015	E02000998	16	0.1%	B		C
Bolton 016	E02000999	9	0.1%	B		C
Bolton 017	E02001000	25	0.2%	B		C
Bolton 018	E02001001	26	0.2%	B		C
Bolton 019	E02001002	23	0.1%	B		C
Bolton 020	E02001003	23	0.1%	B		C
Bolton 021	E02001004	9	0.1%	B		C
Bolton 022	E02001005	12	0.1%	B		C
Bolton 023	E02001006	14	0.1%	B		C
Bolton 024	E02001007	25	0.2%	B		C
Bolton 025	E02001008	10	0.1%	B		C
Bolton 026	E02001009	12	0.1%	B		C
Bolton 027	E02001010	16	0.1%	B		C
Bolton 028	E02001011	34	0.2%	B		C
Bolton 029	E02001012	9	0.1%	B		C
Bolton 030	E02001013	16	0.1%	B		C
Bolton 031	E02001014	19	0.1%	B		C
Bolton 032	E02001015	14	0.1%	B		C
Bolton 033	E02001016	16	0.1%	B		C
Bolton 034	E02001017	68	0.4%	B		C
Bolton 035	E02001018	20	0.1%	B		C
Bradford 002	E02002194	3	0.0%	A	A1	
Bradford 004	E02002186	4	0.0%	A	A1	
Bradford 005	E02002187	3	0.0%	A	A1	
Bradford 015	E02002197	3	0.0%	A	A1	
Bradford 030	E02002212	4	0.0%	A	A1	
Bradford 038	E02002220	3	0.0%	A	A1	
Bradford 058	E02002240	4	0.0%	A	A1	
Bradford 061	E02002243	3	0.0%	A		
Brighton and Hove 001	E02003491	11	0.1%	C		D
Brighton and Hove 002	E02003492	3	0.0%	C		D
Brighton and Hove 003	E02003493	5	0.0%	C		D
Brighton and Hove 004	E02003494	7	0.0%	C		D
Brighton and Hove 005	E02003495	13	0.1%	C		D
Brighton and Hove 006	E02003496	5	0.0%	C		D
Brighton and Hove 007	E02003497	9	0.1%	C		D
Brighton and Hove 011	E02003501	3	0.0%	C		D
Brighton and Hove 013	E02003503	7	0.0%	C		D
Brighton and Hove 016	E02003506	4	0.0%	C		D
Brighton and Hove 017	E02003507	12	0.1%	C		D
Brighton and Hove 020	E02003510	3	0.0%	C		D
Brighton and Hove 021	E02003511	4	0.0%	C		D
Brighton and Hove 026	E02003516	4	0.0%	C		D
Brighton and Hove 028	E02003518	4	0.0%	C		D
Brighton and Hove 030	E02003520	3	0.0%	C		D
Brighton and Hove 033	E02003523	5	0.0%	C		D
Burnley 002	E02005177	3	0.0%	C		D
Burnley 004	E02005179	6	0.0%	C		D
Burnley 005	E02005180	4	0.0%	C		D
Burnley 006	E02005181	6	0.0%	C		D
Burnley 007	E02005182	3	0.0%	C		D
Burnley 008	E02005183	3	0.0%	C		D
Burnley 009	E02005184	6	0.0%	C		D
Burnley 011	E02005186	5	0.0%	C		D
Burnley 014	E02006881	6	0.0%	C		D
Bury 001	E02001019	57	0.4%	C		D
Bury 002	E02001020	44	0.3%	C		D
Bury 003	E02001021	56	0.3%	A	A2	
Bury 004	E02001022	42	0.3%	A	A2	
Bury 005	E02001023	37	0.2%	A	A2	
Bury 006	E02001024	52	0.3%	A	A2	
Bury 007	E02001025	18	0.1%	A	A2	
Bury 008	E02001026	16	0.1%	A	A2	
Bury 009	E02001027	33	0.2%	A	A2	
Bury 010	E02001028	35	0.2%	A	A2	
Bury 011	E02001029	24	0.1%	A	A2	
Bury 012	E02001030	28	0.2%	A	A2	
Bury 013	E02001031	48	0.3%	B		
Bury 014	E02001032	29	0.2%	B		
Bury 015	E02001033	29	0.2%	B		
Bury 016	E02001034	21	0.1%	B		
Bury 017	E02001035	78	0.5%	B		
Bury 018	E02001036	62	0.4%	B		
Bury 019	E02001037	78	0.5%	B		
Bury 020	E02001038	60	0.4%	B		
Bury 021	E02001039	62	0.4%	B		
Bury 022	E02001040	49	0.3%	B		
Bury 023	E02001041	77	0.5%	B		
Bury 024	E02001042	72	0.4%	B		
Bury 025	E02001043	65	0.4%	B		
Bury 026	E02001044	65	0.4%	B		
Calderdale 004	E02002247	5	0.0%	A	A1	
Calderdale 007	E02002250	3	0.0%	A	A1	
Calderdale 013	E02002256	4	0.0%	A	A1	
Calderdale 015	E02002258	5	0.0%	A	A1	
Calderdale 016	E02002259	3	0.0%	A	A1	
Calderdale 017	E02002260	4	0.0%	A	A1	
Calderdale 019	E02002262	4	0.0%	A	A1	
Calderdale 021	E02002264	7	0.0%	A	A1	
Calderdale 022	E02002265	6	0.0%	A	A1	
Calderdale 025	E02002268	5	0.0%	A	A1	
Calderdale 026	E02002269	3	0.0%	A	A1	
Calderdale 027	E02002270	14	0.1%	A	A1	
Carlisle 006	E02003992	3	0.0%	A	A1	
Cheshire East 001	E02003853	18	0.1%	C		D
Cheshire East 002	E02003854	21	0.1%	C		D
Cheshire East 003	E02003855	20	0.1%	C		D
Cheshire East 004	E02003856	36	0.2%	C		D
Cheshire East 005	E02003857	42	0.3%	C		D
Cheshire East 006	E02003858	70	0.4%	C		D
Cheshire East 007	E02003859	67	0.4%	C		D
Cheshire East 008	E02003860	62	0.4%	C		D
Cheshire East 009	E02003861	21	0.1%	C		D
Cheshire East 010	E02003863	47	0.3%	C		D
Cheshire East 011	E02003862	39	0.2%	C		D
Cheshire East 012	E02003864	73	0.4%	C		D
Cheshire East 013	E02003865	15	0.1%	C		D
Cheshire East 014	E02003866	17	0.1%	C		D

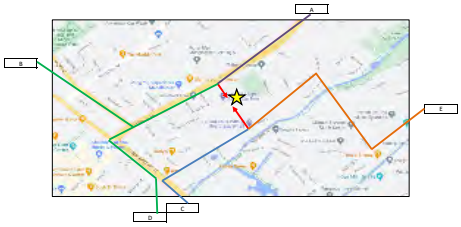
A	B	C	D	E
29%	17%	47%	5%	1%
		92%		
		90%	10%	

ITW Routes	%	Route Description
A	29%	A62 Oldham Road (southbound)
B	17%	A62 Oldham Road (northbound) via Addington Street
C	47%	Jersey Street (northbound) via Great Ancoats Street (northbound)
D	5%	A62 Oldham Road (northbound) via Great Ancoats Street (northbound)
E	1%	Jersey Street (southbound) via Butler Street

A	29%
A1	A2
A62	A664 via Livesey Street

23%	7%	100%
78%	22%	29%





Cheshire East 015	E02003867	16	0.1%	C		D	
Cheshire East 016	E02003868	9	0.1%	C		D	
Cheshire East 017	E02003869	8	0.0%	C		D	
Cheshire East 018	E02003870	13	0.1%	C		D	
Cheshire East 020	E02003872	31	0.2%	C		D	
Cheshire East 021	E02003873	4	0.0%	C		D	
Cheshire East 022	E02003811	11	0.1%	C		D	
Cheshire East 023	E02003812	9	0.1%	C		D	
Cheshire East 024	E02003813	8	0.0%	C		D	
Cheshire East 025	E02003814	4	0.0%	C		D	
Cheshire East 027	E02003816	3	0.0%	C		D	
Cheshire East 028	E02003817	5	0.0%	C		D	
Cheshire East 029	E02003818	5	0.0%	C		D	
Cheshire East 030	E02003819	7	0.0%	C		D	
Cheshire East 031	E02003820	6	0.0%	C		D	
Cheshire East 032	E02003821	3	0.0%	C		D	
Cheshire East 033	E02003822	13	0.1%	C		D	
Cheshire East 034	E02003825	3	0.0%	C		D	
Cheshire East 037	E02003828	3	0.0%	C		D	
Cheshire East 040	E02003823	6	0.0%	C		D	
Cheshire East 046	E02003835	5	0.0%	C		D	
Cheshire East 047	E02003836	3	0.0%	C		D	
Cheshire East 048	E02003838	3	0.0%	C		D	
Cheshire East 049	E02003837	8	0.0%	C		D	
Cheshire East 051	E02003840	7	0.0%	C		D	
Cheshire West and Chester 002	E02003874	12	0.1%	C		D	1.6%
Cheshire West and Chester 003	E02003875	14	0.1%	C		D	
Cheshire West and Chester 004	E02003842	5	0.0%	C		D	
Cheshire West and Chester 009	E02003847	8	0.0%	C		D	
Cheshire West and Chester 012	E02003876	8	0.0%	C		D	
Cheshire West and Chester 014	E02003851	3	0.0%	C		D	
Cheshire West and Chester 015	E02003877	14	0.1%	C		D	
Cheshire West and Chester 016	E02003852	4	0.0%	C		D	
Cheshire West and Chester 017	E02003878	18	0.1%	C		D	
Cheshire West and Chester 018	E02003879	4	0.0%	C		D	
Cheshire West and Chester 019	E02003880	6	0.0%	C		D	
Cheshire West and Chester 021	E02003882	4	0.0%	C		D	
Cheshire West and Chester 022	E02003794	8	0.0%	C		D	
Cheshire West and Chester 023	E02003883	35	0.2%	C		D	
Cheshire West and Chester 024	E02003884	25	0.2%	C		D	
Cheshire West and Chester 025	E02003795	4	0.0%	C		D	
Cheshire West and Chester 026	E02003885	6	0.0%	C		D	
Cheshire West and Chester 028	E02003797	7	0.0%	C		D	
Cheshire West and Chester 030	E02003800	11	0.1%	C		D	
Cheshire West and Chester 032	E02003801	6	0.0%	C		D	
Cheshire West and Chester 033	E02003802	4	0.0%	C		D	
Cheshire West and Chester 034	E02003803	3	0.0%	C		D	
Cheshire West and Chester 035	E02003886	4	0.0%	C		D	
Cheshire West and Chester 036	E02003804	4	0.0%	C		D	
Cheshire West and Chester 037	E02003887	3	0.0%	C		D	
Cheshire West and Chester 039	E02003805	4	0.0%	C		D	
Cheshire West and Chester 040	E02003889	3	0.0%	C		D	
Cheshire West and Chester 041	E02003806	8	0.0%	C		D	
Cheshire West and Chester 043	E02003807	8	0.0%	C		D	
Cheshire West and Chester 045	E02003891	15	0.1%	C		D	
Cheshire West and Chester 047	E02003810	5	0.0%	C		D	
Chorley 001	E02005189	5	0.0%	C		D	0.9%
Chorley 002	E02005190	22	0.1%	C		D	
Chorley 003	E02005191	8	0.0%	C		D	
Chorley 004	E02005192	22	0.1%	C		D	
Chorley 005	E02005193	9	0.1%	B		C	
Chorley 006	E02005194	3	0.0%	B		C	
Chorley 007	E02005195	6	0.0%	B		C	
Chorley 009	E02005197	3	0.0%	B		C	
Chorley 010	E02005198	15	0.1%	B		C	
Chorley 011	E02005199	7	0.0%	B		C	
Chorley 012	E02005200	11	0.1%	B		C	
Chorley 013	E02005201	4	0.0%	B		C	
Chorley 014	E02005202	20	0.1%	B		C	
Conwy 009	W02000035	3	0.0%	C		D	
Conwy 014	W02000040	3	0.0%	C		D	
Craven 001	E02005742	3	0.0%	A	A2		
Craven 002	E02005743	4	0.0%	A	A2		
Craven 007	E02005748	4	0.0%	A	A2		
Craven 008	E02005749	4	0.0%	A	A2		
Flintshire 012	W02000069	5	0.0%	C		D	
Flintshire 013	W02000070	5	0.0%	C		D	
Fylde 001	E02005203	6	0.0%	B		C	
Fylde 002	E02005204	5	0.0%	B		C	
Fylde 003	E02005205	4	0.0%	B		C	
Fylde 004	E02005206	3	0.0%	B		C	
Fylde 005	E02005207	3	0.0%	B		C	
Fylde 006	E02005208	6	0.0%	B		C	
Fylde 008	E02005210	6	0.0%	B		C	
Gosport 001	E02004741	3	0.0%	C		D	
Halton 001	E02002574	11	0.1%	B		C	
Halton 002	E02002575	9	0.1%	B		C	
Halton 008	E02002581	4	0.0%	B		C	
Halton 009	E02002582	14	0.1%	B		C	
Halton 011	E02002584	6	0.0%	B		C	
Halton 012	E02002585	3	0.0%	B		C	
Halton 016	E02002589	3	0.0%	B		C	
High Peak 001	E02004093	21	0.1%	C		D	
High Peak 002	E02004094	12	0.1%	C		D	
High Peak 003	E02004095	29	0.2%	C		D	
High Peak 004	E02004096	28	0.2%	C		D	
High Peak 005	E02004097	10	0.1%	C		D	
High Peak 006	E02004098	15	0.1%	C		D	
High Peak 008	E02004100	10	0.1%	C		D	
High Peak 010	E02004102	4	0.0%	C		D	
High Peak 011	E02004103	4	0.0%	C		D	
High Peak 012	E02004104	3	0.0%	C		D	
High Peak 013	E02006872	13	0.1%	C		D	
Hyndburn 001	E02005212	7	0.0%	A	A2		
Hyndburn 002	E02005213	13	0.1%	A	A2		
Hyndburn 003	E02005214	5	0.0%	A	A2		
Hyndburn 004	E02005215	9	0.1%	A	A2		
Hyndburn 006	E02005217	6	0.0%	A	A2		
Hyndburn 007	E02005218	12	0.1%	A	A2		
Hyndburn 008	E02005219	11	0.1%	A	A2		
Hyndburn 009	E02005220	8	0.0%	A	A2		
Kirklees 003	E02002273	3	0.0%	A	A1		
Kirklees 011	E02002281	4	0.0%	A	A1		
Kirklees 018	E02002288	3	0.0%	A	A1		
Kirklees 022	E02002292	7	0.0%	A	A1		
Kirklees 026	E02002296	3	0.0%	A	A1		
Kirklees 027	E02002297	10	0.1%	A	A1		
Kirklees 030	E02002300	7	0.0%	A	A1		
Kirklees 034	E02002304	3	0.0%	A	A1		
Kirklees 036	E02002306	4	0.0%	A	A1		
Kirklees 038	E02002308	5	0.0%	A	A1		
Kirklees 041	E02002311	4	0.0%	A	A1		
Kirklees 044	E02002314	3	0.0%	A	A1		
Kirklees 050	E02002320	3	0.0%	A	A1		
Kirklees 051	E02002321	3	0.0%	A	A1		
Kirklees 052	E02002322	4	0.0%	A	A1		
Kirklees 053	E02002323	4	0.0%	A	A1		
Kirklees 058	E02002328	8	0.0%	A	A1		
Kirklees 059	E02002329	6	0.0%	A	A1		
Knowsley 002	E02001328	6	0.0%	C		D	
Knowsley 005	E02001331	3	0.0%	C		D	
Knowsley 009	E02001335	5	0.0%	C		D	
Knowsley 014	E02001340	4	0.0%	C		D	
Knowsley 017	E02001343	7	0.0%	C		D	
Lancaster 002	E02005222	5	0.0%	B			
Lancaster 019	E02005239	5	0.0%	B			
Leeds 011	E02002340	3	0.0%	A	A1		
Leeds 015	E02002344	3	0.0%	A	A1		
Leeds 093	E02002422	3	0.0%	A	A1		
Leeds 095	E02002424	3	0.0%	A	A1		
Leeds 100	E02002429	3	0.0%	A	A1		
Leeds 110	E02006861	3	0.0%	A	A1		
Lewes 002	E02004380	4	0.0%	C		D	
Lewes 006	E02004384	12	0.1%	C		D	
Lewes 007	E02004385	5	0.0%	C		D	
Lewes 009	E02004387	6	0.0%	C		D	
Liverpool 006	E02001352	4	0.0%	C		D	
Liverpool 007	E02001353	5	0.0%	C		D	
Liverpool 017	E02001363	3	0.0%	C		D	
Liverpool 021	E02001367	4	0.0%	C		D	

Liverpool 034	E02001380	4	0.0%	C		D
Liverpool 036	E02001382	5	0.0%	C		D
Liverpool 038	E02001384	4	0.0%	C		D
Liverpool 041	E02001387	7	0.0%	C		D
Liverpool 042	E02001388	4	0.0%	C		D
Liverpool 044	E02001390	4	0.0%	C		D
Liverpool 046	E02001392	4	0.0%	C		D
Liverpool 047	E02001393	6	0.0%	C		D
Liverpool 048	E02001394	3	0.0%	C		D
Liverpool 051	E02001397	3	0.0%	C		D
Liverpool 052	E02001398	4	0.0%	C		D
Liverpool 053	E02001399	4	0.0%	C		D
Liverpool 055	E02001401	3	0.0%	C		D
Liverpool 056	E02001402	5	0.0%	C		D
Liverpool 057	E02001403	6	0.0%	C		D
Liverpool 060	E02006932	3	0.0%	C		D
Liverpool 062	E02006934	3	0.0%	C		D
Manchester 001	E02001045	79	0.5%	A	A2	
Manchester 002	E02001046	92	0.6%	A	A2	
Manchester 003	E02001047	94	0.6%	A	A1	
Manchester 004	E02001048	70	0.4%	B		
Manchester 005	E02001049	107	0.7%	A	A1	
Manchester 006	E02001050	82	0.5%	A	A2	
Manchester 007	E02001051	70	0.4%	A	A1	
Manchester 008	E02001052	96	0.6%	B		
Manchester 009	E02001053	59	0.4%	A	A1	
Manchester 011	E02001055	78	0.5%	A	A1	
Manchester 012	E02001056	40	0.2%	E		A
Manchester 013	E02001057	57	0.4%	E		A
Manchester 015	E02001059	62	0.4%	E		A
Manchester 017	E02001061	36	0.2%	E		A
Manchester 018	E02001062	26	0.2%	C		D
Manchester 019	E02001063	32	0.2%	C		D
Manchester 020	E02001064	39	0.2%	C		D
Manchester 021	E02001065	52	0.3%	C		D
Manchester 022	E02001066	40	0.2%	C		D
Manchester 023	E02001067	37	0.2%	C		D
Manchester 024	E02001068	23	0.1%	C		D
Manchester 025	E02001069	30	0.2%	C		D
Manchester 026	E02001070	25	0.2%	C		D
Manchester 027	E02001071	57	0.4%	C		D
Manchester 028	E02001072	59	0.4%	C		D
Manchester 029	E02001073	88	0.5%	C		D
Manchester 030	E02001074	82	0.5%	C		D
Manchester 031	E02001075	35	0.2%	C		D
Manchester 032	E02001076	40	0.2%	C		D
Manchester 033	E02001077	67	0.4%	C		D
Manchester 034	E02001078	49	0.3%	C		D
Manchester 035	E02001079	50	0.3%	C		D
Manchester 036	E02001080	45	0.3%	C		D
Manchester 037	E02001081	73	0.4%	C		D
Manchester 038	E02001082	60	0.4%	C		D
Manchester 039	E02001083	164	1.0%	C		D
Manchester 040	E02001084	61	0.4%	C		D
Manchester 041	E02001085	24	0.1%	C		D
Manchester 042	E02001086	68	0.4%	C		D
Manchester 043	E02001087	160	1.0%	C		D
Manchester 044	E02001088	50	0.3%	C		D
Manchester 045	E02001089	69	0.4%	C		D
Manchester 046	E02001090	52	0.3%	C		D
Manchester 047	E02001091	44	0.3%	C		D
Manchester 048	E02001092	31	0.2%	C		D
Manchester 049	E02001093	36	0.2%	C		D
Manchester 050	E02001094	15	0.1%	C		D
Manchester 051	E02001095	23	0.1%	C		D
Manchester 052	E02001096	21	0.1%	C		D
Manchester 053	E02001097	27	0.2%	C		D
Manchester 054	E02006902	33	0.2%	B		D
Manchester 055	E02006912	23	0.1%	C		D
Manchester 056	E02006913	34	0.2%	B		D
Manchester 057	E02006914	7	0.0%	C		D
Manchester 058	E02006915	59	0.4%	B		D
Manchester 059	E02006916	37	0.2%	C		D
Manchester 060	E02006917	22	0.1%	C		D
Medway 015	E02003328	3	0.0%	C		D
Mid Sussex 009	E02006812	3	0.0%	C		D
Mid Sussex 012	E02006815	4	0.0%	C		D
Mid Sussex 014	E02006817	6	0.0%	C		D
Mid Sussex 016	E02006819	10	0.1%	C		D
Mid Sussex 017	E02006820	3	0.0%	C		D
Newcastle-under-Lyme 005	E02006162	4	0.0%	C		D
Newcastle-under-Lyme 011	E02006168	4	0.0%	C		D
Newport 010	W02000356	3	0.0%	C		D
Oldham 001	E02001098	27	0.2%	A	A1	
Oldham 002	E02001099	23	0.1%	A	A1	
Oldham 003	E02001100	34	0.2%	A	A1	
Oldham 004	E02001101	23	0.1%	A	A1	
Oldham 005	E02001102	39	0.2%	A	A1	
Oldham 006	E02001103	41	0.3%	A	A1	
Oldham 007	E02001104	34	0.2%	A	A1	
Oldham 008	E02001105	31	0.2%	A	A1	
Oldham 009	E02001106	34	0.2%	A	A1	
Oldham 010	E02001107	49	0.3%	A	A1	
Oldham 011	E02001108	10	0.1%	A	A1	
Oldham 012	E02001109	17	0.1%	A	A1	
Oldham 013	E02001110	42	0.3%	A	A1	
Oldham 014	E02001111	9	0.1%	A	A1	
Oldham 015	E02001112	60	0.4%	A	A1	
Oldham 016	E02001113	19	0.1%	A	A1	
Oldham 017	E02001114	47	0.3%	A	A1	
Oldham 018	E02001115	25	0.2%	A	A1	
Oldham 019	E02001116	15	0.1%	A	A1	
Oldham 020	E02001117	31	0.2%	A	A1	
Oldham 021	E02001118	33	0.2%	A	A1	
Oldham 022	E02001119	15	0.1%	A	A1	
Oldham 024	E02001121	11	0.1%	A	A1	
Oldham 026	E02001123	32	0.2%	A	A1	
Oldham 027	E02001124	29	0.2%	A	A1	
Oldham 028	E02001125	60	0.4%	A	A1	
Oldham 029	E02001126	21	0.1%	A	A1	
Oldham 030	E02001127	35	0.2%	A	A1	
Oldham 031	E02001128	67	0.4%	A	A1	
Oldham 032	E02001129	73	0.4%	A	A1	
Oldham 033	E02001130	57	0.4%	A	A1	
Oldham 034	E02001131	53	0.3%	A	A1	
Oldham 035	E02006860	46	0.3%	A	A1	
Pendle 003	E02005242	3	0.0%	A	A2	
Pendle 005	E02005244	3	0.0%	A	A2	
Pendle 006	E02005245	8	0.0%	A	A2	
Pendle 008	E02005247	18	0.1%	A	A2	
Pendle 011	E02005250	3	0.0%	A	A2	
Pendle 012	E02005251	4	0.0%	A	A2	
Pendle 013	E02005252	7	0.0%	A	A2	
Preston 001	E02005253	9	0.1%	B		
Preston 002	E02005254	6	0.0%	B		
Preston 004	E02005256	14	0.1%	B		
Preston 006	E02005258	6	0.0%	B		
Preston 007	E02005259	3	0.0%	B		
Preston 012	E02005264	13	0.1%	B		
Preston 013	E02005265	4	0.0%	B		
Ribble Valley 001	E02005270	12	0.1%	A	A2	
Ribble Valley 004	E02005273	3	0.0%	A	A2	
Ribble Valley 005	E02005274	8	0.0%	A	A2	
Ribble Valley 006	E02005275	4	0.0%	A	A2	
Ribble Valley 007	E02005276	12	0.1%	A	A2	
Ribble Valley 008	E02005277	8	0.0%	A	A2	
Rochdale 001	E02001132	21	0.1%	A	A1	
Rochdale 002	E02001133	17	0.1%	A	A1	
Rochdale 003	E02001134	14	0.1%	A	A1	
Rochdale 004	E02001135	5	0.0%	A	A1	
Rochdale 005	E02001136	16	0.1%	A	A1	
Rochdale 006	E02001137	30	0.2%	A	A1	
Rochdale 007	E02001138	54	0.3%	A	A1	
Rochdale 008	E02001139	15	0.1%	A	A1	
Rochdale 009	E02001140	16	0.1%	A	A1	
Rochdale 010	E02001141	16	0.1%	A	A1	
Rochdale 011	E02001142	38	0.2%	A	A1	
Rochdale 012	E02001143	24	0.1%	A	A1	
Rochdale 013	E02001144	17	0.1%	A	A1	
Rochdale 014	E02001145	32	0.2%	A	A1	

Rochdale 015	E02001146	13	0.1%	A	A1	
Rochdale 016	E02001147	20	0.1%	A	A1	
Rochdale 017	E02001148	35	0.2%	A	A1	
Rochdale 018	E02001149	41	0.3%	A	A1	
Rochdale 019	E02001150	27	0.2%	A	A1	
Rochdale 020	E02001151	58	0.4%	A	A1	
Rochdale 021	E02001152	73	0.4%	A	A1	
Rochdale 022	E02001153	52	0.3%	A	A1	
Rochdale 023	E02001154	88	0.5%	A	A1	
Rochdale 024	E02001155	75	0.5%	A	A1	
Rochdale 025	E02001156	120	0.7%	A	A1	
Rossendale 001	E02005278	32	0.2%	A	A2	
Rossendale 002	E02005279	24	0.1%	A	A2	
Rossendale 003	E02005280	19	0.1%	A	A2	
Rossendale 004	E02005281	26	0.2%	A	A2	
Rossendale 007	E02005284	20	0.1%	A	A2	
Rossendale 008	E02005285	25	0.2%	A	A2	
Rossendale 009	E02005286	14	0.1%	A	A2	
Rossendale 010	E02006884	20	0.1%	A	A2	
Salford 001	E02001157	25	0.2%	B		
Salford 002	E02001158	20	0.1%	B		
Salford 003	E02001159	25	0.2%	B		
Salford 004	E02001160	19	0.1%	C		D
Salford 005	E02001161	51	0.3%	B		
Salford 006	E02001162	41	0.3%	B		
Salford 007	E02001163	59	0.4%	B		
Salford 008	E02001164	62	0.4%	B		
Salford 009	E02001165	39	0.2%	B		
Salford 010	E02001166	52	0.3%	B		
Salford 011	E02001167	50	0.3%	B		
Salford 012	E02001168	67	0.4%	B		
Salford 013	E02001169	137	0.8%	C		D
Salford 014	E02001170	98	0.6%	C		D
Salford 015	E02001171	60	0.4%	B		
Salford 016	E02001172	56	0.3%	B		
Salford 017	E02001173	45	0.3%	B		
Salford 018	E02001174	57	0.4%	B		
Salford 019	E02001175	44	0.3%	C		D
Salford 020	E02001176	87	0.5%	C		D
Salford 021	E02001177	64	0.4%	C		D
Salford 022	E02001178	55	0.3%	B		
Salford 023	E02001179	42	0.3%	C		D
Salford 024	E02001180	24	0.1%	C		D
Salford 025	E02001181	17	0.1%	C		D
Salford 026	E02001182	21	0.1%	C		D
Salford 027	E02001183	32	0.2%	C		D
Salford 028	E02001184	71	0.4%	C		D
Salford 029	E02001185	40	0.2%	C		D
Salford 030	E02001186	25	0.2%	C		D
Sefton 006	E02001434	3	0.0%	C		D
Sefton 008	E02001436	5	0.0%	C		D
Sefton 009	E02001437	8	0.0%	C		D
Sefton 010	E02001438	3	0.0%	C		D
Sefton 013	E02001441	5	0.0%	C		D
Sefton 014	E02001442	9	0.1%	C		D
Sefton 015	E02001443	3	0.0%	C		D
Sefton 016	E02001444	5	0.0%	C		D
Sefton 019	E02001447	3	0.0%	C		D
Sefton 021	E02001449	4	0.0%	C		D
Sefton 022	E02001450	9	0.1%	C		D
Sefton 023	E02001451	3	0.0%	C		D
Sefton 025	E02001453	3	0.0%	C		D
Sefton 026	E02001454	4	0.0%	C		D
Sefton 027	E02001455	6	0.0%	C		D
Sefton 028	E02001456	5	0.0%	C		D
Sefton 030	E02001458	6	0.0%	C		D
Sefton 033	E02001461	3	0.0%	C		D
Sefton 036	E02001464	4	0.0%	C		D
Sheffield 004	E02001614	3	0.0%	C		D
South Lakeland 002	E02004016	4	0.0%	B		
South Lakeland 010	E02004024	4	0.0%	B		
South Lakeland 011	E02004025	3	0.0%	B		
South Ribble 001	E02005287	8	0.0%	A	A2	
South Ribble 002	E02005288	5	0.0%	A	A2	
South Ribble 003	E02005289	4	0.0%	A	A2	
South Ribble 004	E02005290	10	0.1%	A	A2	
South Ribble 005	E02005291	6	0.0%	A	A2	
South Ribble 009	E02005295	5	0.0%	A	A2	
South Ribble 010	E02005296	4	0.0%	A	A2	
South Ribble 011	E02005297	6	0.0%	A	A2	
South Ribble 013	E02005299	3	0.0%	A	A2	
South Ribble 016	E02005302	5	0.0%	A	A2	
South Ribble 017	E02005303	3	0.0%	A	A2	
St. Helens 001	E02001406	8	0.0%	C		D
St. Helens 002	E02001407	7	0.0%	C		D
St. Helens 003	E02001408	3	0.0%	C		D
St. Helens 004	E02001409	4	0.0%	C		D
St. Helens 005	E02001410	3	0.0%	C		D
St. Helens 006	E02001411	6	0.0%	C		D
St. Helens 007	E02001412	7	0.0%	C		D
St. Helens 009	E02001414	9	0.1%	C		D
St. Helens 010	E02001415	8	0.0%	C		D
St. Helens 013	E02001418	4	0.0%	C		D
St. Helens 015	E02001420	8	0.0%	C		D
St. Helens 016	E02001421	6	0.0%	C		D
St. Helens 018	E02001423	7	0.0%	C		D
St. Helens 022	E02001427	6	0.0%	C		D
St. Helens 023	E02001428	8	0.0%	C		D
Stafford 012	E02008199	3	0.0%	C		D
Staffordshire Moorlands 002	E02006205	5	0.0%	C		D
Stockport 001	E02001187	42	0.3%	C		D
Stockport 002	E02001188	45	0.3%	C		D
Stockport 003	E02001189	28	0.2%	C		D
Stockport 004	E02001190	6	0.0%	C		D
Stockport 005	E02001191	25	0.2%	C		D
Stockport 006	E02001192	53	0.3%	C		D
Stockport 007	E02001193	30	0.2%	C		D
Stockport 008	E02001194	52	0.3%	C		D
Stockport 009	E02001195	28	0.2%	C		D
Stockport 010	E02001196	23	0.1%	C		D
Stockport 011	E02001197	36	0.2%	C		D
Stockport 012	E02001198	20	0.1%	C		D
Stockport 013	E02001199	56	0.3%	C		D
Stockport 014	E02001200	8	0.0%	C		D
Stockport 015	E02001201	11	0.1%	C		D
Stockport 016	E02001202	13	0.1%	C		D
Stockport 017	E02001203	23	0.1%	C		D
Stockport 018	E02001204	32	0.2%	C		D
Stockport 019	E02001205	16	0.1%	C		D
Stockport 020	E02001206	25	0.2%	C		D
Stockport 021	E02001207	16	0.1%	C		D
Stockport 022	E02001208	54	0.3%	C		D
Stockport 023	E02001209	33	0.2%	C		D
Stockport 024	E02001210	5	0.0%	C		D
Stockport 025	E02001211	43	0.3%	C		D
Stockport 026	E02001212	11	0.1%	C		D
Stockport 027	E02001213	38	0.2%	C		D
Stockport 028	E02001214	61	0.4%	C		D
Stockport 029	E02001215	21	0.1%	C		D
Stockport 030	E02001216	32	0.2%	C		D
Stockport 031	E02001217	17	0.1%	C		D
Stockport 032	E02001218	43	0.3%	C		D
Stockport 033	E02001219	20	0.1%	C		D
Stockport 034	E02001220	22	0.1%	C		D
Stockport 035	E02001221	10	0.1%	C		D
Stockport 036	E02001222	28	0.2%	C		D
Stockport 037	E02001223	35	0.2%	C		D
Stockport 038	E02001224	14	0.1%	C		D
Stockport 039	E02001225	45	0.3%	C		D
Stockport 040	E02001226	33	0.2%	C		D
Stockport 041	E02001227	23	0.1%	C		D
Stockport 042	E02001228	32	0.2%	C		D
Tameside 001	E02001229	53	0.3%	A	A1	
Tameside 002	E02001230	37	0.2%	A	A1	
Tameside 003	E02001231	27	0.2%	A	A1	
Tameside 004	E02001232	23	0.1%	A	A1	
Tameside 005	E02001233	37	0.2%	A	A1	
Tameside 006	E02001234	27	0.2%	A	A1	
Tameside 007	E02001235	25	0.2%	A	A1	
Tameside 008	E02001236	14	0.1%	A	A1	

Tameside 009	E02001237	31	0.2%	A	A1	
Tameside 010	E02001238	81	0.5%	A	A1	
Tameside 011	E02001239	72	0.4%	A	A1	
Tameside 012	E02001240	51	0.3%	A	A1	
Tameside 013	E02001241	38	0.2%	A	A1	
Tameside 014	E02001242	51	0.3%	A	A1	
Tameside 015	E02001243	33	0.2%	A	A1	
Tameside 016	E02001244	26	0.2%	A	A1	
Tameside 017	E02001245	38	0.2%	A	A1	
Tameside 018	E02001246	18	0.1%	A	A1	
Tameside 019	E02001247	44	0.3%	A	A1	
Tameside 020	E02001248	33	0.2%	A	A1	
Tameside 021	E02001249	39	0.2%	A	A1	
Tameside 022	E02001250	25	0.2%	A	A1	
Tameside 023	E02001251	24	0.1%	A	A1	
Tameside 024	E02001252	53	0.3%	A	A1	
Tameside 025	E02001253	20	0.1%	A	A1	
Tameside 026	E02001254	19	0.1%	A	A1	
Tameside 027	E02001255	6	0.0%	A	A1	
Tameside 028	E02001256	19	0.1%	A	A1	
Tameside 029	E02001257	36	0.2%	A	A1	
Tameside 030	E02001258	27	0.2%	A	A1	
Trafford 001	E02001259	60	0.4%	C		D
Trafford 002	E02001260	51	0.3%	C		D
Trafford 003	E02001261	66	0.4%	C		D
Trafford 004	E02001262	53	0.3%	C		D
Trafford 005	E02001263	58	0.4%	C		D
Trafford 006	E02001264	50	0.3%	C		D
Trafford 007	E02001265	54	0.3%	C		D
Trafford 008	E02001266	46	0.3%	C		D
Trafford 009	E02001267	51	0.3%	C		D
Trafford 010	E02001268	63	0.4%	C		D
Trafford 011	E02001269	49	0.3%	C		D
Trafford 012	E02001270	79	0.5%	C		D
Trafford 013	E02001271	31	0.2%	C		D
Trafford 014	E02001272	72	0.4%	C		D
Trafford 015	E02001273	72	0.4%	C		D
Trafford 016	E02001274	56	0.3%	C		D
Trafford 017	E02001275	21	0.1%	C		D
Trafford 018	E02001276	28	0.2%	C		D
Trafford 019	E02001277	47	0.3%	C		D
Trafford 020	E02001278	50	0.3%	C		D
Trafford 021	E02001279	45	0.3%	C		D
Trafford 022	E02001280	26	0.2%	C		D
Trafford 023	E02001281	39	0.2%	C		D
Trafford 024	E02001282	74	0.5%	C		D
Trafford 025	E02001283	84	0.5%	C		D
Trafford 026	E02001284	124	0.8%	C		D
Trafford 027	E02001285	91	0.6%	C		D
Trafford 028	E02001286	103	0.6%	C		D
Wakefield 019	E02002456	3	0.0%	A	A1	
Warrington 001	E02002590	26	0.2%	C		D
Warrington 002	E02002591	24	0.1%	C		D
Warrington 003	E02002592	17	0.1%	C		D
Warrington 004	E02002593	8	0.0%	C		D
Warrington 005	E02002594	4	0.0%	C		D
Warrington 006	E02002595	3	0.0%	C		D
Warrington 007	E02002596	15	0.1%	C		D
Warrington 008	E02002597	5	0.0%	C		D
Warrington 009	E02002598	27	0.2%	C		D
Warrington 010	E02002599	20	0.1%	C		D
Warrington 012	E02002601	10	0.1%	C		D
Warrington 013	E02002602	6	0.0%	C		D
Warrington 014	E02002603	12	0.1%	C		D
Warrington 015	E02002604	11	0.1%	C		D
Warrington 016	E02002605	25	0.2%	C		D
Warrington 017	E02002606	4	0.0%	C		D
Warrington 018	E02002607	9	0.1%	C		D
Warrington 019	E02002608	15	0.1%	C		D
Warrington 020	E02002609	8	0.0%	C		D
Warrington 021	E02002610	56	0.3%	C		D
Warrington 022	E02002611	30	0.2%	C		D
Warrington 023	E02002612	32	0.2%	C		D
Warrington 024	E02002613	25	0.2%	C		D
Warrington 025	E02002614	35	0.2%	C		D
West Lancashire 001	E02005304	5	0.0%	C		D
West Lancashire 002	E02005305	3	0.0%	C		D
West Lancashire 003	E02005306	3	0.0%	C		D
West Lancashire 004	E02005307	6	0.0%	C		D
West Lancashire 005	E02005308	12	0.1%	C		D
West Lancashire 006	E02005309	6	0.0%	C		D
West Lancashire 007	E02005310	6	0.0%	C		D
West Lancashire 008	E02005311	8	0.0%	C		D
West Lancashire 009	E02005312	11	0.1%	C		D
West Lancashire 010	E02005313	4	0.0%	C		D
West Lancashire 011	E02005314	4	0.0%	C		D
West Lancashire 012	E02005315	10	0.1%	C		D
West Lancashire 013	E02005316	6	0.0%	C		D
West Lancashire 015	E02005318	12	0.1%	C		D
Wigan 001	E02001287	4	0.0%	C		D
Wigan 002	E02001288	11	0.1%	C		D
Wigan 003	E02001289	11	0.1%	C		D
Wigan 004	E02001290	10	0.1%	C		D
Wigan 005	E02001291	7	0.0%	C		D
Wigan 006	E02001292	8	0.0%	C		D
Wigan 007	E02001293	7	0.0%	C		D
Wigan 008	E02001294	12	0.1%	C		D
Wigan 009	E02001295	4	0.0%	C		D
Wigan 010	E02001296	5	0.0%	C		D
Wigan 012	E02001298	4	0.0%	C		D
Wigan 013	E02001299	13	0.1%	C		D
Wigan 014	E02001300	6	0.0%	C		D
Wigan 015	E02001301	5	0.0%	C		D
Wigan 017	E02001303	11	0.1%	C		D
Wigan 018	E02001304	19	0.1%	C		D
Wigan 019	E02001305	10	0.1%	C		D
Wigan 020	E02001306	10	0.1%	C		D
Wigan 021	E02001307	29	0.2%	C		D
Wigan 022	E02001308	15	0.1%	C		D
Wigan 023	E02001309	29	0.2%	C		D
Wigan 025	E02001311	26	0.2%	C		D
Wigan 026	E02001312	9	0.1%	C		D
Wigan 027	E02001313	6	0.0%	C		D
Wigan 028	E02001314	47	0.3%	C		D
Wigan 029	E02001315	46	0.3%	C		D
Wigan 030	E02001316	9	0.1%	C		D
Wigan 031	E02001317	20	0.1%	C		D
Wigan 032	E02001318	9	0.1%	C		D
Wigan 033	E02001319	10	0.1%	C		D
Wigan 034	E02001320	21	0.1%	C		D
Wigan 035	E02001321	9	0.1%	C		D
Wigan 036	E02001322	4	0.0%	C		D
Wigan 037	E02001323	25	0.2%	C		D
Wigan 038	E02001324	5	0.0%	C		D
Wigan 039	E02001325	22	0.1%	C		D
Wigan 040	E02001326	11	0.1%	C		D
Wirral 003	E02001469	3	0.0%	C		D
Wirral 004	E02001470	5	0.0%	C		D
Wirral 014	E02001480	3	0.0%	C		D
Wirral 017	E02001483	3	0.0%	C		D
Wirral 019	E02001485	3	0.0%	C		D
Wirral 022	E02001488	4	0.0%	C		D
Wirral 023	E02001489	4	0.0%	C		D
Wirral 024	E02001490	3	0.0%	C		D
Wirral 028	E02001494	7	0.0%	C		D
Wirral 030	E02001496	4	0.0%	C		D
Wirral 034	E02001500	5	0.0%	C		D
Wirral 036	E02001502	3	0.0%	C		D
Wirral 037	E02001503	6	0.0%	C		D
Wirral 038	E02001504	3	0.0%	C		D
Wirral 040	E02001506	13	0.1%	C		D
Wirral 041	E02001507	4	0.0%	C		D
Worthing 005	E02006625	3	0.0%	C		D
Worthing 011	E02006631	3	0.0%	C		D
Wrexham 020	W02000420	6	0.0%	C		D
Wyre 006	E02005324	3	0.0%	B		
Wyre 013	E02005331	4	0.0%	B		
		16,273	100%			

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

Appendix P PICADY Assessments

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: PICADY_A62 Oldham Road_Bengal Street junction.j9
Path: P:\Transportation\16857-TMBI Manchester Life - Transportation Hub\01_WIP\CA_Calculation\Junctions 9
Report generation date: 22/03/2021 10:43:44

»2020 Base, AM
»2020 Base, PM
»2021 Base, AM
»2021 Base, PM
»2026 Base, AM
»2026 Base, PM
»2026 Base + DEV, AM
»2026 Base + DEV, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
	2020 Base					
Stream B-AC	0.2	10.33	0.19	0.3	11.92	0.25
Stream C-AB	0.6	5.09	0.25	1.8	5.30	0.45
	2021 Base					
Stream B-AC	0.2	10.38	0.19	0.3	12.07	0.25
Stream C-AB	0.6	5.11	0.25	1.8	5.38	0.46
	2026 Base					
Stream B-AC	0.3	10.76	0.21	0.4	12.64	0.27
Stream C-AB	0.7	5.20	0.28	2.4	6.03	0.53
	2026 Base + DEV					
Stream B-AC	0.3	11.00	0.21	0.4	12.95	0.27
Stream C-AB	0.8	5.14	0.30	2.8	6.37	0.56

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	Ancoats Mobility Hub
Location	Ancoats
Site number	
Date	10/11/2020
Version	
Status	Proposed
Identifier	
Client	
Jobnumber	16857
Enumerator	HYDROCK\ChrisRushton
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2020 Base	AM	ONE HOUR	08:15	09:45	15	✓
D2	2020 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2021 Base	AM	ONE HOUR	08:15	09:45	15	✓
D4	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2026 Base	AM	ONE HOUR	08:15	09:45	15	✓
D6	2026 Base	PM	ONE HOUR	16:45	18:15	15	✓
D7	2026 Base + DEV	AM	ONE HOUR	08:15	09:45	15	✓
D8	2026 Base + DEV	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2020 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.19	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A62 Oldham Road (east)		Major
B	Bengal Street		Minor
C	A62 Oldham Road (west)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	18.50	✓	2.00		200.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	2.40	25	21

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	487	0.039	0.098	0.062	0.140
1	B-C	599	0.042	0.106	-	-
1	C-B	690	0.122	0.122	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2020 Base	AM	ONE HOUR	08:15	09:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	808	100.000
B		ONE HOUR	✓	76	100.000
C		ONE HOUR	✓	578	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	100	708
	B	33	0	43
	C	486	92	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.19	10.33	0.2	B	70	105
C-AB	0.25	5.09	0.6	A	173	260
C-A					357	536
A-B					92	138
A-C					650	975

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	57	14	468	0.122	57	0.0	0.1	8.734	A
C-AB	121	30	856	0.141	120	0.0	0.3	4.886	A
C-A	314	79			314				
A-B	75	19			75				
A-C	533	133			533				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	68	17	453	0.151	68	0.1	0.2	9.347	A
C-AB	163	41	893	0.182	162	0.3	0.4	4.934	A
C-A	357	89			357				
A-B	90	22			90				
A-C	636	159			636				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	84	21	432	0.194	83	0.2	0.2	10.318	B
C-AB	235	59	944	0.249	234	0.4	0.6	5.081	A
C-A	401	100			401				
A-B	110	28			110				
A-C	780	195			780				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	84	21	432	0.194	84	0.2	0.2	10.334	B
C-AB	235	59	945	0.249	235	0.6	0.6	5.094	A
C-A	401	100			401				
A-B	110	28			110				
A-C	780	195			780				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	68	17	453	0.151	69	0.2	0.2	9.369	A
C-AB	163	41	893	0.183	164	0.6	0.4	4.951	A
C-A	356	89			356				
A-B	90	22			90				
A-C	636	159			636				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	57	14	468	0.122	57	0.2	0.1	8.765	A
C-AB	122	30	857	0.142	122	0.4	0.3	4.907	A
C-A	314	78			314				
A-B	75	19			75				
A-C	533	133			533				

2020 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.78	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2020 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	722	100.000
B		ONE HOUR	✓	89	100.000
C		ONE HOUR	✓	980	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	117	605
	B	51	0	38
	C	869	111	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.25	11.92	0.3	B	82	123
C-AB	0.45	5.30	1.8	A	367	550
C-A					532	799
A-B					107	161
A-C					555	833

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	67	17	442	0.152	66	0.0	0.2	9.559	A
C-AB	221	55	1051	0.211	219	0.0	0.5	4.327	A
C-A	516	129			516				
A-B	88	22			88				
A-C	455	114			455				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	80	20	425	0.188	80	0.2	0.2	10.432	B
C-AB	327	82	1128	0.290	326	0.5	0.9	4.503	A
C-A	554	138			554				
A-B	105	26			105				
A-C	544	136			544				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	98	24	400	0.245	98	0.2	0.3	11.887	B
C-AB	548	137	1236	0.443	545	0.9	1.7	5.236	A
C-A	531	133			531				
A-B	129	32			129				
A-C	666	167			666				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	98	24	400	0.245	98	0.3	0.3	11.922	B
C-AB	551	138	1238	0.445	551	1.7	1.8	5.298	A
C-A	528	132			528				
A-B	129	32			129				
A-C	666	167			666				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	80	20	424	0.189	80	0.3	0.2	10.475	B
C-AB	330	83	1130	0.292	334	1.8	0.9	4.559	A
C-A	551	138			551				
A-B	105	26			105				
A-C	544	136			544				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	67	17	442	0.152	67	0.2	0.2	9.610	A
C-AB	223	56	1053	0.212	225	0.9	0.6	4.368	A
C-A	514	129			514				
A-B	88	22			88				
A-C	455	114			455				

2021 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.20	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2021 Base	AM	ONE HOUR	08:15	09:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	820	100.000
B		ONE HOUR	✓	76	100.000
C		ONE HOUR	✓	586	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	102	718
	B	33	0	43
	C	493	93	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.19	10.38	0.2	B	70	105
C-AB	0.25	5.11	0.6	A	177	266
C-A					361	541
A-B					94	140
A-C					659	988

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	57	14	467	0.122	57	0.0	0.1	8.758	A
C-AB	123	31	859	0.144	122	0.0	0.3	4.885	A
C-A	318	79			318				
A-B	77	19			77				
A-C	541	135			541				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	68	17	452	0.151	68	0.1	0.2	9.379	A
C-AB	166	42	896	0.186	166	0.3	0.4	4.938	A
C-A	361	90			361				
A-B	92	23			92				
A-C	645	161			645				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	84	21	430	0.194	83	0.2	0.2	10.367	B
C-AB	241	60	948	0.254	240	0.4	0.6	5.093	A
C-A	404	101			404				
A-B	112	28			112				
A-C	791	198			791				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	84	21	430	0.194	84	0.2	0.2	10.383	B
C-AB	241	60	949	0.254	241	0.6	0.6	5.106	A
C-A	404	101			404				
A-B	112	28			112				
A-C	791	198			791				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	68	17	452	0.151	69	0.2	0.2	9.402	A
C-AB	167	42	896	0.186	168	0.6	0.4	4.954	A
C-A	360	90			360				
A-B	92	23			92				
A-C	645	161			645				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	57	14	467	0.122	57	0.2	0.1	8.789	A
C-AB	124	31	859	0.144	124	0.4	0.3	4.906	A
C-A	317	79			317				
A-B	77	19			77				
A-C	541	135			541				

2021 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.82	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	731	100.000
B		ONE HOUR	✓	90	100.000
C		ONE HOUR	✓	993	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	118	613
	B	52	0	38
	C	881	112	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.25	12.07	0.3	B	83	124
C-AB	0.46	5.38	1.8	A	378	567
C-A					533	800
A-B					108	162
A-C					562	844

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	68	17	440	0.154	67	0.0	0.2	9.624	A
C-AB	227	57	1057	0.214	224	0.0	0.6	4.327	A
C-A	521	130			521				
A-B	89	22			89				
A-C	461	115			461				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	81	20	423	0.191	81	0.2	0.2	10.524	B
C-AB	336	84	1134	0.297	335	0.6	0.9	4.519	A
C-A	556	139			556				
A-B	106	27			106				
A-C	551	138			551				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	99	25	398	0.249	99	0.2	0.3	12.028	B
C-AB	567	142	1244	0.455	563	0.9	1.8	5.314	A
C-A	526	132			526				
A-B	130	32			130				
A-C	675	169			675				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	99	25	397	0.249	99	0.3	0.3	12.067	B
C-AB	570	143	1247	0.458	570	1.8	1.8	5.383	A
C-A	523	131			523				
A-B	130	32			130				
A-C	675	169			675				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	81	20	422	0.192	81	0.3	0.2	10.570	B
C-AB	339	85	1137	0.298	343	1.8	0.9	4.575	A
C-A	553	138			553				
A-B	106	27			106				
A-C	551	138			551				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	68	17	440	0.154	68	0.2	0.2	9.679	A
C-AB	229	57	1058	0.216	230	0.9	0.6	4.368	A
C-A	519	130			519				
A-B	89	22			89				
A-C	461	115			461				

2026 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.27	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 Base	AM	ONE HOUR	08:15	09:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	869	100.000
B		ONE HOUR	✓	81	100.000
C		ONE HOUR	✓	622	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	108	761
	B	35	0	46
	C	523	99	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.21	10.76	0.3	B	74	111
C-AB	0.28	5.20	0.7	A	198	297
C-A					373	559
A-B					99	149
A-C					698	1047

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	61	15	463	0.132	60	0.0	0.2	8.933	A
C-AB	136	34	870	0.156	135	0.0	0.3	4.893	A
C-A	332	83			332				
A-B	81	20			81				
A-C	573	143			573				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	73	18	446	0.163	73	0.2	0.2	9.628	A
C-AB	185	46	910	0.203	184	0.3	0.4	4.971	A
C-A	374	94			374				
A-B	97	24			97				
A-C	684	171			684				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	89	22	424	0.211	89	0.2	0.3	10.745	B
C-AB	271	68	966	0.281	270	0.4	0.7	5.184	A
C-A	413	103			413				
A-B	119	30			119				
A-C	838	209			838				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	89	22	424	0.211	89	0.3	0.3	10.764	B
C-AB	272	68	967	0.281	272	0.7	0.7	5.200	A
C-A	413	103			413				
A-B	119	30			119				
A-C	838	209			838				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	73	18	446	0.163	73	0.3	0.2	9.653	A
C-AB	186	46	911	0.204	187	0.7	0.5	4.991	A
C-A	374	93			374				
A-B	97	24			97				
A-C	684	171			684				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	61	15	463	0.132	61	0.2	0.2	8.970	A
C-AB	137	34	871	0.157	137	0.5	0.3	4.920	A
C-A	331	83			331				
A-B	81	20			81				
A-C	573	143			573				

2026 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.13	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	772	100.000
B		ONE HOUR	✓	95	100.000
C		ONE HOUR	✓	1049	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	125	647
	B	55	0	40
	C	930	119	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.27	12.64	0.4	B	87	131
C-AB	0.53	6.03	2.4	A	439	658
C-A					524	786
A-B					115	172
A-C					594	891

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	18	435	0.164	71	0.0	0.2	9.860	A
C-AB	255	64	1078	0.237	253	0.0	0.6	4.362	A
C-A	534	134			534				
A-B	94	24			94				
A-C	487	122			487				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	85	21	416	0.205	85	0.2	0.3	10.868	B
C-AB	386	96	1161	0.332	384	0.6	1.1	4.650	A
C-A	557	139			557				
A-B	112	28			112				
A-C	582	145			582				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	105	26	390	0.268	104	0.3	0.4	12.592	B
C-AB	669	167	1279	0.523	663	1.1	2.4	5.898	A
C-A	486	122			486				
A-B	138	34			138				
A-C	712	178			712				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	105	26	389	0.269	105	0.4	0.4	12.642	B
C-AB	675	169	1282	0.526	675	2.4	2.4	6.026	A
C-A	480	120			480				
A-B	138	34			138				
A-C	712	178			712				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	85	21	416	0.205	86	0.4	0.3	10.926	B
C-AB	390	98	1165	0.335	395	2.4	1.1	4.736	A
C-A	553	138			553				
A-B	112	28			112				
A-C	582	145			582				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	18	435	0.164	72	0.3	0.2	9.922	A
C-AB	258	65	1080	0.239	260	1.1	0.7	4.413	A
C-A	532	133			532				
A-B	94	24			94				
A-C	487	122			487				

2026 Base + DEV, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.26	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2026 Base + DEV	AM	ONE HOUR	08:15	09:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	911	100.000
B		ONE HOUR	✓	81	100.000
C		ONE HOUR	✓	674	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	108	803
	B	35	0	46
	C	575	99	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.21	11.00	0.3	B	74	111
C-AB	0.30	5.14	0.8	A	214	322
C-A					404	606
A-B					99	149
A-C					737	1105

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	61	15	458	0.133	60	0.0	0.2	9.040	A
C-AB	145	36	893	0.162	143	0.0	0.3	4.798	A
C-A	363	91			363				
A-B	81	20			81				
A-C	605	151			605				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	73	18	441	0.165	73	0.2	0.2	9.777	A
C-AB	199	50	938	0.213	199	0.3	0.5	4.879	A
C-A	407	102			407				
A-B	97	24			97				
A-C	722	180			722				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	89	22	417	0.214	89	0.2	0.3	10.976	B
C-AB	298	75	1002	0.298	297	0.5	0.8	5.121	A
C-A	444	111			444				
A-B	119	30			119				
A-C	884	221			884				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	89	22	416	0.214	89	0.3	0.3	10.998	B
C-AB	299	75	1002	0.298	299	0.8	0.8	5.139	A
C-A	443	111			443				
A-B	119	30			119				
A-C	884	221			884				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	73	18	441	0.165	73	0.3	0.2	9.802	A
C-AB	200	50	939	0.213	201	0.8	0.5	4.903	A
C-A	406	101			406				
A-B	97	24			97				
A-C	722	180			722				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	61	15	458	0.133	61	0.2	0.2	9.077	A
C-AB	146	36	894	0.163	146	0.5	0.3	4.827	A
C-A	362	90			362				
A-B	81	20			81				
A-C	605	151			605				

2026 Base + DEV, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.25	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2026 Base + DEV	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	815	100.000
B		ONE HOUR	✓	95	100.000
C		ONE HOUR	✓	1081	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	125	690
	B	55	0	40
	C	962	119	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.27	12.95	0.4	B	87	131
C-AB	0.56	6.37	2.8	A	467	700
C-A					525	787
A-B					115	172
A-C					633	950

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	18	431	0.166	71	0.0	0.2	9.979	A
C-AB	266	67	1092	0.244	263	0.0	0.7	4.347	A
C-A	548	137			548				
A-B	94	24			94				
A-C	519	130			519				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	85	21	411	0.208	85	0.2	0.3	11.039	B
C-AB	407	102	1178	0.345	405	0.7	1.1	4.675	A
C-A	565	141			565				
A-B	112	28			112				
A-C	620	155			620				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	105	26	383	0.273	104	0.3	0.4	12.893	B
C-AB	720	180	1300	0.554	714	1.1	2.7	6.194	A
C-A	470	118			470				
A-B	138	34			138				
A-C	760	190			760				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	105	26	383	0.273	105	0.4	0.4	12.948	B
C-AB	728	182	1304	0.558	728	2.7	2.8	6.373	A
C-A	462	116			462				
A-B	138	34			138				
A-C	760	190			760				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	85	21	410	0.208	86	0.4	0.3	11.111	B
C-AB	412	103	1183	0.348	418	2.8	1.2	4.782	A
C-A	560	140			560				
A-B	112	28			112				
A-C	620	155			620				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	18	430	0.166	72	0.3	0.2	10.046	B
C-AB	269	67	1094	0.246	271	1.2	0.7	4.401	A
C-A	545	136			545				
A-B	94	24			94				
A-C	519	130			519				

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: PICADY_A62 Oldham Road_Poland Street junction.j9
Path: P:\Transportation\16857-TMBI Manchester Life - Transportation Hub\01_WIP\CA_Calculation\Junctions 9
Report generation date: 26/03/2021 13:24:13

»2021 Base, AM
»2021 Base, PM
»2026 Base, AM
»2026 Base, PM
»2026 Base + COMM, AM
»2026 Base + COMM, PM
»2026 Base + COMM + DEV, AM
»2026 Base + COMM + DEV, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
	2021 Base					
Stream B-AC	0.1	9.97	0.09	0.2	10.87	0.14
Stream C-AB	0.1	4.28	0.04	0.2	3.28	0.08
	2026 Base					
Stream B-AC	0.1	10.27	0.09	0.2	11.20	0.15
Stream C-AB	0.1	4.23	0.04	0.2	3.22	0.10
	2026 Base + COMM					
Stream B-AC	0.1	10.30	0.09	0.2	11.23	0.15
Stream C-AB	0.1	4.23	0.04	0.2	3.22	0.10
	2026 Base + COMM + DEV					
Stream B-AC	0.7	16.64	0.43	1.0	19.52	0.51
Stream C-AB	0.6	4.79	0.22	1.3	3.70	0.31

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	Ancoats Mobility Hub
Location	Ancoats
Site number	
Date	10/11/2020
Version	
Status	Proposed
Identifier	
Client	
Jobnumber	16857
Enumerator	HYDROCK\ChrisRushton
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2021 Base	AM	ONE HOUR	08:15	09:45	15	✓
D4	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2026 Base	AM	ONE HOUR	08:15	09:45	15	✓
D6	2026 Base	PM	ONE HOUR	16:45	18:15	15	✓
D7	2026 Base + COMM	AM	ONE HOUR	08:15	09:45	15	✓
D8	2026 Base + COMM	PM	ONE HOUR	16:45	18:15	15	✓
D9	2026 Base + COMM + DEV	AM	ONE HOUR	08:15	09:45	15	✓
D10	2026 Base + COMM + DEV	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2021 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.28	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A62 Oldham Road (east)		Major
B	Poland Street		Minor
C	A62 Oldham Road (west)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	19.00	✓	2.00		200.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	2.50	16	16

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	487	0.037	0.093	0.059	0.133
1	B-C	602	0.040	0.101	-	-
1	C-B	690	0.116	0.116	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2021 Base	AM	ONE HOUR	08:15	09:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	991	100.000
B		ONE HOUR	✓	32	100.000
C		ONE HOUR	✓	524	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	55	936
	B	20	0	12
	C	511	13	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.09	9.97	0.1	A	29	44
C-AB	0.04	4.28	0.1	A	26	39
C-A					455	683
A-B					50	76
A-C					859	1288

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	437	0.055	24	0.0	0.1	8.706	A
C-AB	18	4	859	0.021	18	0.0	0.0	4.279	A
C-A	377	94			377				
A-B	41	10			41				
A-C	705	176			705				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	7	420	0.068	29	0.1	0.1	9.199	A
C-AB	24	6	896	0.027	24	0.0	0.0	4.127	A
C-A	447	112			447				
A-B	49	12			49				
A-C	841	210			841				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	396	0.089	35	0.1	0.1	9.968	A
C-AB	35	9	950	0.037	35	0.0	0.1	3.936	A
C-A	542	135			542				
A-B	61	15			61				
A-C	1031	258			1031				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	9	396	0.089	35	0.1	0.1	9.972	A
C-AB	35	9	950	0.037	35	0.1	0.1	3.936	A
C-A	542	135			542				
A-B	61	15			61				
A-C	1031	258			1031				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	7	420	0.068	29	0.1	0.1	9.205	A
C-AB	24	6	896	0.027	24	0.1	0.0	4.128	A
C-A	447	112			447				
A-B	49	12			49				
A-C	841	210			841				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	437	0.055	24	0.1	0.1	8.719	A
C-AB	18	4	859	0.021	18	0.0	0.0	4.279	A
C-A	377	94			377				
A-B	41	10			41				
A-C	705	176			705				

2021 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.41	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	817	100.000
B		ONE HOUR	✓	50	100.000
C		ONE HOUR	✓	1063	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	34	783
	B	31	0	19
	C	1047	16	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.14	10.87	0.2	B	46	69
C-AB	0.08	3.28	0.2	A	72	108
C-A					904	1355
A-B					31	47
A-C					718	1078

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	38	9	431	0.087	37	0.0	0.1	9.133	A
C-AB	39	10	1136	0.035	39	0.0	0.0	3.282	A
C-A	761	190			761				
A-B	26	6			26				
A-C	589	147			589				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	45	11	412	0.109	45	0.1	0.1	9.792	A
C-AB	62	15	1230	0.050	61	0.0	0.1	3.080	A
C-A	894	224			894				
A-B	31	8			31				
A-C	704	176			704				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	55	14	386	0.143	55	0.1	0.2	10.862	B
C-AB	115	29	1363	0.084	114	0.1	0.2	2.881	A
C-A	1056	264			1056				
A-B	37	9			37				
A-C	862	216			862				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	55	14	386	0.143	55	0.2	0.2	10.873	B
C-AB	115	29	1364	0.084	115	0.2	0.2	2.885	A
C-A	1056	264			1056				
A-B	37	9			37				
A-C	862	216			862				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	45	11	412	0.109	45	0.2	0.1	9.809	A
C-AB	62	15	1230	0.050	62	0.2	0.1	3.082	A
C-A	894	223			894				
A-B	31	8			31				
A-C	704	176			704				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	38	9	431	0.087	38	0.1	0.1	9.156	A
C-AB	40	10	1136	0.035	40	0.1	0.0	3.283	A
C-A	761	190			761				
A-B	26	6			26				
A-C	589	147			589				

2026 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.29	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 Base	AM	ONE HOUR	08:15	09:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1051	100.000
B		ONE HOUR	✓	33	100.000
C		ONE HOUR	✓	556	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	58	993
	B	21	0	12
	C	542	14	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.09	10.27	0.1	B	30	45
C-AB	0.04	4.23	0.1	A	29	44
C-A					481	722
A-B					53	80
A-C					911	1367

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	25	6	430	0.058	25	0.0	0.1	8.865	A
C-AB	20	5	870	0.023	20	0.0	0.0	4.232	A
C-A	399	100			399				
A-B	44	11			44				
A-C	748	187			748				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	7	412	0.072	30	0.1	0.1	9.409	A
C-AB	27	7	910	0.030	27	0.0	0.0	4.075	A
C-A	473	118			473				
A-B	52	13			52				
A-C	893	223			893				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	9	387	0.094	36	0.1	0.1	10.264	B
C-AB	40	10	968	0.042	40	0.0	0.1	3.879	A
C-A	572	143			572				
A-B	64	16			64				
A-C	1093	273			1093				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	9	387	0.094	36	0.1	0.1	10.271	B
C-AB	40	10	968	0.042	40	0.1	0.1	3.881	A
C-A	572	143			572				
A-B	64	16			64				
A-C	1093	273			1093				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	7	412	0.072	30	0.1	0.1	9.416	A
C-AB	27	7	910	0.030	27	0.1	0.0	4.078	A
C-A	473	118			473				
A-B	52	13			52				
A-C	893	223			893				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	25	6	430	0.058	25	0.1	0.1	8.881	A
C-AB	20	5	870	0.023	20	0.0	0.0	4.234	A
C-A	399	100			399				
A-B	44	11			44				
A-C	748	187			748				

2026 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.43	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	864	100.000
B		ONE HOUR	✓	52	100.000
C		ONE HOUR	✓	1123	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	36	828
	B	32	0	20
	C	1106	17	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.15	11.20	0.2	B	48	72
C-AB	0.10	3.22	0.2	A	86	129
C-A					944	1416
A-B					33	50
A-C					760	1140

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	10	426	0.092	39	0.0	0.1	9.281	A
C-AB	45	11	1163	0.039	45	0.0	0.1	3.220	A
C-A	800	200			800				
A-B	27	7			27				
A-C	623	156			623				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	12	406	0.115	47	0.1	0.1	10.002	B
C-AB	72	18	1263	0.057	72	0.1	0.1	3.022	A
C-A	937	234			937				
A-B	32	8			32				
A-C	744	186			744				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	57	14	379	0.151	57	0.1	0.2	11.188	B
C-AB	141	35	1405	0.100	140	0.1	0.2	2.846	A
C-A	1096	274			1096				
A-B	40	10			40				
A-C	912	228			912				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	57	14	379	0.151	57	0.2	0.2	11.202	B
C-AB	141	35	1406	0.100	141	0.2	0.2	2.848	A
C-A	1095	274			1095				
A-B	40	10			40				
A-C	912	228			912				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	12	406	0.115	47	0.2	0.1	10.019	B
C-AB	72	18	1263	0.057	73	0.2	0.1	3.027	A
C-A	937	234			937				
A-B	32	8			32				
A-C	744	186			744				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	10	426	0.092	39	0.1	0.1	9.307	A
C-AB	45	11	1163	0.039	45	0.1	0.1	3.223	A
C-A	800	200			800				
A-B	27	7			27				
A-C	623	156			623				

2026 Base + COMM, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.29	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2026 Base + COMM	AM	ONE HOUR	08:15	09:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1059	100.000
B		ONE HOUR	✓	33	100.000
C		ONE HOUR	✓	558	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	58	1001
	B	21	0	12
	C	544	14	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.09	10.30	0.1	B	30	45
C-AB	0.04	4.23	0.1	A	29	44
C-A					483	724
A-B					53	80
A-C					919	1378

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	25	6	430	0.058	25	0.0	0.1	8.879	A
C-AB	20	5	871	0.023	20	0.0	0.0	4.230	A
C-A	400	100			400				
A-B	44	11			44				
A-C	754	188			754				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	7	411	0.072	30	0.1	0.1	9.428	A
C-AB	27	7	911	0.030	27	0.0	0.0	4.073	A
C-A	474	119			474				
A-B	52	13			52				
A-C	900	225			900				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	9	386	0.094	36	0.1	0.1	10.293	B
C-AB	40	10	969	0.042	40	0.0	0.1	3.877	A
C-A	574	143			574				
A-B	64	16			64				
A-C	1102	276			1102				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	9	386	0.094	36	0.1	0.1	10.299	B
C-AB	41	10	969	0.042	41	0.1	0.1	3.879	A
C-A	574	143			574				
A-B	64	16			64				
A-C	1102	276			1102				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	7	411	0.072	30	0.1	0.1	9.437	A
C-AB	27	7	911	0.030	27	0.1	0.0	4.075	A
C-A	474	119			474				
A-B	52	13			52				
A-C	900	225			900				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	25	6	430	0.058	25	0.1	0.1	8.893	A
C-AB	20	5	871	0.023	20	0.0	0.0	4.232	A
C-A	400	100			400				
A-B	44	11			44				
A-C	754	188			754				

2026 Base + COMM, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.43	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2026 Base + COMM	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	868	100.000
B		ONE HOUR	✓	52	100.000
C		ONE HOUR	✓	1129	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	36	832
	B	32	0	20
	C	1112	17	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.15	11.23	0.2	B	48	72
C-AB	0.10	3.22	0.2	A	87	131
C-A					949	1423
A-B					33	50
A-C					763	1145

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	10	426	0.092	39	0.0	0.1	9.293	A
C-AB	45	11	1166	0.039	45	0.0	0.1	3.213	A
C-A	805	201			805				
A-B	27	7			27				
A-C	626	157			626				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	12	406	0.115	47	0.1	0.1	10.019	B
C-AB	73	18	1266	0.058	73	0.1	0.1	3.016	A
C-A	942	236			942				
A-B	32	8			32				
A-C	748	187			748				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	57	14	378	0.152	57	0.1	0.2	11.214	B
C-AB	143	36	1410	0.102	143	0.1	0.2	2.841	A
C-A	1100	275			1100				
A-B	40	10			40				
A-C	916	229			916				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	57	14	378	0.152	57	0.2	0.2	11.229	B
C-AB	143	36	1410	0.102	143	0.2	0.2	2.845	A
C-A	1100	275			1100				
A-B	40	10			40				
A-C	916	229			916				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	47	12	406	0.115	47	0.2	0.1	10.038	B
C-AB	73	18	1267	0.058	74	0.2	0.1	3.021	A
C-A	942	235			942				
A-B	32	8			32				
A-C	748	187			748				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	10	426	0.092	39	0.1	0.1	9.319	A
C-AB	46	11	1166	0.039	46	0.1	0.1	3.216	A
C-A	804	201			804				
A-B	27	7			27				
A-C	626	157			626				

2026 Base + COMM + DEV, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.68	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2026 Base + COMM + DEV	AM	ONE HOUR	08:15	09:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	1148	100.000
B		ONE HOUR	✓	146	100.000
C		ONE HOUR	✓	615	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	147	1001
	B	91	0	55
	C	544	71	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.43	16.64	0.7	C	134	201
C-AB	0.22	4.79	0.6	A	150	225
C-A					414	621
A-B					135	202
A-C					919	1378

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	110	27	424	0.259	109	0.0	0.3	11.351	B
C-AB	102	25	865	0.117	101	0.0	0.2	4.710	A
C-A	361	90			361				
A-B	111	28			111				
A-C	754	188			754				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	131	33	405	0.324	131	0.3	0.5	13.122	B
C-AB	140	35	904	0.154	139	0.2	0.4	4.711	A
C-A	413	103			413				
A-B	132	33			132				
A-C	900	225			900				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	161	40	377	0.426	160	0.5	0.7	16.490	C
C-AB	209	52	962	0.217	208	0.4	0.6	4.782	A
C-A	469	117			469				
A-B	162	40			162				
A-C	1102	276			1102				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	161	40	377	0.426	161	0.7	0.7	16.639	C
C-AB	209	52	962	0.217	209	0.6	0.6	4.794	A
C-A	468	117			468				
A-B	162	40			162				
A-C	1102	276			1102				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	131	33	404	0.325	132	0.7	0.5	13.271	B
C-AB	140	35	905	0.155	141	0.6	0.4	4.724	A
C-A	413	103			413				
A-B	132	33			132				
A-C	900	225			900				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	110	27	424	0.259	110	0.5	0.4	11.493	B
C-AB	102	26	865	0.118	103	0.4	0.3	4.729	A
C-A	361	90			361				
A-B	111	28			111				
A-C	754	188			754				

2026 Base + COMM + DEV, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.95	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2026 Base + COMM + DEV	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	921	100.000
B		ONE HOUR	✓	171	100.000
C		ONE HOUR	✓	1162	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	89	832
	B	104	0	67
	C	1112	50	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.51	19.52	1.0	C	157	235
C-AB	0.31	3.70	1.3	A	261	391
C-A					806	1209
A-B					82	123
A-C					763	1145

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	129	32	423	0.305	127	0.0	0.4	12.108	B
C-AB	134	34	1163	0.116	133	0.0	0.3	3.495	A
C-A	740	185			740				
A-B	67	17			67				
A-C	626	157			626				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	154	38	402	0.383	153	0.4	0.6	14.427	B
C-AB	216	54	1264	0.171	215	0.3	0.5	3.436	A
C-A	828	207			828				
A-B	80	20			80				
A-C	748	187			748				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	188	47	373	0.505	187	0.6	1.0	19.211	C
C-AB	427	107	1408	0.303	424	0.5	1.2	3.674	A
C-A	852	213			852				
A-B	98	24			98				
A-C	916	229			916				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	188	47	372	0.506	188	1.0	1.0	19.516	C
C-AB	431	108	1410	0.305	431	1.2	1.3	3.700	A
C-A	849	212			849				
A-B	98	24			98				
A-C	916	229			916				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	154	38	402	0.383	155	1.0	0.6	14.696	B
C-AB	219	55	1267	0.173	222	1.3	0.5	3.464	A
C-A	826	207			826				
A-B	80	20			80				
A-C	748	187			748				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	129	32	423	0.305	129	0.6	0.4	12.318	B
C-AB	136	34	1164	0.117	137	0.5	0.3	3.510	A
C-A	739	185			739				
A-B	67	17			67				
A-C	626	157			626				

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

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Filename: PICADY_A665 Great Ancoats Street_Jersey Street junction.j9
Path: P:\Transportation\16857-TMBI Manchester Life - Transportation Hub\01_WIP\CA_Calculation\Junctions 9
Report generation date: 22/03/2021 11:42:17

»2020 Base, AM
»2020 Base, PM
»2021 Base, AM
»2021 Base, PM
»2026 Base, AM
»2026 Base, PM
»2026 Base + DEV, AM
»2026 Base + DEV, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
	2020 Base					
Stream B-AC	0.3	10.15	0.23	0.5	11.20	0.33
Stream C-AB	0.1	3.87	0.06	0.0	4.06	0.04
	2021 Base					
Stream B-AC	0.3	10.20	0.23	0.5	11.35	0.33
Stream C-AB	0.1	3.85	0.06	0.1	4.06	0.04
	2026 Base					
Stream B-AC	0.3	10.57	0.25	0.5	11.80	0.35
Stream C-AB	0.1	3.79	0.06	0.1	4.00	0.04
	2026 Base + DEV					
Stream B-AC	0.4	10.84	0.27	0.7	13.00	0.42
Stream C-AB	0.5	4.03	0.17	0.1	4.07	0.07

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	Ancoats Mobility Hub
Location	Ancoats
Site number	
Date	10/11/2020
Version	
Status	Proposed
Identifier	
Client	
Jobnumber	16857
Enumerator	HYDROCK\ChrisRushton
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2020 Base	AM	ONE HOUR	08:15	09:45	15	✓
D2	2020 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2021 Base	AM	ONE HOUR	08:15	09:45	15	✓
D4	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2026 Base	AM	ONE HOUR	08:15	09:45	15	✓
D6	2026 Base	PM	ONE HOUR	16:45	18:15	15	✓
D7	2026 Base + DEV	AM	ONE HOUR	08:15	09:45	15	✓
D8	2026 Base + DEV	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2020 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.94	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A665 Great Ancoats Street (North)		Major
B	Jersey Street		Minor
C	A665 Great Ancoats Street (South)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	16.50			200.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	2.50	11	14

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	464	0.046	0.116	0.073	0.166
1	B-C	601	0.050	0.127	-	-
1	C-B	690	0.145	0.145	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2020 Base	AM	ONE HOUR	08:15	09:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	444	100.000
B		ONE HOUR	✓	94	100.000
C		ONE HOUR	✓	678	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	2	442
	B	31	0	63
	C	659	19	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.23	10.15	0.3	B	86	129
C-AB	0.06	3.87	0.1	A	44	66
C-A					578	867
A-B					2	3
A-C					406	608

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	71	18	487	0.145	70	0.0	0.2	8.617	A
C-AB	30	7	961	0.031	29	0.0	0.0	3.866	A
C-A	481	120			481				
A-B	2	0.38			2				
A-C	333	83			333				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	85	21	475	0.178	84	0.2	0.2	9.208	A
C-AB	41	10	1016	0.040	41	0.0	0.1	3.690	A
C-A	568	142			568				
A-B	2	0.45			2				
A-C	397	99			397				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	103	26	458	0.226	103	0.2	0.3	10.134	B
C-AB	62	16	1095	0.057	62	0.1	0.1	3.484	A
C-A	684	171			684				
A-B	2	0.55			2				
A-C	487	122			487				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	103	26	458	0.226	103	0.3	0.3	10.151	B
C-AB	62	16	1095	0.057	62	0.1	0.1	3.485	A
C-A	684	171			684				
A-B	2	0.55			2				
A-C	487	122			487				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	85	21	475	0.178	85	0.3	0.2	9.229	A
C-AB	41	10	1016	0.040	41	0.1	0.1	3.691	A
C-A	568	142			568				
A-B	2	0.45			2				
A-C	397	99			397				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	71	18	487	0.145	71	0.2	0.2	8.654	A
C-AB	30	7	961	0.031	30	0.1	0.0	3.868	A
C-A	481	120			481				
A-B	2	0.38			2				
A-C	333	83			333				

2020 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.44	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2020 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	479	100.000
B		ONE HOUR	✓	142	100.000
C		ONE HOUR	✓	562	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	7	472
	B	34	0	108
	C	549	13	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.33	11.20	0.5	B	130	195
C-AB	0.04	4.06	0.0	A	26	39
C-A					490	734
A-B					6	10
A-C					433	650

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	107	27	505	0.212	106	0.0	0.3	9.004	A
C-AB	18	5	904	0.020	18	0.0	0.0	4.061	A
C-A	405	101			405				
A-B	5	1			5				
A-C	355	89			355				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	128	32	493	0.259	127	0.3	0.3	9.824	A
C-AB	24	6	949	0.026	24	0.0	0.0	3.894	A
C-A	481	120			481				
A-B	6	2			6				
A-C	424	106			424				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	156	39	478	0.327	156	0.3	0.5	11.163	B
C-AB	36	9	1012	0.035	36	0.0	0.0	3.687	A
C-A	583	146			583				
A-B	8	2			8				
A-C	520	130			520				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	156	39	478	0.327	156	0.5	0.5	11.198	B
C-AB	36	9	1012	0.035	36	0.0	0.0	3.690	A
C-A	583	146			583				
A-B	8	2			8				
A-C	520	130			520				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	128	32	493	0.259	128	0.5	0.4	9.869	A
C-AB	24	6	949	0.026	25	0.0	0.0	3.896	A
C-A	481	120			481				
A-B	6	2			6				
A-C	424	106			424				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	107	27	505	0.212	107	0.4	0.3	9.067	A
C-AB	18	5	904	0.020	18	0.0	0.0	4.063	A
C-A	405	101			405				
A-B	5	1			5				
A-C	355	89			355				

2021 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.94	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2021 Base	AM	ONE HOUR	08:15	09:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	451	100.000
B		ONE HOUR	✓	95	100.000
C		ONE HOUR	✓	687	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	2	449
	B	31	0	64
	C	668	19	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.23	10.20	0.3	B	87	131
C-AB	0.06	3.85	0.1	A	45	67
C-A					585	878
A-B					2	3
A-C					412	618

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	18	487	0.147	71	0.0	0.2	8.638	A
C-AB	30	7	964	0.031	30	0.0	0.0	3.851	A
C-A	487	122			487				
A-B	2	0.38			2				
A-C	338	85			338				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	85	21	475	0.180	85	0.2	0.2	9.238	A
C-AB	42	10	1021	0.041	42	0.0	0.1	3.674	A
C-A	576	144			576				
A-B	2	0.45			2				
A-C	404	101			404				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	105	26	457	0.229	104	0.2	0.3	10.185	B
C-AB	63	16	1101	0.057	63	0.1	0.1	3.468	A
C-A	693	173			693				
A-B	2	0.55			2				
A-C	494	124			494				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	105	26	457	0.229	105	0.3	0.3	10.201	B
C-AB	63	16	1101	0.057	63	0.1	0.1	3.469	A
C-A	693	173			693				
A-B	2	0.55			2				
A-C	494	124			494				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	85	21	475	0.180	86	0.3	0.2	9.263	A
C-AB	42	10	1021	0.041	42	0.1	0.1	3.676	A
C-A	576	144			576				
A-B	2	0.45			2				
A-C	404	101			404				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	18	487	0.147	72	0.2	0.2	8.673	A
C-AB	30	7	965	0.031	30	0.1	0.0	3.852	A
C-A	487	122			487				
A-B	2	0.38			2				
A-C	338	85			338				

2021 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.47	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	486	100.000
B		ONE HOUR	✓	144	100.000
C		ONE HOUR	✓	570	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	8	478
	B	35	0	109
	C	556	14	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.33	11.35	0.5	B	132	198
C-AB	0.04	4.06	0.1	A	28	43
C-A					495	742
A-B					7	11
A-C					439	658

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	108	27	503	0.215	107	0.0	0.3	9.071	A
C-AB	20	5	907	0.022	19	0.0	0.0	4.055	A
C-A	410	102			410				
A-B	6	2			6				
A-C	360	90			360				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	129	32	492	0.263	129	0.3	0.4	9.919	A
C-AB	27	7	952	0.028	27	0.0	0.0	3.888	A
C-A	486	121			486				
A-B	7	2			7				
A-C	430	107			430				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	159	40	476	0.333	158	0.4	0.5	11.308	B
C-AB	39	10	1016	0.038	39	0.0	0.1	3.682	A
C-A	589	147			589				
A-B	9	2			9				
A-C	526	132			526				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	159	40	476	0.333	159	0.5	0.5	11.346	B
C-AB	39	10	1016	0.038	39	0.1	0.1	3.683	A
C-A	589	147			589				
A-B	9	2			9				
A-C	526	132			526				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	129	32	492	0.263	130	0.5	0.4	9.968	A
C-AB	27	7	952	0.028	27	0.1	0.0	3.890	A
C-A	486	121			486				
A-B	7	2			7				
A-C	430	107			430				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	108	27	503	0.215	109	0.4	0.3	9.135	A
C-AB	20	5	907	0.022	20	0.0	0.0	4.057	A
C-A	409	102			409				
A-B	6	2			6				
A-C	360	90			360				

2026 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.98	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 Base	AM	ONE HOUR	08:15	09:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	478	100.000
B		ONE HOUR	✓	101	100.000
C		ONE HOUR	✓	728	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	2	476
	B	33	0	68
	C	708	20	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.25	10.57	0.3	B	93	139
C-AB	0.06	3.79	0.1	A	50	76
C-A					618	927
A-B					2	3
A-C					437	655

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	76	19	483	0.157	75	0.0	0.2	8.812	A
C-AB	33	8	982	0.034	33	0.0	0.0	3.793	A
C-A	515	129			515				
A-B	2	0.38			2				
A-C	358	90			358				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	91	23	470	0.193	91	0.2	0.2	9.482	A
C-AB	46	12	1042	0.044	46	0.0	0.1	3.614	A
C-A	608	152			608				
A-B	2	0.45			2				
A-C	428	107			428				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	111	28	452	0.246	111	0.2	0.3	10.551	B
C-AB	72	18	1127	0.064	71	0.1	0.1	3.409	A
C-A	730	182			730				
A-B	2	0.55			2				
A-C	524	131			524				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	111	28	452	0.246	111	0.3	0.3	10.572	B
C-AB	72	18	1127	0.064	72	0.1	0.1	3.409	A
C-A	730	182			730				
A-B	2	0.55			2				
A-C	524	131			524				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	91	23	470	0.193	91	0.3	0.2	9.510	A
C-AB	46	12	1042	0.045	47	0.1	0.1	3.615	A
C-A	608	152			608				
A-B	2	0.45			2				
A-C	428	107			428				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	76	19	483	0.157	76	0.2	0.2	8.853	A
C-AB	33	8	982	0.034	33	0.1	0.0	3.794	A
C-A	515	129			515				
A-B	2	0.38			2				
A-C	358	90			358				

2026 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.52	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	513	100.000
B		ONE HOUR	✓	152	100.000
C		ONE HOUR	✓	601	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	8	505
	B	36	0	116
	C	587	14	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.35	11.80	0.5	B	139	209
C-AB	0.04	4.00	0.1	A	30	45
C-A					522	783
A-B					7	11
A-C					463	695

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	114	29	501	0.228	113	0.0	0.3	9.254	A
C-AB	20	5	920	0.022	20	0.0	0.0	4.000	A
C-A	432	108			432				
A-B	6	2			6				
A-C	380	95			380				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	137	34	489	0.279	136	0.3	0.4	10.193	B
C-AB	28	7	968	0.029	28	0.0	0.0	3.827	A
C-A	513	128			513				
A-B	7	2			7				
A-C	454	113			454				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	167	42	472	0.354	167	0.4	0.5	11.758	B
C-AB	41	10	1036	0.040	41	0.0	0.1	3.617	A
C-A	621	155			621				
A-B	9	2			9				
A-C	556	139			556				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	167	42	472	0.354	167	0.5	0.5	11.804	B
C-AB	41	10	1036	0.040	41	0.1	0.1	3.618	A
C-A	621	155			621				
A-B	9	2			9				
A-C	556	139			556				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	137	34	489	0.279	137	0.5	0.4	10.251	B
C-AB	28	7	968	0.029	28	0.1	0.0	3.831	A
C-A	513	128			513				
A-B	7	2			7				
A-C	454	113			454				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	114	29	501	0.228	115	0.4	0.3	9.327	A
C-AB	20	5	920	0.022	20	0.0	0.0	4.002	A
C-A	432	108			432				
A-B	6	2			6				
A-C	380	95			380				

2026 Base + DEV, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.33	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2026 Base + DEV	AM	ONE HOUR	08:15	09:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	479	100.000
B		ONE HOUR	✓	111	100.000
C		ONE HOUR	✓	766	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	2	477
	B	33	0	78
	C	712	54	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.27	10.84	0.4	B	102	153
C-AB	0.17	4.03	0.5	A	137	206
C-A					566	849
A-B					2	3
A-C					438	657

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	84	21	487	0.172	83	0.0	0.2	8.897	A
C-AB	89	22	984	0.091	89	0.0	0.2	4.022	A
C-A	487	122			487				
A-B	2	0.38			2				
A-C	359	90			359				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	100	25	473	0.211	100	0.2	0.3	9.628	A
C-AB	126	31	1045	0.121	126	0.2	0.3	3.921	A
C-A	563	141			563				
A-B	2	0.45			2				
A-C	429	107			429				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	122	31	454	0.269	122	0.3	0.4	10.811	B
C-AB	195	49	1131	0.173	194	0.3	0.5	3.850	A
C-A	648	162			648				
A-B	2	0.55			2				
A-C	525	131			525				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	122	31	454	0.269	122	0.4	0.4	10.837	B
C-AB	196	49	1131	0.173	196	0.5	0.5	3.857	A
C-A	648	162			648				
A-B	2	0.55			2				
A-C	525	131			525				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	100	25	473	0.211	100	0.4	0.3	9.661	A
C-AB	126	32	1045	0.121	127	0.5	0.3	3.930	A
C-A	562	141			562				
A-B	2	0.45			2				
A-C	429	107			429				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	84	21	487	0.172	84	0.3	0.2	8.946	A
C-AB	90	22	984	0.091	90	0.3	0.2	4.034	A
C-A	487	122			487				
A-B	2	0.38			2				
A-C	359	90			359				

2026 Base + DEV, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.01	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2026 Base + DEV	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	516	100.000
B		ONE HOUR	✓	185	100.000
C		ONE HOUR	✓	614	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	8	508
	B	36	0	149
	C	589	25	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.42	13.00	0.7	B	170	255
C-AB	0.07	4.07	0.1	A	53	80
C-A					510	765
A-B					7	11
A-C					466	699

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	139	35	509	0.274	138	0.0	0.4	9.665	A
C-AB	36	9	921	0.039	36	0.0	0.1	4.069	A
C-A	426	106			426				
A-B	6	2			6				
A-C	382	96			382				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	166	42	497	0.335	166	0.4	0.5	10.854	B
C-AB	50	12	969	0.051	50	0.1	0.1	3.917	A
C-A	502	126			502				
A-B	7	2			7				
A-C	457	114			457				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	204	51	480	0.424	203	0.5	0.7	12.924	B
C-AB	74	18	1037	0.071	74	0.1	0.1	3.735	A
C-A	602	151			602				
A-B	9	2			9				
A-C	559	140			559				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	204	51	480	0.424	204	0.7	0.7	13.003	B
C-AB	74	18	1037	0.071	74	0.1	0.1	3.737	A
C-A	602	151			602				
A-B	9	2			9				
A-C	559	140			559				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	166	42	497	0.335	167	0.7	0.5	10.944	B
C-AB	50	12	969	0.051	50	0.1	0.1	3.918	A
C-A	502	126			502				
A-B	7	2			7				
A-C	457	114			457				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	139	35	509	0.274	140	0.5	0.4	9.769	A
C-AB	36	9	921	0.040	37	0.1	0.1	4.073	A
C-A	426	106			426				
A-B	6	2			6				
A-C	382	96			382				

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

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Filename: PICADY_Poland Street_Jersey Street junction _4-arm.j9
Path: P:\Transportation\16857-TMBI Manchester Life - Transportation Hub\01_WIP\CA_Calculation\Junctions 9
Report generation date: 22/03/2021 11:44:38

»2020 Base, AM
»2020 Base, PM
»2021 Base, AM
»2021 Base, PM
»2026 Base, AM
»2026 Base, PM
»2026 Base + DEV, AM
»2026 Base + DEV, PM

Summary of junction performance

	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
	2020 Base					
Stream B-ACD	0.2	9.22	0.14	0.1	8.48	0.09
Stream A-BCD	0.0	6.17	0.02	0.0	6.13	0.02
Stream D-ABC	0.0	7.35	0.03	0.0	7.85	0.04
Stream C-ABD	0.0	5.25	0.02	0.0	5.19	0.01
	2021 Base					
Stream B-ACD	0.2	9.26	0.14	0.1	8.52	0.10
Stream A-BCD	0.0	6.16	0.02	0.0	6.13	0.02
Stream D-ABC	0.0	7.36	0.03	0.0	7.92	0.04
Stream C-ABD	0.0	5.25	0.02	0.0	5.19	0.01
	2026 Base					
Stream B-ACD	0.2	9.39	0.15	0.1	8.61	0.10
Stream A-BCD	0.0	6.16	0.03	0.0	6.13	0.02
Stream D-ABC	0.0	7.38	0.03	0.0	7.94	0.04
Stream C-ABD	0.0	5.25	0.02	0.0	5.19	0.01
	2026 Base + DEV					
Stream B-ACD	0.2	9.83	0.17	0.2	9.86	0.19
Stream A-BCD	0.0	5.99	0.03	0.0	6.08	0.02
Stream D-ABC	0.0	7.43	0.03	0.0	7.97	0.04
Stream C-ABD	0.0	5.33	0.02	0.0	5.20	0.01

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

File summary

File Description

Title	Ancoats Mobility Hub
Location	Ancoats
Site number	
Date	10/11/2020
Version	
Status	Proposed
Identifier	
Client	
Jobnumber	16857
Enumerator	HYDROCK\ChrisRushton
Description	

Units

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

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2020 Base	AM	ONE HOUR	08:15	09:45	15	✓
D2	2020 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2021 Base	AM	ONE HOUR	08:15	09:45	15	✓
D4	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2026 Base	AM	ONE HOUR	08:15	09:45	15	✓
D6	2026 Base	PM	ONE HOUR	16:45	18:15	15	✓
D7	2026 Base + DEV	AM	ONE HOUR	08:15	09:45	15	✓
D8	2026 Base + DEV	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2020 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		4.02	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Jersey Street (South-west)		Major
B	Poland Street		Minor
C	Jersey Street (North-east)		Major
D	Car Park		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A	6.40			0.0	✓	0.00
C	6.40			200.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	2.40	12	11
D	One lane	2.50	10	10

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	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
1	A-D	574	-	-	-	-	-	-	0.219	0.312	0.219	-	-	-
1	B-A	458	0.082	0.207	0.207	-	-	-	0.130	0.296	-	0.207	0.207	0.104
1	B-C	593	0.089	0.226	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	458	0.082	0.207	0.207	-	-	-	0.130	0.296	0.130	-	-	-
1	B-D, offside lane	458	0.082	0.207	0.207	-	-	-	0.130	0.296	0.130	-	-	-
1	C-B	690	0.263	0.263	0.375	-	-	-	-	-	-	-	-	-
1	D-A	599	-	-	-	-	-	-	0.228	-	0.090	-	-	-
1	D-B, nearside lane	462	0.131	0.131	0.298	-	-	-	0.209	0.209	0.083	-	-	-
1	D-B, offside lane	462	0.131	0.131	0.298	-	-	-	0.209	0.209	0.083	-	-	-
1	D-C	462	-	0.131	0.298	0.104	0.209	0.209	0.209	0.209	0.083	-	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2020 Base	AM	ONE HOUR	08:15	09:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	66	100.000
B		ONE HOUR	✓	56	100.000
C		ONE HOUR	✓	49	100.000
D		ONE HOUR	✓	12	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	14	40	12
	B	40	0	9	7
	C	40	9	0	0
	D	6	6	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.14	9.22	0.2	A	51	77
A-BCD	0.02	6.17	0.0	A	12	18
A-B					13	19
A-C					36	54
D-ABC	0.03	7.35	0.0	A	11	17
C-ABD	0.02	5.25	0.0	A	9	13
C-D					0	0
C-A					36	54

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	42	11	459	0.092	42	0.0	0.1	8.612	A
A-BCD	10	2	593	0.016	10	0.0	0.0	6.169	A
A-B	10	3			10				
A-C	30	7			30				
D-ABC	9	2	509	0.018	9	0.0	0.0	7.206	A
C-ABD	7	2	695	0.010	7	0.0	0.0	5.236	A
C-D	0	0			0				
C-A	30	7			30				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	50	13	456	0.110	50	0.1	0.1	8.864	A
A-BCD	12	3	597	0.020	12	0.0	0.0	6.151	A
A-B	12	3			12				
A-C	35	9			35				
D-ABC	11	3	506	0.021	11	0.0	0.0	7.268	A
C-ABD	9	2	695	0.012	9	0.0	0.0	5.240	A
C-D	0	0			0				
C-A	36	9			36				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	62	15	452	0.136	62	0.1	0.2	9.215	A
A-BCD	15	4	602	0.024	15	0.0	0.0	6.127	A
A-B	15	4			15				
A-C	43	11			43				
D-ABC	13	3	503	0.026	13	0.0	0.0	7.355	A
C-ABD	11	3	697	0.015	11	0.0	0.0	5.245	A
C-D	0	0			0				
C-A	43	11			43				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	62	15	452	0.136	62	0.2	0.2	9.221	A
A-BCD	15	4	602	0.024	15	0.0	0.0	6.130	A
A-B	15	4			15				
A-C	43	11			43				
D-ABC	13	3	503	0.026	13	0.0	0.0	7.355	A
C-ABD	11	3	697	0.015	11	0.0	0.0	5.247	A
C-D	0	0			0				
C-A	43	11			43				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	50	13	456	0.110	50	0.2	0.1	8.873	A
A-BCD	12	3	597	0.020	12	0.0	0.0	6.152	A
A-B	12	3			12				
A-C	35	9			35				
D-ABC	11	3	506	0.021	11	0.0	0.0	7.271	A
C-ABD	9	2	695	0.012	9	0.0	0.0	5.242	A
C-D	0	0			0				
C-A	36	9			36				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	42	11	459	0.092	42	0.1	0.1	8.634	A
A-BCD	10	2	593	0.016	10	0.0	0.0	6.170	A
A-B	10	3			10				
A-C	30	7			30				
D-ABC	9	2	509	0.018	9	0.0	0.0	7.209	A
C-ABD	7	2	694	0.010	7	0.0	0.0	5.236	A
C-D	0	0			0				
C-A	30	7			30				

2020 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		3.17	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2020 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	68	100.000
B		ONE HOUR	✓	40	100.000
C		ONE HOUR	✓	51	100.000
D		ONE HOUR	✓	16	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	16	42	10
	B	27	0	12	1
	C	46	4	0	1
	D	5	11	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.09	8.48	0.1	A	37	55
A-BCD	0.02	6.13	0.0	A	10	15
A-B					14	22
A-C					38	57
D-ABC	0.04	7.85	0.0	A	15	22
C-ABD	0.01	5.19	0.0	A	4	6
C-D					0.91	1
C-A					42	63

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	30	8	476	0.063	30	0.0	0.1	8.063	A
A-BCD	8	2	595	0.014	8	0.0	0.0	6.130	A
A-B	12	3			12				
A-C	31	8			31				
D-ABC	12	3	483	0.025	12	0.0	0.0	7.645	A
C-ABD	3	0.79	698	0.005	3	0.0	0.0	5.183	A
C-D	0.75	0.19			0.75				
C-A	34	9			34				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	36	9	473	0.076	36	0.1	0.1	8.236	A
A-BCD	10	2	599	0.016	10	0.0	0.0	6.105	A
A-B	14	4			14				
A-C	37	9			37				
D-ABC	14	4	480	0.030	14	0.0	0.0	7.733	A
C-ABD	4	0.96	699	0.005	4	0.0	0.0	5.176	A
C-D	0.89	0.22			0.89				
C-A	41	10			41				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	44	11	469	0.094	44	0.1	0.1	8.471	A
A-BCD	12	3	605	0.020	12	0.0	0.0	6.071	A
A-B	17	4			17				
A-C	45	11			45				
D-ABC	18	4	476	0.037	18	0.0	0.0	7.854	A
C-ABD	5	1	701	0.007	5	0.0	0.0	5.167	A
C-D	1	0.27			1				
C-A	50	13			50				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	44	11	469	0.094	44	0.1	0.1	8.475	A
A-BCD	12	3	605	0.020	12	0.0	0.0	6.071	A
A-B	17	4			17				
A-C	45	11			45				
D-ABC	18	4	476	0.037	18	0.0	0.0	7.854	A
C-ABD	5	1	701	0.007	5	0.0	0.0	5.167	A
C-D	1	0.27			1				
C-A	50	13			50				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	36	9	473	0.076	36	0.1	0.1	8.241	A
A-BCD	10	2	599	0.016	10	0.0	0.0	6.108	A
A-B	14	4			14				
A-C	37	9			37				
D-ABC	14	4	480	0.030	14	0.0	0.0	7.735	A
C-ABD	4	0.96	699	0.005	4	0.0	0.0	5.177	A
C-D	0.89	0.22			0.89				
C-A	41	10			41				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	30	8	476	0.063	30	0.1	0.1	8.077	A
A-BCD	8	2	595	0.014	8	0.0	0.0	6.133	A
A-B	12	3			12				
A-C	31	8			31				
D-ABC	12	3	483	0.025	12	0.0	0.0	7.652	A
C-ABD	3	0.79	698	0.005	3	0.0	0.0	5.185	A
C-D	0.75	0.19			0.75				
C-A	34	9			34				

2021 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		4.02	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2021 Base	AM	ONE HOUR	08:15	09:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	68	100.000
B		ONE HOUR	✓	57	100.000
C		ONE HOUR	✓	49	100.000
D		ONE HOUR	✓	12	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	15	41	12
	B	41	0	9	7
	C	40	9	0	0
	D	6	6	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.14	9.26	0.2	A	52	78
A-BCD	0.02	6.16	0.0	A	12	18
A-B					13	20
A-C					37	55
D-ABC	0.03	7.36	0.0	A	11	17
C-ABD	0.02	5.25	0.0	A	9	13
C-D					0	0
C-A					36	54

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	43	11	459	0.094	43	0.0	0.1	8.640	A
A-BCD	10	2	594	0.016	10	0.0	0.0	6.158	A
A-B	11	3			11				
A-C	30	8			30				
D-ABC	9	2	508	0.018	9	0.0	0.0	7.208	A
C-ABD	7	2	694	0.010	7	0.0	0.0	5.239	A
C-D	0	0			0				
C-A	30	7			30				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	51	13	456	0.112	51	0.1	0.1	8.897	A
A-BCD	12	3	598	0.020	12	0.0	0.0	6.138	A
A-B	13	3			13				
A-C	36	9			36				
D-ABC	11	3	506	0.021	11	0.0	0.0	7.270	A
C-ABD	9	2	695	0.012	9	0.0	0.0	5.243	A
C-D	0	0			0				
C-A	36	9			36				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	63	16	451	0.139	63	0.1	0.2	9.257	A
A-BCD	15	4	604	0.024	15	0.0	0.0	6.111	A
A-B	16	4			16				
A-C	44	11			44				
D-ABC	13	3	502	0.026	13	0.0	0.0	7.358	A
C-ABD	11	3	696	0.015	11	0.0	0.0	5.249	A
C-D	0	0			0				
C-A	43	11			43				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	63	16	451	0.139	63	0.2	0.2	9.263	A
A-BCD	15	4	604	0.024	15	0.0	0.0	6.114	A
A-B	16	4			16				
A-C	44	11			44				
D-ABC	13	3	502	0.026	13	0.0	0.0	7.358	A
C-ABD	11	3	696	0.015	11	0.0	0.0	5.251	A
C-D	0	0			0				
C-A	43	11			43				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	51	13	456	0.112	51	0.2	0.1	8.908	A
A-BCD	12	3	598	0.020	12	0.0	0.0	6.139	A
A-B	13	3			13				
A-C	36	9			36				
D-ABC	11	3	506	0.021	11	0.0	0.0	7.274	A
C-ABD	9	2	695	0.012	9	0.0	0.0	5.246	A
C-D	0	0			0				
C-A	36	9			36				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	43	11	459	0.094	43	0.1	0.1	8.659	A
A-BCD	10	2	594	0.016	10	0.0	0.0	6.161	A
A-B	11	3			11				
A-C	30	8			30				
D-ABC	9	2	508	0.018	9	0.0	0.0	7.211	A
C-ABD	7	2	694	0.010	7	0.0	0.0	5.241	A
C-D	0	0			0				
C-A	30	7			30				

2021 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		3.22	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2021 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	69	100.000
B		ONE HOUR	✓	41	100.000
C		ONE HOUR	✓	51	100.000
D		ONE HOUR	✓	17	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	16	43	10
	B	28	0	12	1
	C	46	4	0	1
	D	5	12	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.10	8.52	0.1	A	38	56
A-BCD	0.02	6.13	0.0	A	10	15
A-B					14	22
A-C					39	58
D-ABC	0.04	7.92	0.0	A	16	23
C-ABD	0.01	5.19	0.0	A	4	6
C-D					0.91	1
C-A					42	63

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	31	8	475	0.065	31	0.0	0.1	8.100	A
A-BCD	8	2	596	0.014	8	0.0	0.0	6.125	A
A-B	12	3			12				
A-C	32	8			32				
D-ABC	13	3	480	0.027	13	0.0	0.0	7.698	A
C-ABD	3	0.79	697	0.005	3	0.0	0.0	5.185	A
C-D	0.75	0.19			0.75				
C-A	34	9			34				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	37	9	472	0.078	37	0.1	0.1	8.277	A
A-BCD	10	2	600	0.016	10	0.0	0.0	6.099	A
A-B	14	4			14				
A-C	38	10			38				
D-ABC	15	4	477	0.032	15	0.0	0.0	7.790	A
C-ABD	4	0.96	699	0.005	4	0.0	0.0	5.178	A
C-D	0.89	0.22			0.89				
C-A	41	10			41				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	45	11	467	0.097	45	0.1	0.1	8.521	A
A-BCD	12	3	606	0.020	12	0.0	0.0	6.063	A
A-B	17	4			17				
A-C	46	12			46				
D-ABC	19	5	473	0.040	19	0.0	0.0	7.916	A
C-ABD	5	1	701	0.007	5	0.0	0.0	5.169	A
C-D	1	0.27			1				
C-A	50	13			50				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	45	11	467	0.097	45	0.1	0.1	8.525	A
A-BCD	12	3	606	0.020	12	0.0	0.0	6.063	A
A-B	17	4			17				
A-C	46	12			46				
D-ABC	19	5	473	0.040	19	0.0	0.0	7.916	A
C-ABD	5	1	701	0.007	5	0.0	0.0	5.171	A
C-D	1	0.27			1				
C-A	50	13			50				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	37	9	472	0.078	37	0.1	0.1	8.284	A
A-BCD	10	2	600	0.016	10	0.0	0.0	6.102	A
A-B	14	4			14				
A-C	38	10			38				
D-ABC	15	4	477	0.032	15	0.0	0.0	7.791	A
C-ABD	4	0.96	699	0.005	4	0.0	0.0	5.178	A
C-D	0.89	0.22			0.89				
C-A	41	10			41				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	31	8	475	0.065	31	0.1	0.1	8.112	A
A-BCD	8	2	596	0.014	8	0.0	0.0	6.128	A
A-B	12	3			12				
A-C	32	8			32				
D-ABC	13	3	480	0.027	13	0.0	0.0	7.703	A
C-ABD	3	0.79	697	0.005	3	0.0	0.0	5.187	A
C-D	0.75	0.19			0.75				
C-A	34	9			34				

2026 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		4.03	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2026 Base	AM	ONE HOUR	08:15	09:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	72	100.000
B		ONE HOUR	✓	60	100.000
C		ONE HOUR	✓	52	100.000
D		ONE HOUR	✓	12	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	16	43	13
	B	43	0	9	8
	C	43	9	0	0
	D	6	6	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.15	9.39	0.2	A	55	83
A-BCD	0.03	6.16	0.0	A	13	20
A-B					14	22
A-C					39	58
D-ABC	0.03	7.38	0.0	A	11	17
C-ABD	0.02	5.25	0.0	A	9	13
C-D					0	0
C-A					39	58

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	45	11	457	0.099	45	0.0	0.1	8.721	A
A-BCD	11	3	595	0.018	10	0.0	0.0	6.156	A
A-B	12	3			12				
A-C	32	8			32				
D-ABC	9	2	508	0.018	9	0.0	0.0	7.220	A
C-ABD	7	2	695	0.010	7	0.0	0.0	5.235	A
C-D	0	0			0				
C-A	32	8			32				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	54	13	454	0.119	54	0.1	0.1	8.998	A
A-BCD	13	3	599	0.021	13	0.0	0.0	6.136	A
A-B	14	4			14				
A-C	38	9			38				
D-ABC	11	3	505	0.021	11	0.0	0.0	7.285	A
C-ABD	9	2	696	0.012	9	0.0	0.0	5.238	A
C-D	0	0			0				
C-A	38	10			38				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	66	17	449	0.147	66	0.1	0.2	9.382	A
A-BCD	16	4	605	0.027	16	0.0	0.0	6.109	A
A-B	17	4			17				
A-C	46	12			46				
D-ABC	13	3	501	0.026	13	0.0	0.0	7.376	A
C-ABD	11	3	697	0.015	11	0.0	0.0	5.243	A
C-D	0	0			0				
C-A	47	12			47				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	66	17	449	0.147	66	0.2	0.2	9.393	A
A-BCD	16	4	605	0.027	16	0.0	0.0	6.112	A
A-B	17	4			17				
A-C	46	12			46				
D-ABC	13	3	501	0.026	13	0.0	0.0	7.376	A
C-ABD	11	3	697	0.015	11	0.0	0.0	5.245	A
C-D	0	0			0				
C-A	47	12			47				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	54	13	454	0.119	54	0.2	0.1	9.010	A
A-BCD	13	3	599	0.021	13	0.0	0.0	6.139	A
A-B	14	4			14				
A-C	38	9			38				
D-ABC	11	3	505	0.021	11	0.0	0.0	7.288	A
C-ABD	9	2	696	0.012	9	0.0	0.0	5.239	A
C-D	0	0			0				
C-A	38	10			38				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	45	11	457	0.099	45	0.1	0.1	8.745	A
A-BCD	11	3	595	0.018	11	0.0	0.0	6.157	A
A-B	12	3			12				
A-C	32	8			32				
D-ABC	9	2	508	0.018	9	0.0	0.0	7.223	A
C-ABD	7	2	695	0.010	7	0.0	0.0	5.237	A
C-D	0	0			0				
C-A	32	8			32				

2026 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		3.24	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2026 Base	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	73	100.000
B		ONE HOUR	✓	44	100.000
C		ONE HOUR	✓	56	100.000
D		ONE HOUR	✓	17	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	17	45	11
	B	29	0	13	2
	C	49	5	0	2
	D	5	12	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.10	8.61	0.1	A	40	61
A-BCD	0.02	6.13	0.0	A	11	17
A-B					15	23
A-C					41	61
D-ABC	0.04	7.94	0.0	A	16	23
C-ABD	0.01	5.19	0.0	A	5	7
C-D					2	3
C-A					45	67

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	33	8	474	0.070	33	0.0	0.1	8.151	A
A-BCD	9	2	596	0.015	9	0.0	0.0	6.127	A
A-B	13	3			13				
A-C	33	8			33				
D-ABC	13	3	479	0.027	13	0.0	0.0	7.716	A
C-ABD	4	1.00	698	0.006	4	0.0	0.0	5.183	A
C-D	1	0.37			1				
C-A	37	9			37				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	40	10	471	0.084	39	0.1	0.1	8.342	A
A-BCD	11	3	601	0.018	11	0.0	0.0	6.101	A
A-B	15	4			15				
A-C	40	10			40				
D-ABC	15	4	476	0.032	15	0.0	0.0	7.812	A
C-ABD	5	1	700	0.007	5	0.0	0.0	5.176	A
C-D	2	0.45			2				
C-A	44	11			44				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	48	12	466	0.104	48	0.1	0.1	8.608	A
A-BCD	14	3	607	0.023	14	0.0	0.0	6.066	A
A-B	18	5			18				
A-C	48	12			48				
D-ABC	19	5	472	0.040	19	0.0	0.0	7.945	A
C-ABD	6	1	703	0.009	6	0.0	0.0	5.167	A
C-D	2	0.55			2				
C-A	53	13			53				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	48	12	466	0.104	48	0.1	0.1	8.611	A
A-BCD	14	3	607	0.023	14	0.0	0.0	6.069	A
A-B	18	5			18				
A-C	48	12			48				
D-ABC	19	5	472	0.040	19	0.0	0.0	7.945	A
C-ABD	6	1	703	0.009	6	0.0	0.0	5.169	A
C-D	2	0.55			2				
C-A	53	13			53				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	40	10	471	0.084	40	0.1	0.1	8.350	A
A-BCD	11	3	601	0.018	11	0.0	0.0	6.104	A
A-B	15	4			15				
A-C	40	10			40				
D-ABC	15	4	476	0.032	15	0.0	0.0	7.813	A
C-ABD	5	1	700	0.007	5	0.0	0.0	5.176	A
C-D	2	0.45			2				
C-A	44	11			44				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	33	8	474	0.070	33	0.1	0.1	8.166	A
A-BCD	9	2	596	0.015	9	0.0	0.0	6.130	A
A-B	13	3			13				
A-C	33	8			33				
D-ABC	13	3	479	0.027	13	0.0	0.0	7.722	A
C-ABD	4	1.00	698	0.006	4	0.0	0.0	5.185	A
C-D	1	0.37			1				
C-A	37	9			37				

2026 Base + DEV, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		3.84	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2026 Base + DEV	AM	ONE HOUR	08:15	09:45	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	106	100.000
B		ONE HOUR	✓	70	100.000
C		ONE HOUR	✓	53	100.000
D		ONE HOUR	✓	12	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	50	43	13
	B	53	0	9	8
	C	43	10	0	0
	D	6	6	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.17	9.83	0.2	A	64	96
A-BCD	0.03	5.99	0.0	A	14	21
A-B					45	67
A-C					39	58
D-ABC	0.03	7.43	0.0	A	11	17
C-ABD	0.02	5.33	0.0	A	10	15
C-D					0	0
C-A					39	58

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	53	13	452	0.117	52	0.0	0.1	8.986	A
A-BCD	11	3	613	0.018	11	0.0	0.0	5.983	A
A-B	37	9			37				
A-C	32	8			32				
D-ABC	9	2	505	0.018	9	0.0	0.0	7.253	A
C-ABD	8	2	688	0.011	8	0.0	0.0	5.292	A
C-D	0	0			0				
C-A	32	8			32				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	63	16	448	0.140	63	0.1	0.2	9.331	A
A-BCD	14	3	620	0.022	13	0.0	0.0	5.933	A
A-B	44	11			44				
A-C	38	9			38				
D-ABC	11	3	502	0.021	11	0.0	0.0	7.326	A
C-ABD	10	2	688	0.014	10	0.0	0.0	5.306	A
C-D	0	0			0				
C-A	38	10			38				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	77	19	443	0.174	77	0.2	0.2	9.820	A
A-BCD	17	4	631	0.027	17	0.0	0.0	5.866	A
A-B	54	13			54				
A-C	46	12			46				
D-ABC	13	3	498	0.027	13	0.0	0.0	7.428	A
C-ABD	12	3	688	0.017	12	0.0	0.0	5.327	A
C-D	0	0			0				
C-A	47	12			47				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	77	19	443	0.174	77	0.2	0.2	9.830	A
A-BCD	17	4	631	0.027	17	0.0	0.0	5.866	A
A-B	54	13			54				
A-C	46	12			46				
D-ABC	13	3	498	0.027	13	0.0	0.0	7.428	A
C-ABD	12	3	688	0.017	12	0.0	0.0	5.329	A
C-D	0	0			0				
C-A	47	12			47				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	63	16	448	0.140	63	0.2	0.2	9.346	A
A-BCD	14	3	620	0.022	14	0.0	0.0	5.934	A
A-B	44	11			44				
A-C	38	9			38				
D-ABC	11	3	502	0.021	11	0.0	0.0	7.329	A
C-ABD	10	2	688	0.014	10	0.0	0.0	5.307	A
C-D	0	0			0				
C-A	38	10			38				

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	53	13	452	0.117	53	0.2	0.1	9.016	A
A-BCD	11	3	613	0.018	11	0.0	0.0	5.987	A
A-B	37	9			37				
A-C	32	8			32				
D-ABC	9	2	505	0.018	9	0.0	0.0	7.254	A
C-ABD	8	2	688	0.011	8	0.0	0.0	5.294	A
C-D	0	0			0				
C-A	32	8			32				

2026 Base + DEV, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	Crossroads	Two-way		4.31	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2026 Base + DEV	PM	ONE HOUR	16:45	18:15	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	83	100.000
B		ONE HOUR	✓	78	100.000
C		ONE HOUR	✓	56	100.000
D		ONE HOUR	✓	17	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A	B	C	D
From	A	0	27	45	11
	B	62	0	14	2
	C	49	5	0	2
	D	5	12	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	0	0
	B	0	0	0	0
	C	0	0	0	0
	D	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-ACD	0.19	9.86	0.2	A	72	107
A-BCD	0.02	6.08	0.0	A	11	17
A-B					24	36
A-C					40	61
D-ABC	0.04	7.97	0.0	A	16	23
C-ABD	0.01	5.20	0.0	A	5	7
C-D					2	3
C-A					45	67

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	59	15	459	0.128	58	0.0	0.1	8.962	A
A-BCD	9	2	602	0.015	9	0.0	0.0	6.075	A
A-B	20	5			20				
A-C	33	8			33				
D-ABC	13	3	478	0.027	13	0.0	0.0	7.729	A
C-ABD	4	1.00	696	0.006	4	0.0	0.0	5.197	A
C-D	1	0.37			1				
C-A	37	9			37				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	70	18	456	0.154	70	0.1	0.2	9.329	A
A-BCD	11	3	607	0.018	11	0.0	0.0	6.039	A
A-B	24	6			24				
A-C	40	10			40				
D-ABC	15	4	475	0.032	15	0.0	0.0	7.829	A
C-ABD	5	1	698	0.007	5	0.0	0.0	5.193	A
C-D	2	0.45			2				
C-A	44	11			44				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	86	21	451	0.190	86	0.2	0.2	9.849	A
A-BCD	14	3	615	0.023	14	0.0	0.0	5.992	A
A-B	29	7			29				
A-C	48	12			48				
D-ABC	19	5	471	0.040	19	0.0	0.0	7.966	A
C-ABD	6	1	700	0.009	6	0.0	0.0	5.188	A
C-D	2	0.55			2				
C-A	53	13			53				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	86	21	451	0.190	86	0.2	0.2	9.862	A
A-BCD	14	3	615	0.023	14	0.0	0.0	5.995	A
A-B	29	7			29				
A-C	48	12			48				
D-ABC	19	5	471	0.040	19	0.0	0.0	7.966	A
C-ABD	6	1	700	0.009	6	0.0	0.0	5.188	A
C-D	2	0.55			2				
C-A	53	13			53				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	70	18	456	0.154	70	0.2	0.2	9.345	A
A-BCD	11	3	607	0.018	11	0.0	0.0	6.043	A
A-B	24	6			24				
A-C	40	10			40				
D-ABC	15	4	475	0.032	15	0.0	0.0	7.830	A
C-ABD	5	1	698	0.007	5	0.0	0.0	5.196	A
C-D	2	0.45			2				
C-A	44	11			44				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	59	15	459	0.128	59	0.2	0.1	8.994	A
A-BCD	9	2	602	0.015	9	0.0	0.0	6.075	A
A-B	20	5			20				
A-C	33	8			33				
D-ABC	13	3	478	0.027	13	0.0	0.0	7.735	A
C-ABD	4	1.00	696	0.006	4	0.0	0.0	5.198	A
C-D	1	0.37			1				
C-A	37	9			37				

Appendix Q LINSIG Assessments

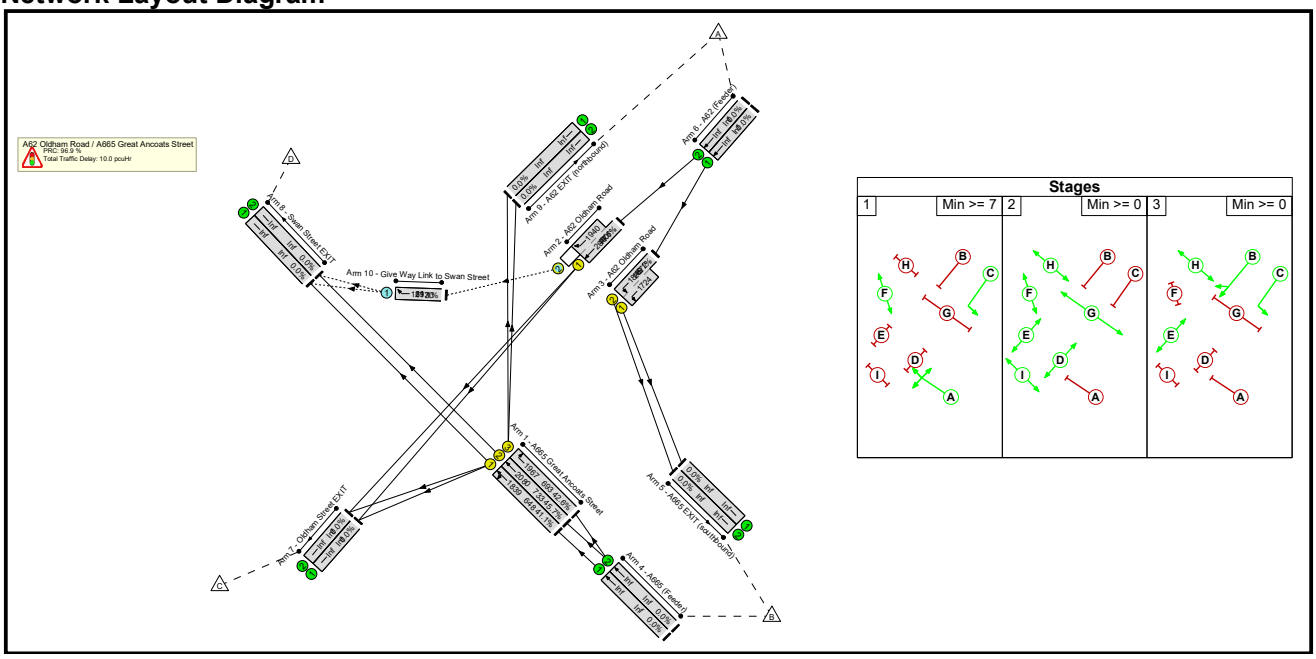
Basic Results Summary

User and Project Details

Project:	**A62 Oldham Road / A665 Great Ancoats Street**
Title:	**Ancoats Mobility Hub**
Location:	Ancoats
Client:	Manchester Life
Checked By:	Sam Denby
Additional detail:	
File name:	LINSIG_A62 Oldham Road_A665 Great Ancoats Street (MPedit).lsg3x
Author:	Chris Rushton
Company:	Hydrock
Address:	Manchester

Scenario 1: 'Base 2021 AM' (FG1: 'Base 2021 AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**45.7%**	**0**	**471**	**5**	**10.0**	-	-
A62 Oldham Road / A665 Great Ancoats Street	-	-	-		-	-	-	-	-	-	**45.7%**	**0**	**471**	**5**	**10.0**	-	-
1/1	A665 Great Ancoats Street Left Ahead	U	A		1	30	-	266	1839	648	41.1%	-	-	-	1.9	26.3	5.2
1/2	A665 Great Ancoats Street Ahead	U	A		1	30	-	335	2080	733	45.7%	-	-	-	2.5	26.5	6.7
1/3	A665 Great Ancoats Street Right	U	A		1	30	-	295	1967	693	42.6%	-	-	-	2.1	26.2	5.9
2/1+2/2	A62 Oldham Road Ahead Right	U+O	B		1	26	-	344	2080:1940	771	44.6%	0	233	5	2.7	27.8	5.0
3/2+3/1	A62 Oldham Road Left	U	C		1	64	-	437	1849:1724	1672	26.1%	-	-	-	0.6	4.9	1.8
10/1	Give Way Link to Swan Street Ahead	O	-		-	-	-	238	1697	1130	21.1%	0	238	0	0.2	3.0	4.5

C1

PRC for Signalled Lanes (%): 96.9
PRC Over All Lanes (%): 96.9

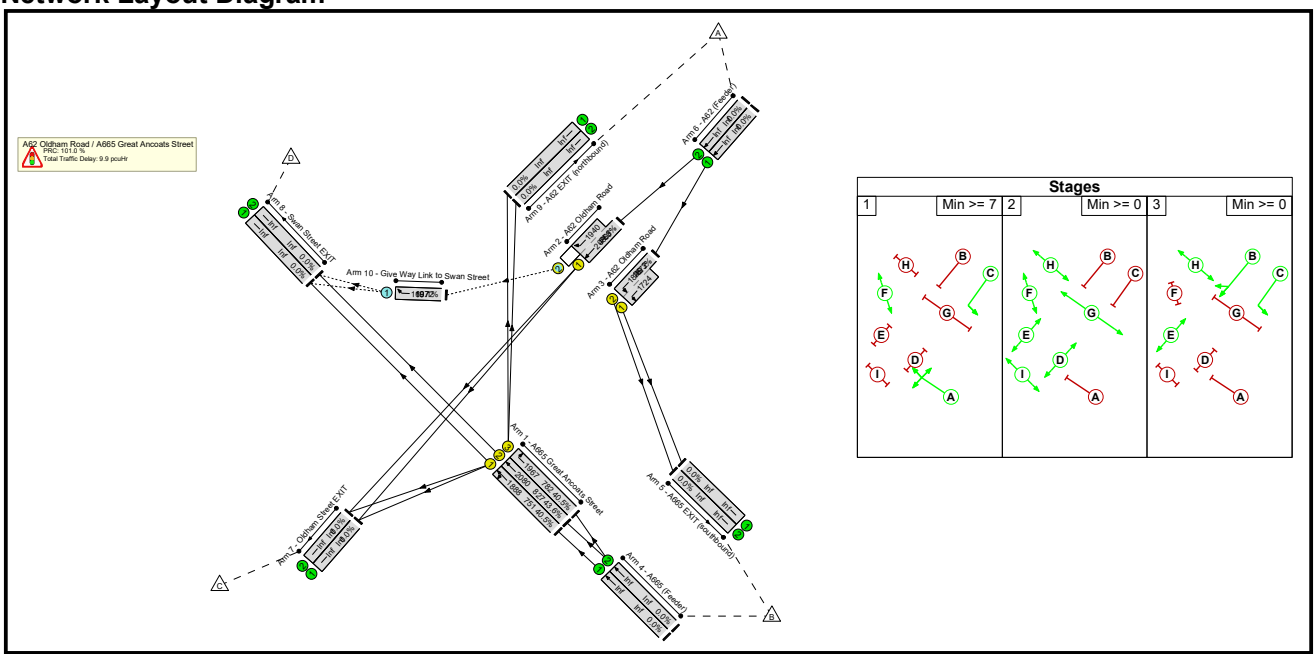
Total Delay for Signalled Lanes (pcuHr): 9.81
Total Delay Over All Lanes(pcuHr): 10.00

Cycle Time (s): 88

Basic Results Summary

Scenario 2: 'Base 2021 PM' (FG2: 'Base 2021 PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**44.8%**	**0**	**405**	**5**	**9.9**	-	-
A62 Oldham Road / A665 Great Ancoats Street	-	-	-		-	-	-	-	-	-	**44.8%**	**0**	**405**	**5**	**9.9**	-	-
1/1	A665 Great Ancoats Street Left Ahead	U	A		1	34	-	304	1888	751	40.5%	-	-	-	1.9	23.0	5.7
1/2	A665 Great Ancoats Street Ahead	U	A		1	34	-	361	2080	827	43.6%	-	-	-	2.3	23.2	6.8
1/3	A665 Great Ancoats Street Right	U	A		1	34	-	317	1967	782	40.5%	-	-	-	2.0	22.9	5.9
2/1+2/2	A62 Oldham Road Ahead Right	U+O	B		1	22	-	337	2080:1940	753	44.8%	0	200	5	2.9	30.7	4.5
3/2+3/1	A62 Oldham Road Left	U	C		1	64	-	439	1849:1724	1672	26.3%	-	-	-	0.6	4.9	1.8
10/1	Give Way Link to Swan Street Ahead	O	-		-	-	-	205	1697	1072	19.1%	0	205	0	0.2	2.9	4.0

C1

PRC for Signalled Lanes (%): 101.0
PRC Over All Lanes (%): 101.0

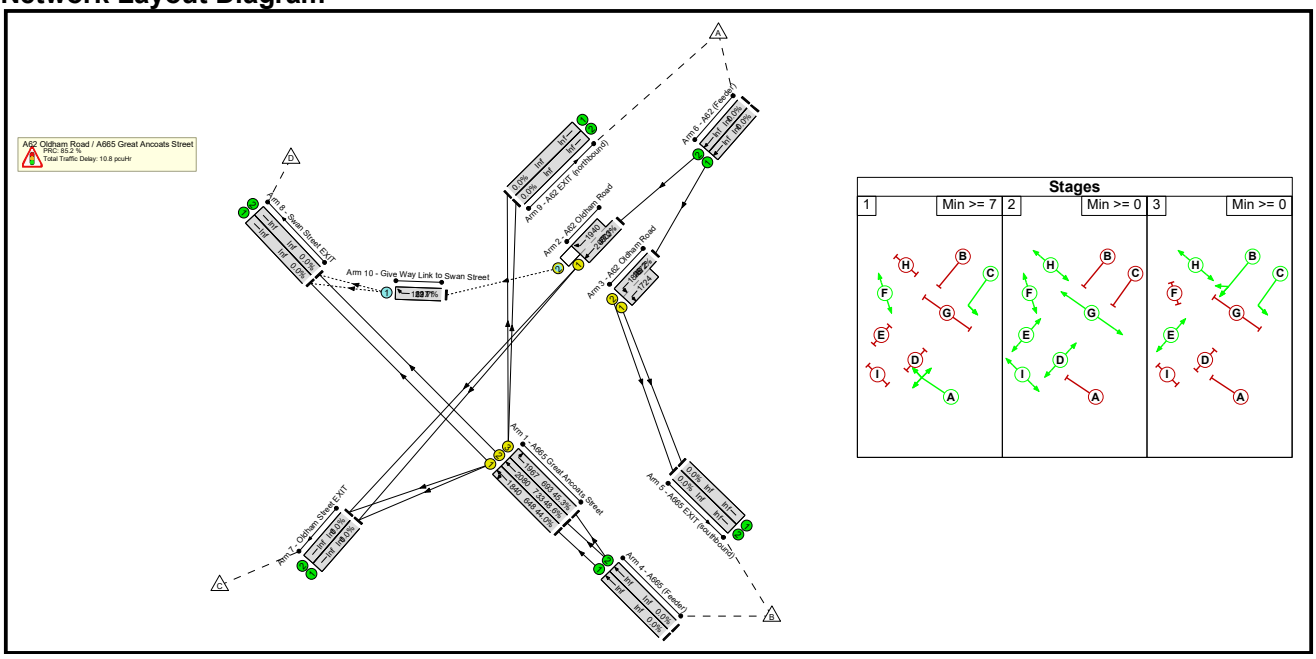
Total Delay for Signalled Lanes (pcuHr): 9.76
Total Delay Over All Lanes(pcuHr): 9.92

Cycle Time (s): 88

Basic Results Summary

Scenario 3: 'Base 2026+COMM AM' (FG3: 'Base 2026+COMM AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**48.6%**	**0**	**498**	**6**	**10.8**	-	-
A62 Oldham Road / A665 Great Ancoats Street	-	-	-		-	-	-	-	-	-	**48.6%**	**0**	**498**	**6**	**10.8**	-	-
1/1	A665 Great Ancoats Street Left Ahead	U	A		1	30	-	285	1840	648	44.0%	-	-	-	2.1	26.8	5.7
1/2	A665 Great Ancoats Street Ahead	U	A		1	30	-	356	2080	733	48.6%	-	-	-	2.7	27.0	7.2
1/3	A665 Great Ancoats Street Right	U	A		1	30	-	314	1967	693	45.3%	-	-	-	2.3	26.7	6.3
2/1+2/2	A62 Oldham Road Ahead Right	U+O	B		1	26	-	365	2080:1940	772	47.3%	0	246	6	2.9	28.1	5.3
3/2+3/1	A62 Oldham Road Left	U	C		1	64	-	472	1849:1724	1672	28.2%	-	-	-	0.7	5.0	2.0
10/1	Give Way Link to Swan Street Ahead	O	-		-	-	-	252	1697	1111	22.7%	0	252	0	0.2	3.1	4.8

C1

PRC for Signalled Lanes (%): 85.2
PRC Over All Lanes (%): 85.2

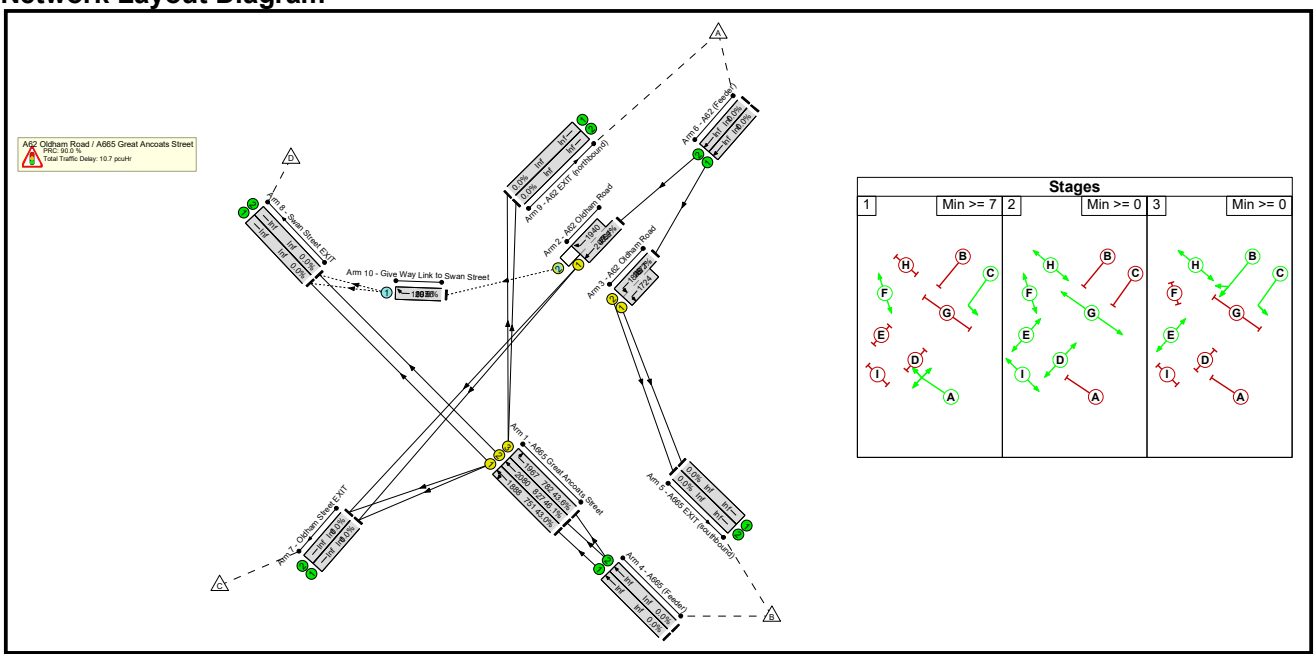
Total Delay for Signalled Lanes (pcuHr): 10.63
Total Delay Over All Lanes(pcuHr): 10.85

Cycle Time (s): 88

Basic Results Summary

Scenario 4: 'Base 2026+COMM PM' (FG4: 'Base 2026+COMM PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**47.4%**	**0**	**429**	**5**	**10.7**	-	-
A62 Oldham Road / A665 Great Ancoats Street	-	-	-		-	-	-	-	-	-	**47.4%**	**0**	**429**	**5**	**10.7**	-	-
1/1	A665 Great Ancoats Street Left Ahead	U	A		1	34	-	323	1888	751	43.0%	-	-	-	2.1	23.5	6.0
1/2	A665 Great Ancoats Street Ahead	U	A		1	34	-	381	2080	827	46.1%	-	-	-	2.5	23.6	7.2
1/3	A665 Great Ancoats Street Right	U	A		1	34	-	341	1967	782	43.6%	-	-	-	2.2	23.4	6.4
2/1+2/2	A62 Oldham Road Ahead Right	U+O	B		1	22	-	356	2080:1940	752	47.4%	0	212	5	3.1	31.1	4.8
3/2+3/1	A62 Oldham Road Left	U	C		1	64	-	471	1849:1724	1671	28.2%	-	-	-	0.7	5.0	2.0
10/1	Give Way Link to Swan Street Ahead	O	-		-	-	-	217	1697	1056	20.6%	0	217	0	0.2	3.1	4.3

C1

PRC for Signalled Lanes (%): 90.0
PRC Over All Lanes (%): 90.0

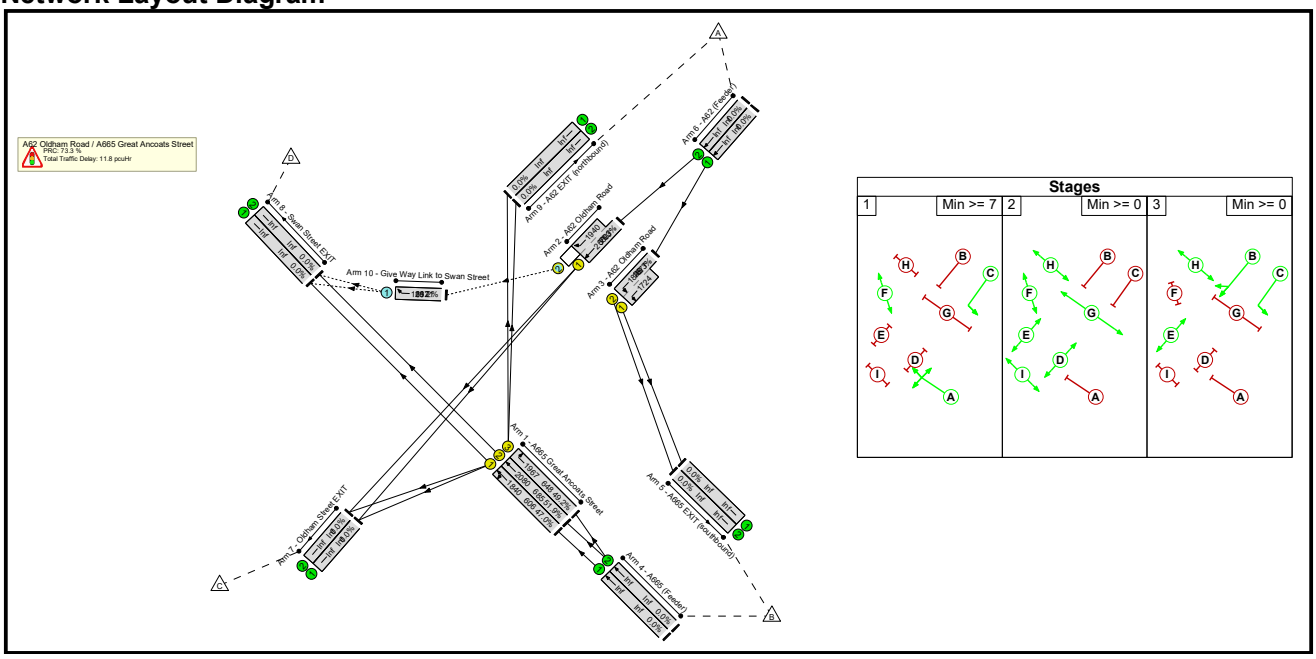
Total Delay for Signalled Lanes (pcuHr): 10.54
Total Delay Over All Lanes(pcuHr): 10.72

Cycle Time (s): 88

Basic Results Summary

Scenario 5: 'Base 2026+COMM+DEV AM' (FG5: 'Base 2026+COMM+DEV AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**51.9%**	**0**	**581**	**7**	**11.8**	-	-
A62 Oldham Road / A665 Great Ancoats Street	-	-	-		-	-	-	-	-	-	**51.9%**	**0**	**581**	**7**	**11.8**	-	-
1/1	A665 Great Ancoats Street Left Ahead	U	A		1	28	-	285	1840	606	47.0%	-	-	-	2.3	29.0	5.9
1/2	A665 Great Ancoats Street Ahead	U	A		1	28	-	356	2080	685	51.9%	-	-	-	2.9	29.3	7.6
1/3	A665 Great Ancoats Street Right	U	A		1	28	-	319	1967	648	49.2%	-	-	-	2.6	29.1	6.7
2/1+2/2	A62 Oldham Road Ahead Right	U+O	B		1	28	-	407	2080:1940	793	51.3%	0	287	7	3.1	27.3	6.2
3/2+3/1	A62 Oldham Road Left	U	C		1	64	-	473	1849:1724	1671	28.3%	-	-	-	0.7	5.0	2.0
10/1	Give Way Link to Swan Street Ahead	O	-		-	-	-	294	1697	1121	26.2%	0	294	0	0.3	3.4	5.8

C1

PRC for Signalled Lanes (%): 73.3
PRC Over All Lanes (%): 73.3

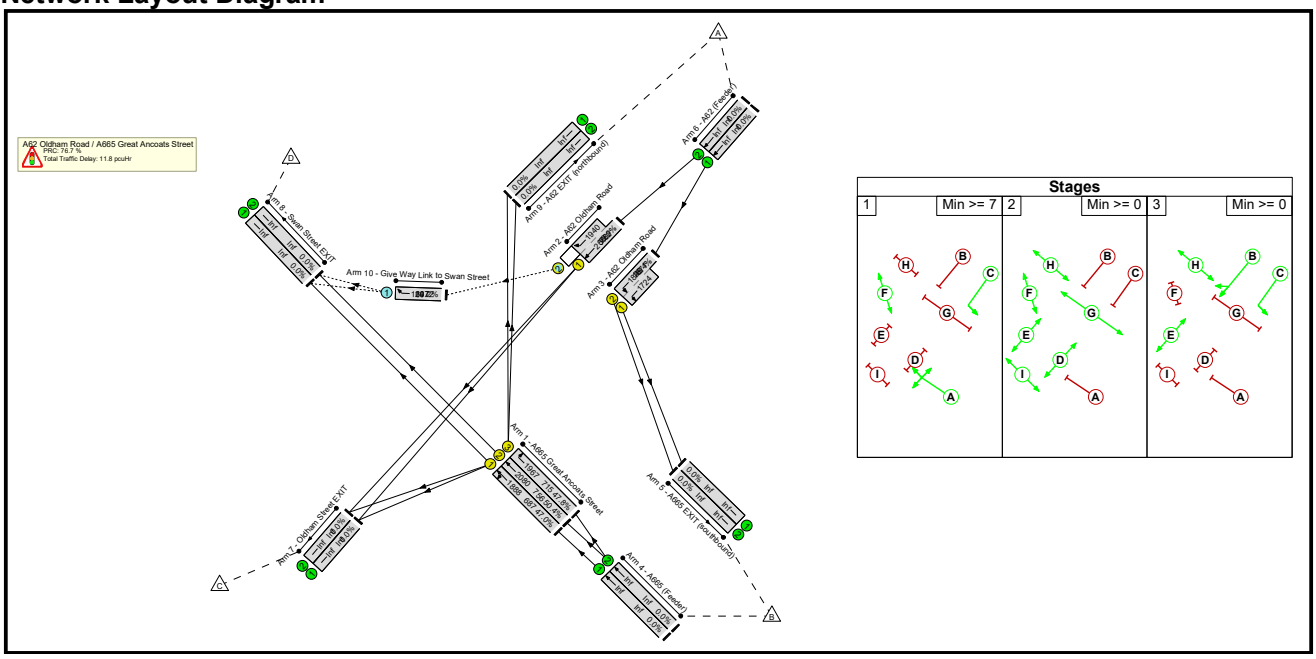
Total Delay for Signalled Lanes (pcuHr): 11.51
Total Delay Over All Lanes(pcuHr): 11.79

Cycle Time (s): 88

Basic Results Summary

Scenario 6: 'Base 2026+COMM+DEV PM' (FG6: 'Base 2026+COMM+DEV PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**50.9%**	**0**	**512**	**6**	**11.8**	-	-
A62 Oldham Road / A665 Great Ancoats Street	-	-	-		-	-	-	-	-	-	**50.9%**	**0**	**512**	**6**	**11.8**	-	-
1/1	A665 Great Ancoats Street Left Ahead	U	A		1	31	-	323	1888	687	47.0%	-	-	-	2.4	26.4	6.5
1/2	A665 Great Ancoats Street Ahead	U	A		1	31	-	381	2080	756	50.4%	-	-	-	2.8	26.6	7.7
1/3	A665 Great Ancoats Street Right	U	A		1	31	-	342	1967	715	47.8%	-	-	-	2.5	26.4	6.8
2/1+2/2	A62 Oldham Road Ahead Right	U+O	B		1	25	-	398	2080:1940	782	50.9%	0	253	6	3.2	29.3	5.6
3/2+3/1	A62 Oldham Road Left	U	C		1	64	-	475	1849:1724	1671	28.4%	-	-	-	0.7	5.0	2.0
10/1	Give Way Link to Swan Street Ahead	O	-		-	-	-	259	1697	1072	24.2%	0	259	0	0.2	3.3	5.1

C1

PRC for Signalled Lanes (%): 76.7
PRC Over All Lanes (%): 76.7

Total Delay for Signalled Lanes (pcuHr): 11.59
Total Delay Over All Lanes(pcuHr): 11.83

Cycle Time (s): 88

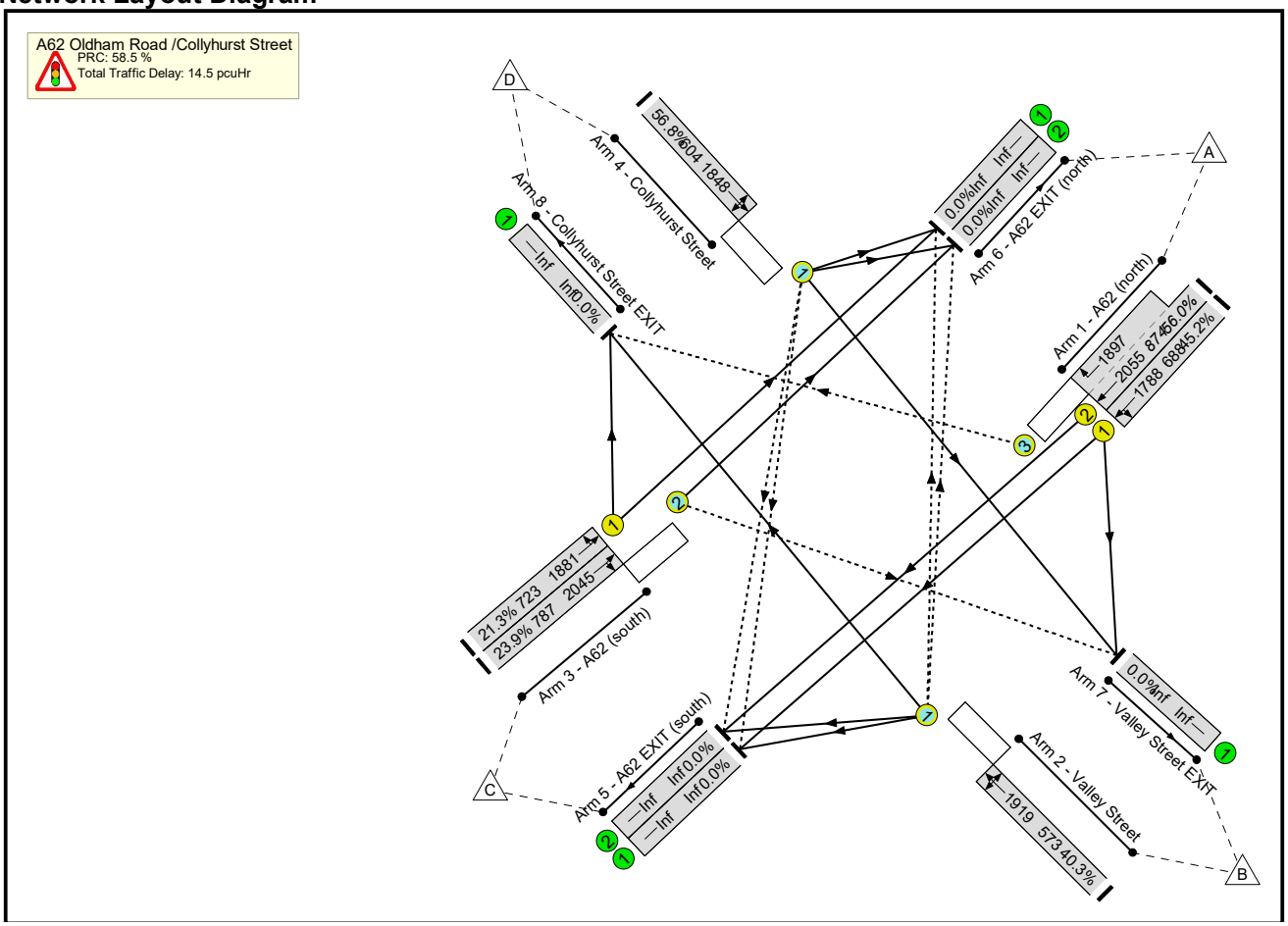
Basic Results Summary

User and Project Details

Project:	**A62 Oldham Road / Collyhurst Street**
Title:	**Ancoats Mobility Hub**
Location:	Ancoats
Client:	Manchester Life
Checked By:	Sam Denby
Additional detail:	
File name:	LINSIG_A62 Oldham Road_Collyhurst Street.lsg3x
Author:	Chris Rushton
Company:	Hydrock
Address:	Manchester

Scenario 1: '2021 Base AM' (FG1: '2021 Base AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**56.8%**	**252**	**0**	**5**	**14.5**	-	-
A62 Oldham Road /Collyhurst Street	-	-	-		-	-	-	-	-	-	**56.8%**	**252**	**0**	**5**	**14.5**	-	-
1/1	A62 (north) Ahead Left	U	B		1	39	-	311	1788	688	45.2%	-	-	-	2.5	28.6	7.1
1/2+1/3	A62 (north) Ahead Right	U+O	B		1	39	-	490	2055:1897	874	56.0%	108	0	2	4.0	29.1	9.0
2/1	Valley Street Left Right Ahead	O	D		1	33	-	231	1919	573	40.3%	81	0	2	2.3	35.6	5.4
3/1	A62 (south) Ahead Left	U	A		1	39	-	154	1881	723	21.3%	-	-	-	1.1	24.6	3.1
3/2	A62 (south) Ahead Right	O	A		1	39	-	188	2045	787	23.9%	13	0	0	1.3	25.2	3.8
4/1	Collyhurst Street Right Left Ahead	O	C		1	33	-	343	1848	604	56.8%	50	0	1	3.4	35.9	8.8

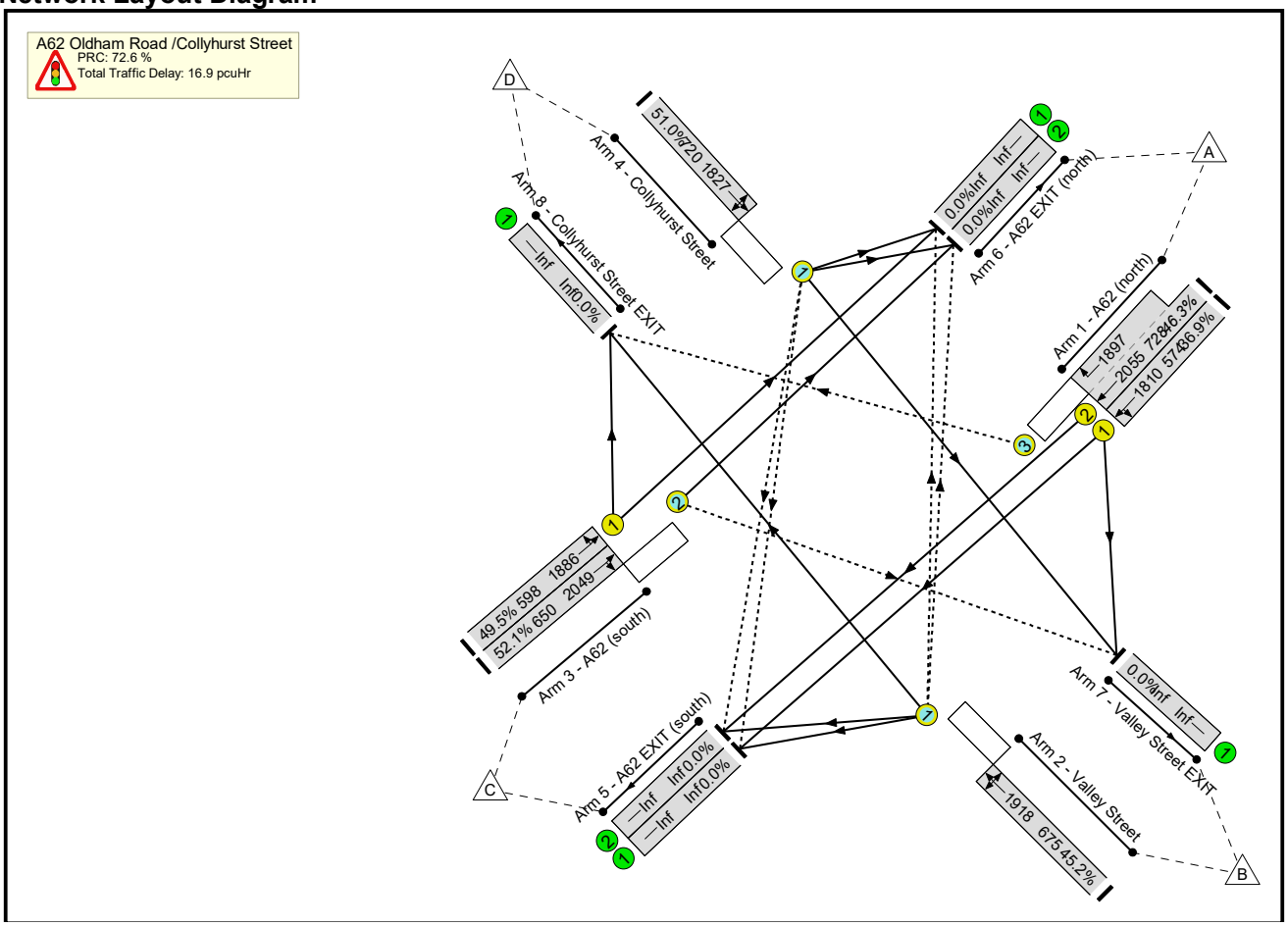
C1 PRC for Signalled Lanes (%): 58.5 Total Delay for Signalled Lanes (pcuHr): 14.51 Cycle Time (s): 104

PRC Over All Lanes (%): 58.5 Total Delay Over All Lanes(pcuHr): 14.51

Basic Results Summary

Scenario 2: '2021 Base PM' (FG2: '2021 Base PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**52.1%**	**242**	**0**	**5**	**16.9**	-	-
A62 Oldham Road /Collyhurst Street	-	-	-		-	-	-	-	-	-	**52.1%**	**242**	**0**	**5**	**16.9**	-	-
1/1	A62 (north) Ahead Left	U	B		1	32	-	212	1810	574	36.9%	-	-	-	1.9	32.4	5.0
1/2+1/3	A62 (north) Ahead Right	U+O	B		1	32	-	337	2055:1897	728	46.3%	66	0	1	3.2	34.3	6.5
2/1	Valley Street Left Right Ahead	O	D		1	40	-	305	1918	675	45.2%	127	0	2	2.7	31.7	6.7
3/1	A62 (south) Ahead Left	U	A		1	32	-	296	1886	598	49.5%	-	-	-	2.9	34.7	7.4
3/2	A62 (south) Ahead Right	O	A		1	32	-	339	2049	650	52.1%	15	0	0	3.3	34.9	8.5
4/1	Collyhurst Street Right Left Ahead	O	C		1	40	-	367	1827	720	51.0%	35	0	1	3.0	29.0	8.5

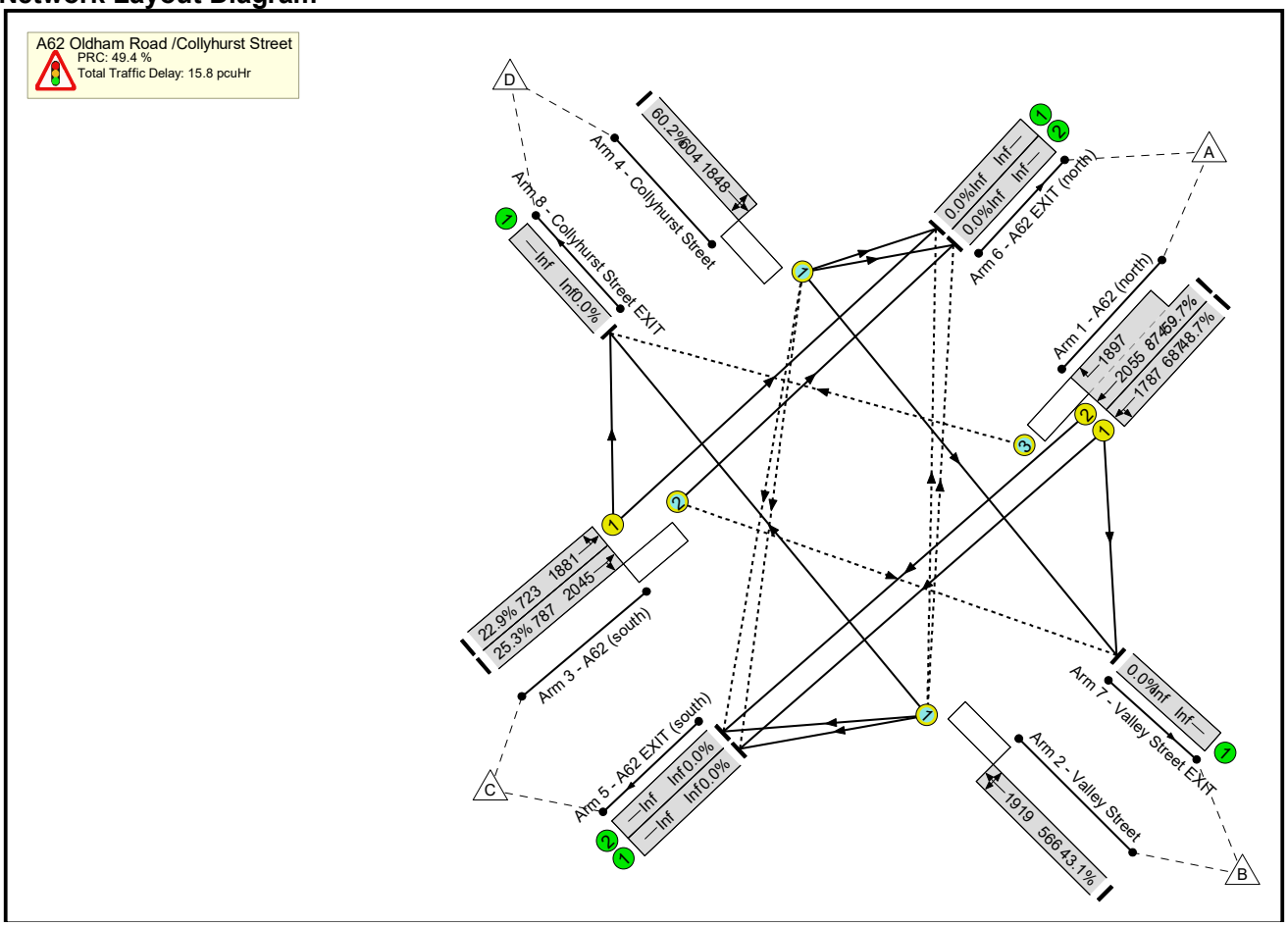
C1 PRC for Signalled Lanes (%): 72.6 Total Delay for Signalled Lanes (pcuHr): 16.89 Cycle Time (s): 104

PRC Over All Lanes (%): 72.6 Total Delay Over All Lanes(pcuHr): 16.89

Basic Results Summary

Scenario 3: '2026 Base+COMM AM' (FG3: '2026 Base+COMM AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**60.2%**	**268**	**0**	**5**	**15.8**	-	-
A62 Oldham Road /Collyhurst Street	-	-	-		-	-	-	-	-	-	**60.2%**	**268**	**0**	**5**	**15.8**	-	-
1/1	A62 (north) Ahead Left	U	B		1	39	-	335	1787	687	48.7%	-	-	-	2.7	29.3	7.7
1/2+1/3	A62 (north) Ahead Right	U+O	B		1	39	-	522	2055:1897	874	59.7%	115	0	2	4.3	29.9	10.0
2/1	Valley Street Left Right Ahead	O	D		1	33	-	244	1919	566	43.1%	86	0	2	2.5	36.5	5.8
3/1	A62 (south) Ahead Left	U	A		1	39	-	166	1881	723	22.9%	-	-	-	1.1	24.8	3.4
3/2	A62 (south) Ahead Right	O	A		1	39	-	199	2045	787	25.3%	14	0	0	1.4	25.5	4.0
4/1	Collyhurst Street Right Left Ahead	O	C		1	33	-	364	1848	604	60.2%	53	0	1	3.7	37.0	9.5

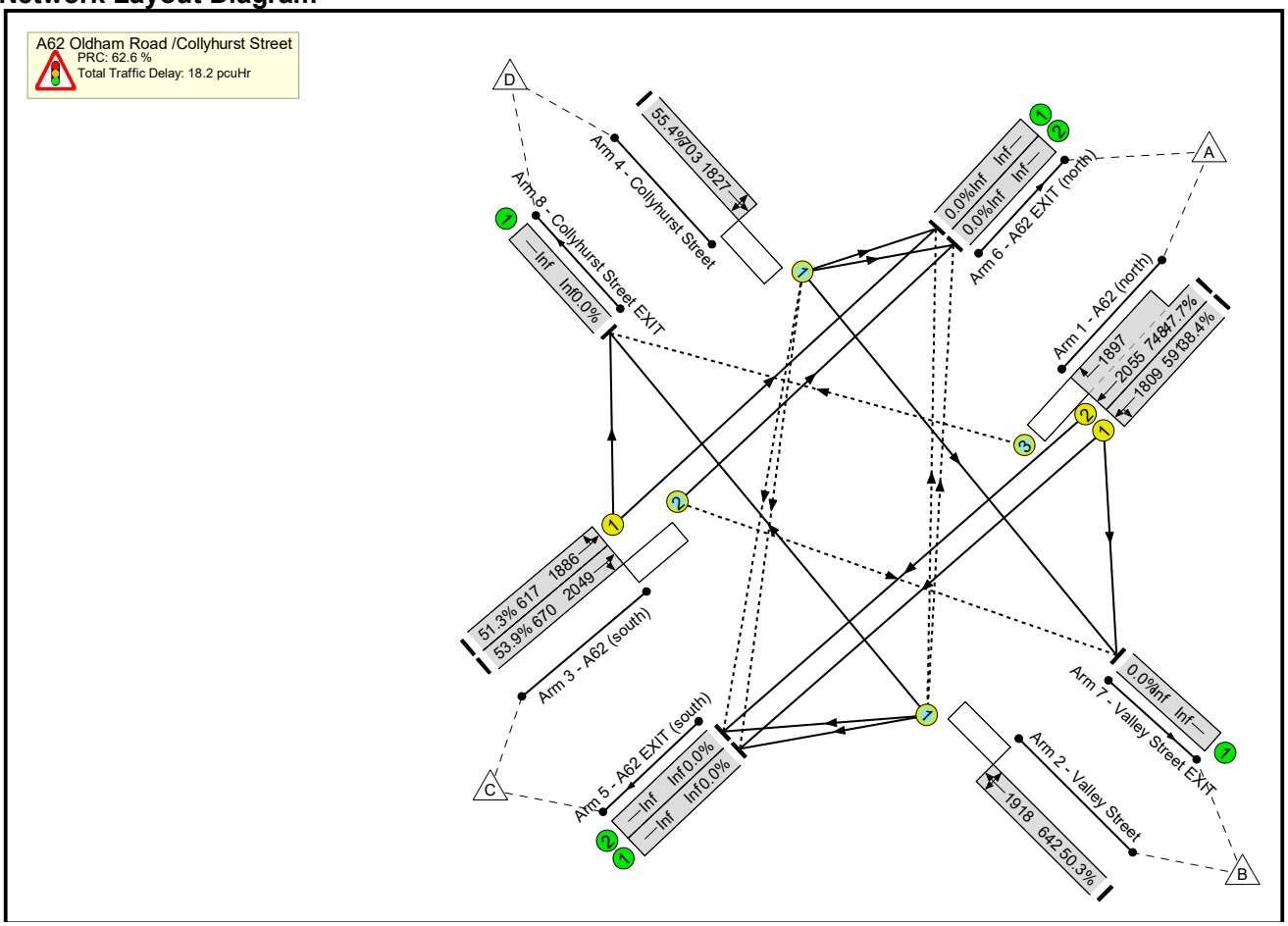
C1 PRC for Signalled Lanes (%): 49.4 Total Delay for Signalled Lanes (pcuHr): 15.83 Cycle Time (s): 104

PRC Over All Lanes (%): 49.4 Total Delay Over All Lanes(pcuHr): 15.83

Basic Results Summary

Scenario 4: '2026 Base+COMM PM' (FG4: '2026 Base+COMM PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**55.4%**	**256**	**0**	**5**	**18.2**	-	-
A62 Oldham Road /Collyhurst Street	-	-	-		-	-	-	-	-	-	**55.4%**	**256**	**0**	**5**	**18.2**	-	-
1/1	A62 (north) Ahead Left	U	B		1	33	-	227	1809	591	38.4%	-	-	-	2.0	31.9	5.4
1/2+1/3	A62 (north) Ahead Right	U+O	B		1	33	-	357	2055:1897	748	47.7%	70	0	1	3.4	33.9	6.9
2/1	Valley Street Left Right Ahead	O	D		1	39	-	323	1918	642	50.3%	133	0	3	3.0	34.0	7.3
3/1	A62 (south) Ahead Left	U	A		1	33	-	316	1886	617	51.3%	-	-	-	3.0	34.3	7.9
3/2	A62 (south) Ahead Right	O	A		1	33	-	361	2049	670	53.9%	16	0	0	3.5	34.5	9.0
4/1	Collyhurst Street Right Left Ahead	O	C		1	39	-	389	1827	703	55.4%	37	0	1	3.3	30.7	9.4

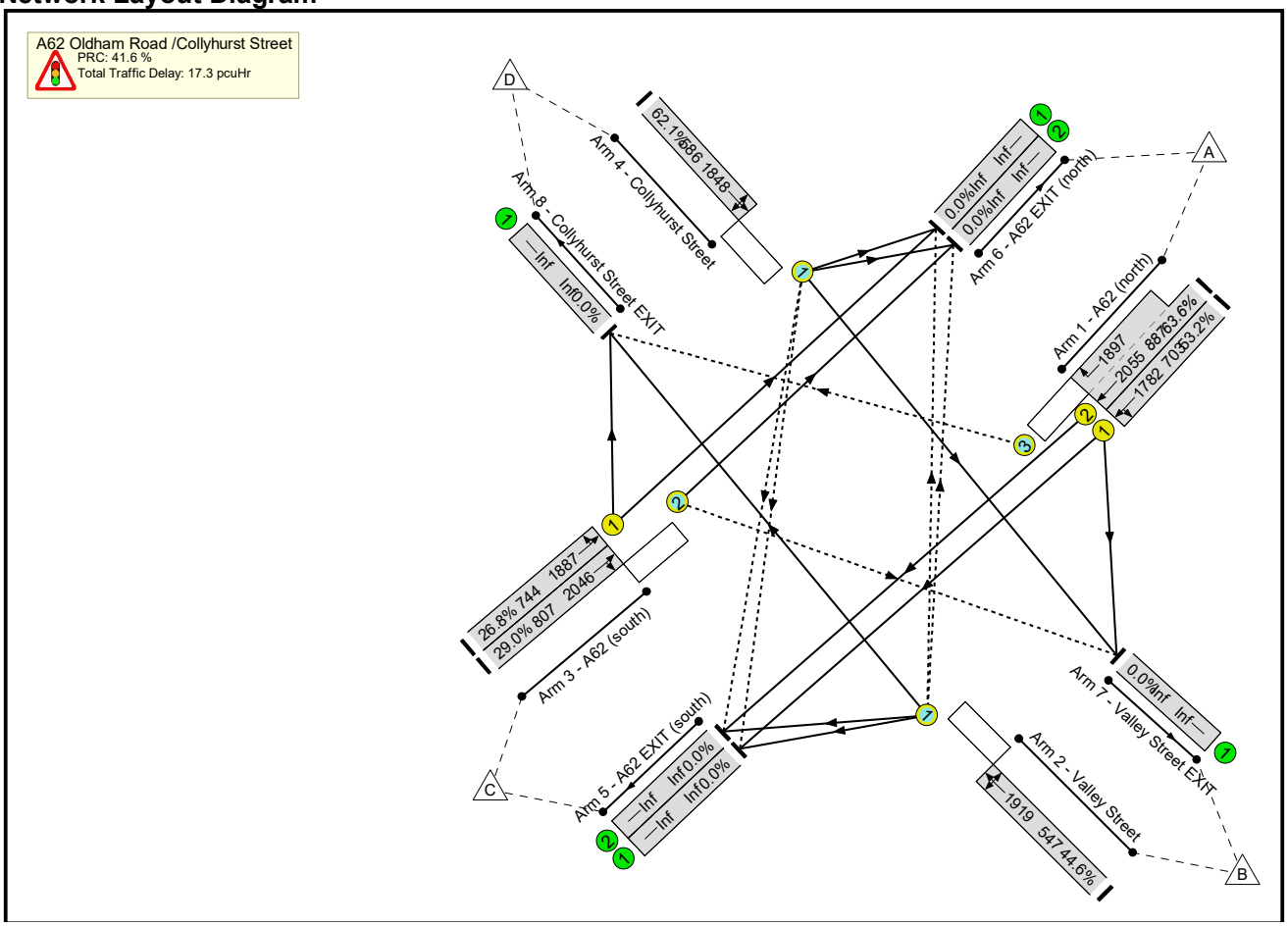
C1 PRC for Signalled Lanes (%): 62.6 Total Delay for Signalled Lanes (pcuHr): 18.22 Cycle Time (s): 104

PRC Over All Lanes (%): 62.6 Total Delay Over All Lanes(pcuHr): 18.22

Basic Results Summary

Scenario 5: '2026 Base+COMM+DEV AM' (FG5: '2026 Base+COMM+DEV AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**63.6%**	**268**	**0**	**5**	**17.3**	-	-
A62 Oldham Road /Collyhurst Street	-	-	-		-	-	-	-	-	-	**63.6%**	**268**	**0**	**5**	**17.3**	-	-
1/1	A62 (north) Ahead Left	U	B		1	40	-	374	1782	703	53.2%	-	-	-	3.1	29.6	8.8
1/2+1/3	A62 (north) Ahead Right	U+O	B		1	40	-	564	2055:1897	887	63.6%	115	0	2	4.8	30.3	11.4
2/1	Valley Street Left Right Ahead	O	D		1	32	-	244	1919	547	44.6%	86	0	2	2.6	37.8	5.9
3/1	A62 (south) Ahead Left	U	A		1	40	-	199	1887	744	26.8%	-	-	-	1.4	24.6	4.1
3/2	A62 (south) Ahead Right	O	A		1	40	-	234	2046	807	29.0%	14	0	0	1.6	25.2	4.8
4/1	Collyhurst Street Right Left Ahead	O	C		1	32	-	364	1848	586	62.1%	53	0	1	3.9	38.4	9.7

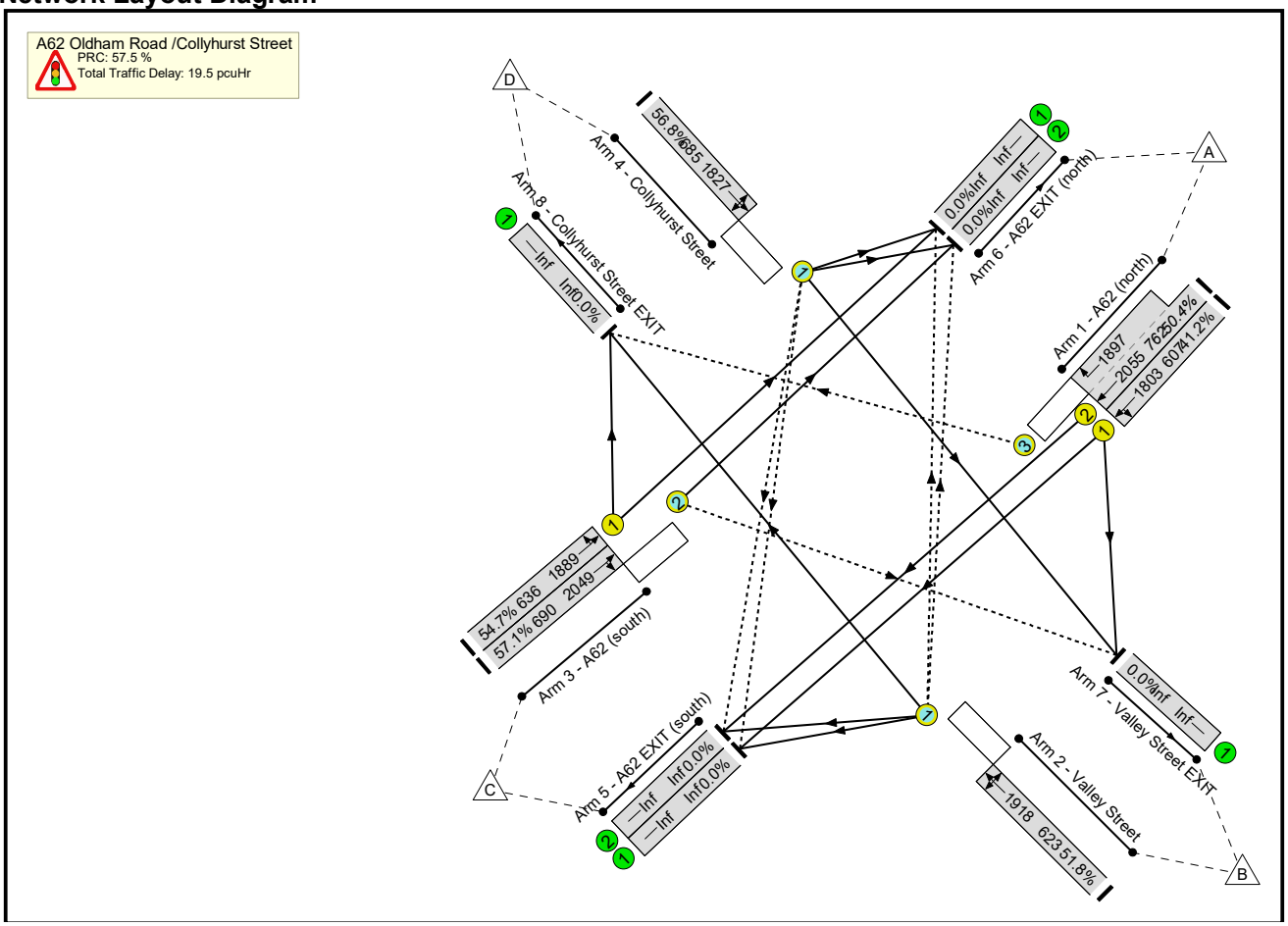
C1 PRC for Signalled Lanes (%): 41.6 Total Delay for Signalled Lanes (pcuHr): 17.28 Cycle Time (s): 104

PRC Over All Lanes (%): 41.6 Total Delay Over All Lanes(pcuHr): 17.28

Basic Results Summary

Scenario 6: '2026 Base+COMM+DEV PM' (FG6: '2026 Base+COMM+DEV PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**57.1%**	**256**	**0**	**5**	**19.5**	-	-
A62 Oldham Road /Collyhurst Street	-	-	-		-	-	-	-	-	-	**57.1%**	**256**	**0**	**5**	**19.5**	-	-
1/1	A62 (north) Ahead Left	U	B		1	34	-	250	1803	607	41.2%	-	-	-	2.2	31.6	5.9
1/2+1/3	A62 (north) Ahead Right	U+O	B		1	34	-	384	2055:1897	762	50.4%	70	0	1	3.6	33.9	7.5
2/1	Valley Street Left Right Ahead	O	D		1	38	-	323	1918	623	51.8%	133	0	3	3.2	35.3	7.5
3/1	A62 (south) Ahead Left	U	A		1	34	-	348	1889	636	54.7%	-	-	-	3.3	34.3	8.7
3/2	A62 (south) Ahead Right	O	A		1	34	-	394	2049	690	57.1%	16	0	0	3.8	34.5	10.0
4/1	Collyhurst Street Right Left Ahead	O	C		1	38	-	389	1827	685	56.8%	37	0	1	3.4	31.9	9.5

C1 PRC for Signalled Lanes (%): 57.5 Total Delay for Signalled Lanes (pcuHr): 19.51 Cycle Time (s): 104

PRC Over All Lanes (%): 57.5 Total Delay Over All Lanes(pcuHr): 19.51

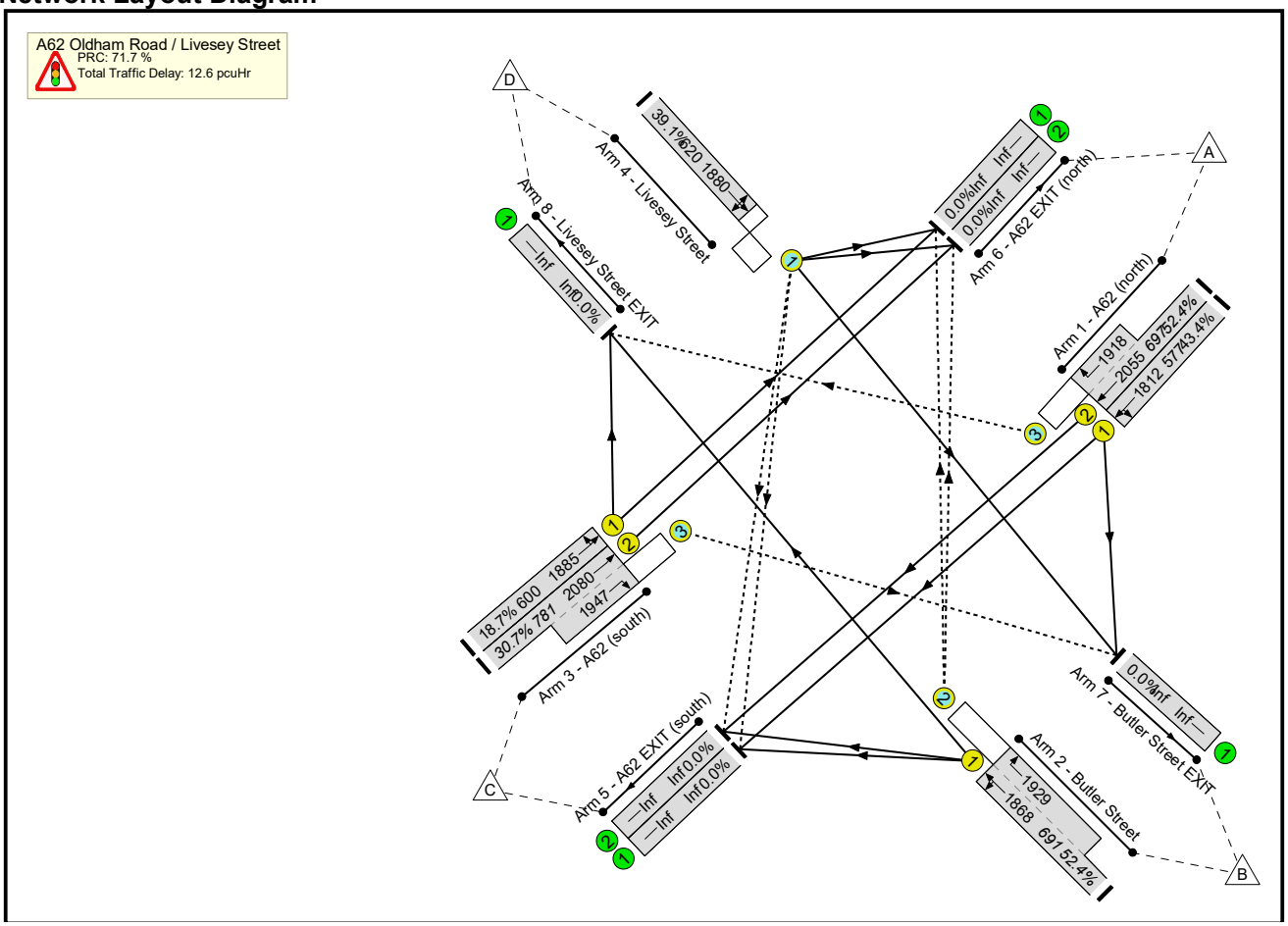
Basic Results Summary

User and Project Details

Project:	**A62 Oldham Road / Livesey Street**
Title:	**Ancoats Mobility Hub**
Location:	Ancoats
Client:	Manchester Life
Checked By:	Sam Denby
Additional detail:	
File name:	LINSIG_A62 Oldham Road_Livesey Street.lsg3x
Author:	Chris Rushton
Company:	Hydrock
Address:	Manchester

Scenario 1: '2021 Base AM' (FG1: '2021 Base AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**52.4%**	**213**	**0**	**3**	**12.6**	-	-
A62 Oldham Road / Livesey Street	-	-	-		-	-	-	-	-	-	**52.4%**	**213**	**0**	**3**	**12.6**	-	-
1/1	A62 (north) Ahead Left	U	B		1	27	-	250	1812	577	43.4%	-	-	-	2.0	29.2	5.2
1/2+1/3	A62 (north) Ahead Right	U+O	B		1	27	-	365	2055:1918	697	52.4%	62	0	1	3.0	29.6	6.7
2/1+2/2	Butler Street Left Right Ahead	U+O	D		1	28	-	362	1868:1929	691	52.4%	43	0	1	3.0	29.6	6.8
3/1	A62 (south) Ahead Left	U	A		1	27	-	112	1885	600	18.7%	-	-	-	0.8	25.5	2.1
3/2+3/3	A62 (south) Ahead Right	U+O	A		1	27	-	240	2080:1947	781	30.7%	83	0	1	1.9	28.5	3.0
4/1	Livesey Street Right Left Ahead	O	C		1	28	-	242	1880	620	39.1%	25	0	0	1.9	28.1	4.8

C1

PRC for Signalled Lanes (%): 71.7
PRC Over All Lanes (%): 71.7

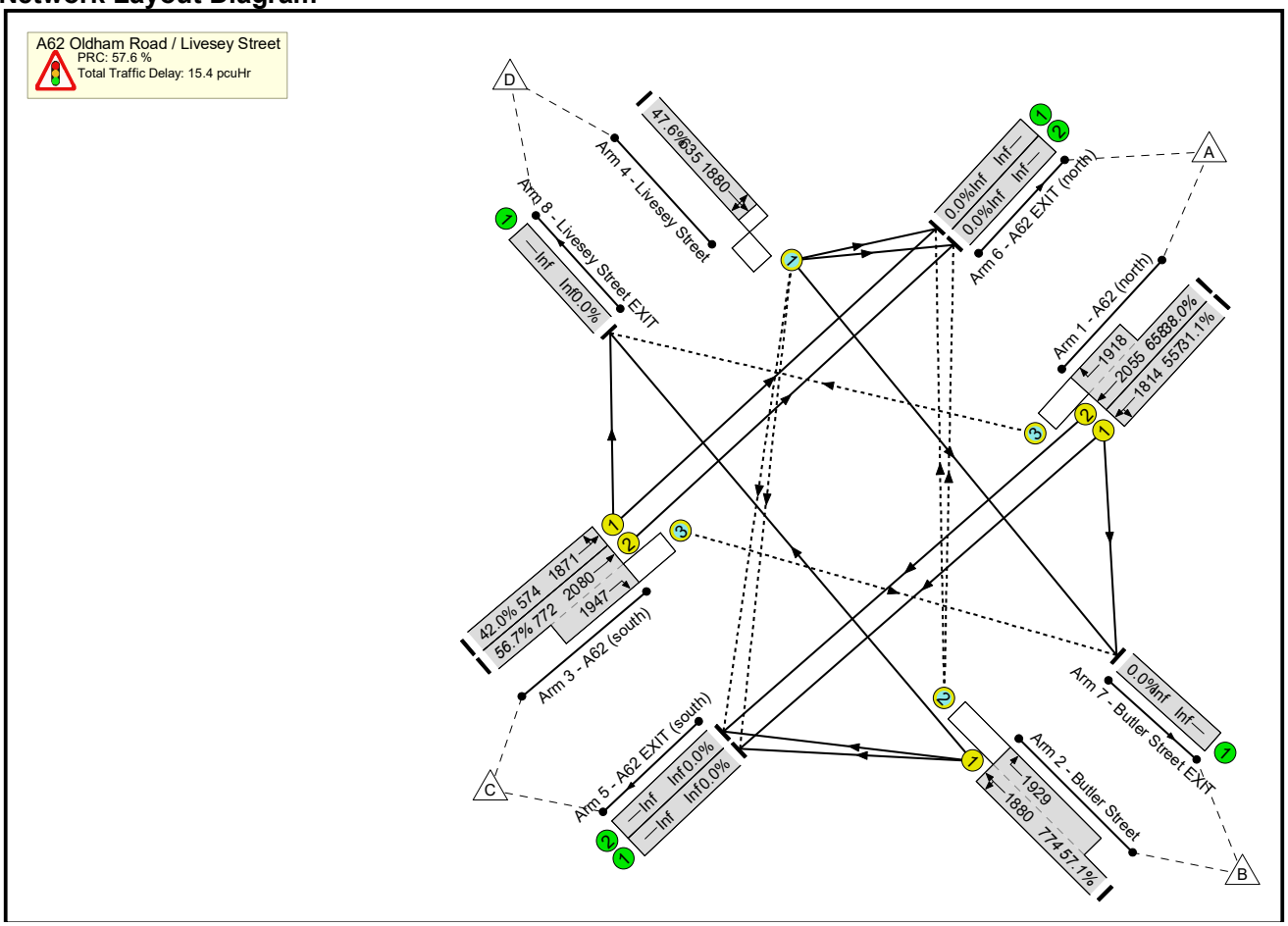
Total Delay for Signalled Lanes (pcuHr): 12.58
Total Delay Over All Lanes(pcuHr): 12.58

Cycle Time (s): 88

Basic Results Summary

Scenario 2: '2021 Base PM' (FG2: '2021 Base PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**57.1%**	**313**	**0**	**5**	**15.4**	-	-
A62 Oldham Road / Livesey Street	-	-	-		-	-	-	-	-	-	**57.1%**	**313**	**0**	**5**	**15.4**	-	-
1/1	A62 (north) Ahead Left	U	B		1	26	-	173	1814	557	31.1%	-	-	-	1.3	28.1	3.4
1/2+1/3	A62 (north) Ahead Right	U+O	B		1	26	-	250	2055:1918	658	38.0%	26	0	0	2.0	28.7	4.5
2/1+2/2	Butler Street Left Right Ahead	U+O	D		1	29	-	442	1880:1929	774	57.1%	97	0	2	3.7	30.0	7.3
3/1	A62 (south) Ahead Left	U	A		1	26	-	241	1871	574	42.0%	-	-	-	2.0	29.7	5.0
3/2+3/3	A62 (south) Ahead Right	U+O	A		1	26	-	438	2080:1947	772	56.7%	155	0	2	3.9	32.2	6.1
4/1	Livesey Street Right Left Ahead	O	C		1	29	-	302	1880	635	47.6%	36	0	0	2.4	28.9	6.2

C1

PRC for Signalled Lanes (%): 57.6
PRC Over All Lanes (%): 57.6

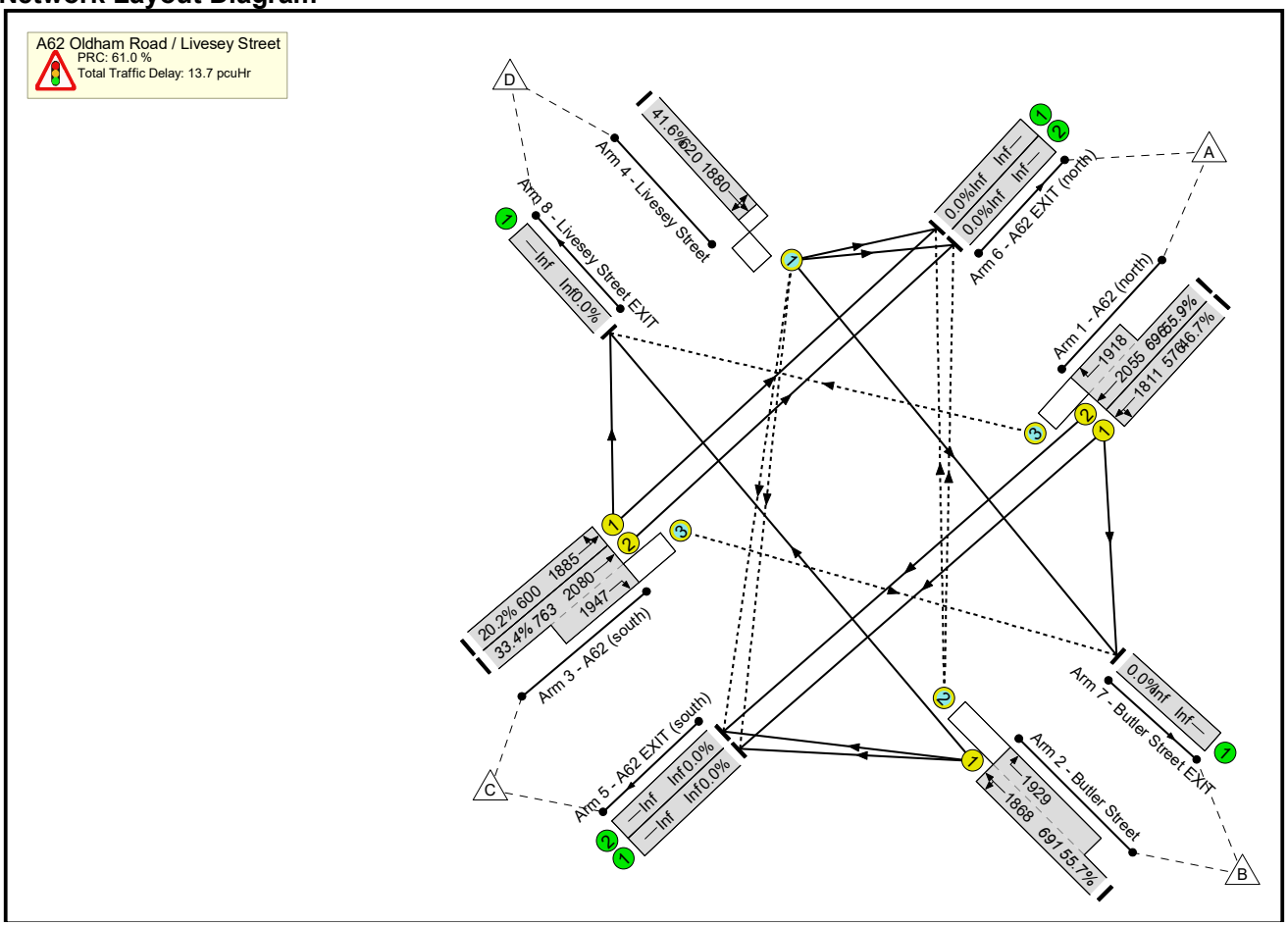
Total Delay for Signalled Lanes (pcuHr): 15.35
Total Delay Over All Lanes(pcuHr): 15.35

Cycle Time (s): 88

Basic Results Summary

Scenario 3: '2026 Base+COMM AM' (FG3: '2026 Base+COMM AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**55.9%**	**226**	**0**	**3**	**13.7**	-	-
A62 Oldham Road / Livesey Street	-	-	-		-	-	-	-	-	-	**55.9%**	**226**	**0**	**3**	**13.7**	-	-
1/1	A62 (north) Ahead Left	U	B		1	27	-	269	1811	576	46.7%	-	-	-	2.2	29.9	5.7
1/2+1/3	A62 (north) Ahead Right	U+O	B		1	27	-	389	2055:1918	696	55.9%	65	0	1	3.3	30.3	7.4
2/1+2/2	Butler Street Left Right Ahead	U+O	D		1	28	-	385	1868:1929	691	55.7%	46	0	1	3.2	30.3	7.4
3/1	A62 (south) Ahead Left	U	A		1	27	-	121	1885	600	20.2%	-	-	-	0.9	25.6	2.3
3/2+3/3	A62 (south) Ahead Right	U+O	A		1	27	-	255	2080:1947	763	33.4%	88	0	1	2.1	29.3	3.2
4/1	Livesey Street Right Left Ahead	O	C		1	28	-	258	1880	620	41.6%	27	0	0	2.0	28.6	5.2

C1

PRC for Signalled Lanes (%): 61.0
PRC Over All Lanes (%): 61.0

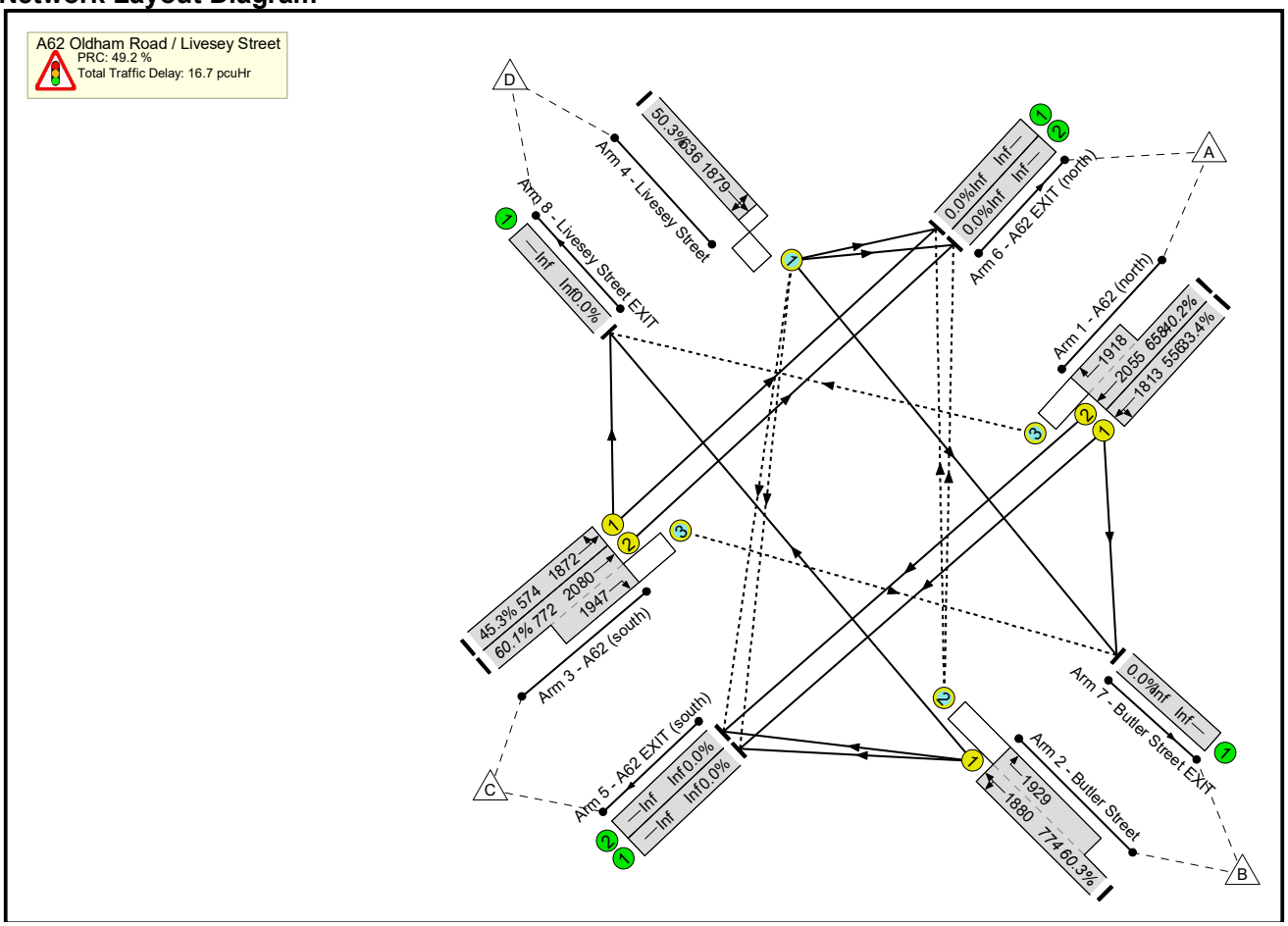
Total Delay for Signalled Lanes (pcuHr): 13.74
Total Delay Over All Lanes(pcuHr): 13.74

Cycle Time (s): 88

Basic Results Summary

Scenario 4: '2026 Base+COMM PM' (FG4: '2026 Base+COMM PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**60.3%**	**333**	**0**	**5**	**16.7**	-	-
A62 Oldham Road / Livesey Street	-	-	-		-	-	-	-	-	-	**60.3%**	**333**	**0**	**5**	**16.7**	-	-
1/1	A62 (north) Ahead Left	U	B		1	26	-	186	1813	556	33.4%	-	-	-	1.5	28.4	3.7
1/2+1/3	A62 (north) Ahead Right	U+O	B		1	26	-	265	2055:1918	658	40.2%	28	0	0	2.1	29.0	4.8
2/1+2/2	Butler Street Left Right Ahead	U+O	D		1	29	-	467	1880:1929	774	60.3%	103	0	2	4.0	30.9	7.9
3/1	A62 (south) Ahead Left	U	A		1	26	-	260	1872	574	45.3%	-	-	-	2.2	30.3	5.5
3/2+3/3	A62 (south) Ahead Right	U+O	A		1	26	-	464	2080:1947	772	60.1%	164	0	2	4.3	33.0	6.6
4/1	Livesey Street Right Left Ahead	O	C		1	29	-	320	1879	636	50.3%	39	0	0	2.6	29.5	6.6

C1

PRC for Signalled Lanes (%): 49.2
PRC Over All Lanes (%): 49.2

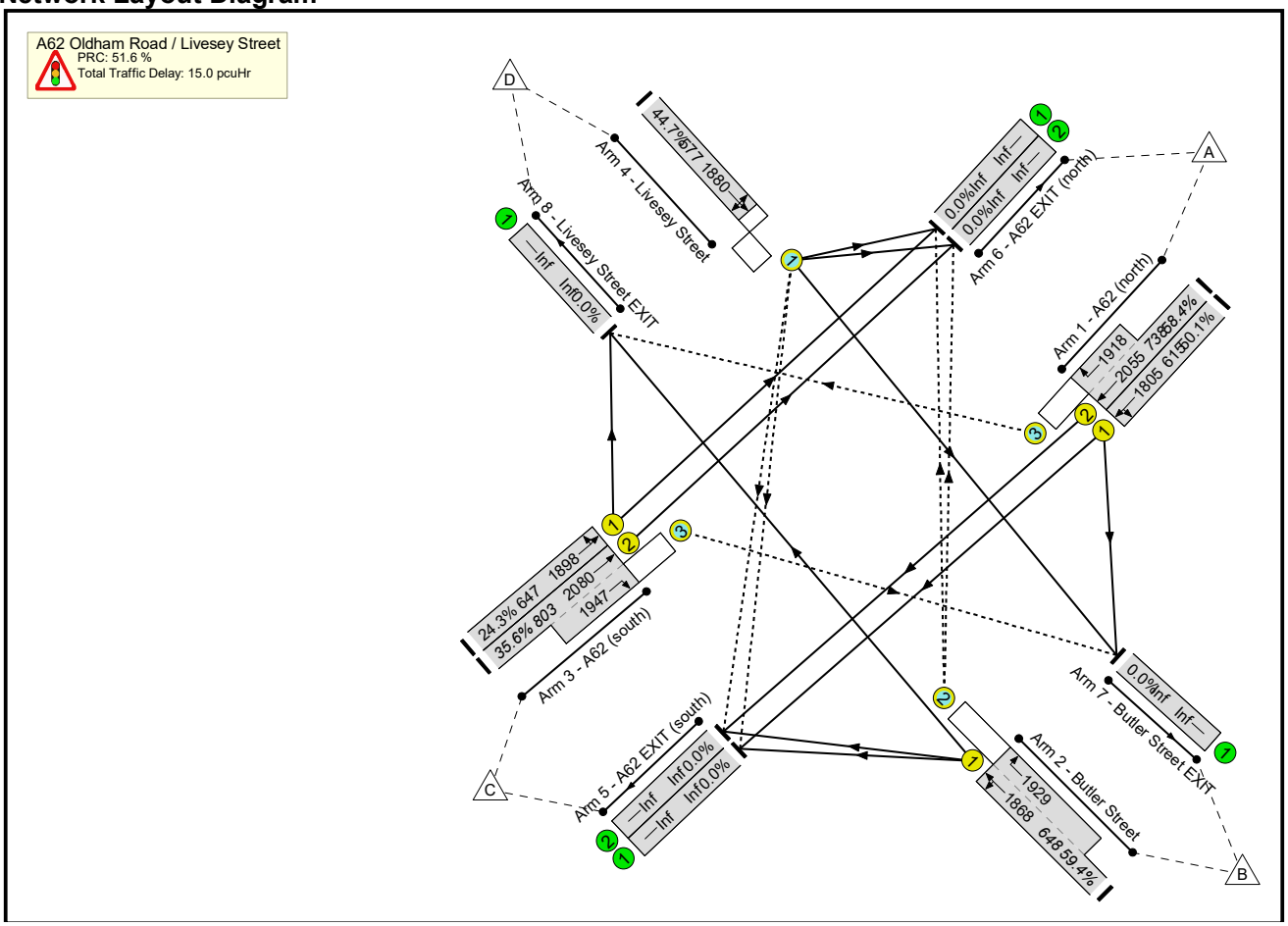
Total Delay for Signalled Lanes (pcuHr): 16.67
Total Delay Over All Lanes(pcuHr): 16.67

Cycle Time (s): 88

Basic Results Summary

Scenario 5: '2026 Base+COMM+DEV AM' (FG5: '2026 Base+COMM+DEV AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**59.4%**	**226**	**0**	**3**	**15.0**	-	-
A62 Oldham Road / Livesey Street	-	-	-		-	-	-	-	-	-	**59.4%**	**226**	**0**	**3**	**15.0**	-	-
1/1	A62 (north) Ahead Left	U	B		1	29	-	308	1805	615	50.1%	-	-	-	2.5	28.9	6.4
1/2+1/3	A62 (north) Ahead Right	U+O	B		1	29	-	431	2055:1918	738	58.4%	65	0	1	3.5	29.3	8.4
2/1+2/2	Butler Street Left Right Ahead	U+O	D		1	26	-	385	1868:1929	648	59.4%	46	0	1	3.5	33.0	7.7
3/1	A62 (south) Ahead Left	U	A		1	29	-	157	1898	647	24.3%	-	-	-	1.1	24.5	2.9
3/2+3/3	A62 (south) Ahead Right	U+O	A		1	29	-	286	2080:1947	803	35.6%	88	0	1	2.2	28.0	3.8
4/1	Livesey Street Right Left Ahead	O	C		1	26	-	258	1880	577	44.7%	27	0	0	2.2	30.9	5.4

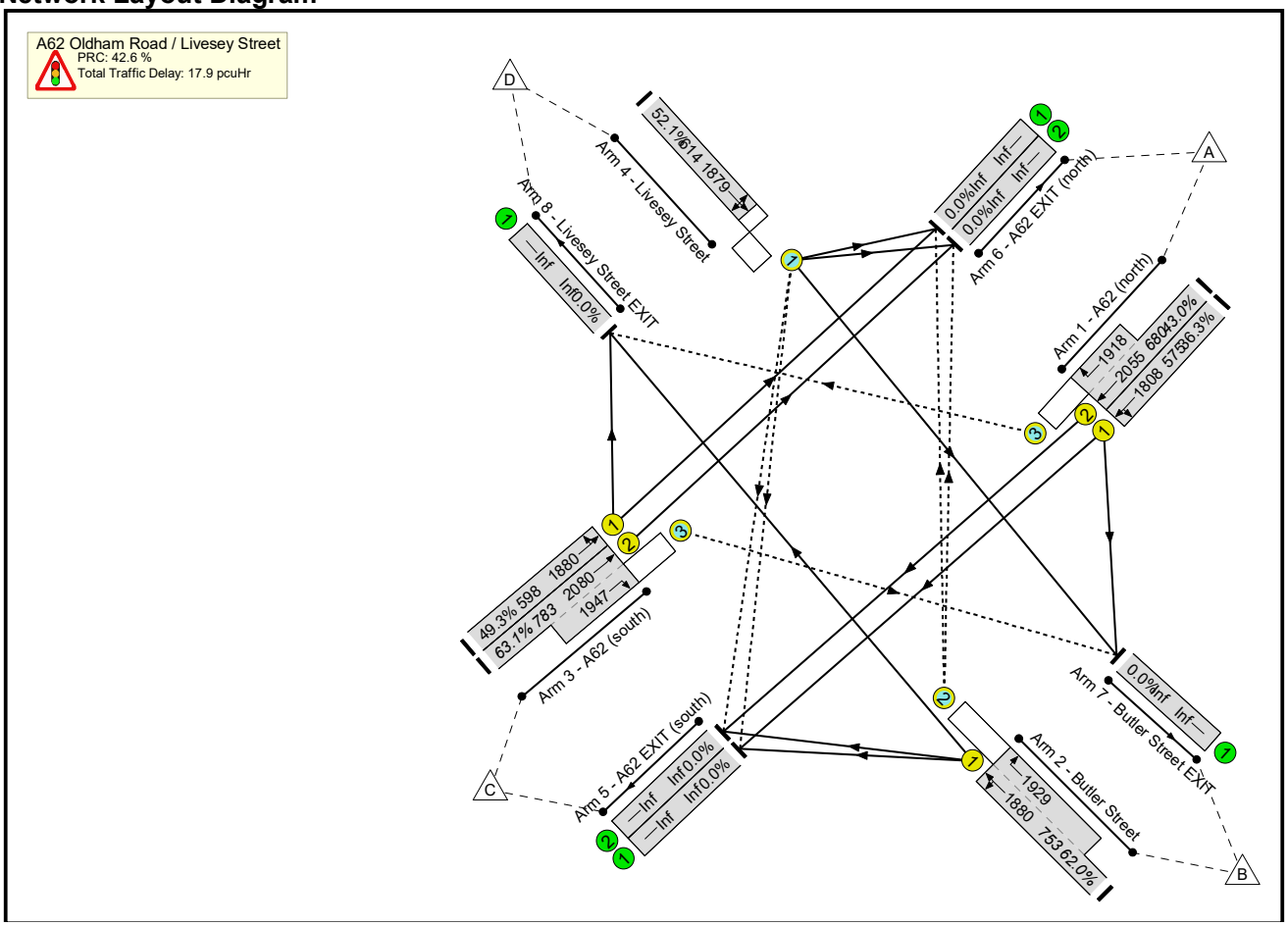
C1 PRC for Signalled Lanes (%): 51.6 Total Delay for Signalled Lanes (pcuHr): 15.02 Cycle Time (s): 88

PRC Over All Lanes (%): 51.6 Total Delay Over All Lanes(pcuHr): 15.02

Basic Results Summary

Scenario 6: '2026 Base+COMM+DEV PM' (FG6: '2026 Base+COMM+DEV PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**63.1%**	**333**	**0**	**5**	**17.9**	-	-
A62 Oldham Road / Livesey Street	-	-	-		-	-	-	-	-	-	**63.1%**	**333**	**0**	**5**	**17.9**	-	-
1/1	A62 (north) Ahead Left	U	B		1	27	-	209	1808	575	36.3%	-	-	-	1.6	28.0	4.2
1/2+1/3	A62 (north) Ahead Right	U+O	B		1	27	-	292	2055:1918	680	43.0%	28	0	0	2.3	28.7	5.4
2/1+2/2	Butler Street Left Right Ahead	U+O	D		1	28	-	467	1880:1929	753	62.0%	103	0	2	4.2	32.2	8.2
3/1	A62 (south) Ahead Left	U	A		1	27	-	295	1880	598	49.3%	-	-	-	2.5	30.2	6.3
3/2+3/3	A62 (south) Ahead Right	U+O	A		1	27	-	494	2080:1947	783	63.1%	164	0	2	4.5	33.1	7.7
4/1	Livesey Street Right Left Ahead	O	C		1	28	-	320	1879	614	52.1%	39	0	0	2.7	30.8	6.9

C1

PRC for Signalled Lanes (%): 42.6
PRC Over All Lanes (%): 42.6

Total Delay for Signalled Lanes (pcuHr): 17.88
Total Delay Over All Lanes(pcuHr): 17.88

Cycle Time (s): 88

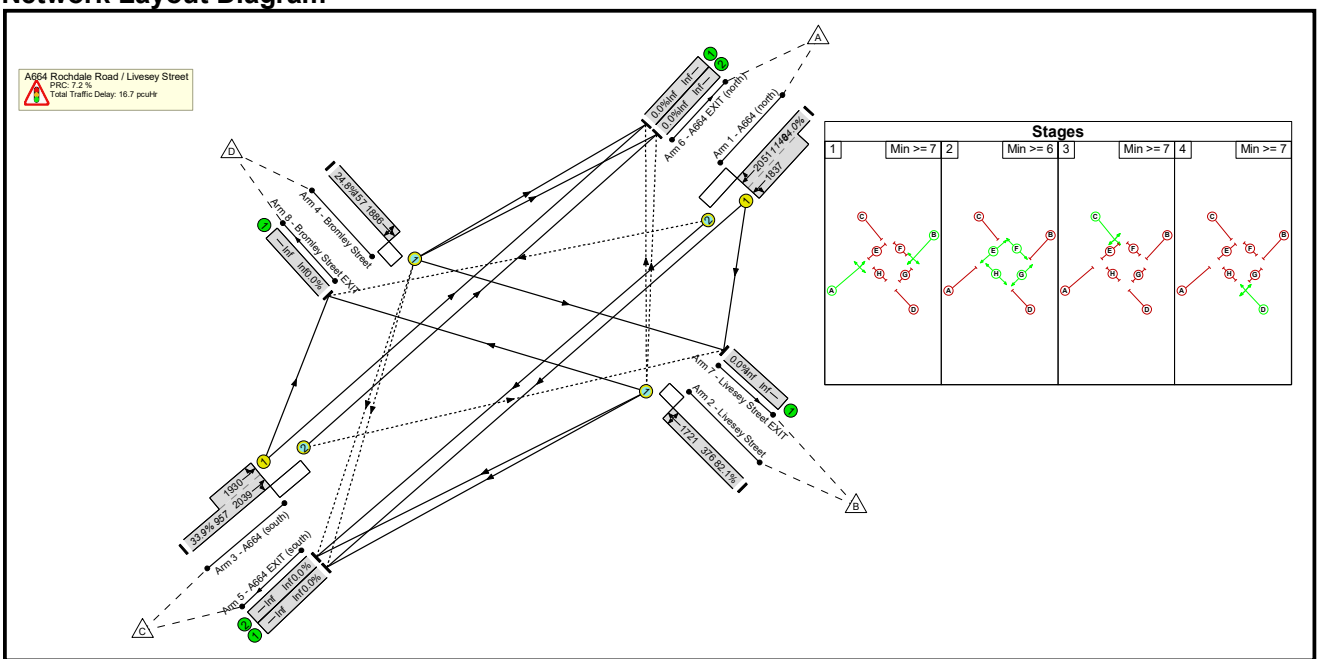
Basic Results Summary

User and Project Details

Project:	**A664 Rochdale Road / Livesey Street**
Title:	**Ancoats Mobility Hub**
Location:	Ancoats
Client:	Manchester Life
Checked By:	Sam Denby
Additional detail:	
File name:	LINSIG_A664 Rochdale Road_Livesey Street_2010 Base Flows_Every Other Cycle.lsg3x
Author:	Chris Rushton
Company:	Hydrock
Address:	Manchester

Scenario 1: '2010 Base AM' (FG1: '2010 Base AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**84.0%**	**52**	**77**	**7**	**16.7**	-	-
A664 Rochdale Road / Livesey Street	-	-	-		-	-	-	-	-	-	**84.0%**	**52**	**77**	**7**	**16.7**	-	-
1/2+1/1	A664 (north) Ahead Left Right	O+U	B		2	75	-	957	2051:1837	1140	84.0%	16	0	0	8.7	32.6	16.2
2/1	Livesey Street Left Right Ahead	O	D		2	40	-	309	1721	376	82.1%	0	76	6	5.2	60.8	10.1
3/2+3/1	A664 (south) Ahead Right Left	O+U	A		2	71	-	325	2039:1930	957	33.9%	36	0	1	2.2	24.2	3.4
4/1	Bromley Street Right Left Ahead	O	C		2	14	-	39	1886	157	24.8%	0	1	0	0.6	56.5	1.2

C1

PRC for Signalled Lanes (%): 7.2
PRC Over All Lanes (%): 7.2

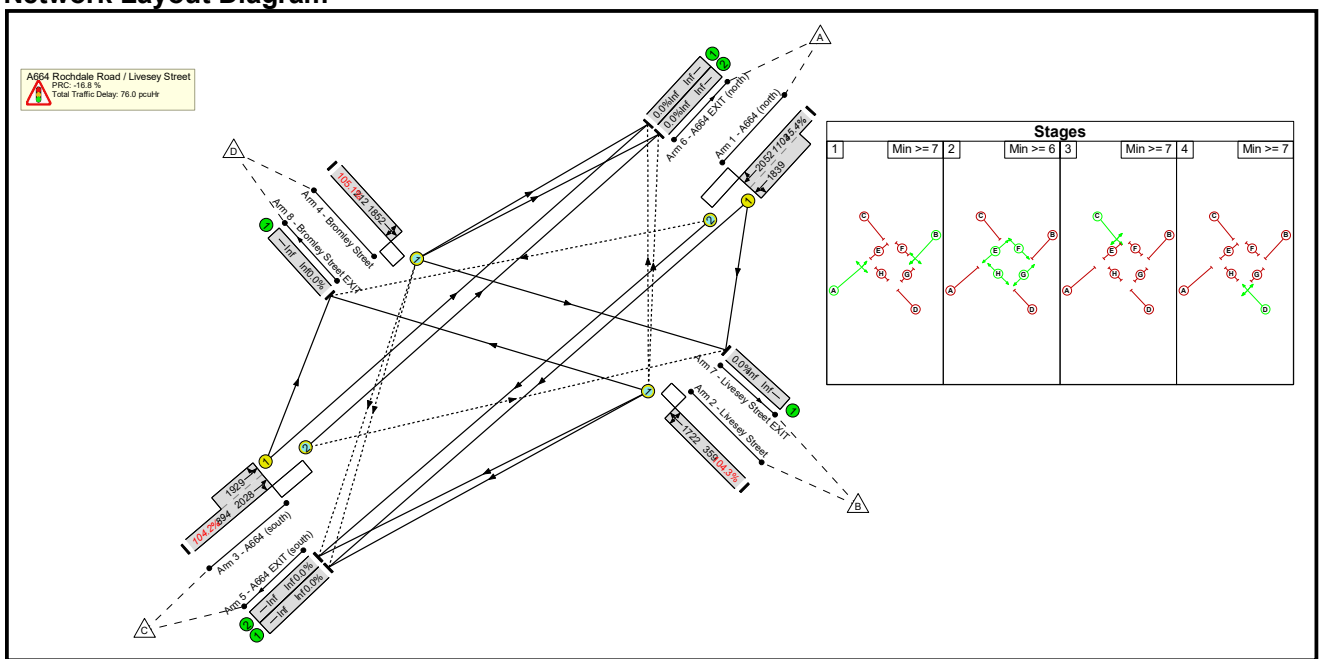
Total Delay for Signalled Lanes (pcuHr): 16.67
Total Delay Over All Lanes(pcuHr): 16.67

Cycle Time (s): 192

Basic Results Summary

Scenario 2: '2010 Base PM' (FG2: '2010 Base PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**105.1%**	**147**	**188**	**28**	**76.0**	-	-
A664 Rochdale Road / Livesey Street	-	-	-		-	-	-	-	-	-	**105.1%**	**147**	**188**	**28**	**76.0**	-	-
1/2+1/1	A664 (north) Ahead Left Right	O+U	B		2	71	-	501	2052:1839	1103	45.4%	7	0	0	3.4	24.7	6.1
2/1	Livesey Street Left Right Ahead	O	D		2	38	-	374	1722	359	104.3%	0	187	21	19.8	190.8	25.9
3/2+3/1	A664 (south) Ahead Right Left	O+U	A		2	67	-	931	2028:1929	894	104.2%	140	0	7	38.5	149.0	54.1
4/1	Bromley Street Right Left Ahead	O	C		2	20	-	223	1852	212	105.1%	0	1	0	14.3	230.1	18.0

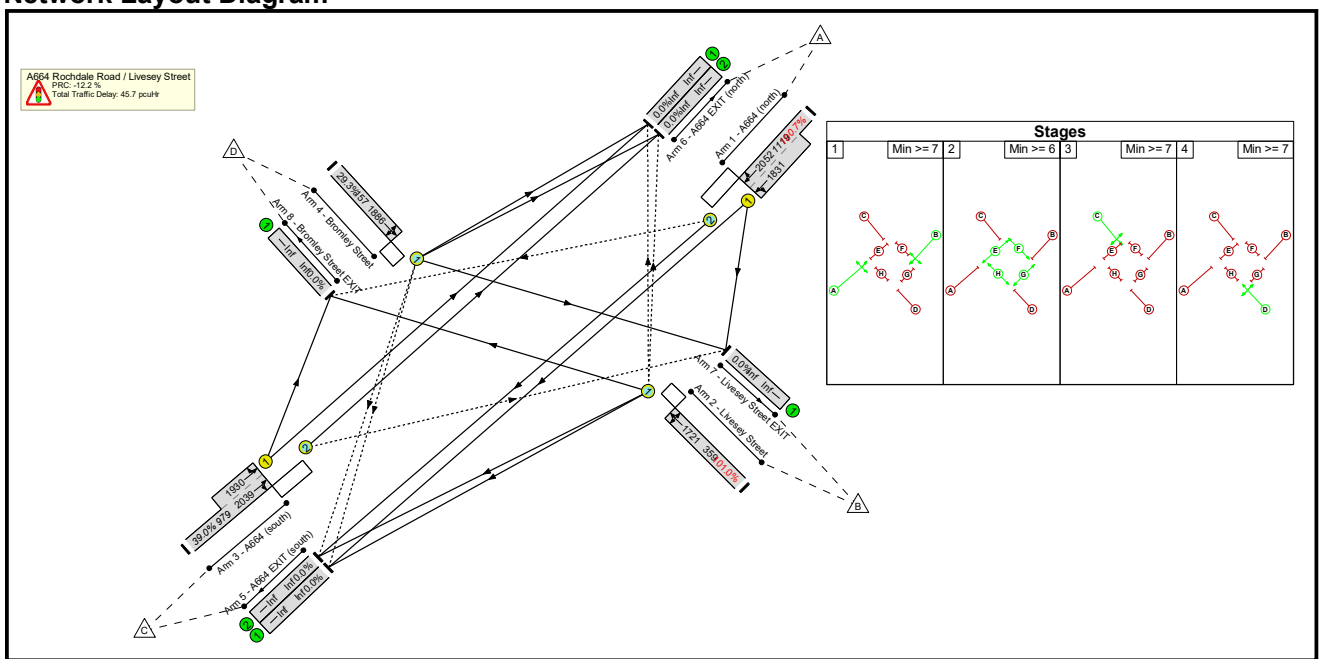
C1 PRC for Signalled Lanes (%): -16.8 Total Delay for Signalled Lanes (pcuHr): 76.05 Cycle Time (s): 192

PRC Over All Lanes (%): -16.8 Total Delay Over All Lanes(pcuHr): 76.05

Basic Results Summary

Scenario 3: '2021 Base AM' (FG3: '2021 Base AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**101.0%**	**57**	**87**	**14**	**45.7**	-	-
A664 Rochdale Road / Livesey Street	-	-	-		-	-	-	-	-	-	**101.0%**	**57**	**87**	**14**	**45.7**	-	-
1/2+1/1	A664 (north) Ahead Left Right	O+U	B		2	77	-	1126	2052:1831	1119	100.7%	18	0	1	27.6	88.3	47.7
2/1	Livesey Street Left Right Ahead	O	D		2	38	-	362	1721	359	101.0%	0	86	10	14.8	146.8	20.6
3/2+3/1	A664 (south) Ahead Right Left	O+U	A		2	73	-	382	2039:1930	979	39.0%	39	0	4	2.6	24.6	4.3
4/1	Bromley Street Right Left Ahead	O	C		2	14	-	46	1886	157	29.3%	0	1	0	0.7	57.5	1.4

C1

PRC for Signalled Lanes (%): -12.2
PRC Over All Lanes (%): -12.2

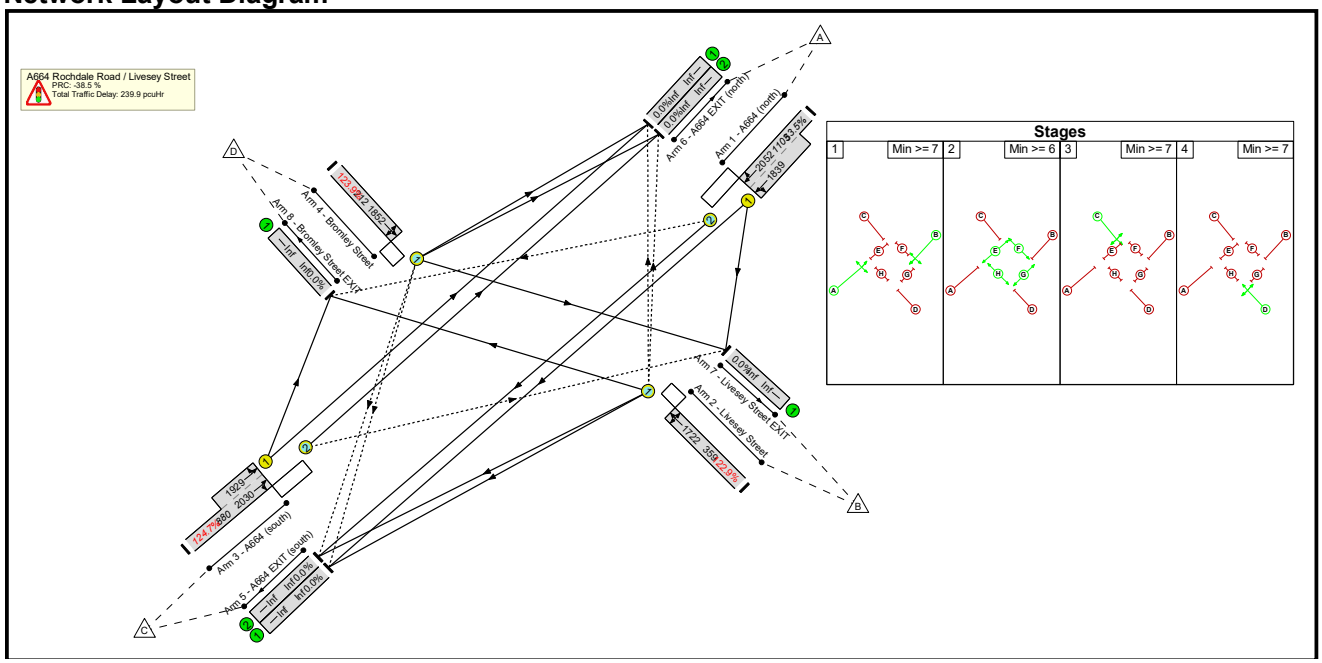
Total Delay for Signalled Lanes (pcuHr): 45.72
Total Delay Over All Lanes(pcuHr): 45.72

Cycle Time (s): 192

Basic Results Summary

Scenario 4: '2021 Base PM' (FG4: '2021 Base PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**124.7%**	**145**	**188**	**28**	**239.9**	-	-
A664 Rochdale Road / Livesey Street	-	-	-		-	-	-	-	-	-	**124.7%**	**145**	**188**	**28**	**239.9**	-	-
1/2+1/1	A664 (north) Ahead Left Right	O+U	B		2	71	-	590	2052:1839	1103	53.5%	8	0	0	4.3	26.1	7.7
2/1	Livesey Street Left Right Ahead	O	D		2	38	-	441	1722	359	122.9%	0	187	21	57.6	470.1	66.5
3/2+3/1	A664 (south) Ahead Right Left	O+U	A		2	67	-	1097	2030:1929	880	124.7%	138	0	7	141.8	465.3	159.9
4/1	Bromley Street Right Left Ahead	O	C		2	20	-	263	1852	212	123.9%	0	1	0	36.2	496.1	41.6

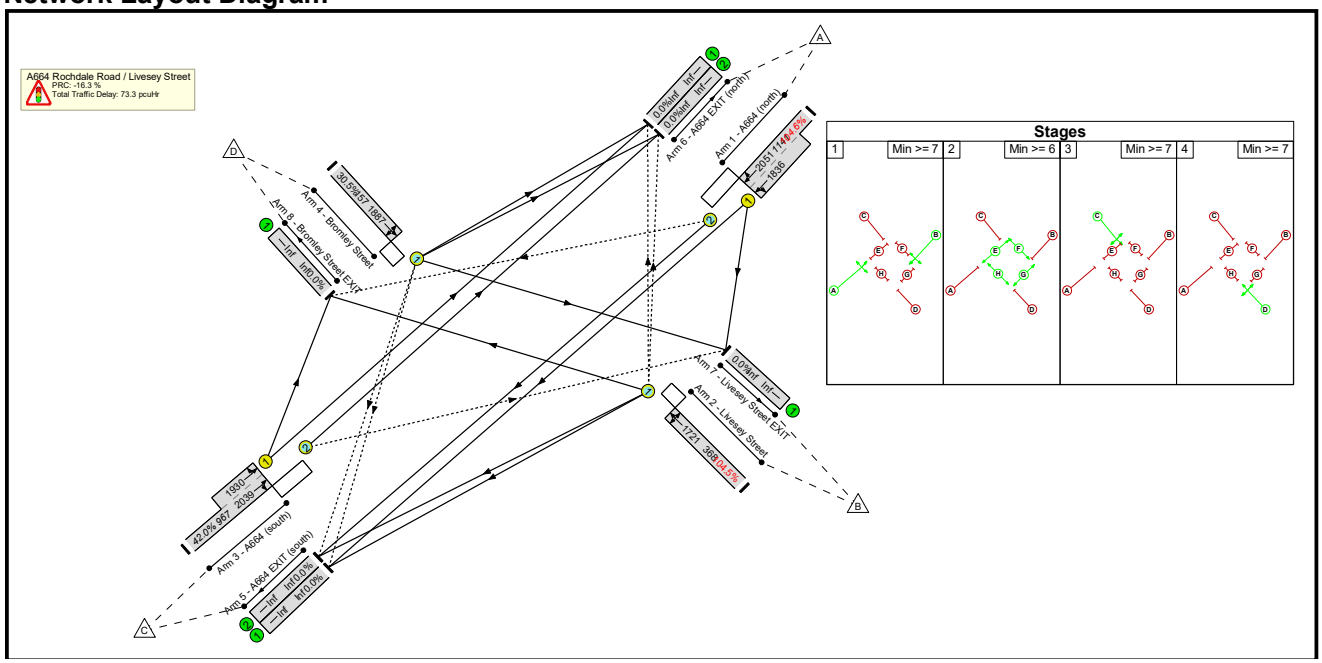
C1 PRC for Signalled Lanes (%): -38.5 Total Delay for Signalled Lanes (pcuHr): 239.92 Cycle Time (s): 192

PRC Over All Lanes (%): -38.5 Total Delay Over All Lanes(pcuHr): 239.92

Basic Results Summary

Scenario 5: '2026 Base+COMM AM' (FG5: '2026 Base+COMM AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**104.6%**	**63**	**89**	**11**	**73.3**	-	-
A664 Rochdale Road / Livesey Street	-	-	-		-	-	-	-	-	-	**104.6%**	**63**	**89**	**11**	**73.3**	-	-
1/2+1/1	A664 (north) Ahead Left Right	O+U	B		2	76	-	1194	2051:1836	1141	104.6%	18	0	1	49.1	147.9	67.6
2/1	Livesey Street Left Right Ahead	O	D		2	39	-	384	1721	368	104.5%	0	88	10	20.6	193.0	26.6
3/2+3/1	A664 (south) Ahead Right Left	O+U	A		2	72	-	406	2039:1930	967	42.0%	45	0	1	2.8	25.2	4.6
4/1	Bromley Street Right Left Ahead	O	C		2	14	-	48	1887	157	30.5%	0	1	0	0.8	57.9	1.5

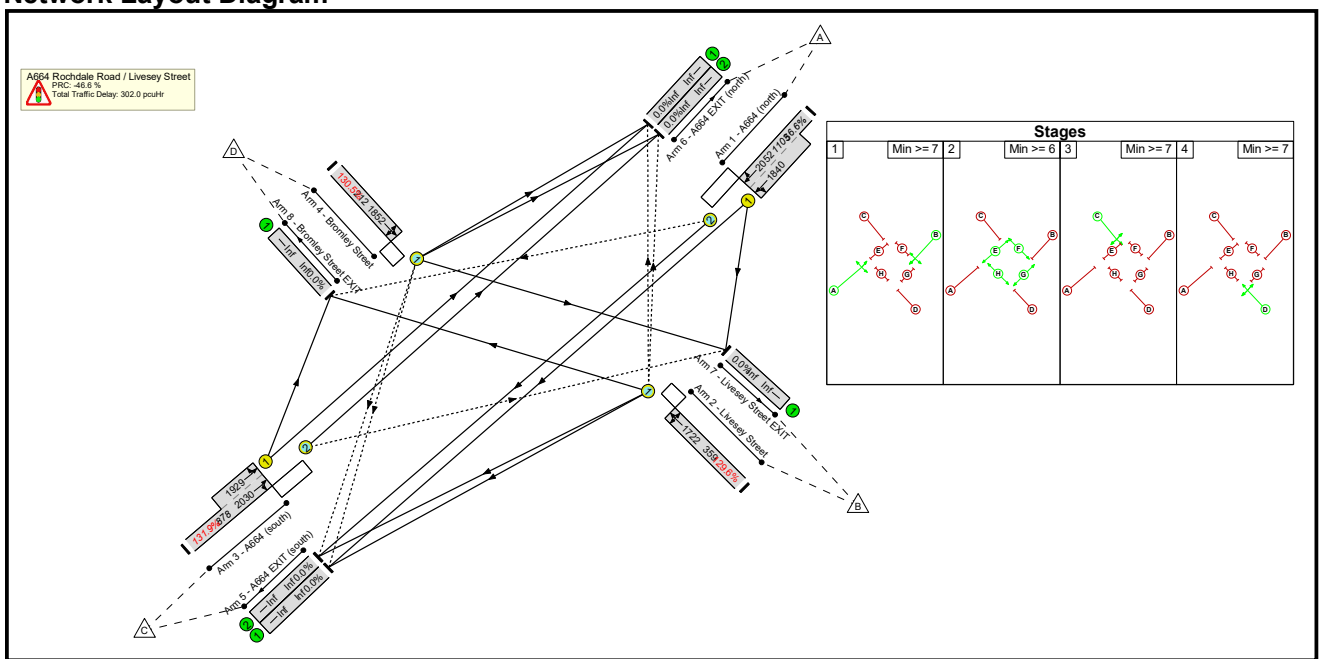
C1 PRC for Signalled Lanes (%): -16.3 Total Delay for Signalled Lanes (pcuHr): 73.26 Cycle Time (s): 192

PRC Over All Lanes (%): -16.3 Total Delay Over All Lanes(pcuHr): 73.26

Basic Results Summary

Scenario 6: '2026 Base+COMM PM' (FG6: '2026 Base+COMM PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**131.9%**	**143**	**188**	**31**	**302.0**	-	-
A664 Rochdale Road / Livesey Street	-	-	-		-	-	-	-	-	-	**131.9%**	**143**	**188**	**31**	**302.0**	-	-
1/2+1/1	A664 (north) Ahead Left Right	O+U	B		2	71	-	624	2052:1840	1103	56.6%	9	0	0	4.6	26.6	8.3
2/1	Livesey Street Left Right Ahead	O	D		2	38	-	465	1722	359	129.6%	0	187	21	72.2	558.7	81.9
3/2+3/1	A664 (south) Ahead Right Left	O+U	A		2	67	-	1159	2030:1929	878	131.9%	135	0	9	180.4	560.5	201.3
4/1	Bromley Street Right Left Ahead	O	C		2	20	-	277	1852	212	130.5%	0	1	0	44.8	582.7	50.6

C1

PRC for Signalled Lanes (%): -46.6
PRC Over All Lanes (%): -46.6

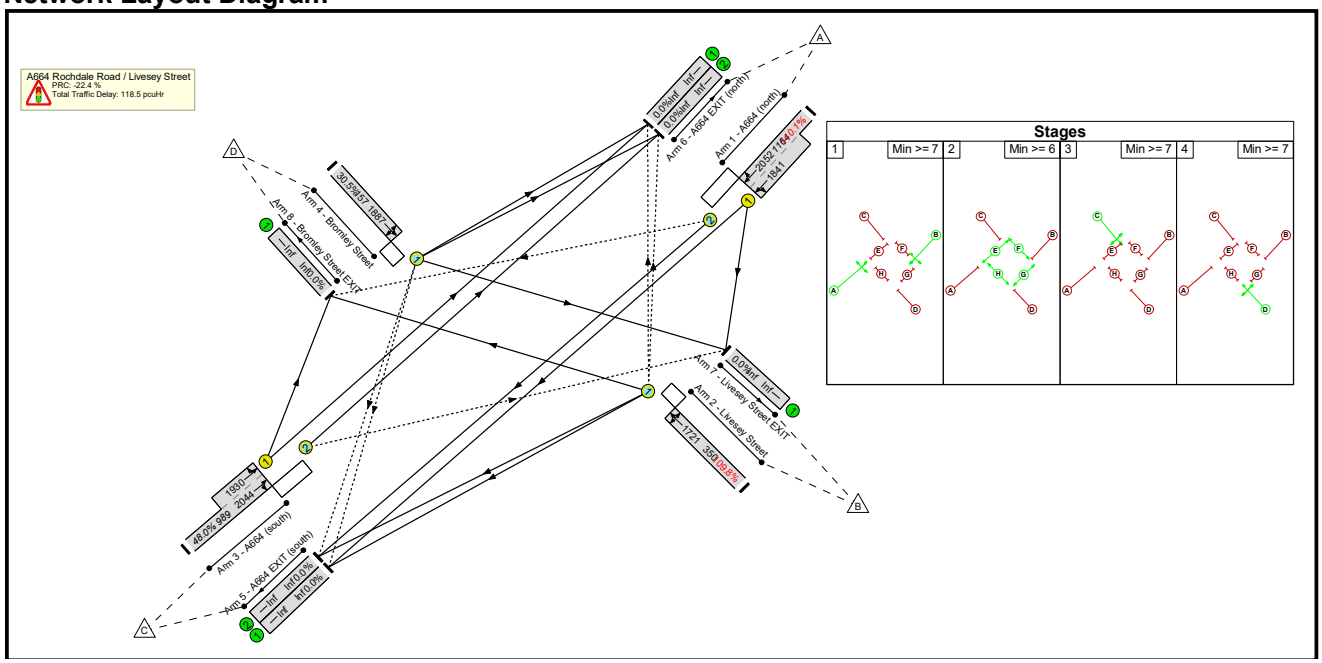
Total Delay for Signalled Lanes (pcuHr): 302.05
Total Delay Over All Lanes(pcuHr): 302.05

Cycle Time (s): 192

Basic Results Summary

Scenario 7: '2026 Base+COMM+DEV AM' (FG7: '2026 Base+COMM+DEV AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**110.1%**	**63**	**84**	**11**	**118.5**	-	-
A664 Rochdale Road / Livesey Street	-	-	-		-	-	-	-	-	-	**110.1%**	**63**	**84**	**11**	**118.5**	-	-
1/2+1/1	A664 (north) Ahead Left Right	O+U	B		2	78	-	1282	2052:1841	1164	110.1%	18	0	1	84.8	238.2	102.5
2/1	Livesey Street Left Right Ahead	O	D		2	37	-	384	1721	350	109.8%	0	83	10	29.6	277.2	36.4
3/2+3/1	A664 (south) Ahead Right Left	O+U	A		2	74	-	475	2044:1930	989	48.0%	45	0	1	3.3	25.0	5.5
4/1	Bromley Street Right Left Ahead	O	C		2	14	-	48	1887	157	30.5%	0	1	0	0.8	58.3	1.5

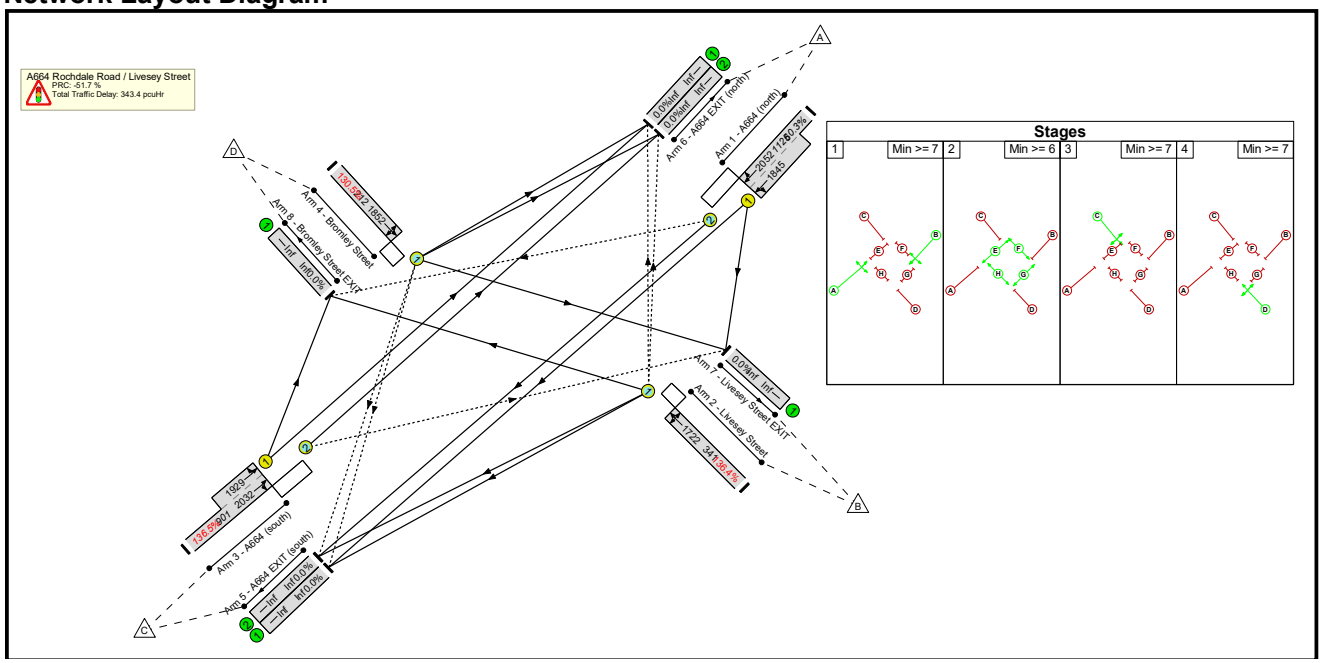
C1 PRC for Signalled Lanes (%): -22.4 Total Delay for Signalled Lanes (pcuHr): 118.46 Cycle Time (s): 192

PRC Over All Lanes (%): -22.4 Total Delay Over All Lanes(pcuHr): 118.46

Basic Results Summary

Scenario 8: '2026 Base+COMM+DEV PM' (FG8: '2026 Base+COMM+DEV PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**136.5%**	**141**	**178**	**28**	**343.4**	-	-
A664 Rochdale Road / Livesey Street	-	-	-		-	-	-	-	-	-	**136.5%**	**141**	**178**	**28**	**343.4**	-	-
1/2+1/1	A664 (north) Ahead Left Right	O+U	B		2	73	-	678	2052:1845	1125	60.3%	8	0	1	4.9	26.2	8.9
2/1	Livesey Street Left Right Ahead	O	D		2	36	-	465	1722	341	136.4%	0	177	21	82.7	640.3	92.0
3/2+3/1	A664 (south) Ahead Right Left	O+U	A		2	69	-	1230	2032:1929	901	136.5%	133	0	6	211.0	617.5	232.5
4/1	Bromley Street Right Left Ahead	O	C		2	20	-	277	1852	212	130.5%	0	1	0	44.8	582.0	50.6

C1 PRC for Signalled Lanes (%): -51.7 Total Delay for Signalled Lanes (pcuHr): 343.41 Cycle Time (s): 192

PRC Over All Lanes (%): -51.7 Total Delay Over All Lanes(pcuHr): 343.41

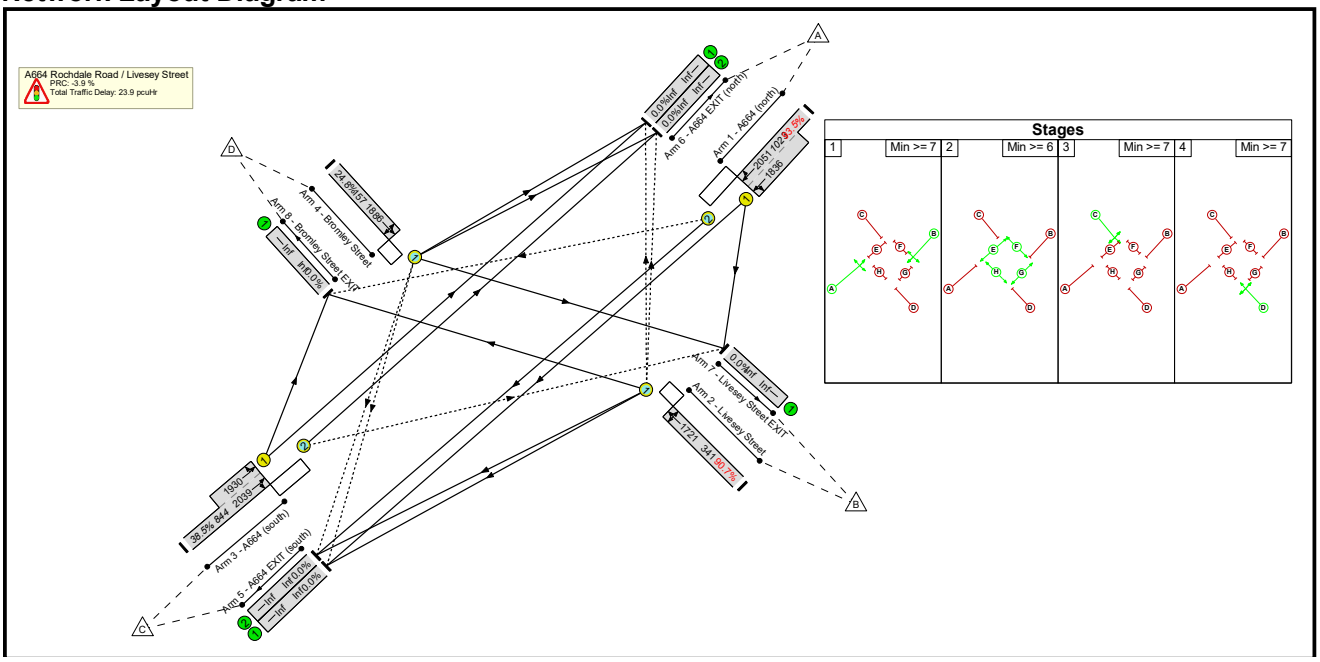
Basic Results Summary

User and Project Details

Project:	**A664 Rochdale Road / Livesey Street**
Title:	**Ancoats Mobility Hub**
Location:	Ancoats
Client:	Manchester Life
Checked By:	Sam Denby
Additional detail:	
File name:	LINSIG_A664 Rochdale Road_Livesey Street.lsg3x
Author:	Chris Rushton
Company:	Hydrock
Address:	Manchester

Scenario 1: '2010 Base AM' (FG1: '2010 Base AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**93.5%**	**52**	**81**	**3**	**23.9**	-	-
A664 Rochdale Road / Livesey Street	-	-	-		-	-	-	-	-	-	**93.5%**	**52**	**81**	**3**	**23.9**	-	-
1/2+1/1	A664 (north) Ahead Left Right	O+U	B		1	32	-	957	2051:1836	1023	93.5%	16	0	0	13.5	50.8	21.2
2/1	Livesey Street Left Right Ahead	O	D		1	18	-	309	1721	341	90.7%	0	80	2	7.1	83.3	11.9
3/2+3/1	A664 (south) Ahead Right Left	O+U	A		1	30	-	325	2039:1930	844	38.5%	36	0	1	2.6	28.9	3.6
4/1	Bromley Street Right Left Ahead	O	C		1	7	-	39	1886	157	24.8%	0	1	0	0.6	56.4	1.1

C1

PRC for Signalled Lanes (%): -3.9
PRC Over All Lanes (%): -3.9

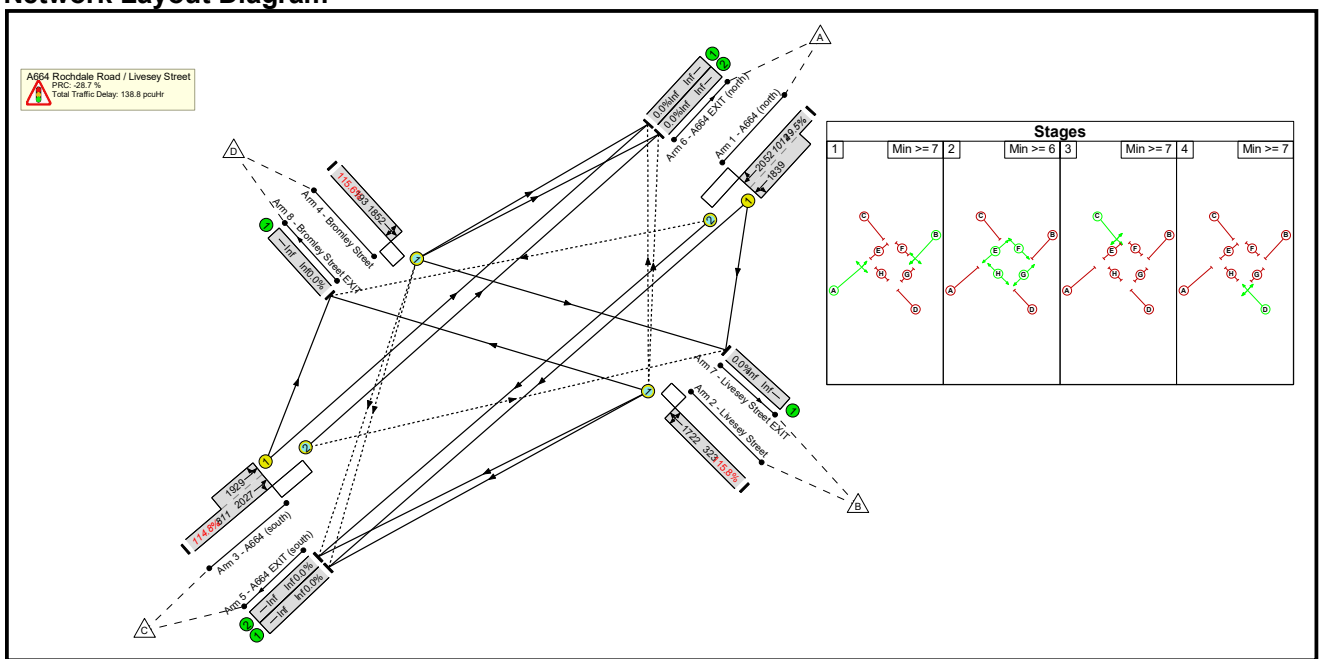
Total Delay for Signalled Lanes (pcuHr): 23.88
Total Delay Over All Lanes(pcuHr): 23.88

Cycle Time (s): 96

Basic Results Summary

Scenario 2: '2010 Base PM' (FG2: '2010 Base PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**115.8%**	**133**	**167**	**28**	**138.8**	-	-
A664 Rochdale Road / Livesey Street	-	-	-		-	-	-	-	-	-	**115.8%**	**133**	**167**	**28**	**138.8**	-	-
1/2+1/1	A664 (north) Ahead Left Right	O+U	B		1	31	-	501	2052:1839	1012	49.5%	7	0	0	3.9	28.1	5.8
2/1	Livesey Street Left Right Ahead	O	D		1	17	-	374	1722	323	115.8%	0	167	21	35.7	343.4	41.2
3/2+3/1	A664 (south) Ahead Right Left	O+U	A		1	29	-	931	2027:1929	811	114.8%	126	0	7	77.4	299.1	87.9
4/1	Bromley Street Right Left Ahead	O	C		1	9	-	223	1852	193	115.6%	0	1	0	21.8	352.3	24.9

C1

PRC for Signalled Lanes (%): -28.7
PRC Over All Lanes (%): -28.7

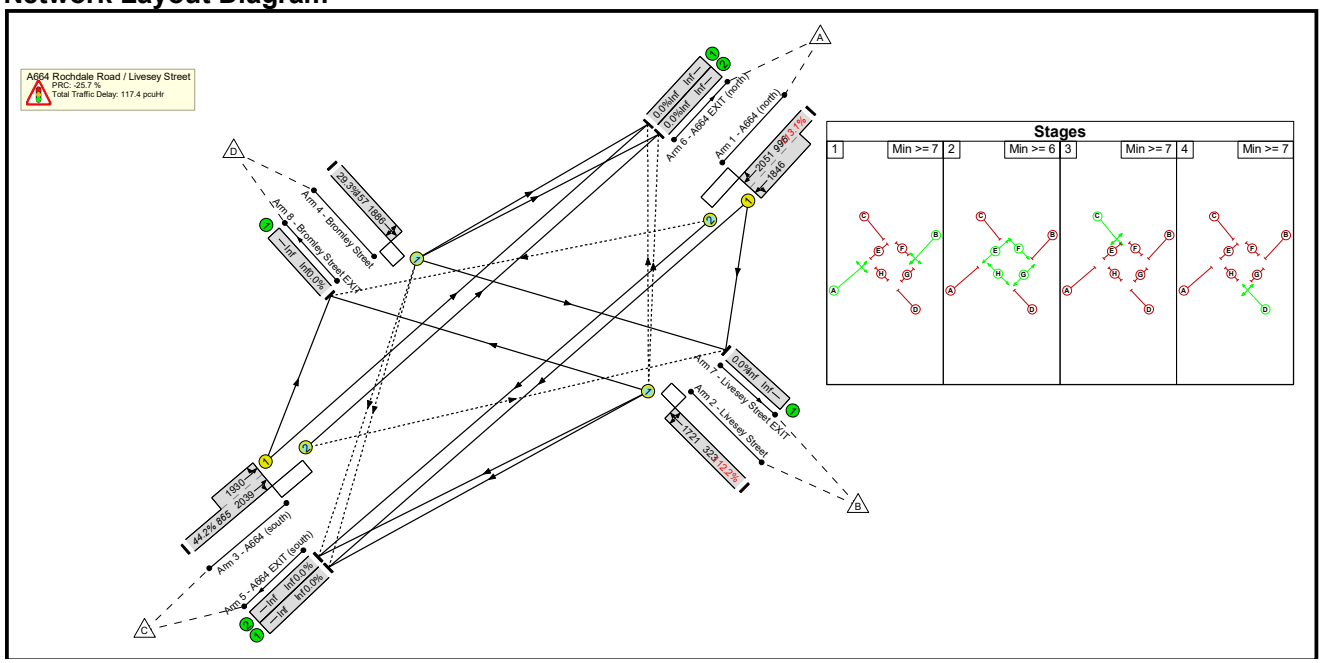
Total Delay for Signalled Lanes (pcuHr): 138.77
Total Delay Over All Lanes(pcuHr): 138.77

Cycle Time (s): 96

Basic Results Summary

Scenario 3: '2021 Base AM' (FG3: '2021 Base AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**113.1%**	**58**	**77**	**11**	**117.4**	-	-
A664 Rochdale Road / Livesey Street	-	-	-		-	-	-	-	-	-	**113.1%**	**58**	**77**	**11**	**117.4**	-	-
1/2+1/1	A664 (north) Ahead Left Right	O+U	B		1	33	-	1126	2051:1846	996	113.1%	16	0	1	84.1	268.9	97.1
2/1	Livesey Street Left Right Ahead	O	D		1	17	-	362	1721	323	112.2%	0	76	10	29.6	294.3	35.0
3/2+3/1	A664 (south) Ahead Right Left	O+U	A		1	31	-	382	2039:1930	865	44.2%	42	0	1	3.0	28.0	4.2
4/1	Bromley Street Right Left Ahead	O	C		1	7	-	46	1886	157	29.3%	0	1	0	0.7	57.5	1.4

C1

PRC for Signalled Lanes (%): -25.7
PRC Over All Lanes (%): -25.7

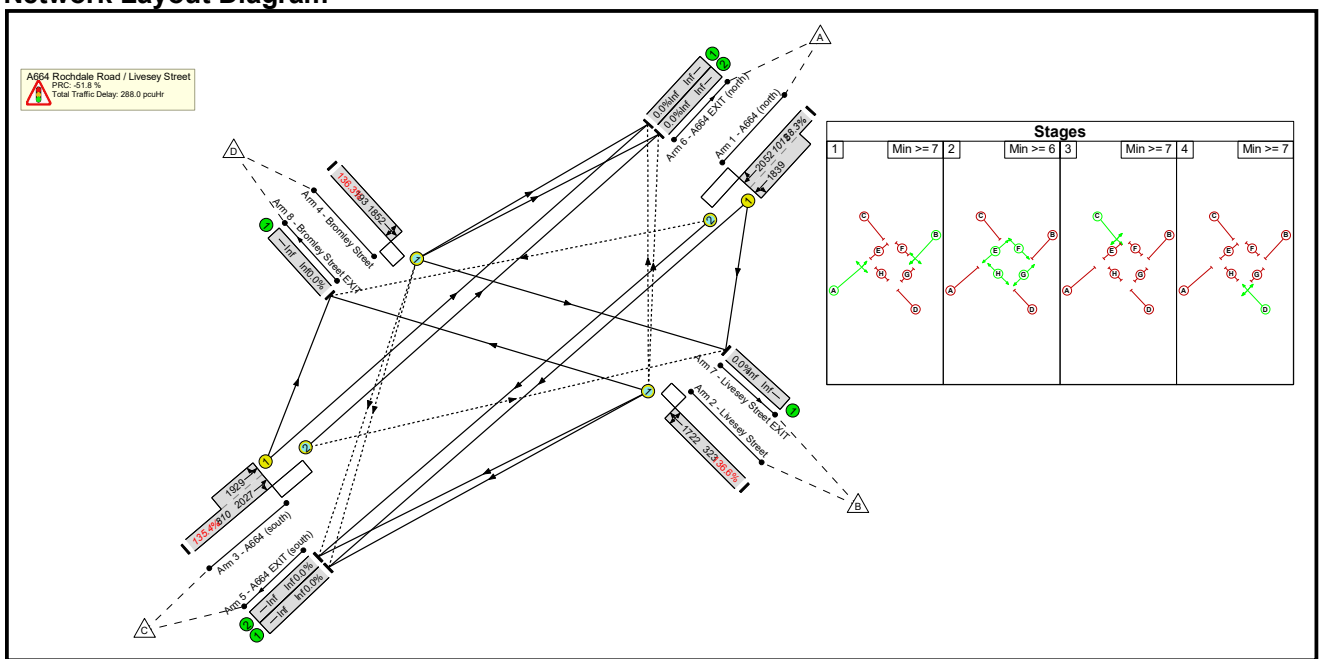
Total Delay for Signalled Lanes (pcuHr): 117.42
Total Delay Over All Lanes(pcuHr): 117.42

Cycle Time (s): 96

Basic Results Summary

Scenario 4: '2021 Base PM' (FG4: '2021 Base PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**136.6%**	**134**	**167**	**28**	**288.0**	-	-
A664 Rochdale Road / Livesey Street	-	-	-		-	-	-	-	-	-	**136.6%**	**134**	**167**	**28**	**288.0**	-	-
1/2+1/1	A664 (north) Ahead Left Right	O+U	B		1	31	-	590	2052:1839	1012	58.3%	8	0	0	4.8	29.5	7.2
2/1	Livesey Street Left Right Ahead	O	D		1	17	-	441	1722	323	136.6%	0	167	21	72.2	589.1	78.6
3/2+3/1	A664 (south) Ahead Right Left	O+U	A		1	29	-	1097	2027:1929	810	135.4%	126	0	7	168.4	552.6	178.7
4/1	Bromley Street Right Left Ahead	O	C		1	9	-	263	1852	193	136.3%	0	1	0	42.6	582.9	45.9

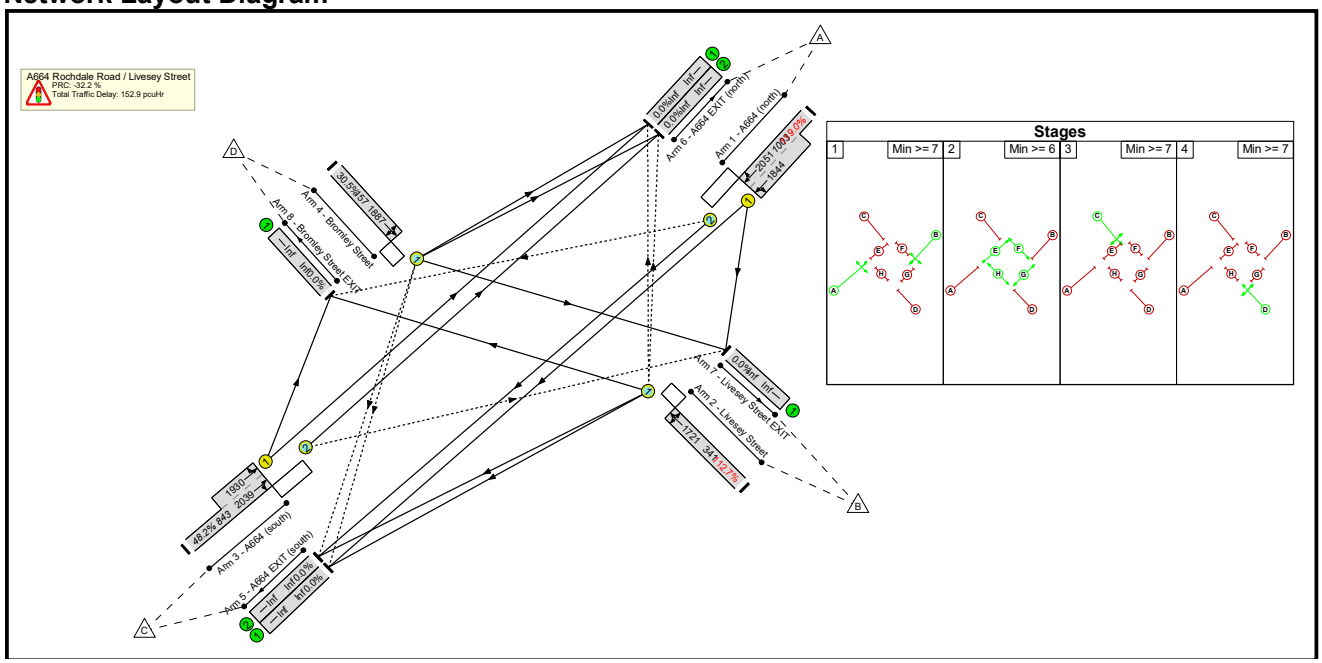
C1 PRC for Signalled Lanes (%): -51.8 Total Delay for Signalled Lanes (pcuHr): 287.95 Cycle Time (s): 96

PRC Over All Lanes (%): -51.8 Total Delay Over All Lanes(pcuHr): 287.95

Basic Results Summary

Scenario 5: '2026 Base+COMM AM' (FG5: '2026 Base+COMM AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**119.0%**	**61**	**82**	**11**	**152.9**	-	-
A664 Rochdale Road / Livesey Street	-	-	-		-	-	-	-	-	-	**119.0%**	**61**	**82**	**11**	**152.9**	-	-
1/2+1/1	A664 (north) Ahead Left Right	O+U	B		1	32	-	1194	2051:1844	1003	119.0%	16	0	1	116.8	352.2	129.0
2/1	Livesey Street Left Right Ahead	O	D		1	18	-	384	1721	341	112.7%	0	81	10	32.0	299.7	37.7
3/2+3/1	A664 (south) Ahead Right Left	O+U	A		1	30	-	406	2039:1930	843	48.2%	45	0	1	3.3	29.5	4.6
4/1	Bromley Street Right Left Ahead	O	C		1	7	-	48	1887	157	30.5%	0	1	0	0.8	57.8	1.4

C1

PRC for Signalled Lanes (%): -32.2
PRC Over All Lanes (%): -32.2

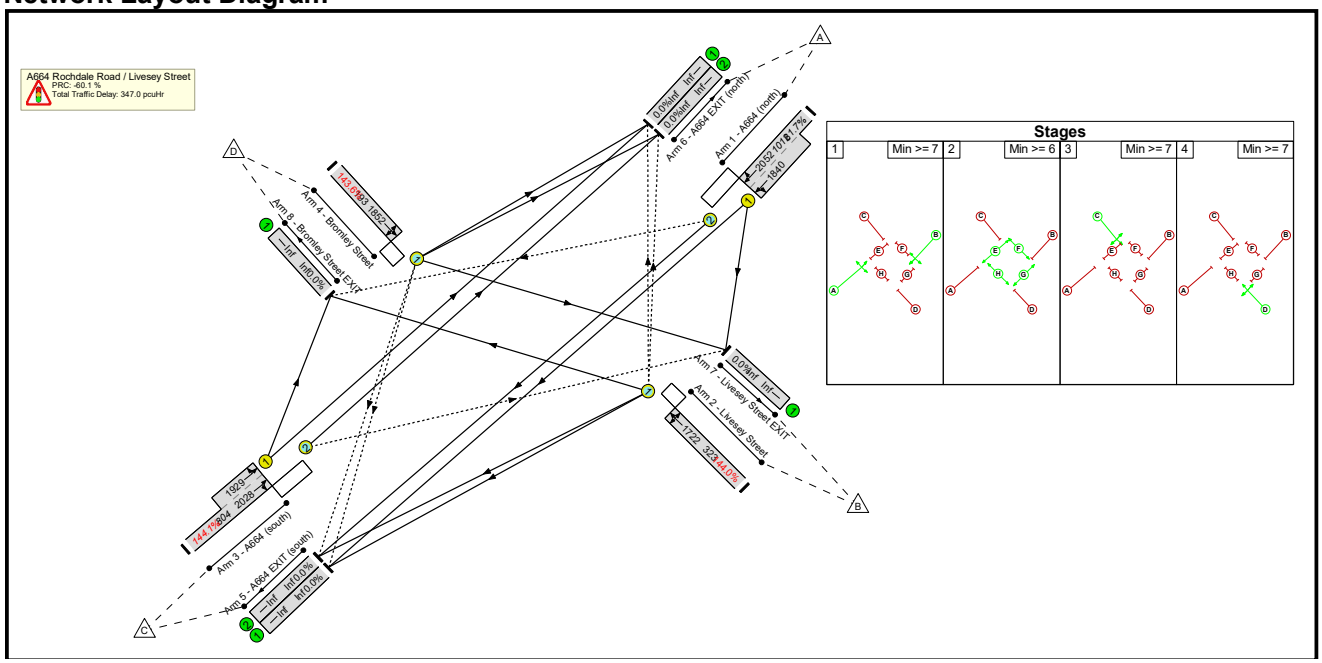
Total Delay for Signalled Lanes (pcuHr): 152.87
Total Delay Over All Lanes(pcuHr): 152.87

Cycle Time (s): 96

Basic Results Summary

Scenario 6: '2026 Base+COMM PM' (FG6: '2026 Base+COMM PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**144.1%**	**134**	**167**	**28**	**347.0**	-	-
A664 Rochdale Road / Livesey Street	-	-	-		-	-	-	-	-	-	**144.1%**	**134**	**167**	**28**	**347.0**	-	-
1/2+1/1	A664 (north) Ahead Left Right	O+U	B		1	31	-	624	2052:1840	1012	61.7%	9	0	0	5.2	30.1	7.7
2/1	Livesey Street Left Right Ahead	O	D		1	17	-	465	1722	323	144.0%	0	167	21	85.5	662.2	92.3
3/2+3/1	A664 (south) Ahead Right Left	O+U	A		1	29	-	1159	2028:1929	804	144.1%	125	0	7	205.9	639.5	216.1
4/1	Bromley Street Right Left Ahead	O	C		1	9	-	277	1852	193	143.6%	0	1	0	50.3	654.0	53.7

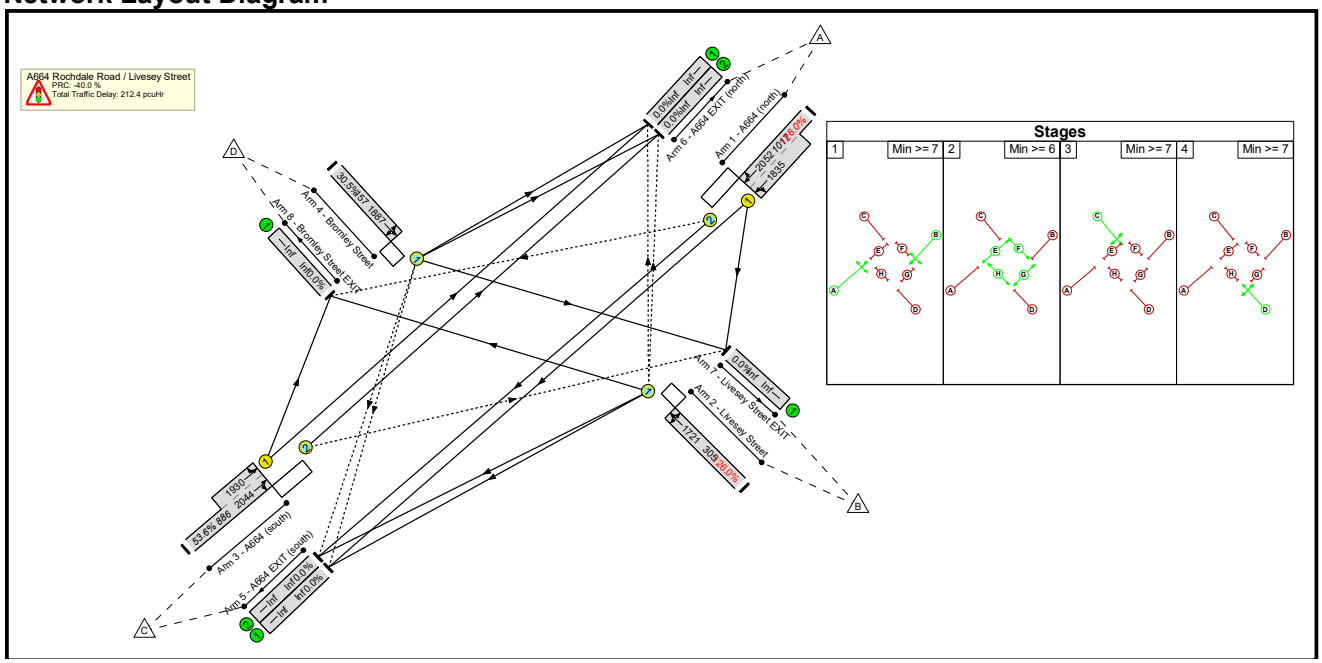
C1 PRC for Signalled Lanes (%): -60.1 Total Delay for Signalled Lanes (pcuHr): 346.96 Cycle Time (s): 96

PRC Over All Lanes (%): -60.1 Total Delay Over All Lanes(pcuHr): 346.96

Basic Results Summary

Scenario 7: '2026 Base+COMM+DEV AM' (FG7: '2026 Base+COMM+DEV AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**126.0%**	**53**	**72**	**19**	**212.4**	-	-
A664 Rochdale Road / Livesey Street	-	-	-		-	-	-	-	-	-	**126.0%**	**53**	**72**	**19**	**212.4**	-	-
1/2+1/1	A664 (north) Ahead Left Right	O+U	B		1	34	-	1282	2052:1835	1017	126.0%	15	0	1	157.3	441.7	171.1
2/1	Livesey Street Left Right Ahead	O	D		1	16	-	384	1721	305	126.0%	0	71	10	50.5	473.3	56.1
3/2+3/1	A664 (south) Ahead Right Left	O+U	A		1	32	-	475	2044:1930	886	53.6%	37	0	9	3.9	29.4	5.4
4/1	Bromley Street Right Left Ahead	O	C		1	7	-	48	1887	157	30.5%	0	1	0	0.8	57.8	1.4

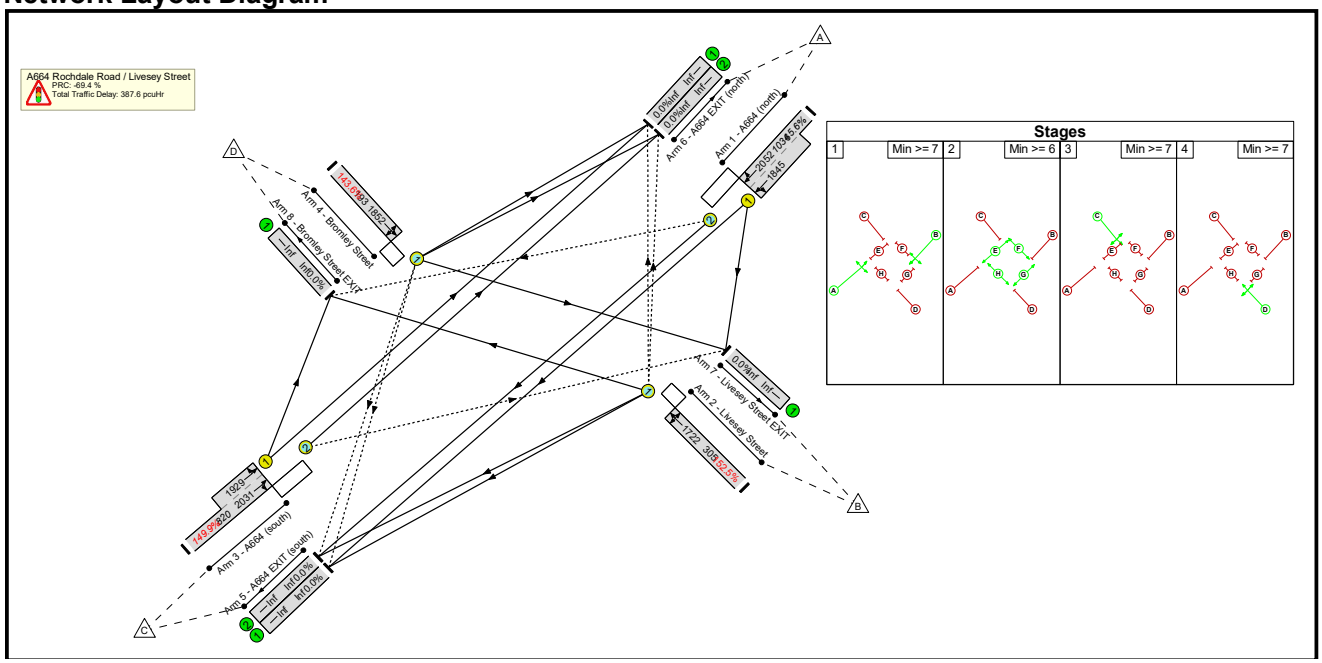
C1 PRC for Signalled Lanes (%): -40.0 Total Delay for Signalled Lanes (pcuHr): 212.42 Cycle Time (s): 96

PRC Over All Lanes (%): -40.0 Total Delay Over All Lanes(pcuHr): 212.42

Basic Results Summary

Scenario 8: '2026 Base+COMM+DEV PM' (FG8: '2026 Base+COMM+DEV PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network: Ancoats Mobility Hub	-	-	-		-	-	-	-	-	-	**152.5%**	**129**	**157**	**28**	**387.6**	-	-
A664 Rochdale Road / Livesey Street	-	-	-		-	-	-	-	-	-	**152.5%**	**129**	**157**	**28**	**387.6**	-	-
1/2+1/1	A664 (north) Ahead Left Right	O+U	B		1	32	-	678	2052:1845	1034	65.6%	9	0	0	5.7	30.1	8.5
2/1	Livesey Street Left Right Ahead	O	D		1	16	-	465	1722	305	152.5%	0	156	21	95.4	738.3	102.0
3/2+3/1	A664 (south) Ahead Right Left	O+U	A		1	30	-	1230	2031:1929	820	149.9%	120	0	6	236.2	691.2	246.9
4/1	Bromley Street Right Left Ahead	O	C		1	9	-	277	1852	193	143.6%	0	1	0	50.4	654.6	53.8

C1

PRC for Signalled Lanes (%): -69.4
PRC Over All Lanes (%): -69.4

Total Delay for Signalled Lanes (pcuHr): 387.56
Total Delay Over All Lanes(pcuHr): 387.56

Cycle Time (s): 96

Appendix R Percentage Impact Junction Assessments

Additional Signalised Junctions

Junction No.	Junction Name	AM Peak			PM Peak		
		Base Flows (2-way)	Dev Flows (2-way)	%impact	Base Flows (2-way)	Dev Flows (2-way)	%impact
1	A56 Bury New Road / A6042 Trinity Way	3639	94	3%	3752	74	2%
2	A665 Cheetham Hil Road / A6042 Trinity Way	2447	94	4%	2829	74	3%
3	A665 Miller Street / A664 Angel Street	2447	94	4%	2829	74	3%
4	A664 Angel Street / Dantzic Street	1071	52	5%	1085	32	3%
5	A664 Angel Street / A664 Rochdale Road	1071	52	5%	1085	32	3%
6	A665 Miller Street / A664 Rochdale Road	2274	41	2%	2422	42	2%
7	A665 Addington Street / A62 Oldham Road	2367	100	4%	2903	80	3%
8	A664 Rochdale Road / Livesey Street	2274	158	7%	2422	125	5%
9	A62 Oldham Road / Livesey Street	1550	158	10%	1823	125	7%
10	A62 Oldham Road / Collyhurst Street	1693	158	9%	1833	125	7%
11	A665 Great Ancoats Street / Old Mill Street	3205	63	2%	3801	62	2%
12	A665 Great Ancoats Street / A662 Pollard Street	3089	63	2%	3250	62	2%
13	A665 Great Ancoats Street / Every Street	2720	63	2%	3456	62	2%
14	A665 Great Ancoats Street / A635 Pin Mill Brow	1594	63	4%	1436	62	4%
15	A665 Great Ancoats Street / Fairfield Street	1594	52	3%	1436	52	4%
16	A665 Great Ancoats Street / A635 Ashton Old Road	1594	10	1%	1436	10	1%
17	A665 Great Ancoats Street / Redhill Street	2702	63	2%	3083	62	2%
18	A665 Great Ancoats Street / Newton Street	2313	6	0%	2828	6	0%
19	A665 Great Ancoats Street / George Leigh Street	2805	6	0%	3549	6	0%

Included Within Proposed Junction Assessments

20	A665 Great Ancoats Street / Jersery Street	1216	63	5%	1184	62	5%
21	A62 Oldham Road / A665 Swan Street	3204	48	1%	3709	49	1%
22	A62 Oldham Road / Bengal Street	1687	100	6%	1786	80	5%
23	A62 Oldham Road / Poland Street	1525	258	17%	1905	206	11%
24	Poland Street / Jersey Street	183	58	32%	177	57	32%

Proposed Development Trips

	Car Park		Parcel Hub		TOTAL		2-way
AM	IN	OUT	IN	OUT	IN	OUT	
	93	28	98	98	191	126	316
	Car Park		Parcel Hub		TOTAL		2-way
PM	IN	OUT	IN	OUT	IN	OUT	
	29	90	72	72	101	162	263

Key

Junctions with a %impact greater than 5%

Hydrock	**Proposed Development Trips - Junction Impact Tabular Data**	**16 April 2021**
		Job Number - C16857
	Proposed Mobility Hub Development, Poland Street, Ancoats	**Appendix P**