

J000262-TA01a
July 2022

Proposed Residential Development (62
Dwellings) on Land South of New Road,
Littleborough

Transport Assessment

Prepared on behalf of:



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1.0 INTRODUCTION

1.1 Overview

1.1.1 This Transport Assessment (TA) has been prepared by Focus Transport Planning (Focus TP) on behalf of Russell Homes (UK) Ltd. (hereafter referred to as the Applicant) to consider the highways and transport matters related to proposals for a residential development on land south of New Road, Littleborough, Rochdale.

1.1.2 This TA forms part of the planning application submission documentation for the development of the land (the application site) to the western outskirts of Littleborough. The application seeks full planning permission for the delivery of 62 residential dwellings on the site, which lies to the immediate west of New Street, along with vehicular access to be taken directly via the new residential development to the immediate east of New Street.

1.1.3 This report includes an assessment of the proposed site access strategy and an analysis of the impact of development related traffic over the immediate local highway network. In addition, the report considers the sustainability of the site, its accessibility to existing local services and the opportunity to encourage trips from the site to be undertaken by alternative travel modes to the private car. The purpose of this report is to appraise the Local Planning and Highway Authority (LPA/LHA) Rochdale Borough Council (RBC) of the anticipated highway and transport related effects associated with the proposed residential development scheme.

1.2 Transport Assessment Scope

1.2.1 This TA includes an assessment of the proposed residential development and an overview of the likely traffic related operational effects that could arise. This assessment has been undertaken in line with current best practice guidance on Transport Assessments, as outlined in National Planning Policy Guidance (NPPG).

1.2.2 The scope and nature of the assessment matters considered in this TA reflects the extent of highways and traffic issues considered to be of material interest to the LHA and are informed by the scope of the original transport planning submissions

associated with the adjacent residential development site to the east of New Street.

1.3 Transport Assessment Structure

1.3.1 This TA consists of eight sections including this introduction. The remainder of the document is summarised as follows:

- Section 2 provides an overview of the application site's location and existing local conditions, including surveyed traffic flows on the study area highway network, site planning history and details of local accident history;
- Section 3 considers the application site's accessibility and includes a review of local sustainable transport connections, and accessibility from surrounding residential areas;
- Section 4 provides a detailed description of the development proposals, including an overview of the proposed land use, vehicular access proposals, and sustainable transport infrastructure provision;
- Section 5 identifies the key assessment parameters used to inform this TA, including appropriate time periods, and future assessment years;
- Section 6 provides a review of the traffic levels anticipated to be generated by the development, and the distribution and assignment of this traffic over the local highway network;
- Section 7 provides an appraisal of the anticipated development traffic impact upon local highway network links and junctions; and,
- Section 8 outlines a summary of the TA findings and provides Focus TP's conclusions.

2.0 SITE LOCATION AND EXISTING SITE CONDITIONS

2.1 Site Location

2.1.1 The strategic location of the application site is illustrated in **Figure TA1** to this report. This plan identifies the strategic location of the site in relation to the main town centres of Rochdale and Littleborough, as well as the key strategic route corridor of the M62.

2.1.2 **Figure TA2** illustrates the site location in terms of its immediate context and identifies the key areas of the local highway network including the A58 New Road/Featherstall Road and Smithy Bridge Road. **Figure TA2** also illustrates the context of the site relative to the centre of Littleborough to the east.

2.2 Description of Site & Local Network

Existing Site Conditions

2.2.1 The Littleborough proposal site currently forms a 3.5Ha greenfield parcel of land. To the north, the site is bounded by open land, beyond which lies the route of the A58 New Road, whilst to the south the site is bounded by the route of Stubley Mill Road, which serves as a Public Footpath. To the east the site is bounded by the unadopted highway of New Street, whilst to the west the site is bounded by existing residential development located on Lightburn Avenue and Whitegate. Beyond New Street, to the east of the site, lies a new residential development (referred to as Stubley Meadows) which is being constructed by the Applicant, along with its internal access road layout and onward public rights of way infrastructure.

2.2.2 Access to the application site is proposed to be provided via the neighbouring Stubley Meadows residential development - currently under construction - via the spine road route of Dearnley Avenue. Dearnley Avenue is, in turn, accessed via a recently constructed ghost island right turn lane junction with the A58 New Road to the north.

2.2.3 The A58 New Road serves as a key primary distributor route to the east of Rochdale towards Ripponden. Approximately 500m to the west, the A58 New Road forms

the mainline carriageway at a three-arm signalised junction with Smithy Bridge Road. A number of side road routes lie along New Road between the site and Smithy Bridge Road, all serving residential development, and virtually all lying to the northern side of the A58 carriageway. A continuous hatched central reserve runs for much of this length of the A58, providing right-turning pockets for all side roads to the north.

2.2.4 To the east the A58 continues to serve frontage development, along with numerous residential side roads. As the route nears the centre of Littleborough it becomes the A58 Featherstall Road and begins to serve a wider mix of development uses, including commercial development land.

2.2.5 Onward access to the strategic route corridor of the M62 is achieved, most directly, via the settlement of Milnrow which lies adjacent to J21 of the M62. Both Smithy Bridge Road to the west of the site, and the B6225 Hollingworth Road to the east, serve to provide onward connections to Milnrow and the M62.

2.3 Existing Observed Traffic Demand

Network Demand

2.3.1 Base traffic flow patterns for the local highway network have been established through the review of traffic survey data recorded along the A58 New Road at the junction with James William Street, to the east of the site. Classified surveys were carried out on Thursday 8 July 2021. **Figure TA3** to this report summarises the recorded traffic flows along the A58 New Road for the observed AM and PM network peak rush hour periods of 08:15-09:15 and 16:15-17:15 respectively.

2.3.2 Reference to the recorded peak hour traffic flows demonstrates that prevailing traffic levels are of a similar order in each direction. The westbound movement along the A58 New Road (towards Rochdale) being marginally higher during the AM period (716 vs 684), and eastbound trips along this route being the peak demand during the PM peak (825 vs 766). This observed tidal pattern is likely to reflect journey to work movements to and from the main centre of Rochdale.

- 2.3.3 Maximum two-way traffic flow is noted as occurring during the PM peak hour, with up to 1,596 vehicles recorded on the route. This figure falls to 1,411 vehicles during the AM peak hour.

2.4 Review of Road Safety History

- 2.4.1 An appraisal of the operational safety of the immediate local highway network to the application site has been carried out through a review of historical Personal Injury Accident (PIA) data obtained from Crashmap.co.uk for the five-year period between Q1 2017 to Q3 2021 inclusive. Crashmap provides PIA data collected by the police. This data is approved by the National Statistics Authority and reported on by the Department for Transport each year. This five-year search methodology accords with the search period criteria recommended in NPPG good practice guidance. Details of the search area are illustrated at **Figure TA4** to this report. Further, more detailed information regarding each recorded accident event is attached in **Appendix TA1** to this report.
- 2.4.2 Review of the recorded PIA data demonstrates that a total of just 2 injury accident events occurred within the search area over the most recent five-year period, both of which were slight in nature. One incident is recorded close to the junction of the A58 Featherstall Road with Clay Street, whilst the other is located close to the junction of Dearnley Avenue with the A58 New Road. Review of the limited details available for each accident would suggest that both may have been shunt-type incidents involving slow-moving or stopped vehicles.
- 2.4.3 Given the limited frequency of recorded accident incidents in the immediate vicinity of the application site and the relatively limited additional development traffic levels predicted to be generated by the scheme (see section 6 below), it is not considered that there are any substantive prevailing local road safety issues that would call the proposed residential development of the application site into question, or require the implementation of specific highway safety related improvement measures.

3.0 SITE ACCESSIBILITY AUDIT

3.1 Introduction

3.1.1 Both local and national planning policy and guidance identify a number of key transport related sustainability objectives, including:

- Reducing the need to travel, especially by private car;
- Ensuring accessibility to a range of sustainable travel options.

3.1.2 This chapter considers the potential of the application site to deliver appropriate opportunities for sustainable travel. The nature of local sustainable transport connections available within the immediate catchment of the application site is therefore summarised in the paragraphs below.

3.2 Accessibility via Walking & Cycling Travel Modes

3.2.1 The location of the proposal site is anticipated to allow for a range of everyday journeys to be undertaken on foot or by cycle. National planning guidance notes that walking is the most important mode of travel at the local scale, offering the greatest potential to replace short distance car trips of under 2km. The Chartered Institute of Highways & Transportation (CIHT) guidance 'Providing for Journeys on Foot' suggests that a 1.2km walk catchment represents a preferred maximum walking distance to common local services and facilities, whilst a maximum distance of 2.0km is preferred for commuting purposes or journeys to school.

3.2.2 **Figure TA5a** to this report illustrates such local walking catchments, as measured from the centre of the application site, whilst **Figure TA5b** provides an indication of the nature of local services available within these walking catchments. A review of these catchments identifies that the site lies within an acceptable walking distance of not just Littleborough town centre but also the eastern outskirts of Rochdale. Accordingly, the site lies within walking distance of a wide range of key local shops and services, as summarised below:

Education

- St. Mary's RC Primary School;
- Smithy Bridge Primary School;
- St. Andrew's C of E Primary School;
- Wardle Academy;
- Tinkerbell Nursery.

Selected Local Facilities

- Littleborough Group Practice;
- Lidl, Sainsburys Local & Coop Foodstores;
- Littleborough & Smithy Bridge Train Stations;
- Littleborough Library;
- Local Post Office, Shops and facilities;
- Wide range of amenities and local businesses in Littleborough town centre.

3.2.3 Signposted walking routes are available to the west, south and east of the proposed development parcel, on the routes of New Street, Stubley Mill Road and Stubley Mill Lane respectively. As noted further below, Stubley Mill Road also serves as part of the registered National Cycle Network. All three of these routes, in particular, provide traffic-free onward access to Littleborough village centre, and both Littleborough and Smithy Bridge rail stations.

3.2.4 National planning guidance also notes that cycling has the potential to substitute for short car trips, particularly those of less than 5km or which could form part of a longer journey by public transport. **Figure TA6** to this report illustrates a 5km cycle iso-distance catchment from the application site and demonstrates that such a cycle catchment extends as far as Rochdale town centre, to the west, along with the outlying village centre of Milnrow and the Kingsway Business Park to the south.

3.2.5 Details of available local cycling routes and connections are illustrated in **Figure TA7** to this report and, as noted above, demonstrate that a number of traffic-free cycle routes are immediately adjacent to the site, including the National Cycle Network Route 66 which locally runs along the Rochdale Canal, as well as the more immediate registered NCN Route 80 which runs between Littleborough and the A58 to the west. This route runs predominantly along the route of Stubley Mill Road to

the south of the site. Much further to the west the route recommences and runs into the centre of Rochdale.

3.3 Access to Public Transport

Access to Buses

- 3.3.1 The application site is well located for access to local bus services. Enhanced bus stop facilities, including a lay-by for westbound services are located on the A58 New Road, within a 400m walk of the application site. A summary of those bus routes served by these bus stops is provided in **Table TA3.1** below (see also **Figure TA8** and **Appendix TA2**) and demonstrates that regular direct connections are available to important local destinations such as Rochdale, Littleborough, Todmorden, Hebden Bridge, Ripponden and Halifax. Indeed, 5 buses per hour are available to Rochdale Interchange (onward links to Metrolink trams).

Table TA3.1 - Available Bus Connections from Bus Stops on A58 New Road

	Route	One-Way Frequency				
		Mon-Fri		Sat		Sun
		Day	Eve	Day	Eve	All Day
R5	Littleborough - Smithy Bridge - Milnrow - Rochdale	1/Hr	-	1/Hr	-	-
457	Littleborough - Stansfield - Smallbridge - Rochdale	1/Hr	1/Hr	1/Hr	1/Hr	1/Hr
587	Halifax - Sowerby Bridge - Ripponden- Littleborough - Rochdale	1/Hr	-	1/Hr	-	Every 2 Hrs
590	Halifax - Hebden Bridge - Todmorden - Littleborough - Rochdale	2/Hr	1/Hr	2/Hr	1/Hr	1/Hr

- 3.3.2 In addition to the above services, route number 458 also passes close to the site along Smithy Bridge Road to the west. The 458 service provides twice-hourly connections (Mon-Sat, hourly on Sundays & evenings) to Littleborough & Rochdale via Smithy Bridge and Hollingworth Lake.
- 3.3.3 In light of the local bus service frequency (potentially up to 5 per hour) it is considered that the site is well located for bus journeys to significantly reduce the need to travel by car, particularly to the local employment centres in the area around Littleborough.

Access to Rail

- 3.3.4 As illustrated in **Figure TA5**, both Littleborough and Smithy Bridge Rail Stations lie within a 1.2km walk of the site thereby providing opportunities for convenient access to local rail services. Review of the available information on the National Rail website identifies that both stations lie on the Calder Valley Line (see **Figure TA9**) and are served by services between Leeds and Manchester as well as additional routes to Blackburn. Further, less regular, services also operate to a number of other destinations throughout the northwest. The regular routes operate with the following frequencies (Littleborough all identified services, Smithy Bridge the Manchester - Leeds service only):

Table TA3.2 - Available Rail Connections from Local Rail Stations

Route	Mon-Sat / Sun Daytime Frequency
Blackburn - Burnley - Littleborough - Rochdale - Manchester Victoria - Wigan - Kirkby	Hrly / Hrly
Leeds - Dewsbury - Hebden Bridge - Todmorden - Littleborough - Smithy Bridge - Rochdale - Manchester Victoria - Wigan	2/Hr / Hrly

- 3.3.5 Review of the frequency of services in **Table TA3.2** outlines that for much of the day there are up to 3 trains per hour in each direction, towards either Manchester, Leeds or Blackburn. With a considerable range of onward services available from both terminal stations it is considered that the site is well located for rail journeys to significantly reduce the need to travel by car, particularly to the major local employment centres.

3.4 Stubley Meadows Travel Plan

- 3.4.1 One of the planning conditions associated with the adjacent residential development of Stubley Meadows, via which this application site is proposed to be accessed, related to the requirement to implement a Travel Plan for that development. Given that Travel Planning measures are also anticipated to be required to be delivered with this proposed residential development, it is proposed that the site be incorporated into the wider site Travel Plan that was produced for the Stubley Meadows site. The text of the Stubley Meadows TP is attached to this report at **Appendix TA3** and outlines a series of proposed measures which are

designed to further encourage/enhance the uptake of sustainable travel from the site. Given the site's prevailing high standard of accessible transport infrastructure, adoption of the Stubley Meadows Travel Plan would only serve to further enhance what is already considered to be a highly sustainable and therefore appropriate location for residential development.

3.5 Accessibility Summary

- 3.5.1 Overall, it is concluded that the proposal site represents a very sustainable location for a residential development in this area, being located within an acceptable walk/cycle catchment of key everyday destinations such as local shopping facilities and schools, and accessible by both bus and rail services to/from key local major employment centres. These services are anticipated to reduce the need for residents at the site to utilise the car for everyday journeys, particularly commuting journeys. Such locational characteristics should assist in meeting the key sustainable planning objectives of promoting opportunities for the use of alternative travel modes to the private car and managing the overall traffic impact associated with new development.
- 3.5.2 In addition, Travel Plan measures are proposed to be implemented which would only serve to further enhance the application site's sustainable and accessible location.

4.0 DESCRIPTION OF THE DEVELOPMENT PROPOSALS

4.1 Overview

4.1.1 The application scheme represents the development of land to the south of the A58 New Road, and to the west of New Street, to deliver up to 62 residential dwellings comprising a mix of 2, 3 and 4-bedroom properties, along with associated site access (both vehicular and pedestrian).

4.1.2 A masterplan of the development scheme is provided at **Drawing 19060-01-P1** to this report.

4.2 Highway Access Arrangements

4.2.1 As already noted, access to the development site is proposed to be taken via the adjacent new residential development of Stubley Meadows, to the east of New Street. Stubley Meadows itself is accessed via a recently constructed new access directly on to the route of the A58 New Road to the north. Access via the Stubley Meadows site, along Dearnley Avenue, is proposed to be delivered by the implementation of a restricted crossing of New Street which, as outlined in Section 2 of this TA, is a PROW. **Drawing J000262-GA001a** to this Note illustrates the wider proposed access strategy via the Stubley Meadows site, whilst **Drawing J000262-GA002a** illustrates the proposed restricted crossing of New Street.

4.2.2 The design of the proposed restricted crossing of New Street is such that residential traffic would not be able to turn from either Stubley Meadows or the application site into New Street, and vice versa. The arrangement would, however, enable access between the residential development sites, and would also preserve any prevailing vehicular access rights along New Street for existing occupiers. The arrangements would ensure that all vehicular traffic arising from the proposed residential development is required to gain access to/from the local highway network via the recently constructed Dearnley Avenue ghost island right turn lane junction with the A58 New Road. Accordingly, there would also be no intensification of use of the PROW of New Street arising from the proposed development.

- 4.2.3 Emergency access to the neighbouring Stubley Meadows site is to be delivered via the PROW of New Street, to that site's southwestern extents. In order to ensure that appropriate emergency access provision is not only maintained to the Stubley Meadows site but that emergency access is also provided to the application site, the restricted crossing arrangement between the development sites is proposed to accommodate a section to each side to enable access for a large fire tender. Demountable bollards are proposed to be incorporated in order to prevent access for other vehicles at all other times.

4.3 Vehicle Servicing

- 4.3.1 **Drawing J000262-ATR001a** to this report illustrates the swept path assessment of the proposed site layout, based on a large Refuse Collection Vehicle (RCV). This assessment demonstrates that the proposed site layout is fully accessible to larger service vehicles and, therefore, would also be appropriate for access by emergency vehicles.

4.4 Car Parking

- 4.4.1 Parking provision at the site is proposed be in accordance with the requirements of RBC's parking requirements.

5.0 KEY ASSESSMENT PARAMETERS

5.1 Assessment Time Periods

5.1.1 As identified in Section 2 of this report, review of background daily traffic patterns derived from the July 2021 traffic surveys suggests that maximum background traffic levels over the local highway network are experienced during the following time periods:

- Network AM peak hour: **08:15-09:15**
- Network PM peak hour: **16:15-17:15**

5.1.2 In practice these AM & PM peak periods are also likely to represent the maximum traffic demand periods associated with traffic to and from the proposed New Road residential development and therefore these time periods have been utilised for the network capacity appraisals included in this TA report.

5.2 Future Year Traffic Growth Assumptions

5.2.1 It is anticipated that, based upon current market conditions, the development of the residential site could be completed, and fully occupied, by 2025. For the purposes of this assessment a 2025 opening year date has therefore been utilised for core traffic demand assessments. In order to account for future network traffic conditions, an additional future design year of 2030 has been considered for all capacity related assessments. This represents 5 years beyond the projected full opening of the development.

5.2.2 Guidance published by the DfT identifies that future estimates of traffic should be made through the application of regional growth factors derived from the National Transport Model (NTM). NTM forecasts give traffic growth by region, road type and whether the area is built up or not. These forecasts are then adjusted by local TEMPro factors to reflect local traffic trends. **Appendix TA4** provides the TEMPro growth factor outputs for the Rochdale 001 Mid-Layer Super Output Area (MSOA) for the above future year periods, whilst **Table TA5.1** summarises the results.

Table TA5.1: TEMPro Adjusted NTM Growth Factors

	2021-2025	2021-2030
Weekday AM Peak	1.0355	1.0726
Weekday PM Peak	1.0347	1.0712

- 5.2.3 The TEMPRO adjusted NTM growth factors have been applied to the 2021 background traffic flows presented in **Figure TA3** to produce the 2025 Opening Year & 2030 Future Year background traffic flows illustrated at **Figures TA10** and **TA11**.

5.3 Committed Development Traffic

- 5.3.1 As already outlined in this TA, the proposed residential development is located to the west of the Stubley Meadows residential development, which is currently under construction. The Stubley Meadows development, via which access to the highway network will be secured, has planning permission for the development of up to 100 dwellings, with access taken via a newly constructed T-junction with the A58 New Road to the north. A number of units at the development have been completed and are occupied.
- 5.3.2 In order to account fully for the Stubley Meadows development within the assessment so future traffic conditions, this TA includes for the anticipated traffic levels associated with the fully completed development - it is anticipated that the scheme will be fully completed and occupied by late 2022.
- 5.3.3 A TA was produced by Axis in 2015 for the original outline planning application associated with the Stubley Meadows development site, which at the time sought and achieved planning permission for the development of up to 110 dwellings. Subsequent reserved matters applications, however, secured a revised level of development of 100 dwellings. In order to account for this reduced level of development, the trip rates outlined in Section 6 of this report have been utilised to derive an up to date forecast of the likely level of committed traffic associated with the adjacent Stubley Meadows development. **Table TA5.2** therefore illustrates the anticipated level of traffic associated with the committed Stubley Meadows residential development:

Table TA5.2: Committed Stubley Meadows Residential Development Trips

	Private Housing - Trips		
	Arr	Dep	Total
AM Peak (08:00-09:00)	13	35	48
PM Peak (16:00-17:00)	34	17	51

- 5.3.4 The above traffic has been assigned to the local highway network on the basis of the observed existing tidal flows, as outlined in Section 6.3 of this report - **Figure TA12** illustrates the assignment of this committed development traffic to the local highway network of the A58 New Road.

5.4 Predicted Future Year Traffic Flows

- 5.4.1 The committed development trips presented in **Figure TA12** have been added to the projected opening year and future year background network traffic movements identified at **Figures TA10 & 11**. The resulting network traffic movements used for the assessment of development impact are illustrated in **Figures TA13 and TA14**.

6.0 DEVELOPMENT TRIP GENERATION AND NETWORK TRIP ASSIGNMENT

6.1 Introduction

6.1.1 This section of the Transport Assessment seeks to identify the levels of traffic anticipated to be generated by the proposed residential development scheme and the routing that such traffic is likely to take on the local highway network.

6.2 Anticipated Trip Generation

6.2.1 As noted in section 4, the proposed scheme would deliver a residential development of up to 62 dwellings.

6.2.2 The potential trip generation associated with the proposed residential development has been determined via reference to the TRICS database of development trip rates for “Residential - Houses Privately Owned”. TRICS is a nationally regarded source of historical trip demand data and contains observed traffic data for a large number of development-type sites. As such, it is considered a largely reliable source of base trip rate data.

6.2.3 It should be noted that TRICS provides outputs in hourly intervals (e.g. 08:00-09:00) and not for intervening hourly periods such as those being considered in this assessment (08:15-09:15 & 16:15-17:15 - see section 5 to this TA). For the purposes of this assessment the “whole hour” TRICS information has been applied to the assessed peak hours regardless, in order to ensure the most robust assessment i.e. the TRICS forecasts of trip generation for 08:00-09:00 and 17:00-18:00 have been applied to the assessed periods of 08:15-09:15 & 16:15-17:15 respectively.

6.2.4 Review of the TRICS data attached at **Appendix TA5** suggests the following trip rates, for both the peak hour periods, as outlined in **Table TA6.1** below:

Table TA6.1: TRICS Derived Trip Rates - Private Housing

	Private Housing - Trip Rate (<i>per dwelling</i>)		
	Arr	Dep	Total
AM Peak (08:00-09:00)	0.132	0.351	0.483
PM Peak (17:00-18:00)	0.342	0.165	0.507

- 6.2.5 Application of these trip rates to the proposed development size of 62 dwellings at the New Road site would suggest the following estimates of trip demand.

Table TA6.2: Predicted Residential Development Trips

	Private Housing - Trips		
	Arr	Dep	Total
AM Peak (08:15-09:15)	8	22	30
PM Peak (16:15-17:15)	21	10	31

- 6.2.6 The above analysis demonstrates that the proposal scheme is not anticipated to generate a substantial level of peak hour traffic, with maximum two-way vehicle movements being 31 vehicles per hour. Such levels of traffic are the equivalent of just 1 additional vehicle movement every two minutes and are unlikely to result in any noticeable impact upon local network operating conditions.

6.3 Development Trip Distribution and Assignment

- 6.3.1 The predicted development trips related to the proposal site have been distributed over the local network on the basis of existing peak hour traffic flows recorded along the A58 New Road. The development turning proportions used in this assessment are illustrated in **Figure TA15** to this report. As described in Section 2, the prevailing traffic flows illustrate a tidal traffic flow with the westbound movement (towards Rochdale) predominating during the AM peak hour and the eastbound movement (away from Rochdale) predominating during the PM peak hour.

- 6.3.2 Assignment of the anticipated peak hour development trip totals to these distribution proportions is illustrated in **Figure TA16** to this report.

6.4 Predicted Future Year Traffic Flows

The anticipated assignment of development trips has been added to the projected opening year and future year baseline network traffic movements identified at **Figures TA13** and **TA14** in Section 5 of this TA. The resulting 2025 opening year and 2030 future year network traffic flows are illustrated in **Figures TA17 - TA18**.

7.0 ASSESSMENT OF ANTICIPATED DEVELOPMENT TRAFFIC IMPACT

7.1 Introduction

7.1.1 This section of the report considers the operation of the immediate highway network to the development site and the ability of this network to accommodate the predicted future development traffic flow conditions identified in Section 6 of this report. Assessment of the impact of the development proposals has been carried out through the consideration of both link flow impact as well as a junction operational assessment of the staggered crossroads junction of Dearnley Avenue and Harwood Street with the A58 New Road.

7.1.2 This assessment of link impact has been undertaken for the anticipated opening year of 2025, which should provide the maximum proportional impact of the development proposals. The assessment of junction capacity, however, has been undertaken for the future design year of 2030, which would represent the worst-case assessment conditions for the junction when compared to the 2025 opening year conditions. This approach ensures the most robust appraisal of highway network capacity.

7.1.3 Paragraphs 108-111 of the National Planning Policy Framework (July 2018) (NPPF) provide guidance on the nature and detail of development transport appraisal to be carried out to support new development schemes and those key matters to be considered when determining the suitability of proposals:

“In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

a) appropriate opportunities to promote sustainable transport modes can be - or have been - taken up, given the type of development and its location;

b) safe and suitable access to the site can be achieved for all users; and

c) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.” (Para 108)

“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.” (Para 109)

“All developments that will generate significant amounts of movement should be required to provide a Travel Plan, and the application should be supported by a Transport Statement or Transport Assessment so that the likely impacts of the proposal can be assessed” (Para 111)

- 7.1.4 The last bullet point of Paragraph 109 to NPPF is considered to be of key relevance in the context of the review of the proposed residential development scheme and the assessment of the operation of the immediate local highway network. NPPF clearly identifies that development should only be refused on traffic and transportation grounds in those cases where highways impact would be ‘severe’. This is typically understood to mean situations where development is likely to result in a material detrimental step change in highway network operating circumstances when compared to predicted Baseline conditions.

7.2 Interpretation of Results

Junctions 9 (PICADY)

- 7.2.1 With regard to the TRL analysis software Junctions9 (PICADY module), traffic flows are split into 15-minute time segments within the model inputs. The results generated in the model indicate the peak Ratio of Flow to Capacity (RFC) in any individual peak and likely traffic queues. RFC values between 0.00 and 0.85 are generally accepted as representing stable and acceptable operating conditions, whilst values between 0.85 and 1.00 represent variable operation but still within theoretical capacity 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 1.00 represent overloaded conditions i.e. congested conditions.
- 7.2.2 The Design manual for Roads and Bridges (DMRB) has recently undergone a programme of updates to the various guidance documents which it comprises. Recently CD123 “Geometric Design of At-Grade Priority and Signal-Controlled Junctions” recently replaced a number of outgoing design documents, in particular document TD42/95 “Geometric Design of Major / Minor Priority Junctions”. Annex

A of TD42/95 stated the following with respect to the design of new junction schemes and operating capacity thresholds:

“Due to site to site entry variation, there may be a standard error of prediction of the entry capacity by the formulae of + or - 15% for any site. Thus, queuing should not occur in the various turning movements in the chosen design year peak hour in 5 out of 6 peak periods or sites, if a maximum RFC of about 85% (0.85) is used. Similarly, if a maximum RFC of 75% is used, queuing will theoretically be avoided in 39 out of 40 peak hour periods or sites.

The general use of designs with an RFC of about 85% is likely to result in a level of provision which will be economically justified....”

7.2.3 Whilst Annex A of TD42/95 has not been carried over to CD123, Focus TP nonetheless considers that the above clarification provided in TD42/95 Annex A continues to remain entirely valid.

7.2.4 The above guidance clearly identifies that it is possible for a junction to operate with individual RFC levels of above 0.85 without unacceptable congestion and delay taking place. The 0.85 threshold identifies the optimum position at which operational capacity is maximised when viewed against the likely frequency of queuing and delay events. RFC values of above 0.85 simply demonstrate a greater potential for congestion and delay to occur, which must be viewed in the context of the extent of future year horizon under assessment and general network wide conditions.

7.3 Link Flow Impact on Immediate Local Network

7.3.1 Reference to Institution of Highways and Transportation (IHT) ‘Guidelines for Traffic Impact Assessment’ suggests that more detailed analysis of highway impact and/or capacity improvements is only likely to be required where either:

- Traffic to/from the development exceeds 10% of existing two-way traffic on the adjoining highway; or,
- Where traffic to/from the development exceeds 5% of the existing two-way traffic flow on the adjoining highway at locations where traffic congestion exists within the assessment period or in other sensitive locations.

7.3.2 In the absence of any current national or specific local guidance, it is considered that assessment against these traditional thresholds would still represent a reasonable initial contextual guide as to the extent of development traffic operational impact on local routes. Given the prevailing conditions along the mainline route of the A58 New Road, it is considered that local conditions could be considered sensitive and therefore assessment against the lower 5% threshold would be appropriate.

7.3.3 **Table TA7.1** below demonstrates the predicted changes in two-way background link flows on the local highway network associated with the proposed residential development, during the 2025 opening year.

Table TA7.1: Predicted Changes in 2025 Baseline Link Flow on A58 New Road

	2025 AM Peak			2025 PM Peak		
	'Do Nothing'	'Do Something'	% Change	'Do Nothing'	'Do Something'	% Change
New Road (East of Site)	1,480	15	1.0%	1,674	15	0.9%
New Road (West of Site)	1,480	15	1.0%	1,675	16	0.9%

Two-way vehicle flow totals

7.3.4 Review of the above tables identifies that the impact of development related traffic on the A58 New Road, would stand at notably less than 5% of background traffic levels during both peak hour periods. Indeed, maximum increases of just 1.0% are anticipated. With this in mind it is considered that the development proposals would be unlikely to give rise to any material concerns in respect of highway capacity or highway safety.

7.4 Junction Operational Impact

7.4.1 Notwithstanding the results of the above proportional link flow impact exercise, junction capacity modelling has been undertaken for the staggered crossroads junction of Dearnley Avenue and Harwood Street with the A58 New Road. Assessments have been undertaken for both the AM and PM peak hour periods (08:15-09:15 & 16:15-17:15).

7.4.2 **Tables TA7.2 & TA7.3** below provide a summary of the junction assessment results, with detailed PICADY junction model output set out in **Appendix TA6** for the 2030 Future Year.

Table TA7.2: A58 New Road/Dearnley Ave PICADY Assessment - 2030 Future Year 'Do-Nothing' Baseline Scenario

	AM Peak		PM Peak	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Dearnley Ave	0.12	0.1	0.07	0.1
New Road (Wbnd) r/turn	0.01	0.0	0.01	0.0
Harwood Street	0.05	0.1	0.00	0.0
New Road (Ebnd) r/turn	0.02	0.0	0.05	0.0

Table TA7.3: A58 New Road/Dearnley Ave PICADY Assessment - 2030 Future Year 'Do-Something' with Development Scenario

	AM Peak		PM Peak	
	RFC	Queue (PCU)	RFC	Queue (PCU)
Dearnley Ave	0.20	0.2	0.11	0.1
New Road (Wbnd) r/turn	0.01	0.0	0.01	0.0
Harwood Street	0.05	0.1	0.00	0.0
New Road (Ebnd) r/turn	0.03	0.0	0.08	0.1

7.4.3 The above results demonstrate that for the future year assessment scenarios (both without and with development), and during both the AM and PM peak hour periods, a maximum RFC of just 0.2 is anticipated, with a maximum queuing level of just 0.2 PCUs. Accordingly, it is concluded that the existing Dearnley Avenue residential site access junction is anticipated to comfortably accommodate the both the committed Stubley Meadows development, as well as the residential development proposed at the application site. The proposals would not give rise to any material capacity concerns on the immediate section of the A58 New Road.

7.5 Impact Summary

7.5.1 The above review identifies that the residential development proposals at the application site are only anticipated to give rise to a negligible impact upon prevailing local highway network operational conditions. The existing Dearnley Avenue junction with the A58 New Road is anticipated to operate comfortably in

the future assessment year scenario and would not give rise to any capacity concerns on the immediate section of this route.

- 7.5.2 Given the above review of development related effects, it is considered that the proposal scheme would not result in a “severe” detrimental impact on local highway network operation. The proposals would give rise to strictly limited increases in hourly traffic demand during critical network peak periods and not at a level that could be considered to represent a reasonable reason for highways-based objection.

8.0 SUMMARY AND CONCLUSIONS

8.1 Introduction

8.1.1 This Transport Assessment has been prepared by Focus Transport Planning on behalf of Russell Homes (UK) Ltd. in support of a planning application related to proposals for the development of up to 62 residential dwellings on land south of the A58 New Road, Littleborough, in Rochdale.

8.1.2 The project would see the development of up to 62 residential dwellings served from the existing residential route of the A58 New Road, via the adjacent Stubley Meadows residential development and its spine road route of Dearnley Avenue. This report includes a review of existing local conditions, consideration of the development scheme, review of the proposed site access strategy and an analysis of the impact of development related traffic over the immediate local highway network.

8.1.3 This report has been prepared in accordance with National Planning Policy Guidance (NPPG), and supporting documents, with the scope and nature of the assessment matters reflecting the extent of highway and transport issues considered to be of material interest to the Local Planning and Highway Authority, Rochdale Borough Council.

8.2 Site Location & Existing Highway Conditions

8.2.1 The proposal site forms a 3.5Ha parcel of land to the south of the A58 New Road, and to the west of the existing Stubley Meadows residential development. The A58 New Road serves as a primary distributor route to the east of Rochdale, predominantly providing access to residential areas. To the east the A58 New Road passes through the centre of the local settlement of Littleborough.

8.2.2 Background traffic levels on the local highway network have been established through the review of traffic survey data recorded at the staggered crossroads junction of Dearnley Avenue and Harwood Street with the A58 New Road. Classified turning count surveys were carried out during early July 2021, and

identify prevailing traffic flows on the A58 New Road peaked during the traditional AM and PM periods (observed as 08:15-09:15 & 16:15-17:15).

- 8.2.3 Prevailing traffic levels illustrate a general tidal flow pattern with westbound movements along the A58 New Road (towards Rochdale) being marginally higher during the AM period, and eastbound trips along this route being the peak demand during the PM peak. Maximum two-way traffic flow is noted as occurring during the PM peak hour, with up to 1,596 vehicles recorded on route. This figure falls to 1,411 vehicles during the AM peak hour.
- 8.2.4 Personal Injury Accident data (PIA) for the local highway network to the site has been obtained for the most recent five-year period of Q1 2017 - Q3 2021. Review of this information has identified a total of just 2 personal injury accident incidents have been recorded within the illustrated search area, both of which were classified as being slight in nature. Overall, it is concluded that the review of road traffic incident data has demonstrated that there are no material highway safety issues within the vicinity of the site.

8.3 Site Accessibility Audit

- 8.3.1 An audit of the application site's accessibility to key local services and sustainable transport options has concluded that it is appropriately located for residential and local retail development, being located within a reasonable walk/cycle catchment of key everyday destinations such as local schools, services and shopping facilities. The site is located within a well-established residential area, is surrounded by good quality walk/cycle infrastructure, and has access to frequent public transport connections via both bus and rail services. Such locational characteristics should assist in meeting the key sustainable planning objectives of promoting opportunities for the use of alternative travel modes to the private car and managing the overall traffic impact associated with new development.

8.4 Description of the Proposal Scheme

- 8.4.1 The application site is proposed to be developed to deliver up to 62 residential units and associated public open space. Access to the development site is proposed to be taken via the adjacent Stubley Meadows development and its spine road route

of Dearnley Avenue. The access route would cross the New Street Public Right of Way via a restricted movements crossroads junction, which would both preserve access along New Street for existing occupiers, as well as prevent any new development related traffic from using the PROW route.

8.4.2 The restricted crossing of New Street has also been designed such that emergency access is preserved to the existing Stubley Meadows development to the east, and as well as being secured to the new residential development proposed at the application site.

8.4.3 The internal layout of the residential development is proposed to be constructed fully in accordance with the relevant design guidance, with main site roads at a width of 5.5m and 2m footways to both sides. Parking would be provided fully in accordance with RBC parking standards. The proposed site layout has been demonstrated to be fully accessible by larger service vehicles, such as Refuse Collection Vehicles (RCVs).

8.5 Key Assessment Parameters

Assessment Time Periods

8.5.1 Based on the review of background daily traffic demand patterns derived from the July 2021 traffic surveys, maximum background traffic levels across the local highway network are experienced for the AM and PM peak hours of 08:15-09:15 and 16:15-17:15 respectively. Given that these AM & PM peak periods are also likely to broadly accord with the maximum traffic demand periods associated with traffic to and from the proposed residential development, these time periods have been utilised for the network capacity appraisals included in this TA report.

Future Year Traffic Growth Assumptions

8.5.2 It is anticipated that, based upon current market conditions, the development of the residential site could be completed and fully occupied by 2025. Accordingly, a 2025 opening year date has been utilised for core traffic demand assessments. In order to account for future network traffic conditions, an additional future design year of 2030 has been considered for all capacity related assessments.

Background traffic data has been factored up to these future years on the basis of DfT NTM TEMPro forecasts for the Rochdale 001 MSOA area, to create opening year and design year background traffic flows.

Committed Local Developments

- 8.5.3 The neighbouring Stubley Meadows residential development has not yet been fully completed and occupied - it is anticipated that the site would be completed and fully occupied by late 2022. Accordingly, and in order to account for future traffic levels deriving from the Stubley Meadows development, an up to date forecast of the committed development's likely trip generation has been undertaken. These traffic flow estimates have then been added to background traffic forecasts to create estimates of 2025 opening year and 2030 future year baseline traffic flow conditions.

8.6 Anticipated Trip Generation and Distribution

- 8.6.1 Development traffic estimates have been calculated via reference to the TRICS database of development trip rates for the "Residential - Houses Privately Owned" land use.
- 8.6.2 Based on this approach, it has been identified that the residential development could generate approximately 30 two-way vehicle movements during the peak hour periods. This level of trip generation would equate to just 1 additional vehicle movement every 2 minutes during each peak hour - a level of additional traffic that is unlikely to give rise to any material issues on the local highway network.
- 8.6.3 The predicted development trips related to the proposal site have been distributed over the local network on the basis of existing peak hour traffic flows recorded along the A58 New Road within the July 2021 traffic surveys.

8.7 Assessment of Anticipated Development Traffic Impact

- 8.7.1 Assessment of the impact of the development proposals has been carried out through the consideration of proportional changes in network link flows as a result of development, and also via the assessment of junction operational capacity of

the staggered crossroads junction of Dearnley Avenue and Harwood Street with the A58 New Road.

Link Flow Impact

- 8.7.2 A review of the predicted changes in local network link flows has identified that the impact of development related traffic would be extremely low, with maximum proportional increases of just 1% of background traffic levels on the A58 New Road. As such it is considered that the development proposals would be unlikely to give rise to any material concerns in respect of highway capacity or highway safety.

Operational Junction Capacity

- 8.7.3 Notwithstanding the results of the proportional link flow impact exercise, junction capacity modelling has been undertaken for the staggered crossroads junction of Dearnley Avenue and Harwood Street with the A58 New Road. The results of the assessment of this junction have demonstrated that during both the AM and PM network peak hours maximum RFCs would fall significantly below 0.85 during the 2030 future design year, with very little in the way of queuing predicted. Accordingly, it can be concluded that the proposed residential development would not give rise to any local junction capacity concerns.

Impact Summary

- 8.7.4 Given the review of development related effects, it is considered that the proposal scheme would not result in a “severe” detrimental impact on local highway network operation. The proposals would give rise to limited increases in hourly traffic demand during critical network peak periods and not at a level that could be considered to represent a reasonable reason for highways-based objection.

8.8 Summary

- 8.8.1 This report has demonstrated that the residential development proposals on land to the south of the A58 New Road would represent appropriate and sustainable development when considered in highways and transport terms. The application site is located within an established residential area and offers the potential to

encourage access by alternative sustainable travel modes to the private car for many day-to-day journeys. It is considered that the application scheme would not give rise to a severe detrimental impact on local highway network operation - development traffic increases would not be significant, and operational effects on local highway network capacity would be limited. Focus TP therefore considers that there are no overriding reasons for refusing the planning application on highways and transportation grounds.



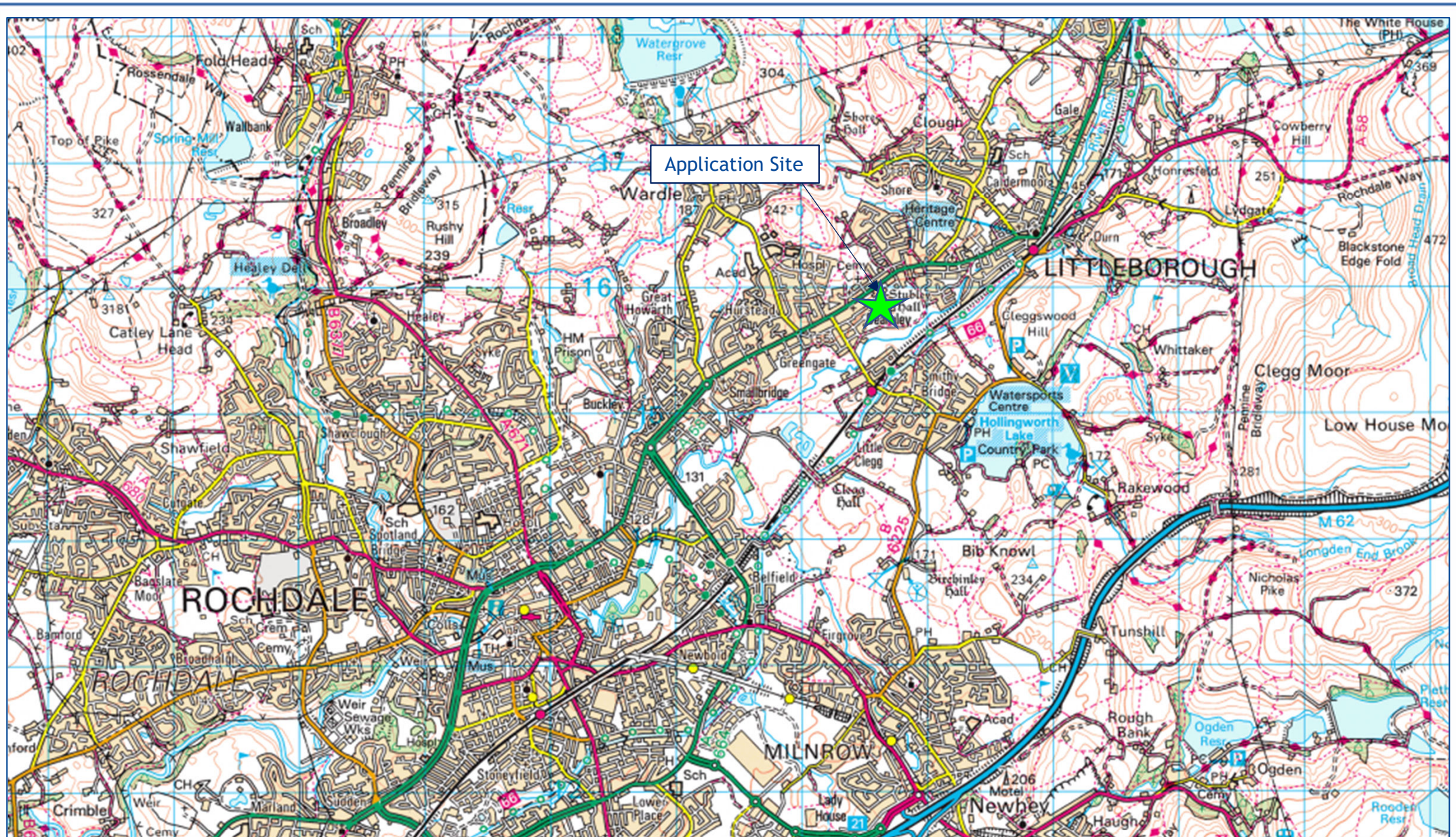


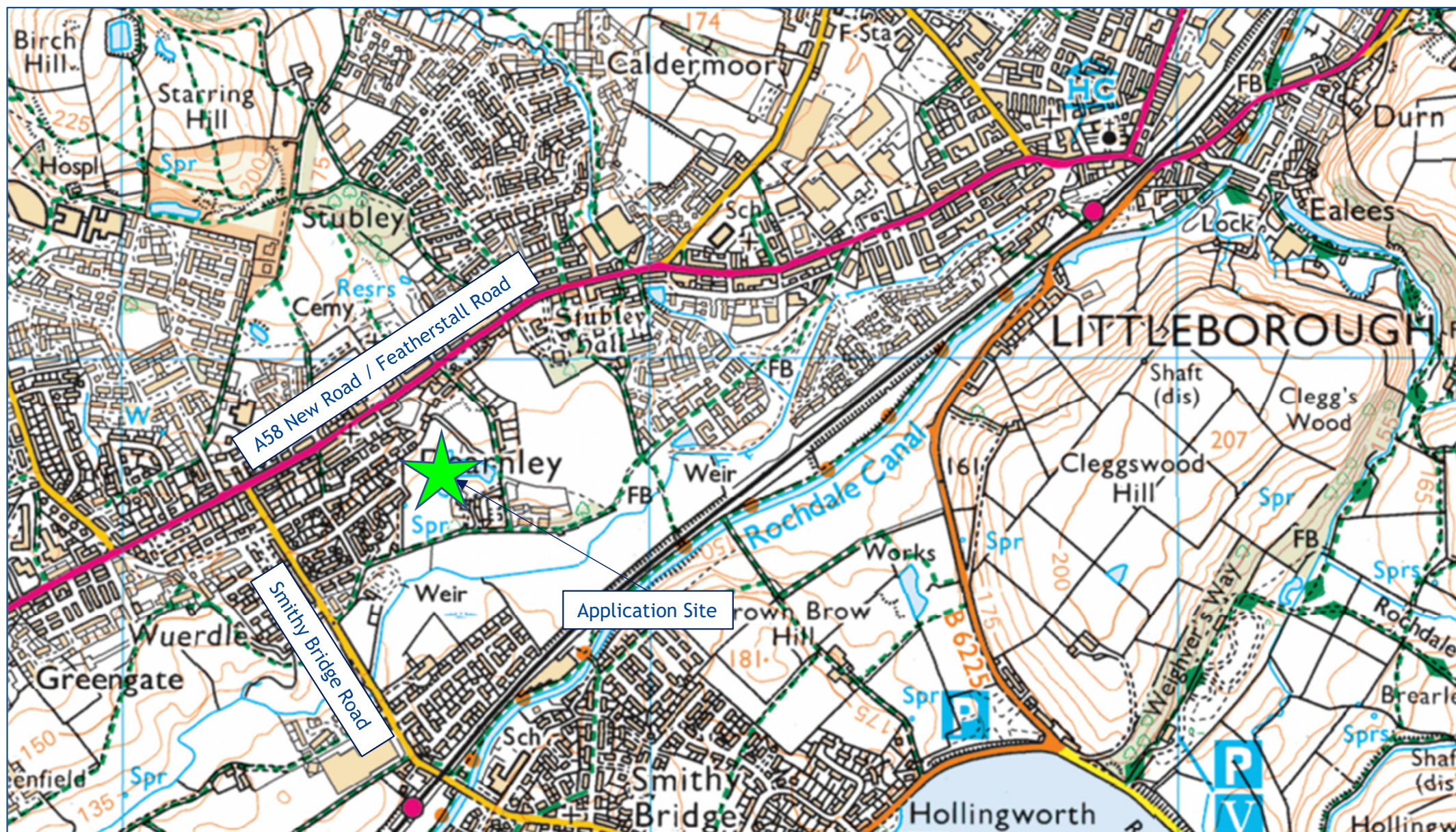
Figure TA1

Site Location: Strategic Context

J000262

Land South of New Road, Littleborough

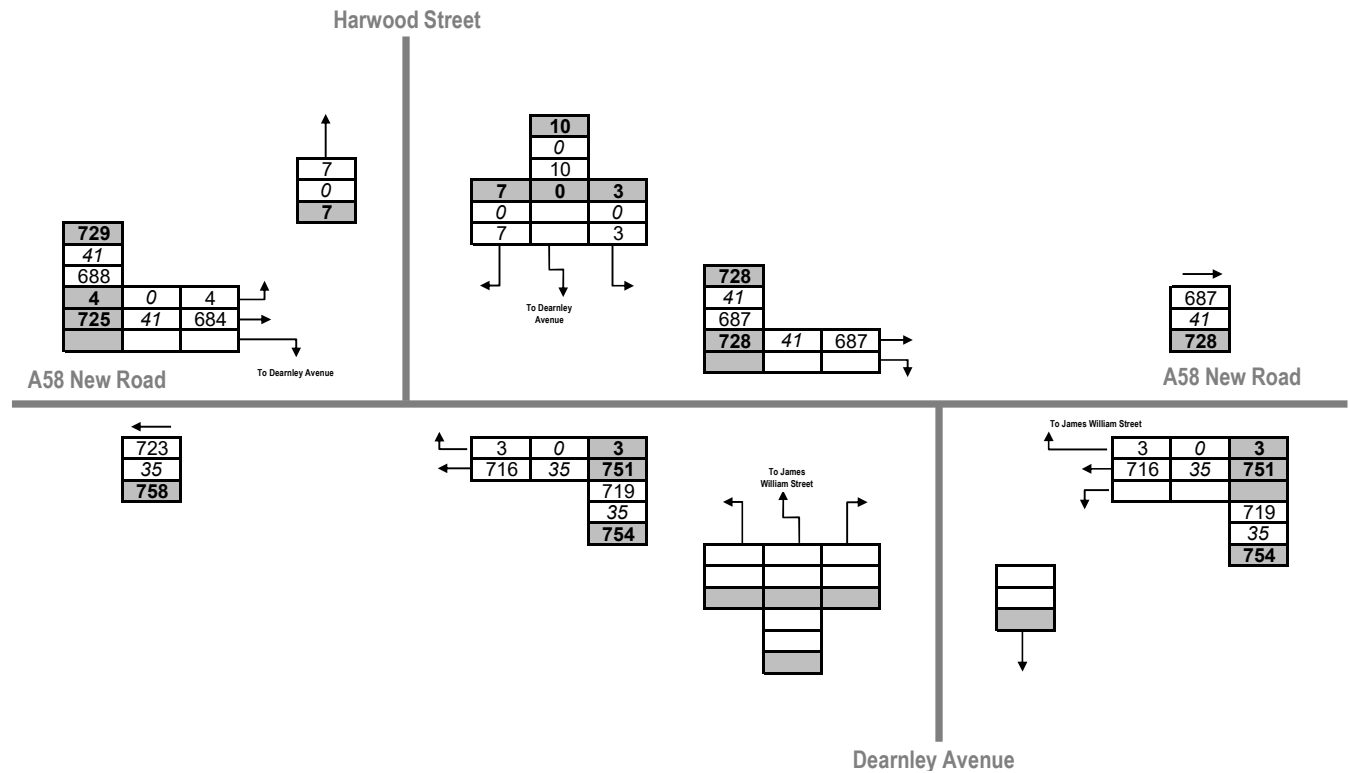
May 2022



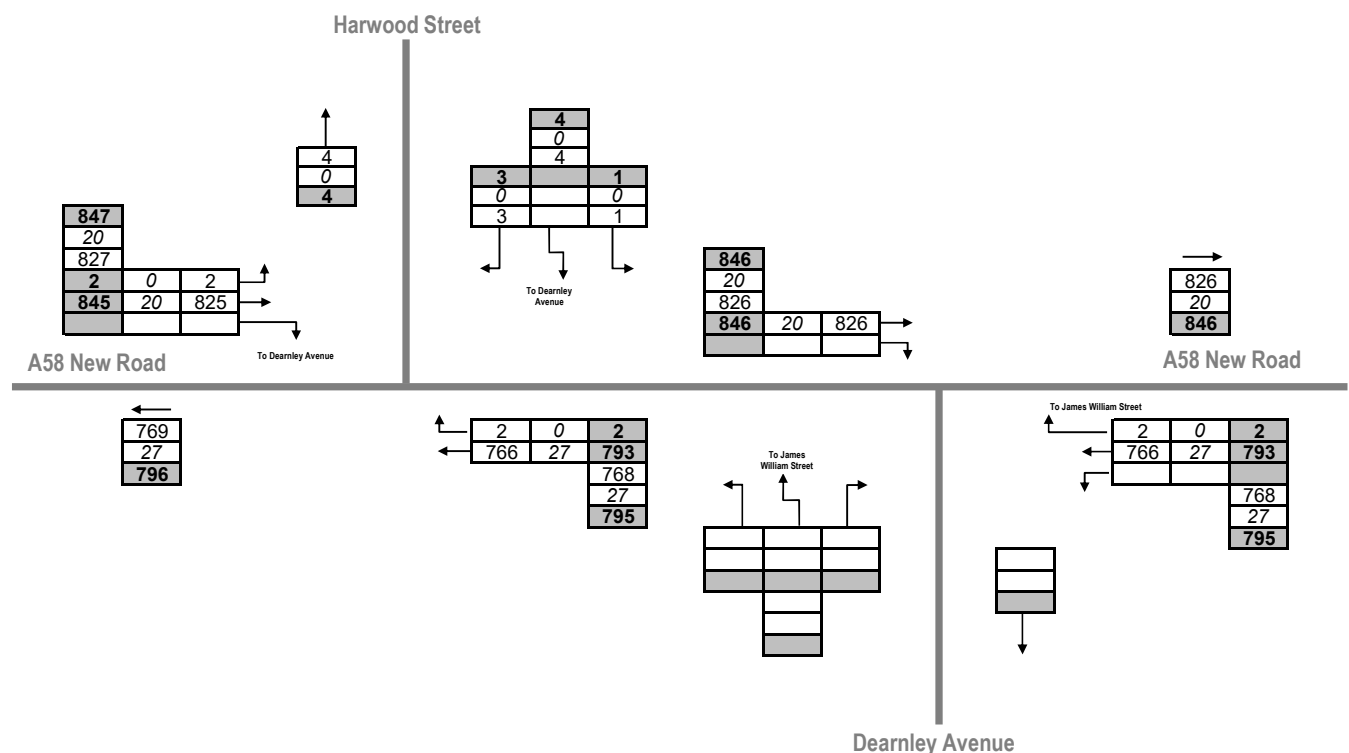
AM Peak Hour: 08:15 - 09:15

Key

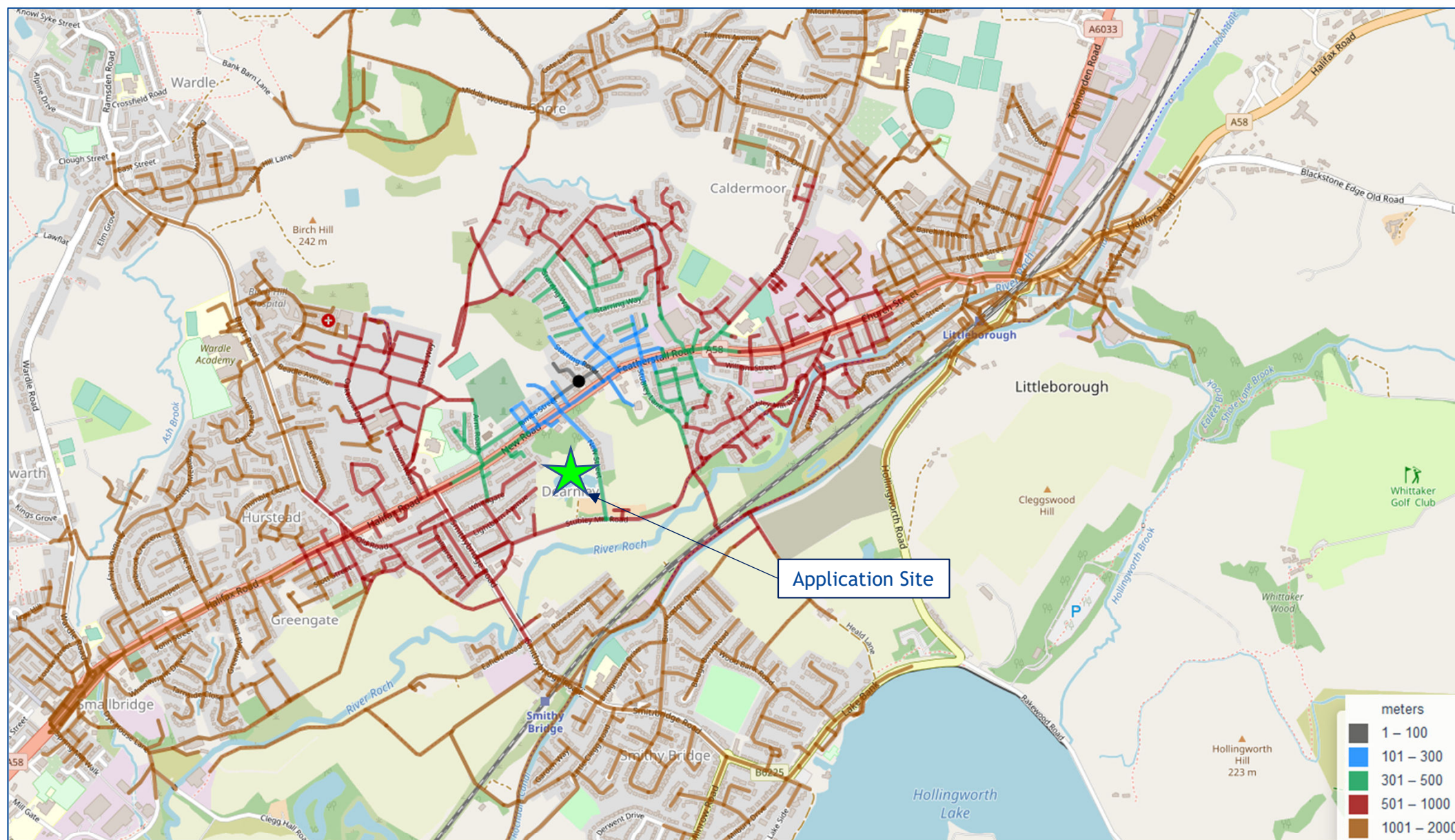
10	Total Vehs
5	HGVs
15	PCUs

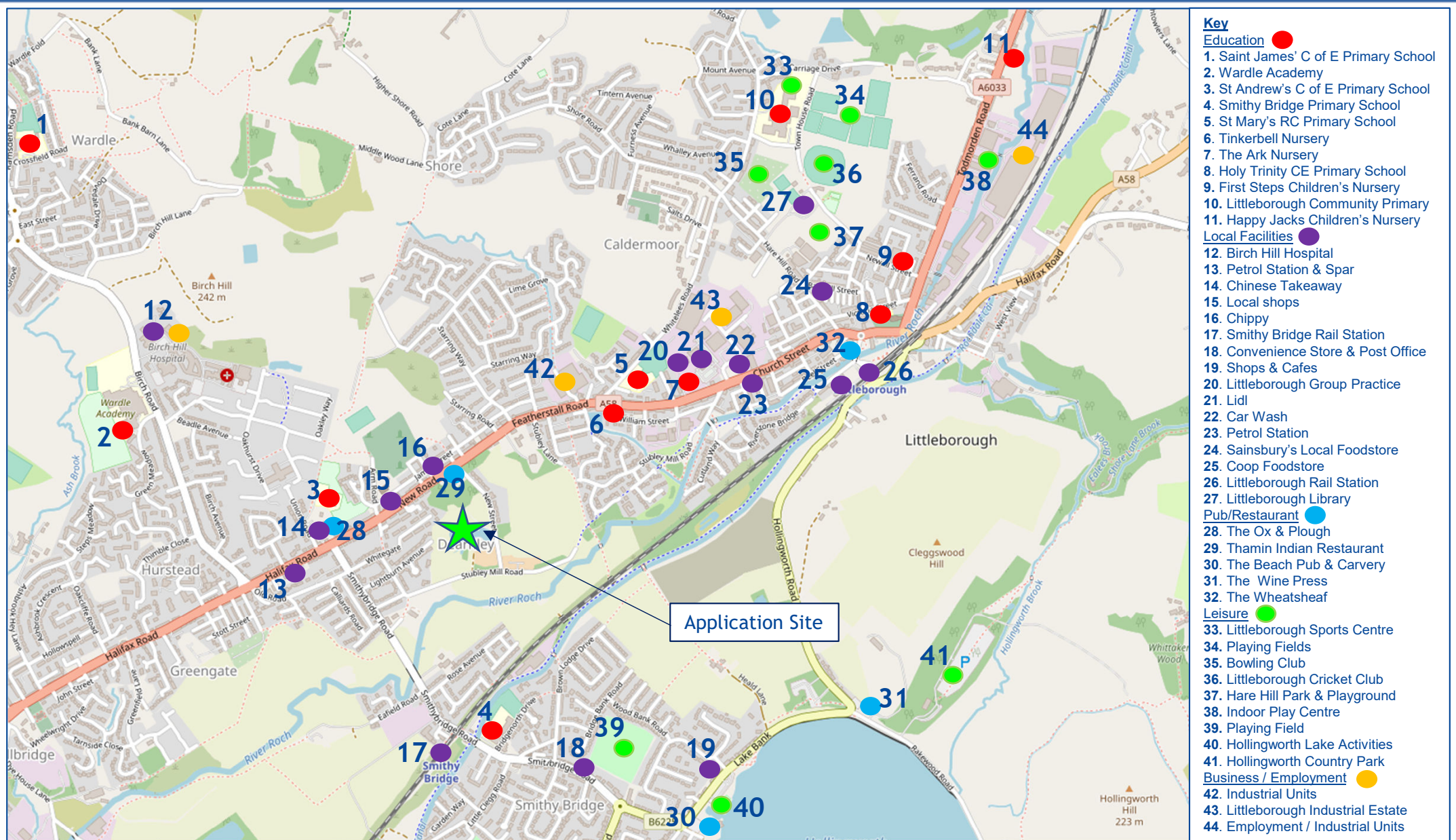


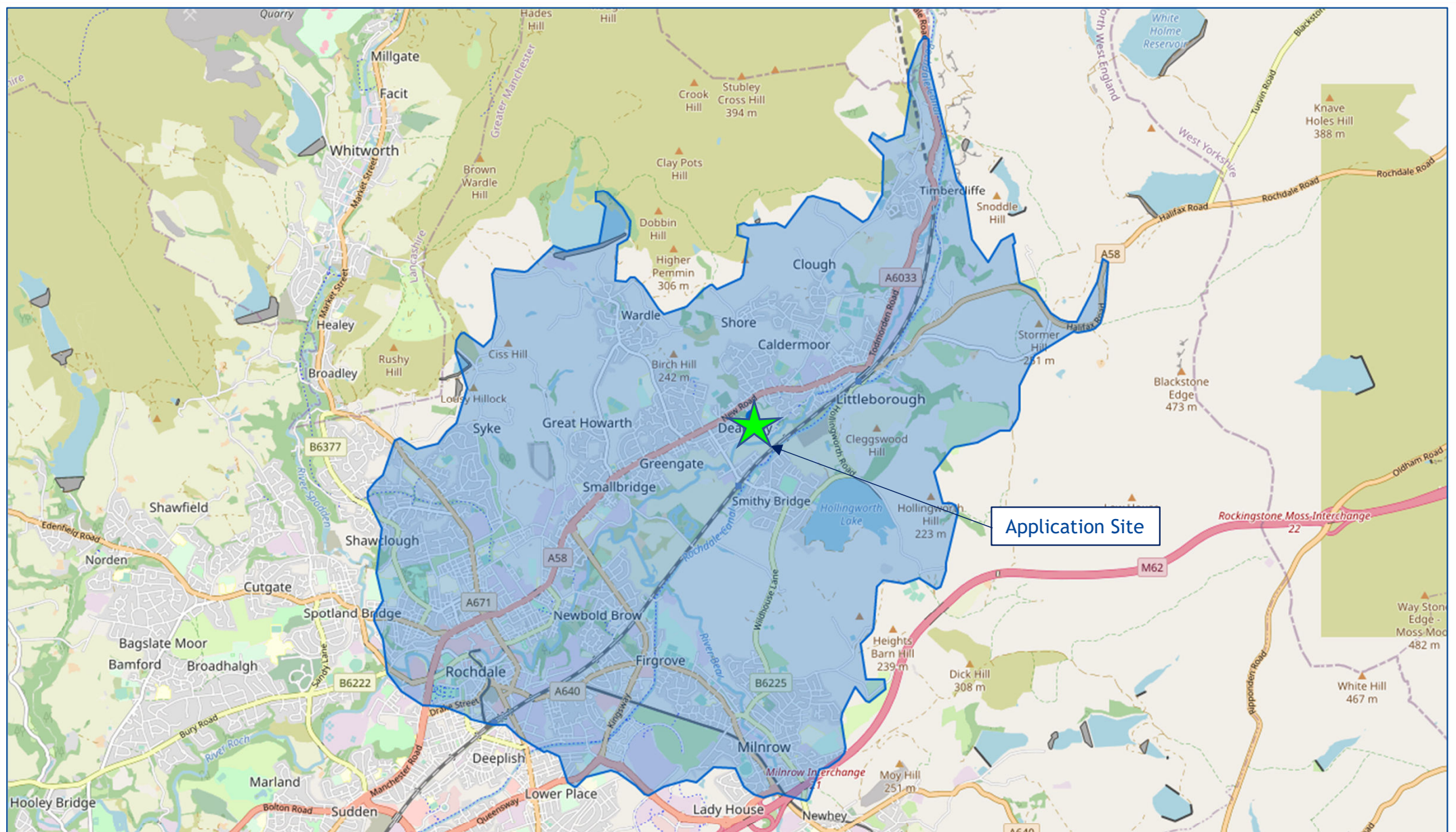
PM Peak Hour: 16:15 - 17:15

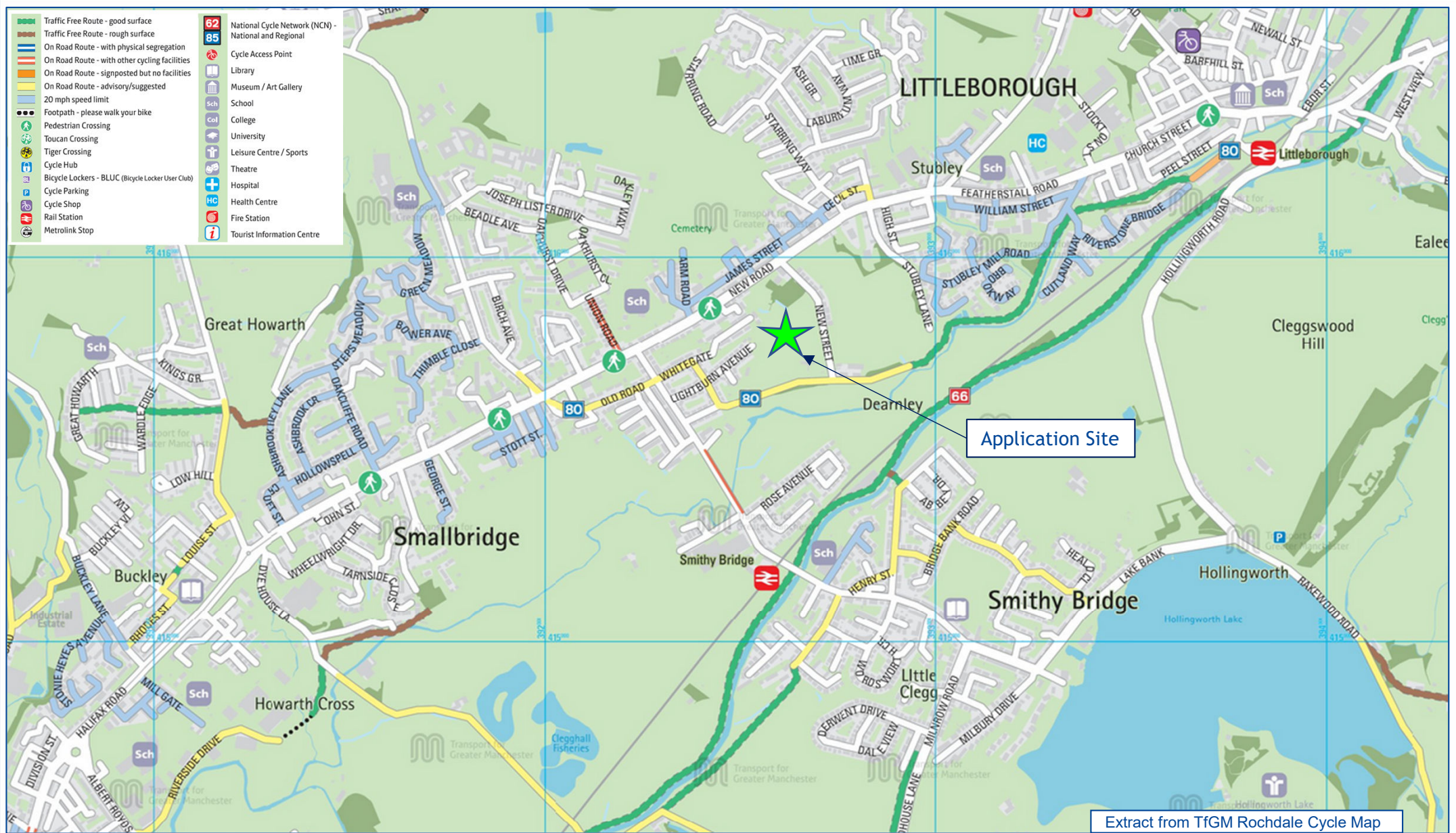


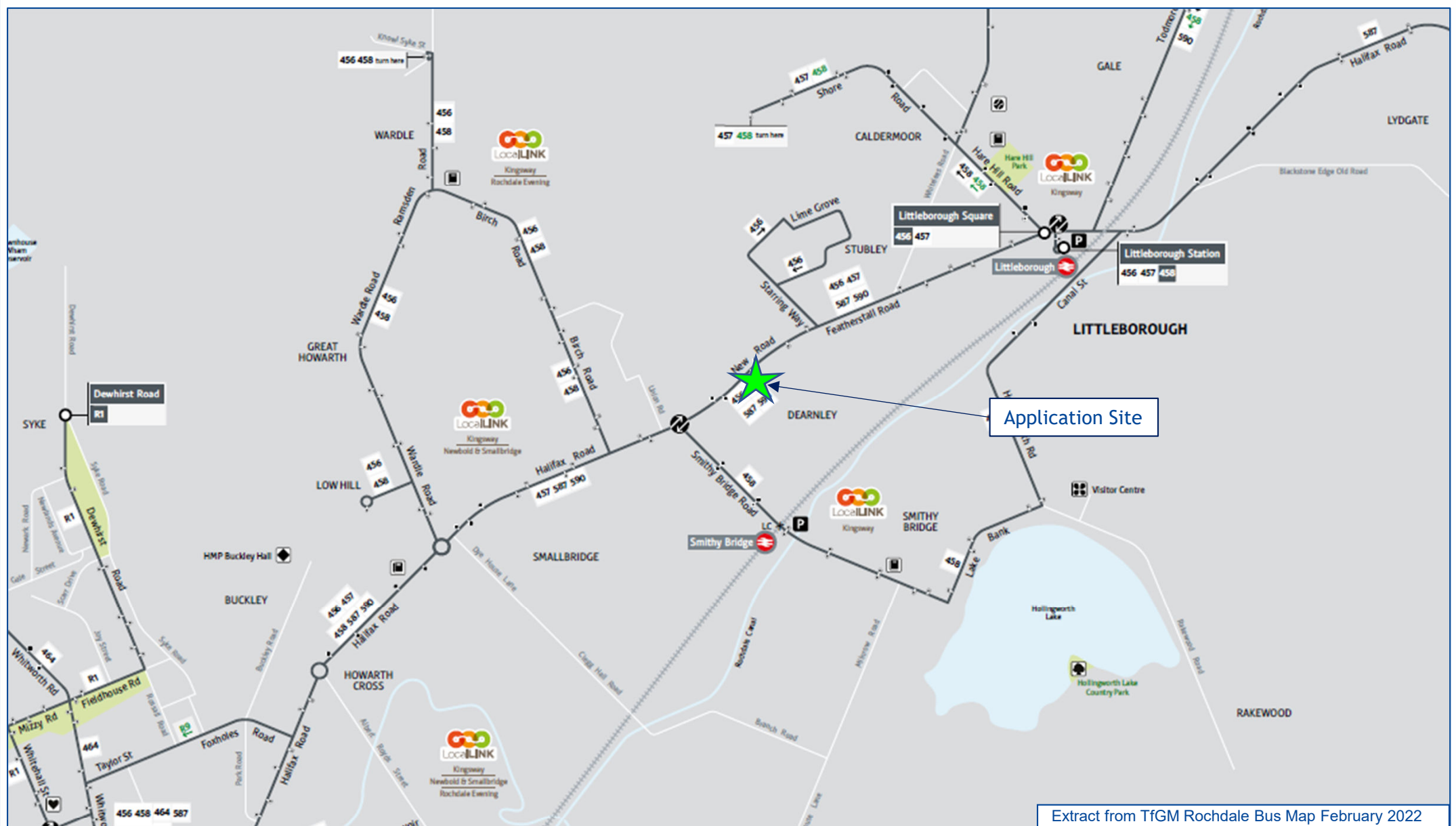












Extract from TfGM Rochdale Bus Map February 2022

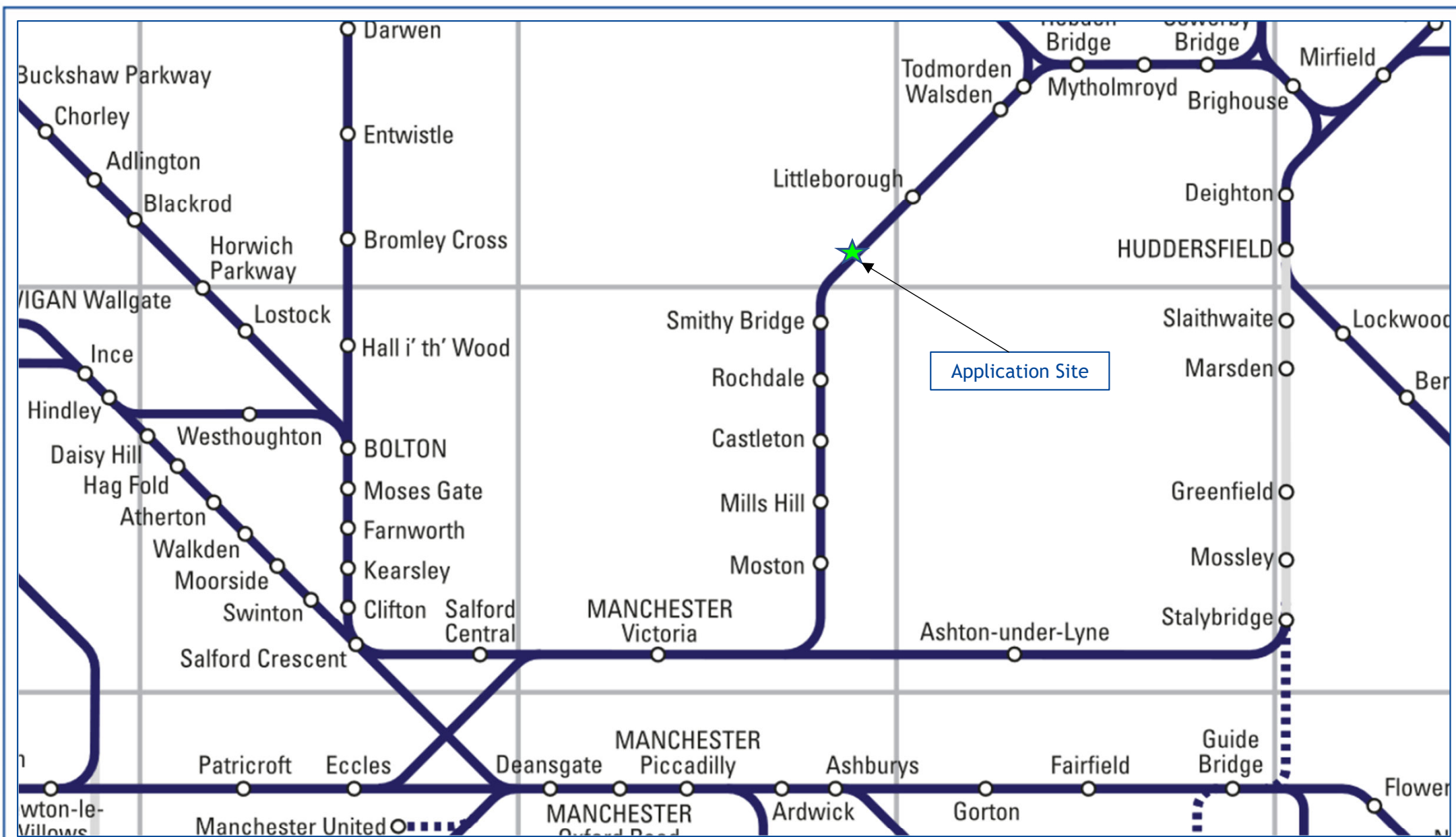


Figure TA9

Local Rail Connections to the Application Site

J000262

Land South of New Road, Littleborough

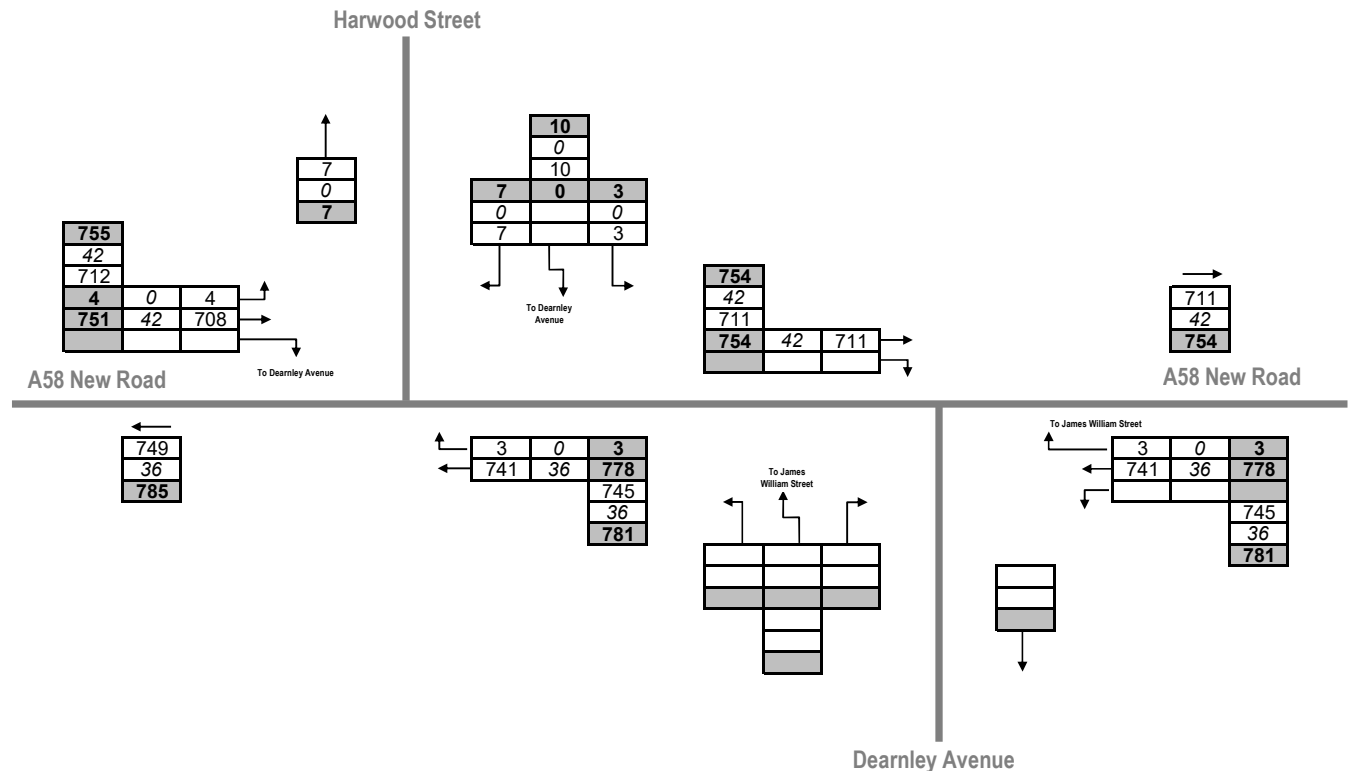
May 2022

AM Peak Hour: 08:15 - 09:15

2021 - 2025 Growth Factor: 1.0355

Key

10	Total Vehs
5	HGVs
15	PCUs



PM Peak Hour: 16:15 - 17:15

2021 - 2025 Growth Factor: 1.0347

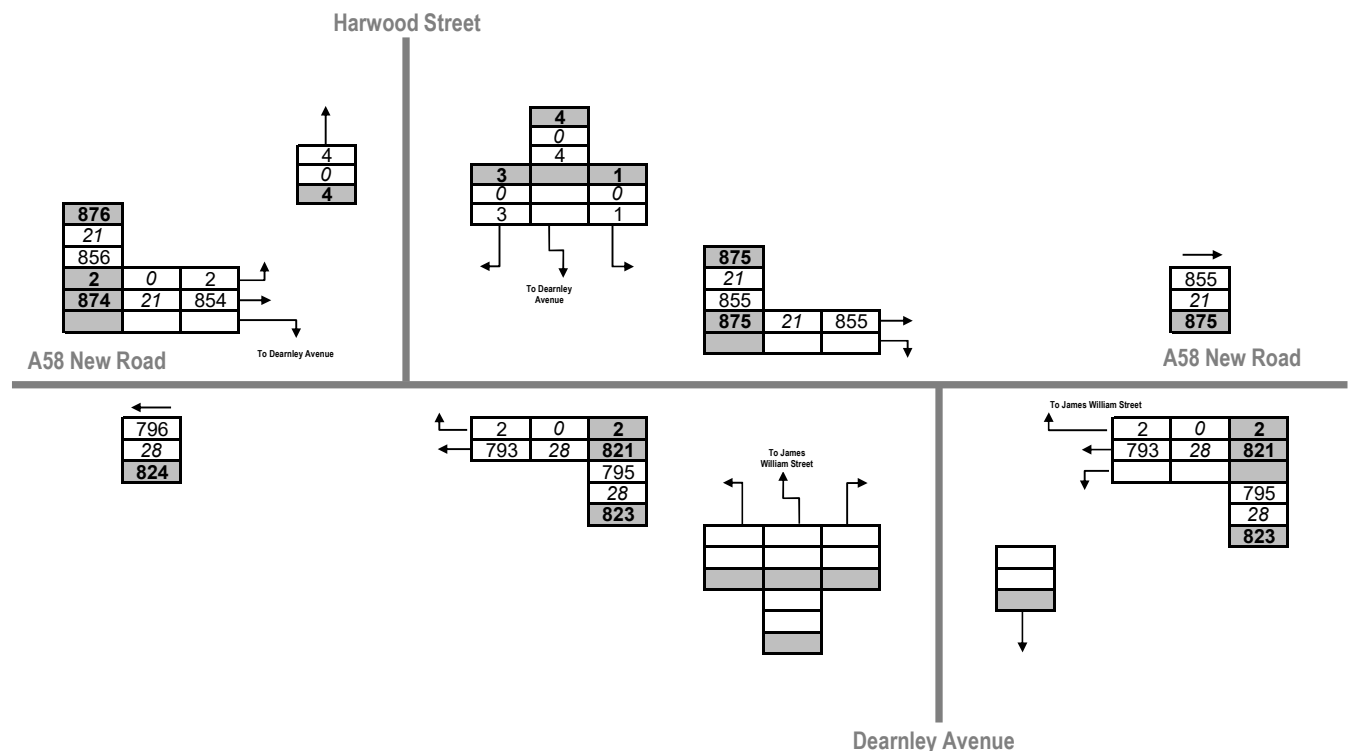


FIGURE TA10

2025 Opening Year Background Traffic Demand

J000262

Land South of New Road,
Littleborough

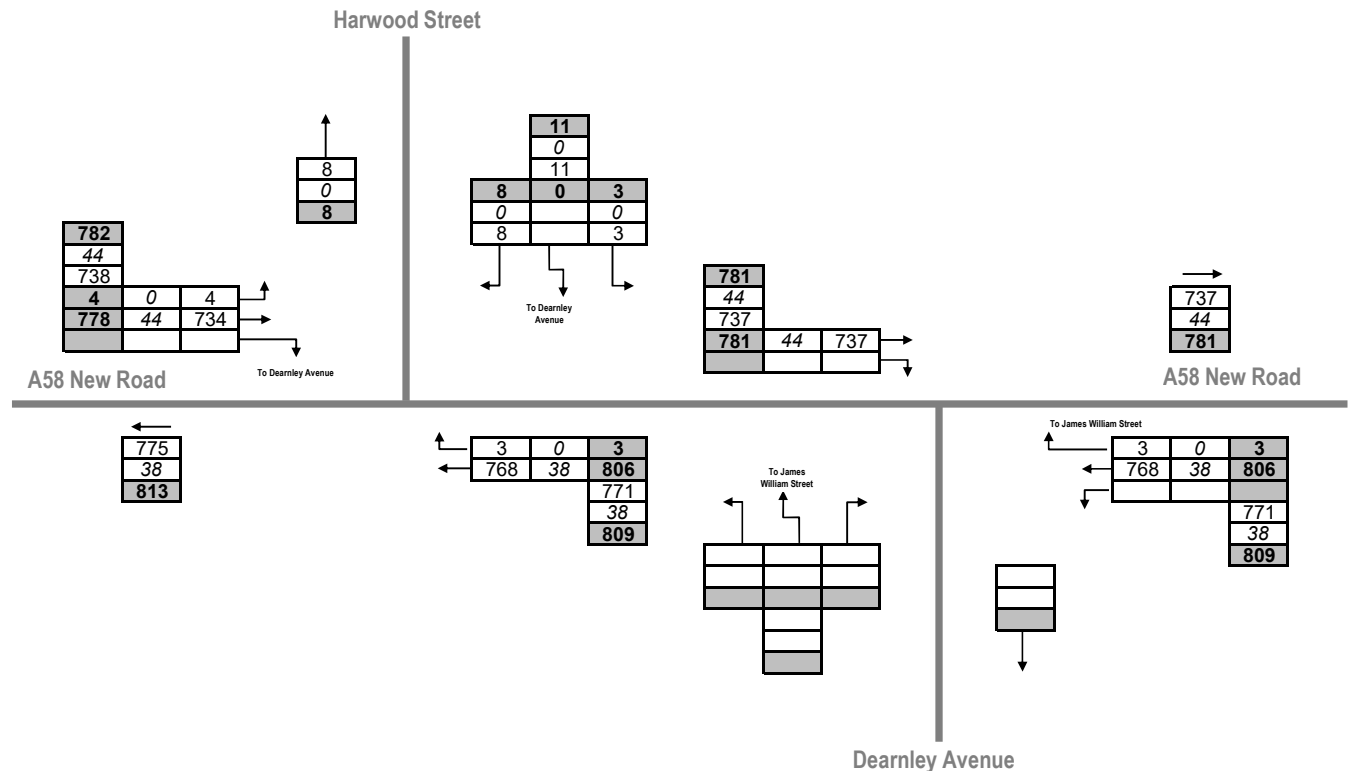
May 2022

AM Peak Hour: 08:15 - 09:15

2021 - 2030 Growth Factor: 1.0726

Key

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5	HGVs
15	PCUs



PM Peak Hour: 16:15 - 17:15

2021 - 2030 Growth Factor: 1.0712

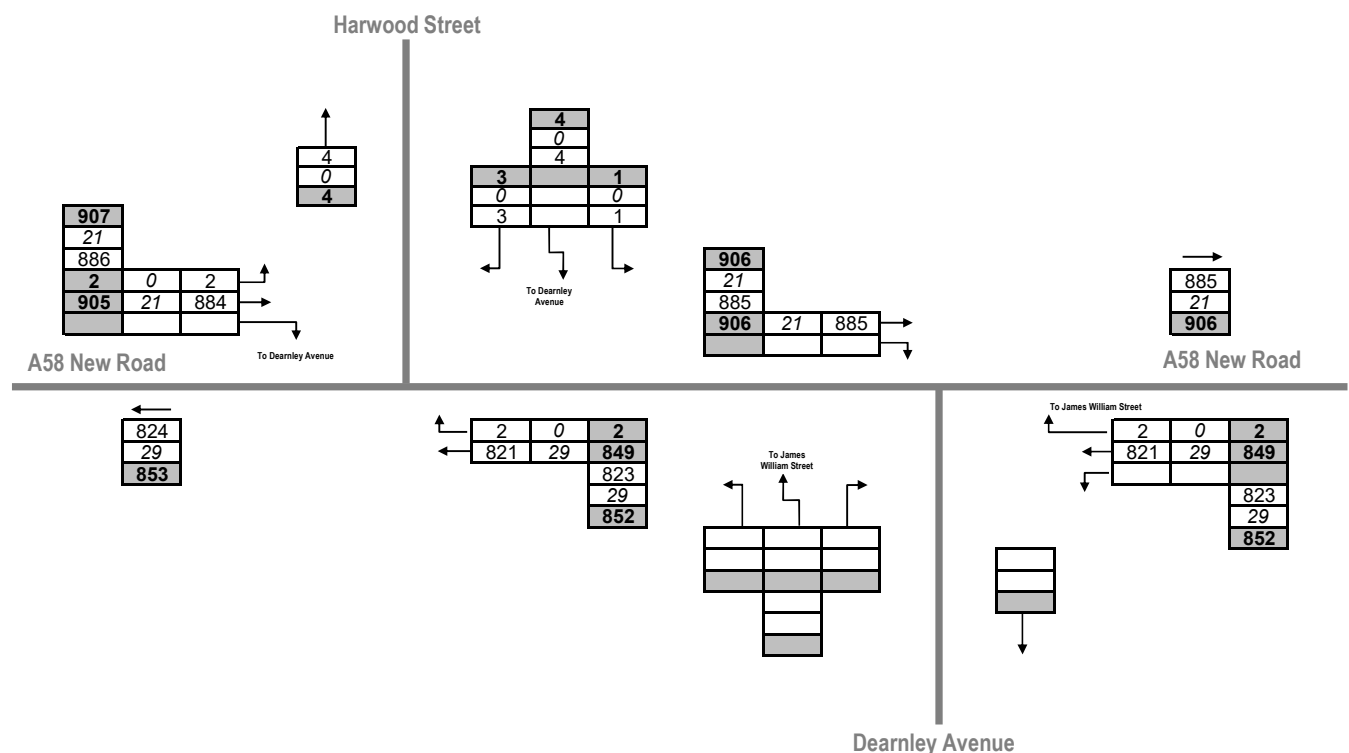


FIGURE TA11

2030 Future Year Background Traffic Demand

J000262

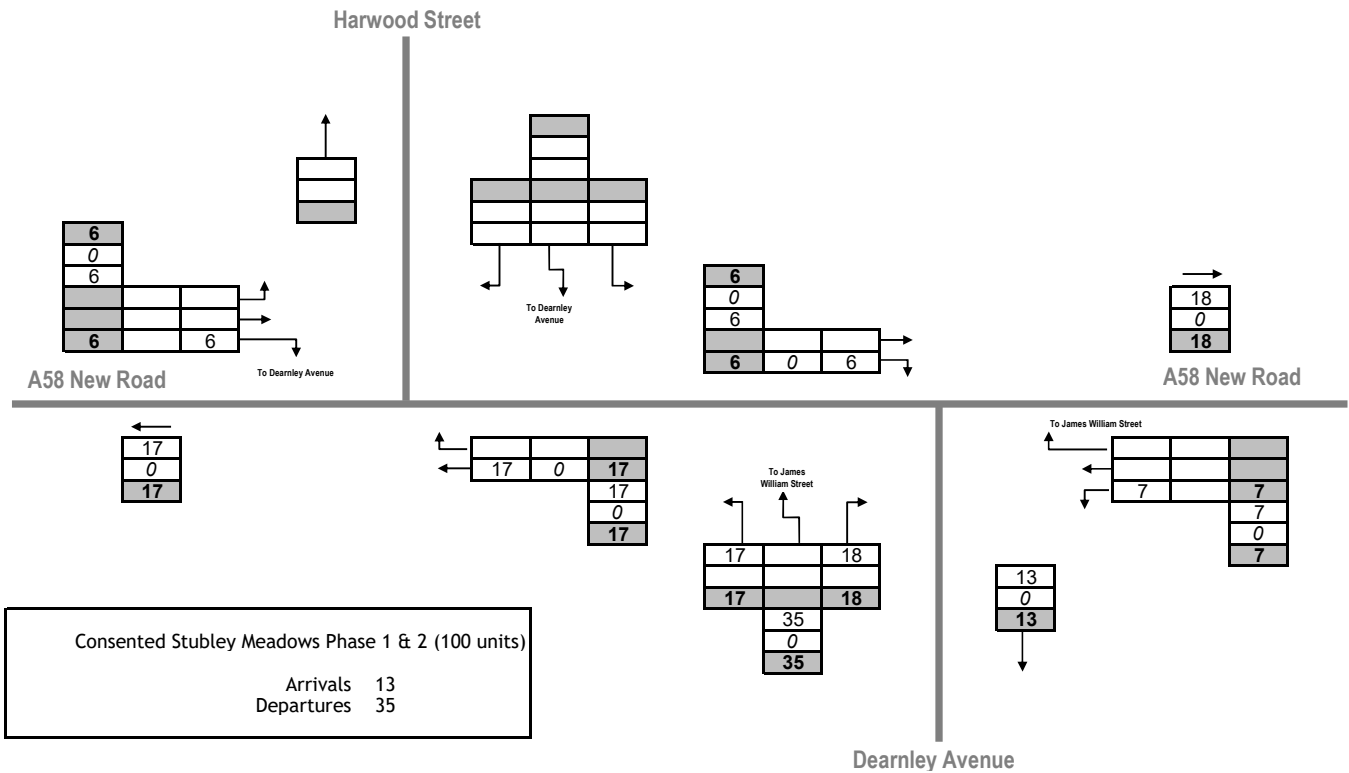
Land South of New Road,
Littleborough

May 2022

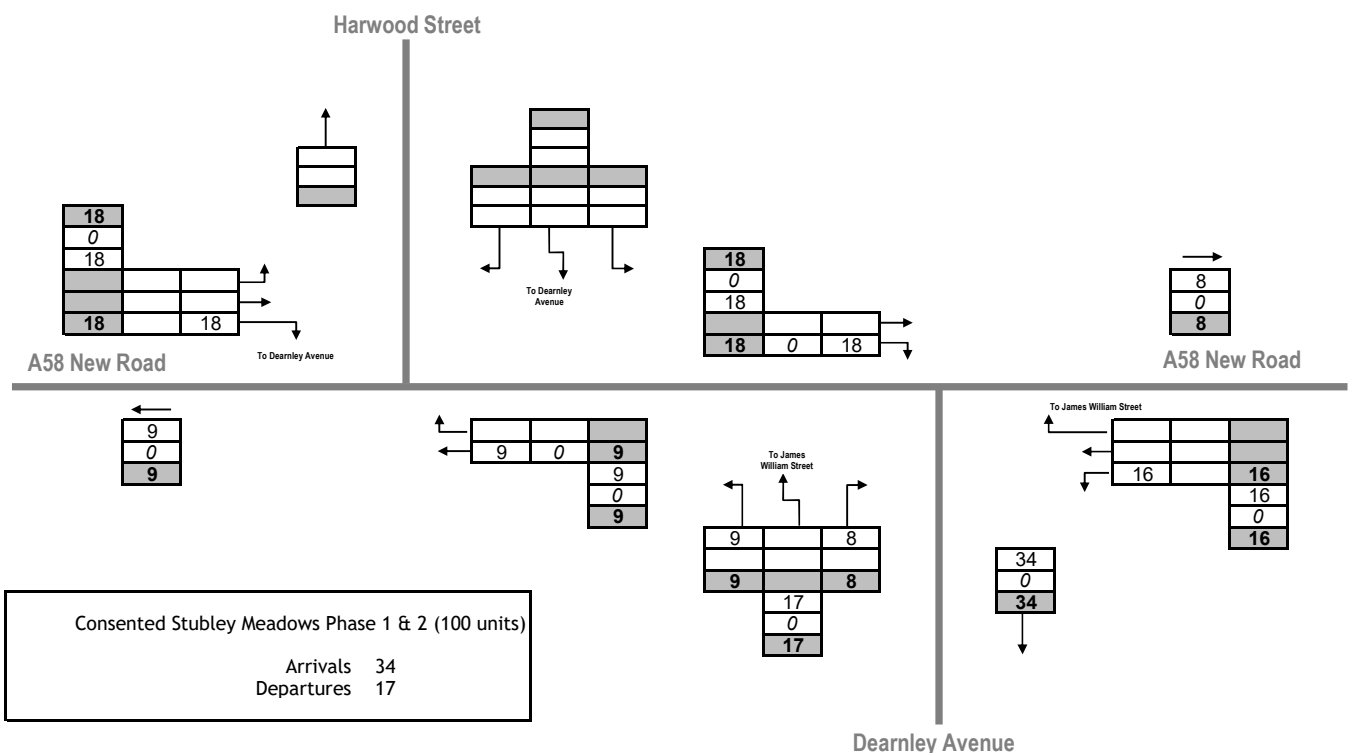
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Key

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5	HGVs
15	PCUs



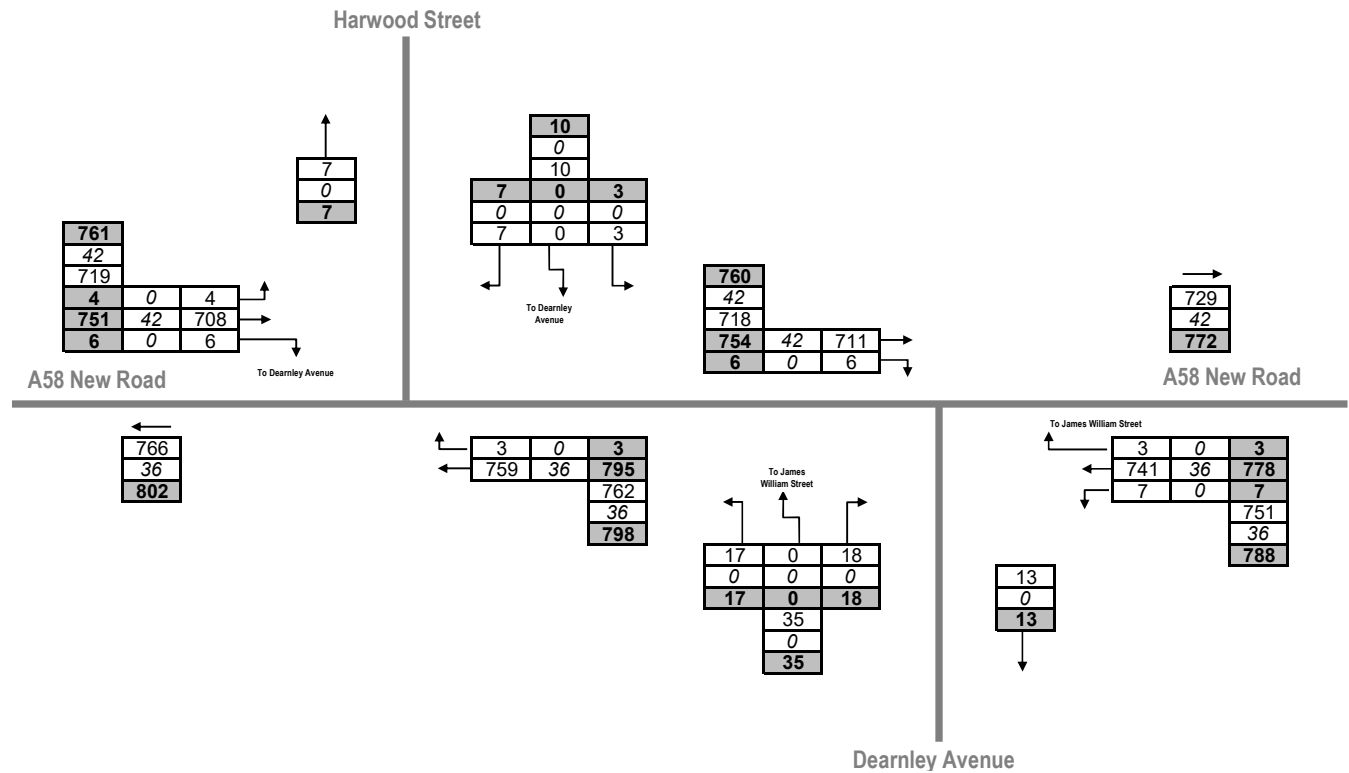
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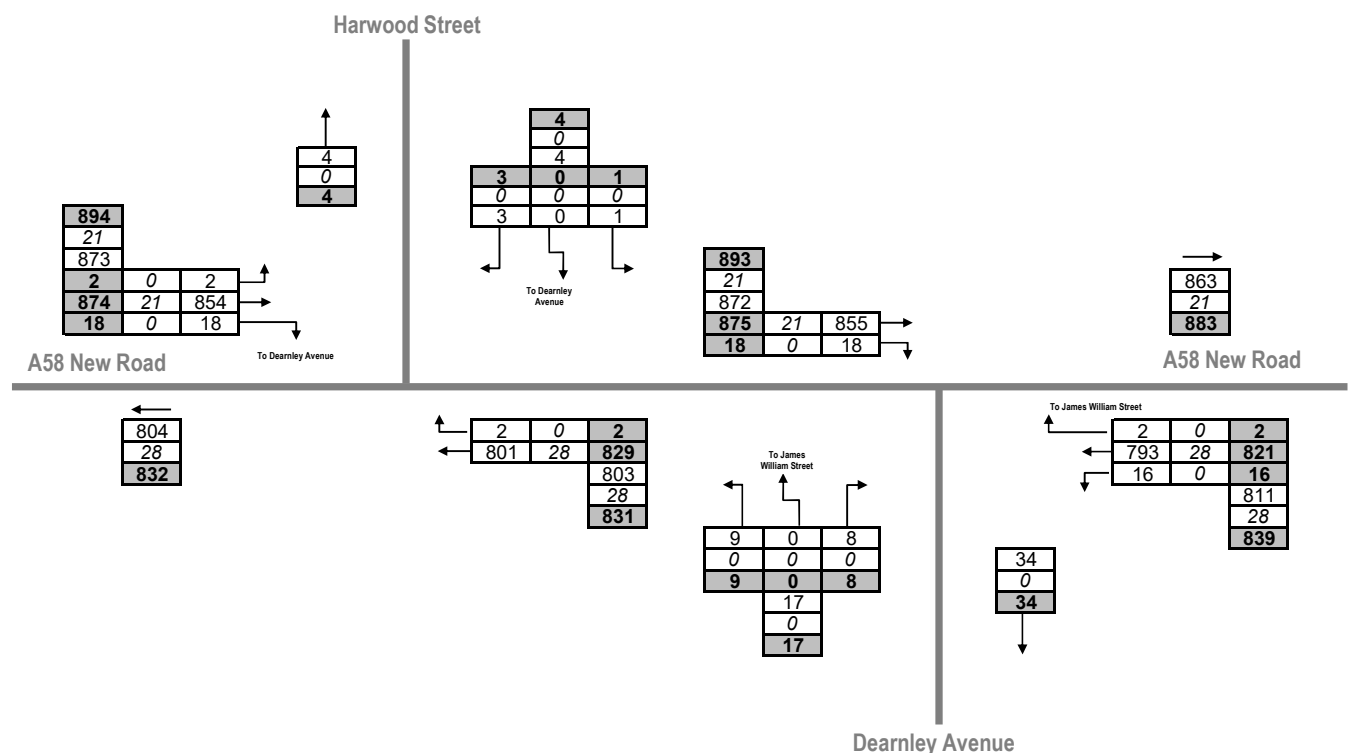
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5	HGVs
15	PCUs



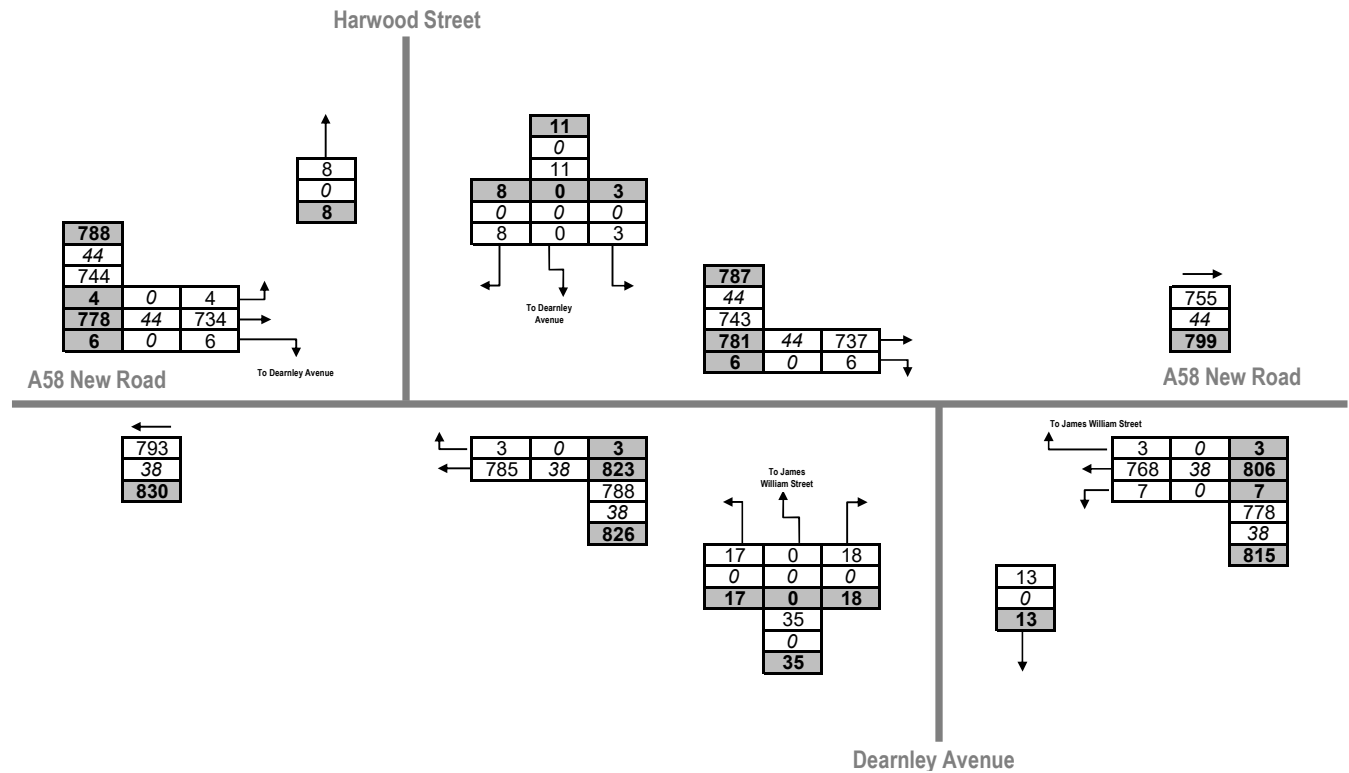
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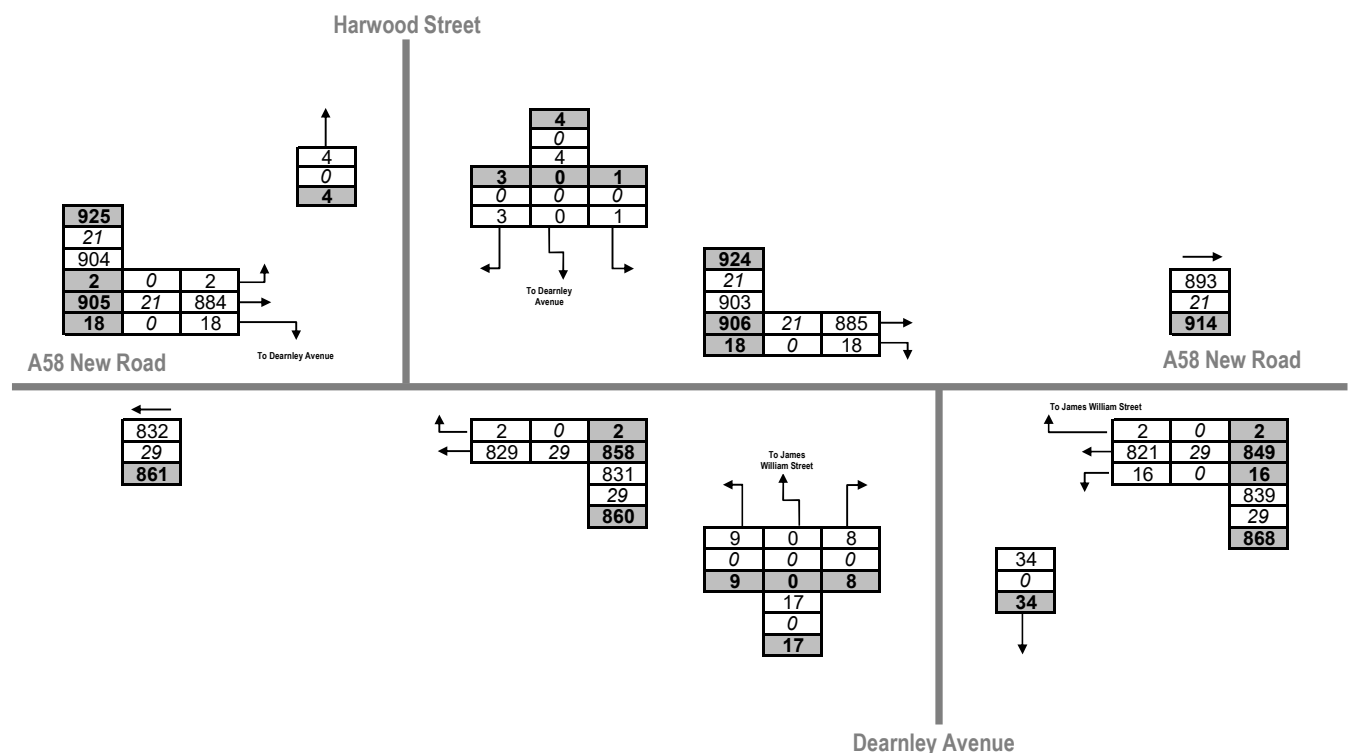
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Key

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5	HGVs
15	PCUs



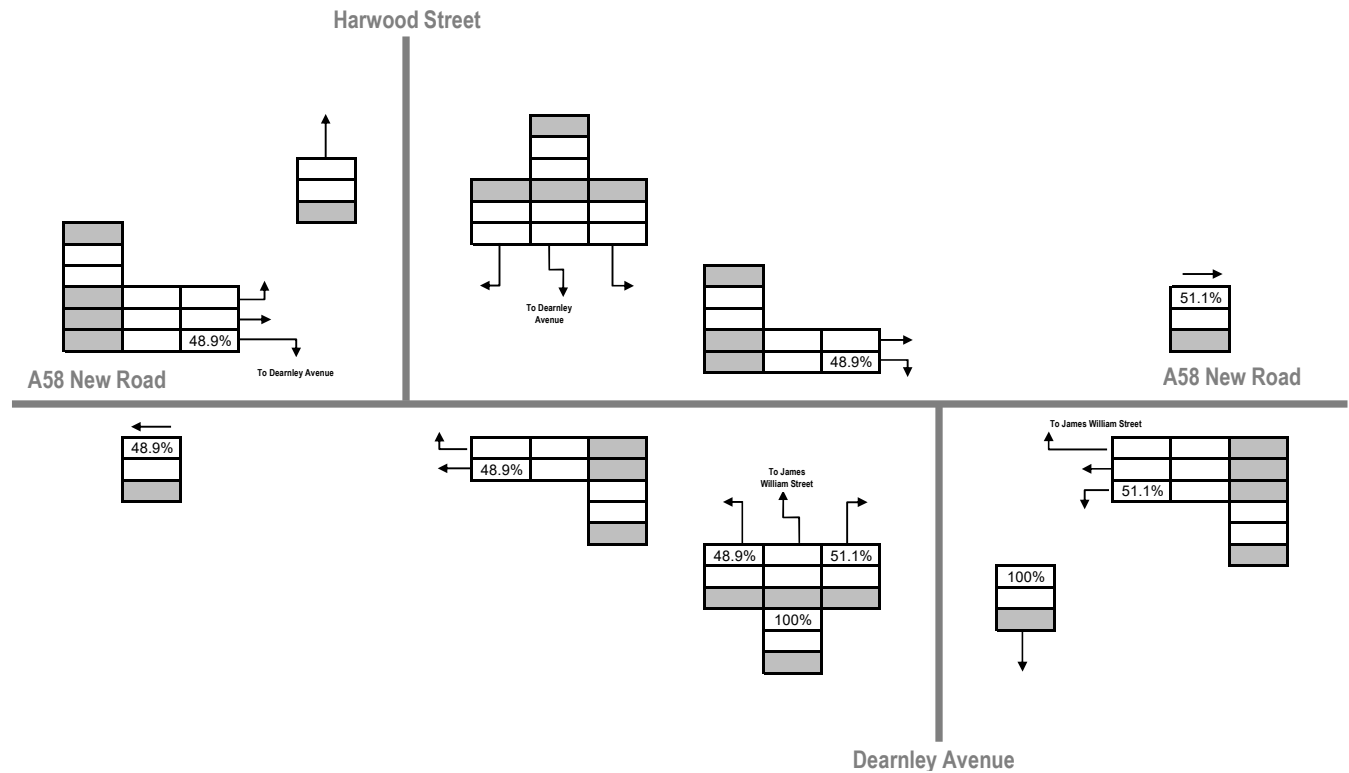
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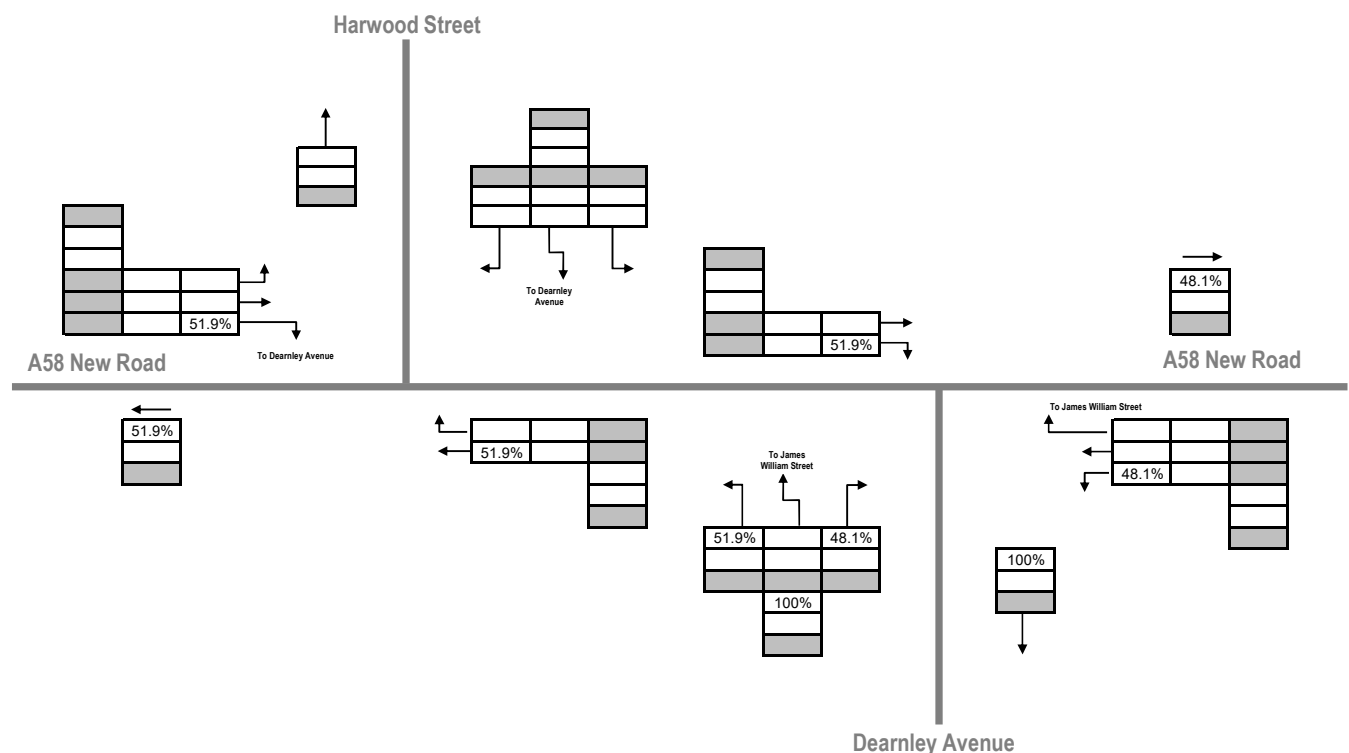
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Key

10	Total Vehs
5	HGVs
15	PCUs



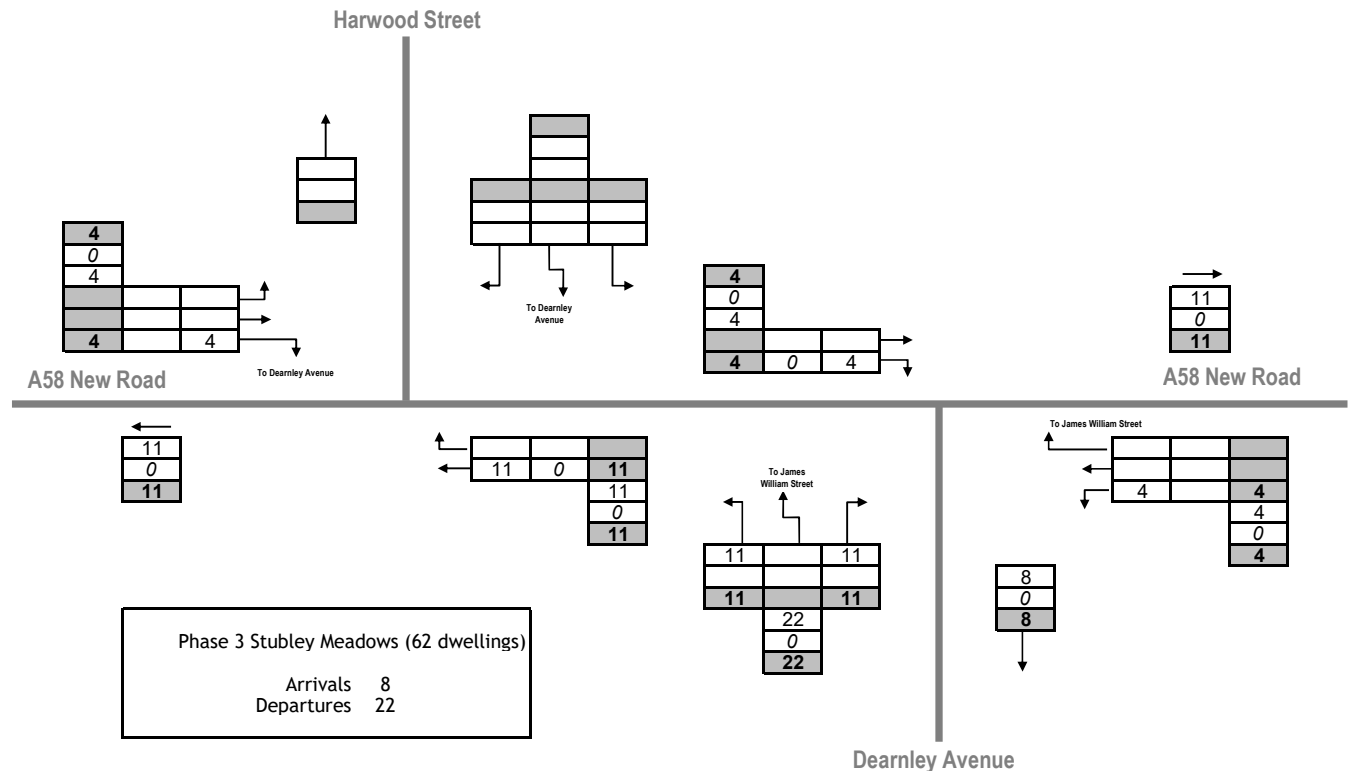
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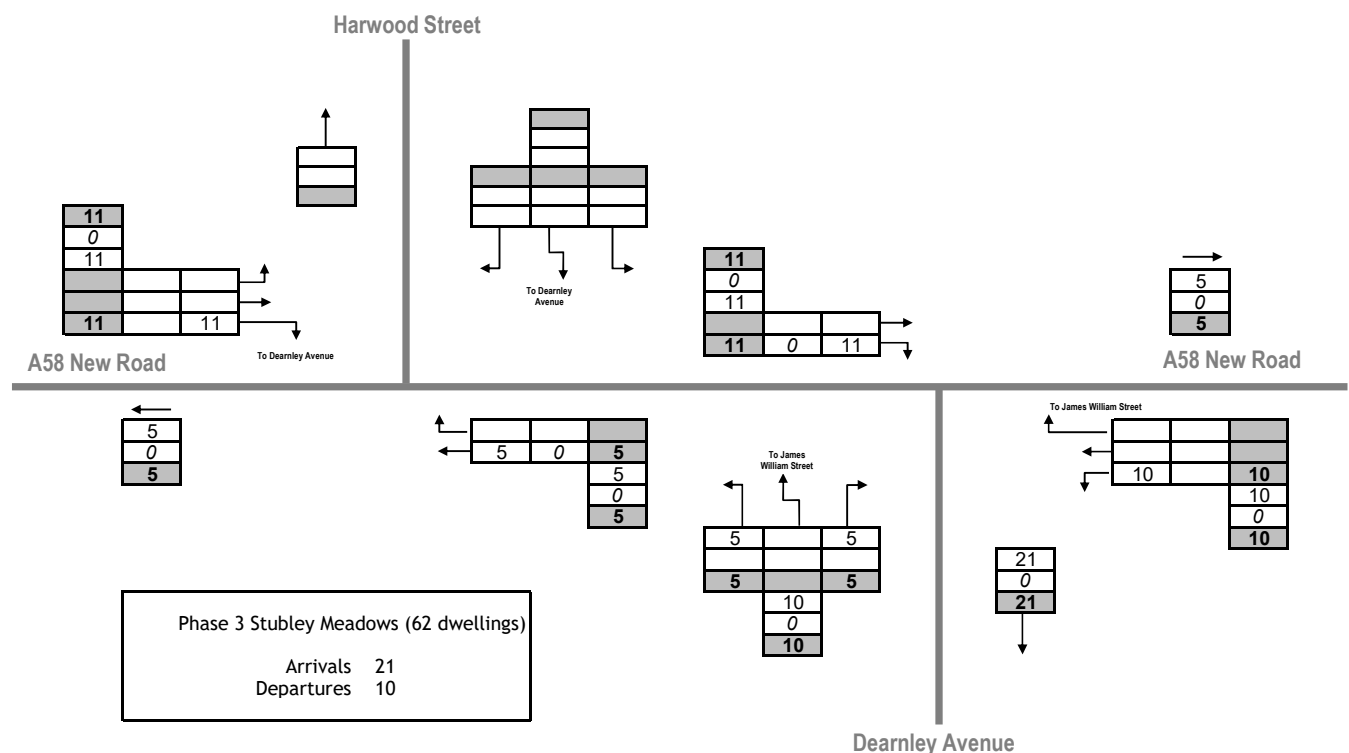
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Key

10	Total Vehs
5	HGVs
15	PCUs



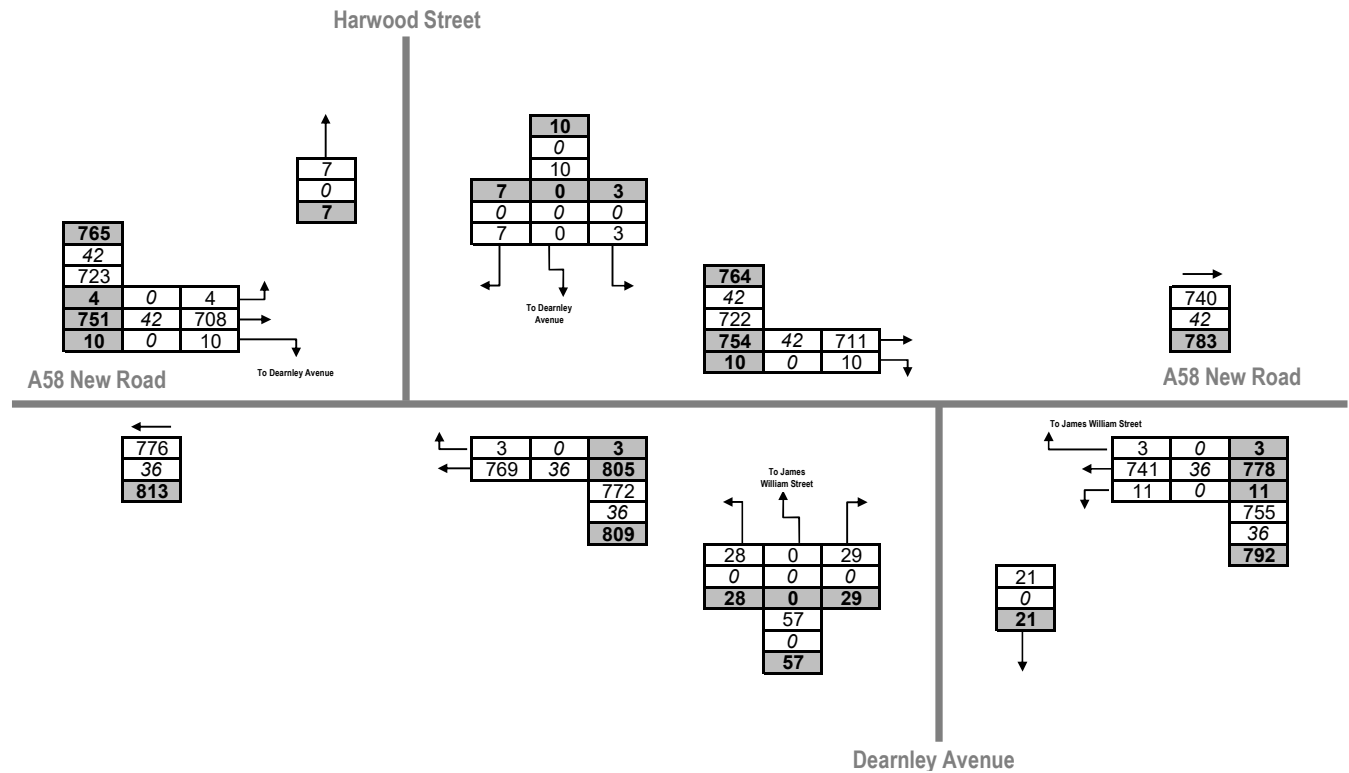
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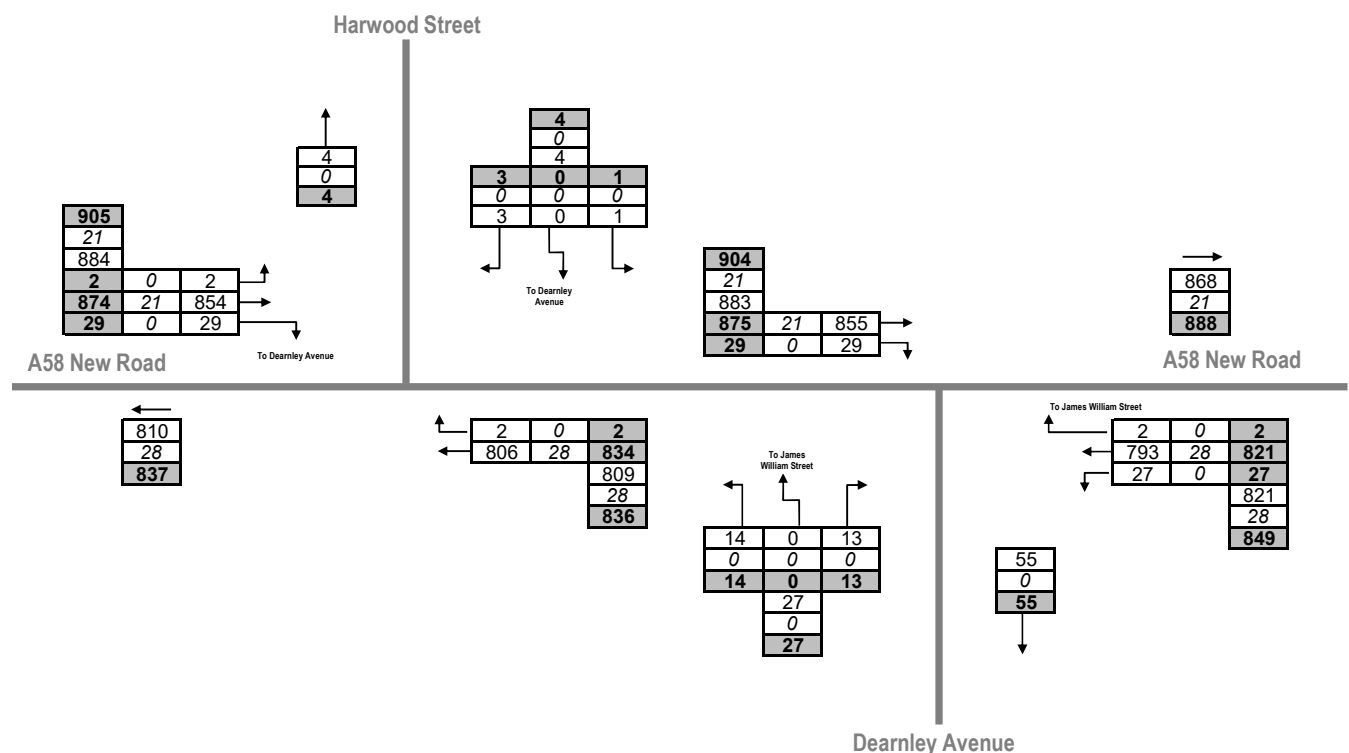
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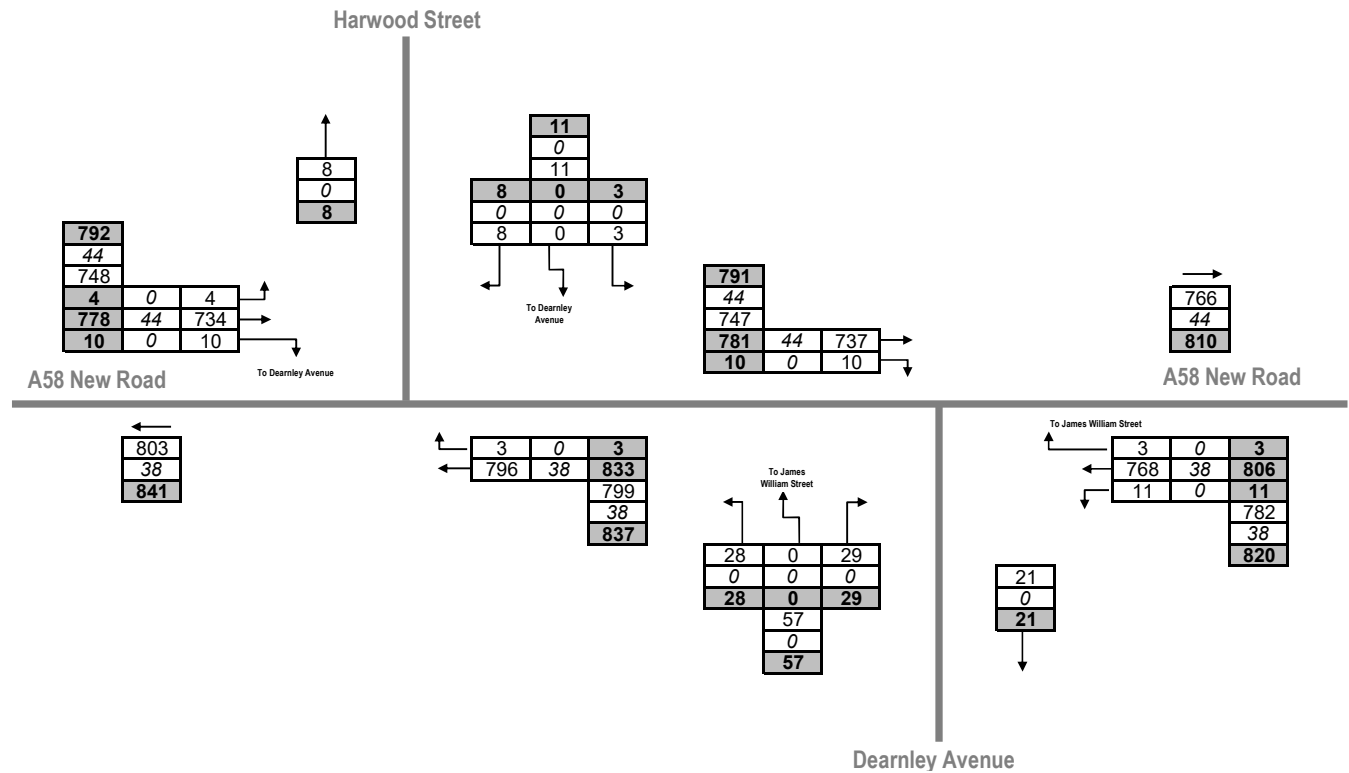
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AM Peak Hour: 08:15 - 09:15

Key

10	Total Vehs
5	HGVs
15	PCUs



PM Peak Hour: 16:15 - 17:15

