

Transport Assessment

**Proposed Lidl Food Store
Mauldeth Road West, Chorlton-cum-Hardy**

Lidl Great Britain Limited

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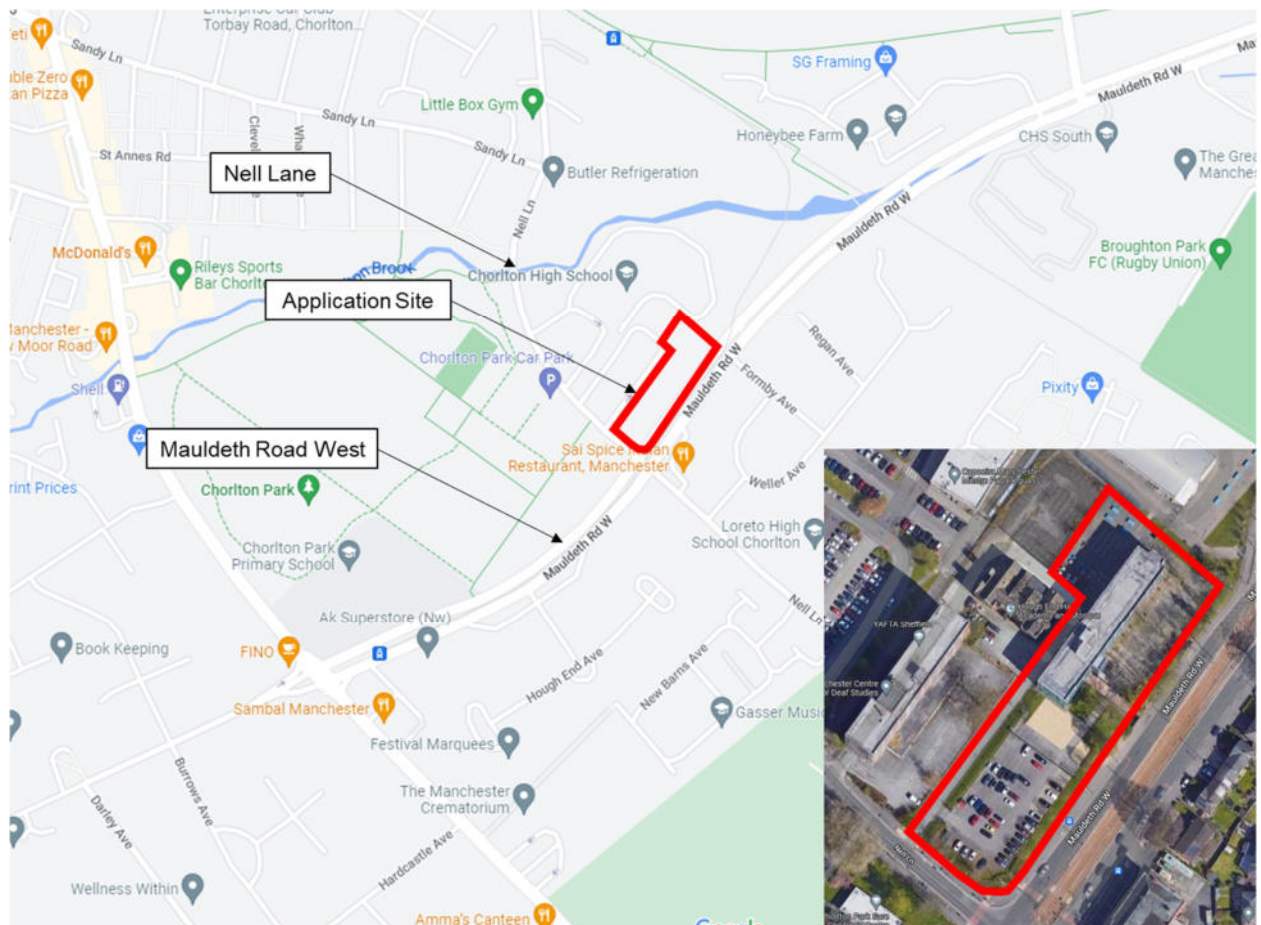
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1.0 INTRODUCTION

- 1.1 This Transport Assessment has been prepared on behalf of Lidl Great Britain Limited and provides a review of the transport and highway impacts related to the proposed development of a new discount food store off Mauldeth Road West in Chorlton-cum-Hardy.
- 1.2 The location of the Application Site and the surrounding highway network is shown below in **Figure 1.1**.

Figure 1.1: Site Location Plan



- 1.3 The site is located along Mauldeth Road West, within Chorlton-cum-Hardy, Manchester. The existing site comprises 1 No. commercial office building and associated parking.
- 1.4 This TA has been prepared to support a planning application for the replacement of the existing building with a Lidl discount food store and associated car parking. This TA has been developed in accordance with the now superseded, but still best practice, Department for Transport's (DfT's) March 2007 "Guidance on Transport Assessment" document, the National Planning Practice Guidance (NPPG) "Transport Evidence in Plan Making" document, Manual for Streets (MfS) and Manual for Streets 2.

Scope of This Report

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

2.0 TRANSPORT PLANNING POLICY

2.1 This chapter provides a summary of relevant national and local transport policies and provides a brief analysis of how the proposed development contributes towards the aims and objectives of these policies.

National Transport Policy

National Planning Policy Framework (NPPF)

2.2 NPPF is published by the Ministry for Communities and Local Government to set the framework under which local transport, parking and accessibility plans and policies are set. The NPPF has been revised most recently in July 2021.

2.3 At the heart of the National Planning Policy Framework is a presumption in favour of sustainable development which for decision-taking means:

- *'approving development proposals that accord with an up-to-date development plan without delay; or*
- *where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:*
 - *the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or*
 - *any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.'*

2.4 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) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and
- d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.

2.5 Importantly, NPPF states that:

‘development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe’.

‘Within this context, applications for development should:

- a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*
- b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*
- c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
- d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and*
- e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.*

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.

The Chartered Institute of Highways and Transportation: Manual for Streets / Manual for Streets 2 (2007 / 2010);

2.6 Manual for Streets (MfS) presents technical guidance and focuses on lightly-trafficked residential streets although many of its key principles may be applicable to other types of street such as high streets or lightly-trafficked lanes in rural areas. MfS is directed to all stakeholders involved in the planning, design, approval or adoption of new residential streets, and modifications to existing residential streets.

2.7 MfS is used for the design, construction, adoption and maintenance of new residential streets, but it is also applicable to existing residential streets subject to re-design.

2.8 MfS sets out detailed recommendations for street design with a focus on residential areas and motor vehicles, whilst MfS2 puts more emphasis on how and where key principles of MfS and MfS2 can be applied to busier streets and non-trunk roads; cycle infrastructure design is covered within MfS2 in detail too.

2.9 MfS and MfS2 state that the streets should:

'Not be designed just to accommodate the movement of motor vehicles. It is important that designers place a high priority and meet the needs of all users such as pedestrians, cyclists and public transport users so that growth in these modes of travel is encouraged.'

Greater Manchester Transport Strategy 2040

2.10 In terms of local policy, Transport for Greater Manchester (TfGM) on behalf of the Greater Manchester Combined Authority (GMCA) and the Greater Manchester Local Enterprise Partnership (GMLEP), have developed the **Greater Manchester Transport Strategy 2040**, published in February 2017 and updated in January 2021.

2.11 This vision, consulted on in 2015, set out ambitions for a new approach to planning the regions transport system in support of long-term needs and aspirations with the main vision being to have *'World class connections that support long-term, sustainable economic growth and access to opportunity for all'*.

2.12 It sets out a strong commitment to provide a transport system which:

'...supports sustainable economic growth and the efficient and effective movement of people and goods; improves the quality of life for all by being integrated, affordable and reliable; protects our environment and supports our target to be net zero carbon by 2038 as well as improving air quality; and capitalises on new technology and innovation'.

2.13 The Greater Manchester Transport Strategy 2040 is also structured, in part, around 5 spatial themes. These spatial themes are:

- Connected neighbourhoods
- Travel across the wider city-region
- Getting into and around the regional centre
- City-to-city links
- A globally connected city

Greater Manchester's Third Local Transport Plan 2011/12-2026

- 2.14 As part of the Greater Manchester Transport Strategy 2040, emerges the Greater Manchester's Third Local Transport Plan 2011/12-2026. The GM's LTP3 contains local transport policies saved from 2011 and aims to provide both a long term and short-term strategy.

"As required by the Local Transport Act, 2008, this third Local Transport Plan contains the policies of the Integrated Transport Authority (in the case of Greater Manchester this will be Transport for Greater Manchester from 1 April 2011) for the provision of safe, integrated, efficient and economic transport to, from and within their area. Although these policies build on the overall direction of transport strategy set out in the previous Local Transport Plans, LTP3 now replaces and supersedes LTP1 (2001-2006) and LTP2 (2006-2011)."

- 2.15 Page 19 section 2.3 sets out GM's core objectives within the LTP3 document. These are:

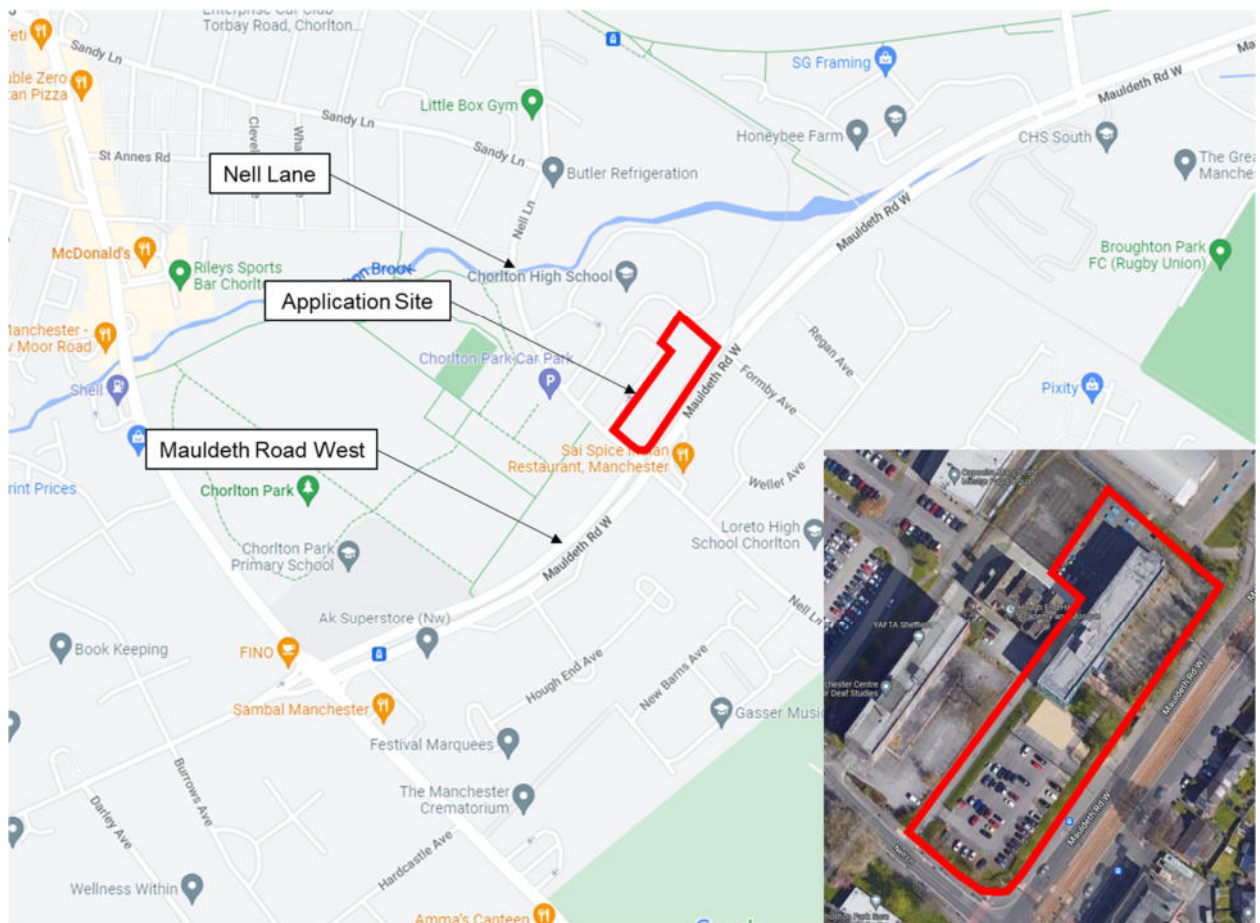
- *"to ensure that the transport network supports the Greater Manchester economy to improve the life chances of residents and the success of business.*
- *to ensure that carbon emissions from transport are reduced in line with UK Government targets in order to minimise the impact of climate change.*
- *to ensure that the transport system facilitates active, healthy lifestyles and a reduction in the number of casualties; and that other adverse health impacts are minimised.*
- *to ensure that the design and maintenance of the transport network and provision of services supports sustainable neighbourhoods and public spaces and provides equality of transport opportunities; and*
- *to maximise value for money in the provision and maintenance of transport infrastructure and services."*

- 2.16 The GM's 10 planning authorities, Transport for Greater Manchester (TfGM), and Highways England (HE) are also working together to identify the transport implications of developments proposed in LDFs, and to determine how best to mitigate the negative impact.

3.0 EXISTING SITE CONTEXT

- 3.1 The site comprises an irregular shaped piece of land located directly to the northwest of Mauldeth Road West on the corner with Nell Lane. It is approximately 1.6km southeast of Chorlton-cum-Hardy town centre.
- 3.2 The site is bound by the Mauldeth Road West to the south, Nell Lane to the west, industry to the east and to the immediate north of the site lies Chorlton High School.
- 3.3 The site location in the context of the surrounding transport network is shown in **Figure 3.1** below.

Figure 3.1: Existing Site



Surrounding Highway Network

- 3.4 Nell Lane, where the site access will join the road network travels in a southeast direction where it terminates into North Grove at the crossroad junction with Burton Road in West Didsbury. The site access is on Nell Lane, just north of the Mauldeth Road West junction. Mauldeth Road

West runs for approximately 2.1 miles in an east-west direction. Mauldeth Road West provides a connection to A5103 Princess Road, which provides access to the M60 and M56 motorways.

3.5 Nell Lane has a 20mph speed limit enforced with speed bumps. Nell Lane is a single carriageway road with one lane in each direction. Mauldeth Road West has a 30mph speed limit. There are 2 lanes in either direction with 2 tram lines separating the carriageways until the tram line leaves the road network 150 metres east from the site access from the junction with Barlow Moor Road. Following the junction with the A5103 the road narrows to a single carriageway and a 20mph speed limit is in place.

3.6 Footways are provided along both sides of Mauldeth Road West. Dropped kerbs and tactile paving are provided at every junction in the vicinity of the site. There is currently a pedestrian controlled crossing at all arms of the crossroad junction of Nell Lane and Mauldeth Road West.

Traffic Surveys

3.7 Traffic surveys were commissioned to record weekday AM peak and PM peak and Saturday midday peak turning movements at the 4-arm junction of Mauldeth Road West and Nell Lane -, the two Mauldeth House access junctions with Nell Lane, and also the four-arm junction of A5145 Barlow Moor Road, Mauldeth Road West and Hardy Lane. These surveys were conducted on Thursday 9th June and Saturday 11th June 2022.

3.8 The raw traffic data is provided at **Appendix 1** and is summarised at the end of this document in **Traffic Flow Figure 1** at **Appendix 2**.

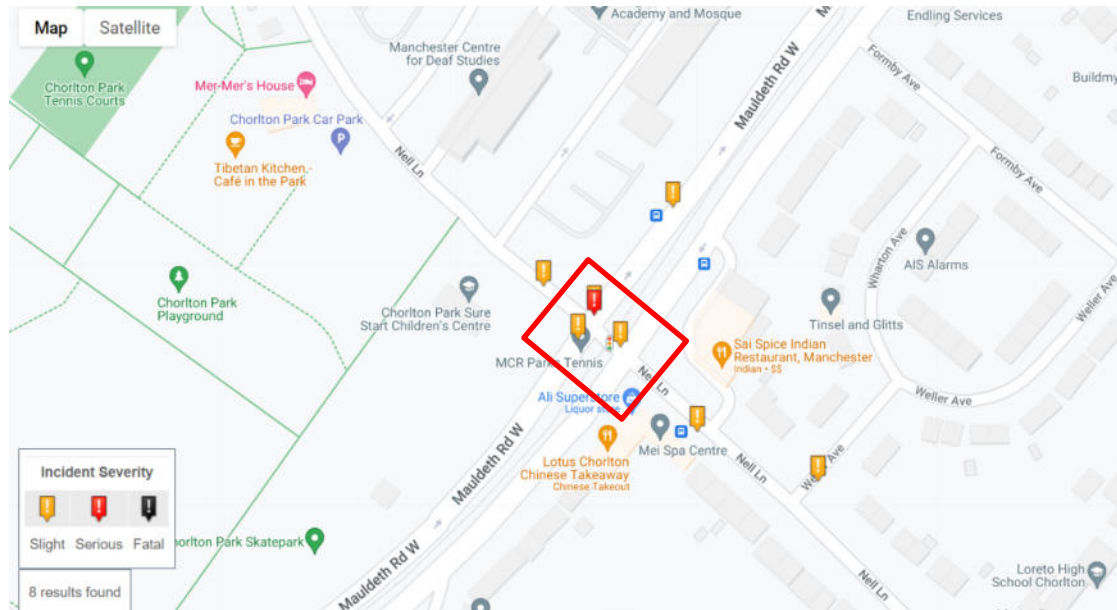
3.9 The raw data has been used to convert the traffic flows into passenger car units (PCUs) for weekday and Saturday highway peak hours. Analysis of this data highlighted the fact that the peak hours occurred during 08:00 to 09:00 for the weekday AM peak, 15:00 to 16:00 for the weekday PM peak, and 13:00 to 14:00 in the Saturday peak.

Road Safety

3.1 Collision data was obtained from the Crashmap website for the 4-arm junction surrounding the Application Site for the period between 01/01/2017 to 31/12/2021. The accident reports provide information on the location and severity of all accidents which took place on the adjoining highway network.

3.2 The study area considered for the accident analysis is outlined below in **Figure 3.3**

Figure 3.3: Accident Study Area



- 3.3 During the 5-year study period, a total of 4 accidents occurred. 3 of these accidents were labelled as slight in severity. One incident was labelled as serious.
- 3.4 All accidents have been investigated and the detailed reports can be found within [Appendix 3](#). The serious accident involved a front-on-front collision between two vehicles. One car then hit a crash barrier; the driver's injuries were classed as serious. The other 3 incidents, all minor, include a moped performing a U-turn and crashing into the front of an oncoming car; a motor vehicle turning right colliding with the rear of a pedal cycle that was also turning right; and a side on collision between two vehicles moving off.
- 3.5 On the basis of the data analysed over a five-year period, there does not appear to be any particular road safety issue that might be exacerbated by the proposals.

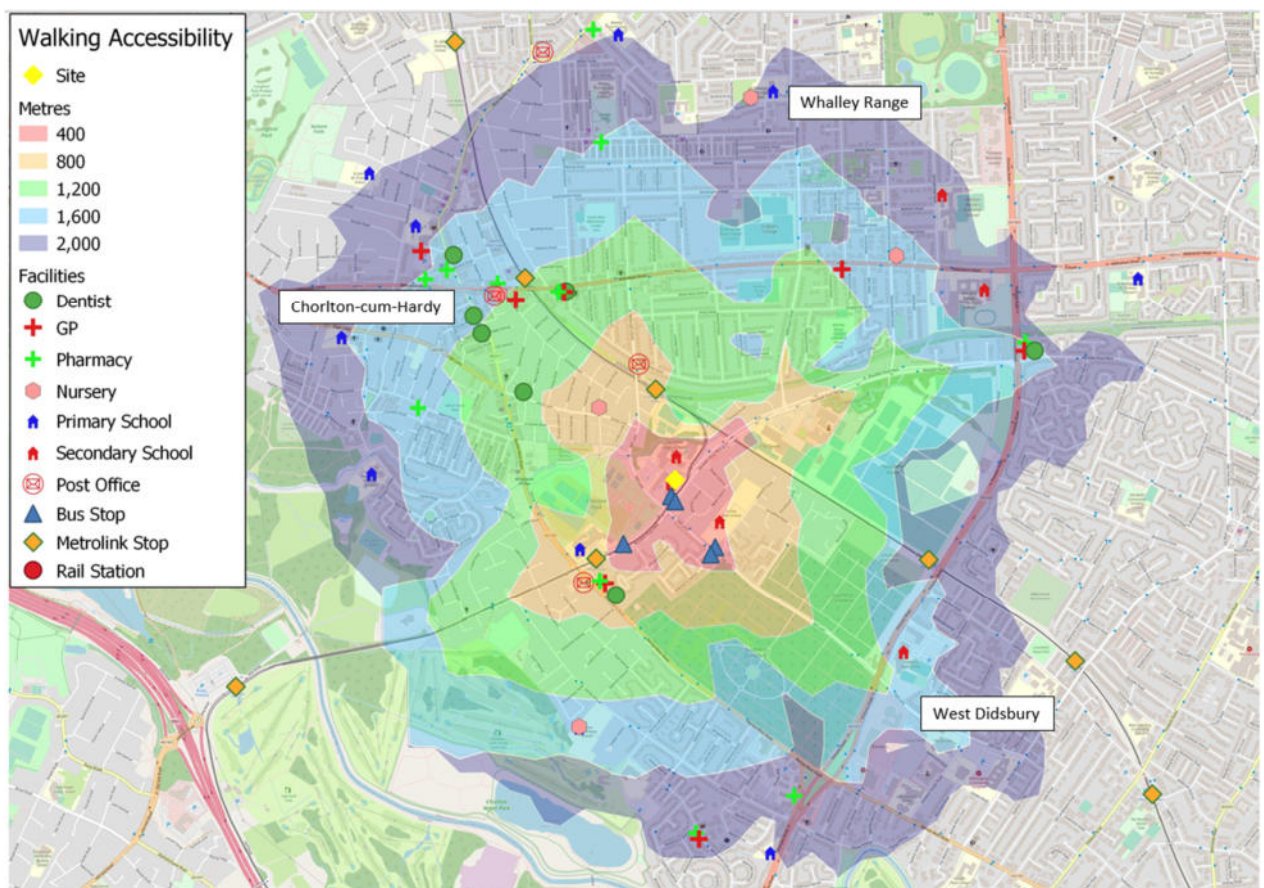
4.0 SUSTAINABLE TRANSPORT APPRAISAL

- 4.1 This section provides a review and description of the existing transport network surrounding the site.

Access by Non-Car Modes: Walking

- 4.2 Walking is recognised as the most important mode of travel at a local level and offers the greatest potential to replace short car trips, particularly those under two kilometres.
- 4.3 TRACC software has been used to assess the accessibility of the development by foot as shown on **Figure 4.1** below. The plan shows the areas within a 2km walk of the site.

Figure 4.1: Walk Accessibility within 2km



Source: TRACC

- 4.4 The figure demonstrates that the residential areas of Chorlton-cum-Hardy, Whalley Range and West Didsbury are within the 2-kilometre walking catchment area. This demonstrates that, as is Lidl policy, employees from the local area will be able to access the site by foot. This also

indicates that a significant proportion of potential customers will be within reasonable walking distance of the site.

- 4.5 A number of local amenities are also within a 2km walk of the site (up to 20 minutes' walk) which will promote linked trips, as shown in **Table 4.1** below:

Table 4.1 - Accessibility to Local Facilities from the Development Site

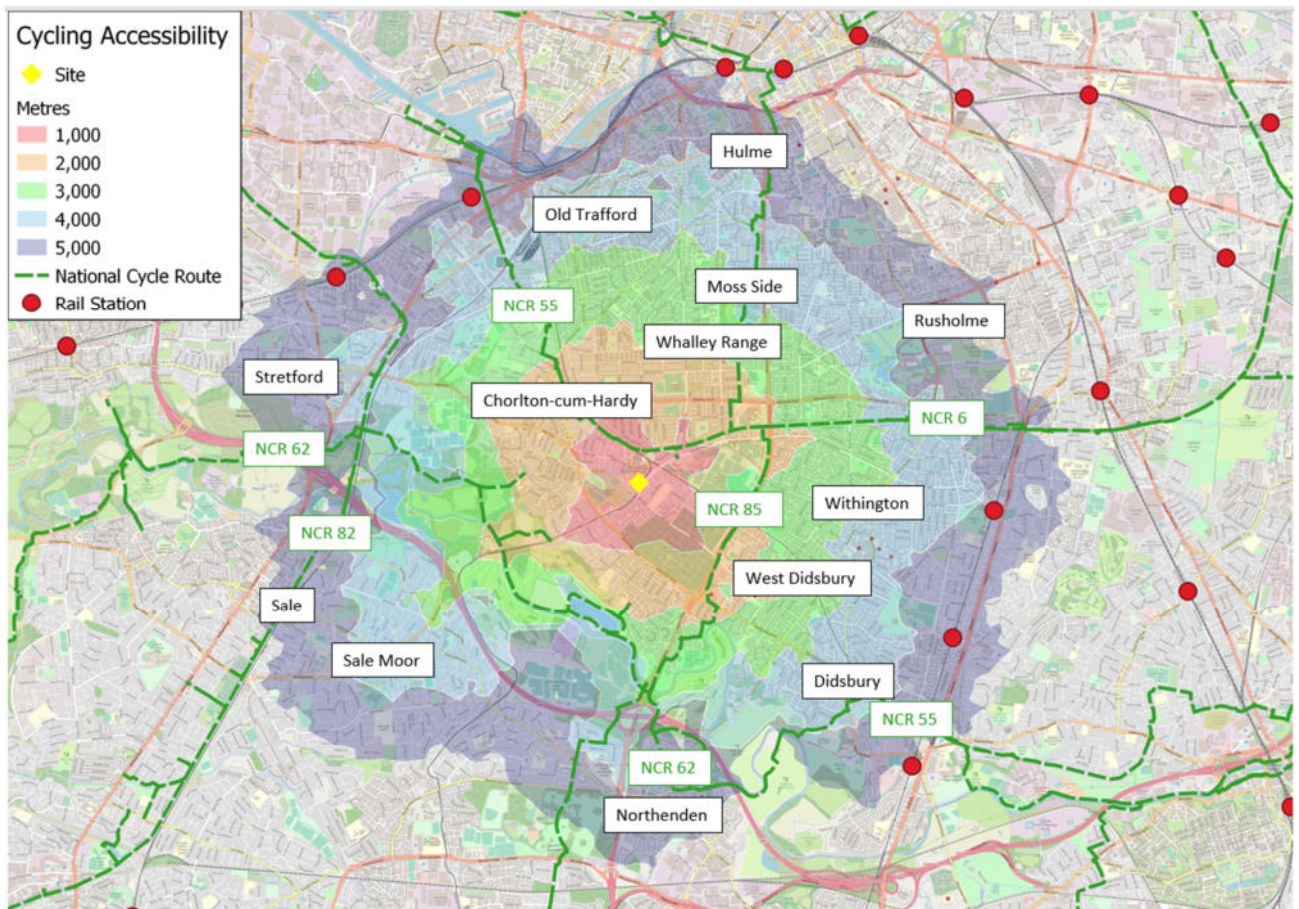
Service	Detail	Distance
Restaurant	Sai Spice Indian Restaurant, Mauldeth Road West	90m
Bus stops	Nell Lane & Mauldeth Road West	100m
Secondary School	Chorlton High School, Nell Lane	190m
Gym	Little Box Gym Ltd., St Werburgh's Road	400m
Primary School	Chorlton Park Primary School, Mauldeth Road West	400m
ATM	Co-op, Barlow Moor Road	450m
Tram stop	Barlow Moor Road Stop, Mauldeth Road West	400m
Coffee shop	Fino, Barlow Moor Road	500m
Nursery	Lighthouse Childcare Centre, Sandy Lane	500m
Pharmacy	Well Chorlton-cum-Hardy, Barlow Moor Road	550m
GP	David Medical Centre, Barlow Moor Road	550m
Dentist	Serenity Dental Spa, Barlow Moor Road	600m

- 4.6 The surrounding area benefits from a good level of pedestrian infrastructure. Street lighting and wide footways are provided on all the local roads. Dropped kerbs and tactile paving are provided at the majority of junctions in the vicinity of the application site. A signalised pedestrian crossing is also situated adjacent to the site, to facilitate the crossing of Nell Lane and Mauldeth Road West. Combined, this infrastructure helps to create a conducive walking environment for pedestrians.

Access by Non-Car Modes: Cycling

- 4.7 Transport policy identifies that cycling represents a realistic and healthy option when compared to the private car, for journeys up to 5km as a whole journey, or as part of a longer journey by public transport.
- 4.8 The cycle accessibility plan in **Figure 4.2** shows a 5-kilometre cycling catchment area from the site.

Figure 4.2: Cycle Accessibility within 5km



Source: TRACC

4.9 The mapping provided above demonstrates that all of Chorlton and the surrounding residential areas are within a 5km cycle distance from the site, with these areas including Northenden, Didsbury, Withington, Rusholme, Moss Side, Hulme, Old Trafford, Stretford, Sale and Sale Moor, in addition to the areas which are accessible on foot.

4.10 The map also demonstrates the site's accessibility to the National Cycle Route (NCR) network:

- Locally NCR 6 provides an east-west route between Chorlton and Reddish, and a north-south route from the site through Manchester city centre up to Bury;
- NCR 55 provides a route to Salford Quays through Trafford, or by following NCR 6 through the city centre until the Liverpool Road junction; this spur locally runs to Tyldesley;
- NCR 62 runs from Broadheath to Didsbury, before restarting in Burnage and running east-west across the Pennines as part of the Trans Pennine Trail;
- NCR 82 runs from Altrincham to the south-west of the site, to Eccles to the north-west of the site;

- Finally, NCR 85 provides a route south of the site to West Didsbury and south to Woodhouse Park.

4.11 A number of local on-road routes are also available in close proximity to the site, as can be seen in **Figure 4.3**.

Figure 4.3 – Local Cycle Routes



Source: TfGM Interactive Cycle Map

4.12 The existing cycle infrastructure combined with the cycle parking provision and topography of the area will ensure that employees and customers will easily be able to access the proposed development by bike.

Access by Non-Car Modes: Public Transport

Bus

- 4.13** In terms of bus services, the Chartered Institute of Highways & Transportation's (CIHT's) "Guidelines for Planning for Public Transport in Developments" document identifies, at section 6.20, that "Bus stops are located to minimise passengers' walking distance to their final destination. The maximum walking distance to a bus stop should not exceed 400m and preferably be no more than 300m."
- 4.14** The nearest accessible bus stops to the site are located close to the site along Mauldeth Road West (in both directions, approx. 100m from store access point), and on Nell Lane (100m for north-westbound stop and 290m for south-eastbound stop) and are therefore well within the recommended walking distance.
- 4.15** The bus stops all consist of a flag and pole arrangement. There are good pedestrian links directly from the site to the bus stops
- 4.16** **Figure 3.3** presented above illustrates that there are five bus stops within approximately 400m walking distance from the site. The frequency of the different bus services available from these stops is outlined in **Table 4.2**.

Table 4.2: Bus services within 400m of the site

Service No.	Destinations	Bus Stop Location	Average Frequency		
			Weekday	Saturday	Sunday
25	Trafford Centre – Lostock – Stretford – Chorlton – Fallowfield – Burnage – Green End - Stockport	Mauldeth Road West	30 mins 05:55 – 22:44	30 mins 06:33 – 22:44	30 mins 07:59 – 21:44
85A	Arrowfield Estate – Chorlton – Alexandra Park – Chorlton upon Medlock – Piccadilly Gardens	Nell Lane	60 mins 06:43 – 22:28	60 mins 07:38 – 22:28	No service
172	Chorlton – West Didsbury – Burnage – Levenshulme – Ryder Brow – Gorton – Openshaw – Newton Heath	Nell Lane	60 mins 05:44 – 23:08	60 mins 07:04 – 23:08	60 mins 08:23 – 22:05

Source: Traveline

- 4.17** A greater number of services are available from stops on Barlow Moor Road, which is 500m (6-minute walk) from the site access.

4.18 The above table demonstrates that prospective employees and shoppers of the site will have access to several bus services which provide access to a range of destinations across the Manchester area, at a good frequency.

4.19 It is demonstrated that there are a variety of bus services within close proximity to the site which provide a range of opportunities for employees and customers to access the store via bus seven days a week.

Rail

4.20 Burnage Rail Station is the nearest train station to the development site. The railway station is located 4.3km from the proposed store.

4.21 The station provides parking for twelve bicycles, in a combination of lockers and cycle stands. Other facilities include a ramp for train access, accessible ticket machines, and a bus stop outside the station.

4.22 Services from the station run to destinations including Barrow-in-Furness, Crewe, Manchester Airport, Liverpool Lime Street and Windermere, with a number of those services stopping in Manchester city centre.

Manchester Metrolink

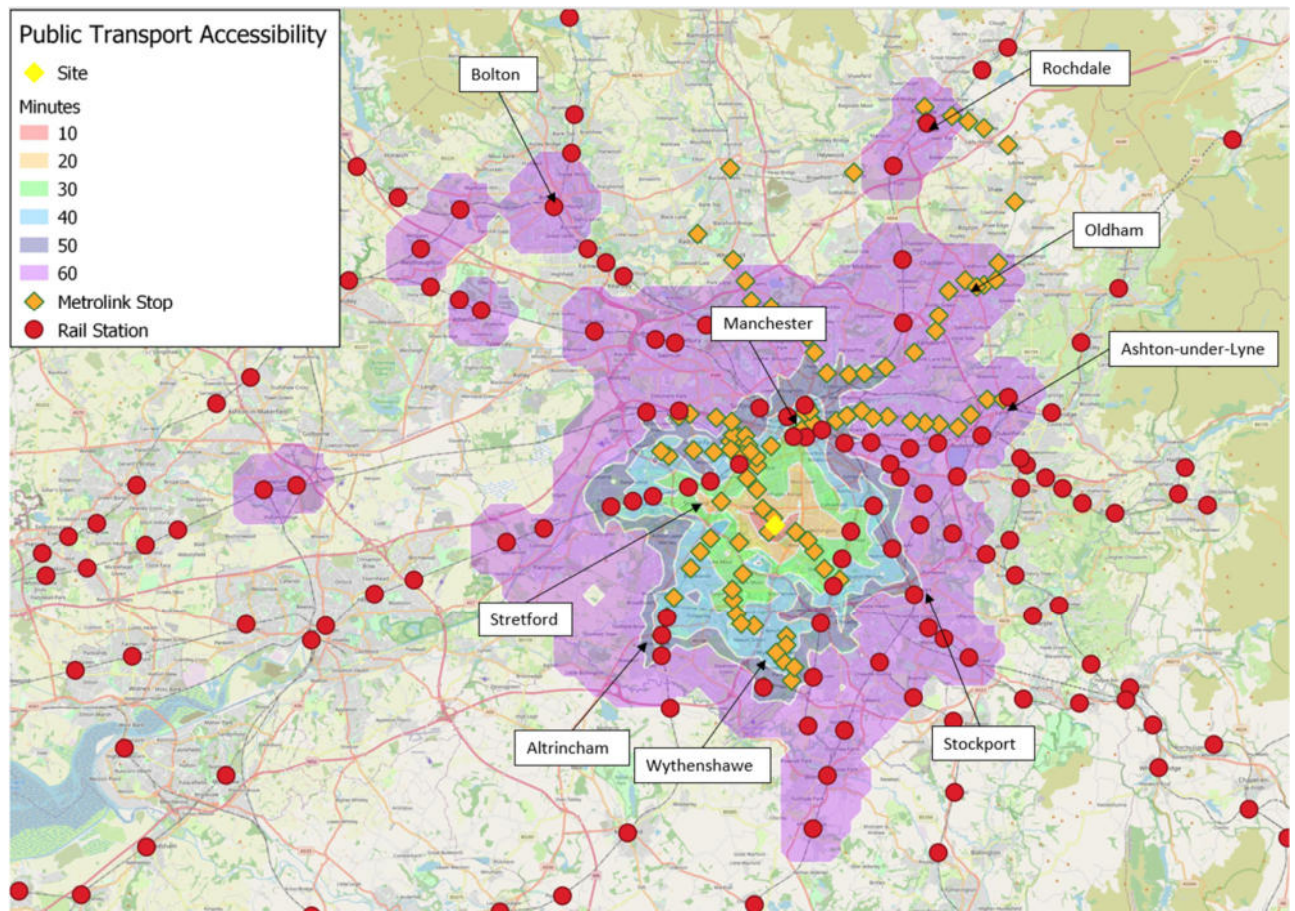
4.23 Greater Manchester also operates a tram system: the Manchester Metrolink. The closest stop is at Barlow Moor Road, an approximate 5-minute walk from the site (400m).

4.24 The service runs between Manchester Airport and Manchester Victoria, calling at a number of locations along the route. There are opportunities for interchange onto the bus, rail or further tram network at a number of stops along the Metrolink network.

4.25 Services run every 12 minutes from Monday to Sunday, with most starting early morning (approx. 6am) and running until late evening (approx. 11pm).

4.26 **Figure 4.4** below illustrates the distance that can be travelled within 60 minutes by public transport to and from the site.

Figure 4.4: Public Transport Accessibility within 60 Minutes



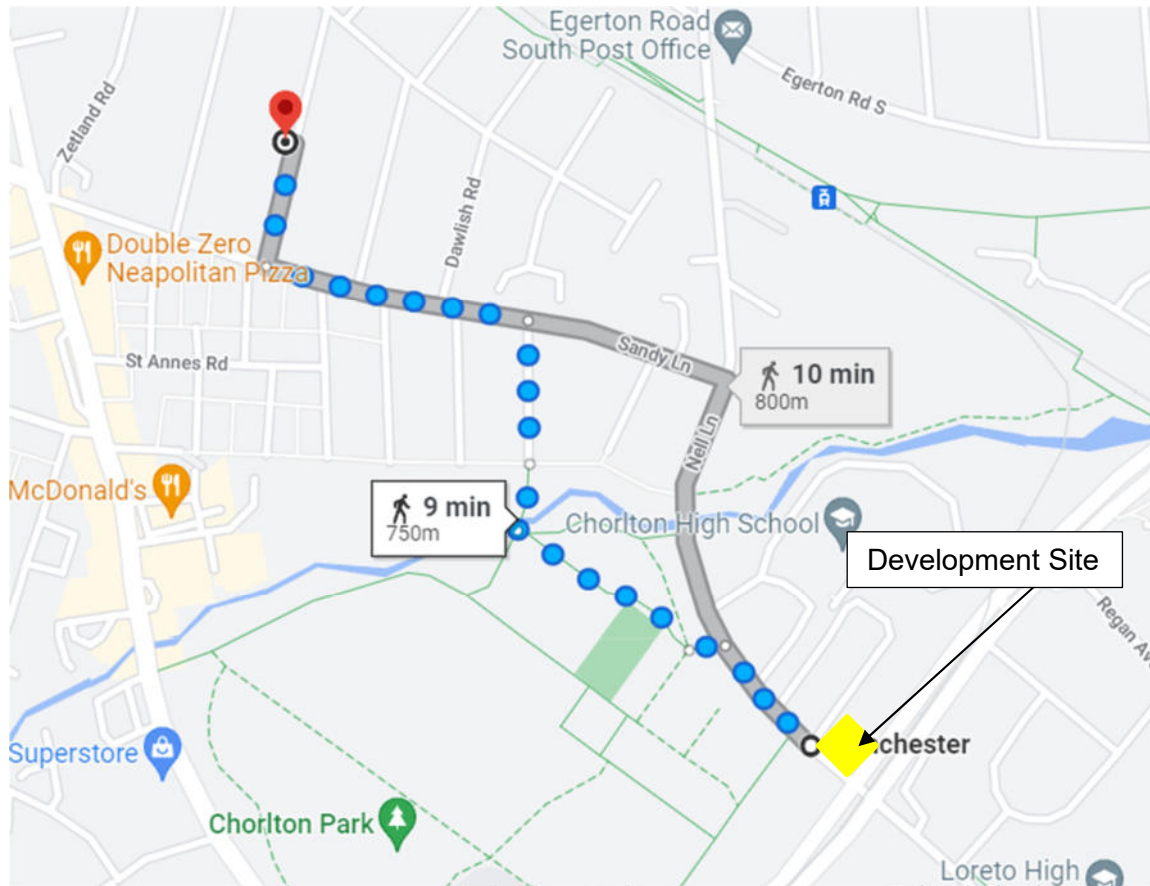
4.27 The time includes the walk to the bus, rail and tram stops and demonstrates that key areas such as Bolton, Oldham, Altrincham and Stockport in addition to the local surrounding areas are within an acceptable 60-minute public transport commute.

Private Vehicle

4.28 The site is well served by the existing highway network, with Mauldeth Road West linking to the A5103 Princess Road and the A6010 Wilbraham Road, providing connection from the development site to the M60 and M56 motorways, as well as the wider road network.

4.29 Car clubs provide an alternative to private car ownership and significant use can tackle congestion and air pollution levels. A car club operated by Enterprise is located on Torbay Road. This car club can be reached in an approximate 10-minute walking time from the development site, with the quickest route shown in **Figure 4.5**.

Figure 4.5: Car club location



Source: Google Maps / Enterprise

Summary

4.30 Having regard to the above, it is considered that the site has good levels of accessibility by the main non-car modes of transport. Access to the site by foot and cycle is of a good standard, and bus, tram and rail connections are also available within close proximity, therefore enabling access to the site from a range of local locations.

5.0 PROPOSED DEVELOPMENT

Background

- 5.1** The proposals for the application site include the redevelopment of land off Mauldeth Road West to a discount food retail unit (Use Class E) with a Gross Internal Area (GIA) of 2,092sqm and a sales area of 1,444sqm. Access to the site will be made via the existing bellmouth along Nell Lane.
- 5.2** A total of 76 car parking spaces will be provided across the site. Of the 76 spaces provided, eight will be designated to parent and child standard and four will be DDA compliant. These spaces will be clearly marked and positioned close to the store entrance and trolley bays for customers' convenience. There will also be two electric vehicle charging points of rapid charger type and five spaces for staff parking.
- 5.3** A loading bay will be provided on site to accommodate delivery vehicles up to the size of a maximum legal articulated HGV. Deliveries to the store will be made by articulated lorry via Nell Lane. It is anticipated that there will be just one dedicated delivery per average day and up to two deliveries during seasonal peak periods, such as Easter and Christmas. The loading bay is accessed from a separate service yard to the rear of the store.
- 5.4** Cycle parking will be provided on site in the form of five Sheffield cycle stands which will provide space for up to 20 standard bikes and 4 No. cargo bikes. These cycle stands will serve customers of the food store and will be located close to the entrance to the store. Secure staff cycle parking is also provided for employees within the warehouse.
- 5.5** The proposed site layout plan is included at **Appendix 4**.

6.0 ACCESS STRATEGY

6.1 The existing access into the application site is a 4.5m-wide road aligned perpendicularly to Nell Lane. This access road is not wide enough to adequately accommodate the swept path of an articulated HGV or to cater for the anticipated uplift in two-way demand created by a discount food store. Furthermore, there are no footways along either side of the access road and intervisibility between vehicles and pedestrians waiting to cross the existing bellmouth on the northern kerb line is poor.

6.2 The Google Streetview image below is taken from a point just to the north-west of the access looking towards Mauldeth Road West and it illustrates the intervisibility issue. Nell Lane is approximately 7.3m wide along the frontage of the application site with footways on both sides that are circa 4.5m wide and wide enough for shared cycle and pedestrian use.

6.3 Nell Lane is a 20mph zone from the site access north-westwards and beyond the high school.



6.4 The Applicant will deliver improvements to Nell Lane and the site access to address the following key issues:-

- Retain 3m-wide shared cycle/footways along both sides of Nell Lane between the site access and Mauldeth Road West;

- Provide 2m-wide footways along the south side of the access road and for a distance along the north side as far as a new raised pedestrian crossing;
- Realign the access road such the northern kerb line is built out to improve vehicle/pedestrian intervisibility;
- Widen Nell Lane to 9m to enable a ghost-island right turn pocket to be created which will ensure that right turners into Lidl do not block the straight-ahead flow north-westwards;
- Provide 'keep clear' markings across the bellmouth along the south-eastbound approach to the junction with Mauldeth Road West to ensure that right turners into the site are not blocked by queueing vehicles when Nell Lane is on red;
- Provide traffic calming features in the form of speed bumps on either side of the site access;
- Provide speed indicator devices to reinforce the 20mph speed limit of Nell Lane;
- Provide additional heritage bollards along Nell Lane to prevent cars from pulling up onto the footway;
- Provide an extension of the TROs around the boundary of the site, and particularly along Mauldeth Road West to prevent on-street parking;
- Provide a new bus shelter for the eastbound bus stop on Mauldeth Road West outside the store entrance and a short section of guard rail opposite the pedestrian entrance closest to the bus stop.

6.5 For vehicular access to the site, an arrangement consisting of a 3m wide ghost-island, 3m wide through lanes and 3m wide shared footway/cycleways is achievable within the extents of adopted highway and does not compromise the safety of pedestrians and cyclists.

6.6 The full site access arrangement proposals and off-site highway improvements are illustrated to scale at drawing SK12, SK13 and SK14 at [Appendix 5](#).

6.7 A Stage 1 RSA conducted on the site access is provided at [Appendix 6](#) to this note.

6.8 Five issues were raised at the Stage 1 audit, our Designer's Response to these items is as follows:-

Designer's Response to Stage 1 RSA

1. Swept paths at the realigned site access junction onto Nell Lane had not been provided. These were provided within the submitted TA and confirm that all swept paths can be undertaken without risk of kerb strikes or danger to pedestrians.
2. Swept paths of the design vehicle at the car park entrance from the site access road. We assume that the auditor was unaware that the HGV would service the store via the rear service yard and not via the customer car park as is more typical of Lidl arrangements. Therefore, no need to track this access with a design HGV.
3. The auditor identified a significant level difference between the existing site and Nell Lane. This level difference will be removed as part of Lidl's proposals and the site access will emerge onto Nell Lane at a similar height. There is therefore no need for any dwell plateau, as suggested by the auditor.
4. The auditor identified a lack of a visibility splay and a presence of boundary vegetation. There will be no boundary vegetation to obstruct visibility at the car park access.
5. The auditor identified a potential pedestrian/vehicle intervisibility issue at the proposed raised crossing of the site access road. This raised crossing has now been relocated further into the access road where more than sufficient ped/veh intervisibility is available. The uncontrolled crossing at the realigned bellmouth has been repositioned such that adequate ped/veh intervisibility is now provided.

7.0 DELIVERY, SERVICING & WASTE MANAGEMENT PLAN

Servicing and Deliveries

- 7.1** Servicing for the new food store will be via an on-site dedicated service yard to the rear of the store. The service yard will be accessed from Nell Lane and the access road will be widened to a minimum of 7m to accommodate the movements of a 16.5m articulated HGV.
- 7.2** Drawings provided at **Appendix 7** illustrate the swept path analysis of a 16.5m long articulated lorry entering the service yard from the access road, turning within the dedicated area, reversing onto the loading bay and then exiting the site in a forward gear back onto Nell Lane via the access road. The widening of Nell Lane between the site access Mauldeth Road West allows an exiting HGV to turn left and align itself at the stop line without blocking inbound vehicles.
- 7.3** Lidl routinely schedule deliveries for those periods outside peak-trading hours or when the store is closed to customers completely. Logistically this makes their own operation much more efficient as staff are able to re-stock more easily when there are fewer customers in the store and deliveries arriving over night or during the early hours of the morning are less susceptible to delays on the network.
- 7.4** However, flexibility is key to any retailer's operation and as a result, Lidl's standard DSWMP strategy is designed to inform decision makers about the impact of deliveries if arriving when the store is at its busiest.
- 7.5** The following concerns are typical of those that have been expressed by local planning and highway authorities across the UK over recent years.

- Concern 1

How will the arrival of the HGV be communicated to the site?

- The manager of each Lidl store is aware of the scheduled delivery time for each day and as a result prepares accordingly. In addition, the driver can telephone the site 20-30 minutes before arrival or in case of delay or any other alteration to the delivery schedule.

- Concern 2

What is the length of time deliveries are likely to take?

- Lidl deliveries are completed within a period of about 30 to 60 minutes depending on the size of the store. They are manoeuvring within the car park for only a fraction of this time.

- Concern 3

Can vehicles enter and leave the main site in forwards gear minimising reversing?

- The route for Lidl's delivery vehicles into the site, onto the loading bay and out again has been carefully designed around a maximum legal articulated HGV. The HGV only reverses from the point at which the vehicle completes its u-turn in the service yard. This minimises the extent the vehicle needs to reverse to just that section onto the loading bay ramp itself;

- Concern 4

How will noise from reversing horns / sirens be controlled (as this could disrupt neighbours)?

- Lidl's delivery vehicles will either be fitted with standard reversing beepers or with white-noise reversing beepers. With regards to the former, these can be turned off if the vehicle is delivering overnight as there will be no-one else on the site. The driver has access to the warehouse and does not need a Lidl employee to open up. In terms of the white noise alarms, the white sound is emitted directionally and is therefore instantly locatable. White sound reversing alarms work effectively at lower decibel ratings containing any noise to the area behind and immediately around the rear of the reversing vehicle;

- Concern 5

Is the loading bay at same level as the back of the vehicle (i.e. no need to roll cages up / down slopes rattling around)?

- Lidl's loading bay is ramped allowing the vehicle to reverse down directly onto the warehouse doors at finished floor level. A dock leveller eliminates any differential between the floor of the trailer and the warehouse doors. There is therefore minimal transitioning of cages between the HGV and the warehouse and as soon as the cages leave the lorry they are inside the warehouse;

- Concern 6

Are engines turned off when stationary during deliveries?

- Yes, Lidl's HGV drivers are instructed to turn off their engines during the entire time that the vehicle is stationary against the loading bay doors;

- Concern 7

Are refrigeration motors turned off during deliveries (or plugged into local electricity supply)?

- Yes, Lidl's HGV drivers are instructed to turn off refrigeration units during the entire time that the vehicle is stationary against the loading bay doors;

- Concern 8

Are drivers instructed to keep all other noises to a minimum if delivering overnight?

- Yes, Lidl's HGV drivers are instructed to turn off all stereo equipment and be careful not to slam vehicle doors;

- Concern 9

Are staff aware, particularly during night time hours (23:00 - 07:00), not to shout etc. outside?

- The only staff on site overnight would be the delivery driver. At all other times, Lidl employees are required to be sensitive to their surroundings if working outside.

Monitoring

7.6 A Lidl store typically receives one delivery vehicle per store per day with a maximum of two at peak periods such as Easter and Christmas. Waste material is taken away by the same vehicles. HGV vehicle trips are monitored, and efforts made to remove any unnecessary HGV delivery trips to support normal business.

Waste Management

7.7 Waste is stored within the building close to the servicing bay, to enable easy collection by vehicles servicing the site. There is no external storage of either stock or waste.

7.8 Lidl operates a policy of reloading empty delivery HGVs with store waste to return to the depot for recycling. This reduces the number of on-site vehicle movements required. Empty pallets and TKT boxes along with waste and recycling are returned to the warehouse on the same HGV.

7.9 Lidl are committed to developing innovative ways to effectively manage waste streams to ensure that packaging requirements are reduced, more is recycled and surplus food is redistributed to charity.

7.10 Lidl boast an award-winning recycling and waste management programme. In-store and warehouse waste management concepts are integral to Lidl's Zero Waste Commitment. Through the commitment of Lidl's logistics and procurement teams and all store and warehouse employees, Lidl achieved Zero Waste to Landfill and are working hard to maintain this.

Summary

- 7.11** Lidl's Delivery, Servicing and Waste-Management Plan for this site will conform to their own stringent standards applied across their UK estate.
- 7.12** The foodstore will be serviced by a 16.5m HGV from access road directly into the servicing area located to the rear of the store. Drivers are given precise instructions about how to access the store and manoeuvre within the car park and onto the loading bay prior to leaving the depot.
- 7.13** Deliveries and waste collection are part of the same operation as Lidl send delivery vehicles back to the depot loaded with recyclable waste. Deliveries and/or any waste collection will typically take place during the quietest time for the operator. Nevertheless, the store manager will manage the delivery slots, with clear instructions about delivery location and timing.
- 7.14** Lidl's Delivery, Servicing and Waste Management Strategy demonstrates that the store can be adequately serviced without detriment to the safety of customers or staff or to the residential amenity of the surrounding area.
- 7.15** Lidl are committed to developing innovative ways to effectively manage waste streams to ensure that packaging requirements are reduced, more is recycled and surplus food is redistributed to charity. Lidl work closely with packaging and waste experts to ensure that their operation is as efficient as possible.
- 7.16** It is anticipated that there will be one dedicated delivery per average day and up to two deliveries during seasonal peak periods, such as Easter and Christmas. Recycling and waste will be taken away by the delivery vehicles, reducing the number of vehicles visiting the store per day.
- 7.17** Lidl would normally schedule delivery and servicing of the proposed store to take place outside of daytime operational hours or at times when the car park is closed to customers, or certainly when the store is less busy. However, Lidl are able to service during the day and these swept path assessments demonstrate that the store can be safely serviced even when the store is trading normally.

8.0 CAR PARKING

- 8.1** A total of 76 car parking spaces will be provided across the site. Of the 76 spaces provided, eight will be designated to parent and child and four will be DDA compliant. These spaces will be clearly marked and positioned close to the store entrance and trolley bays for customers' convenience. There will also be two electric vehicle charging points of rapid charger type and five space dedicated to staff parking located within the service yard.
- 8.2** To assess the suitability of the proposed parking provision in relation to the proposed redevelopment, a parking accumulation exercise has been undertaken based upon the forecast trip generation associated with the new development. Details on the trip rates and the estimated generated traffic are presented at the following chapter.
- 8.3** Initial iterations were run to identify if in any instances the accumulation dropped below zero (where departure trips exceeded arrival trips) and in any instances where this occurred, the starting point for the accumulation was increased to a point where the minimum accumulation was no less than zero.
- 8.4** Assessments have been carried out for both a weekday and a Saturday and the results are shown in **Figure 8.1** and **Figure 8.2** below.
- 8.5** During a weekday the peak forecast car parking demand is 52 spaces between 11:00 and 12:00. On a typical Saturday, the forecast car parking demand peaks at 67 spaces also between 11:00 and 12:00.
- 8.6** Lidl will manage the use of the car park to prevent long-stay car parking or its use by those with no intention to visit the foodstore. A typical maximum length of stay in a Lidl car park is 90 minutes, but this is more than sufficient to undertake a visit to both the Lidl and the local centre.

Figure 8.1: Estimated car trip generation and parking accumulation, weekday

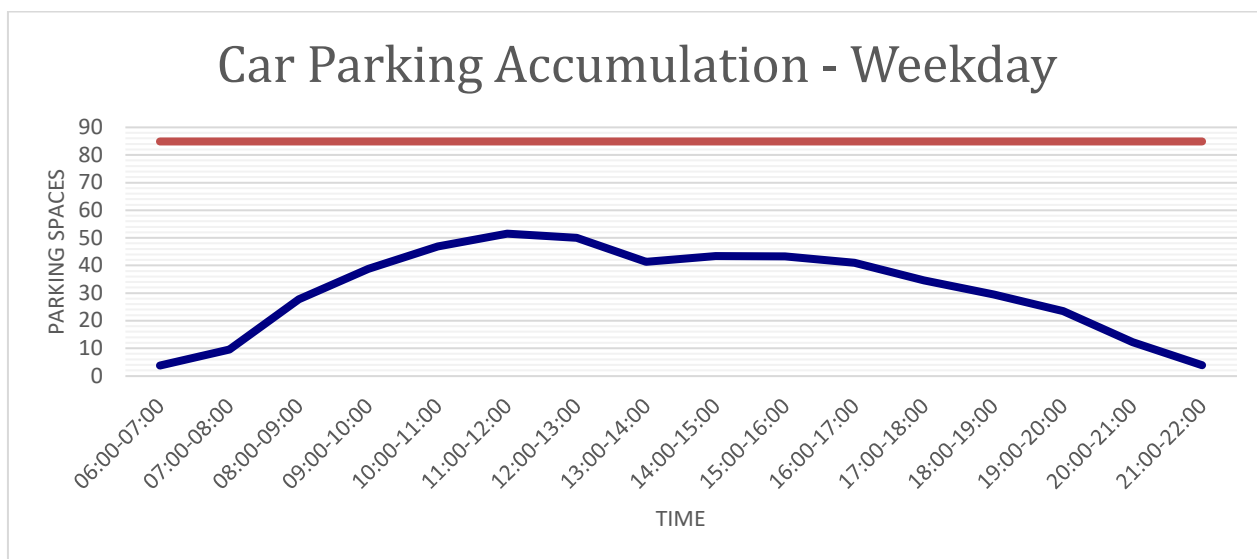
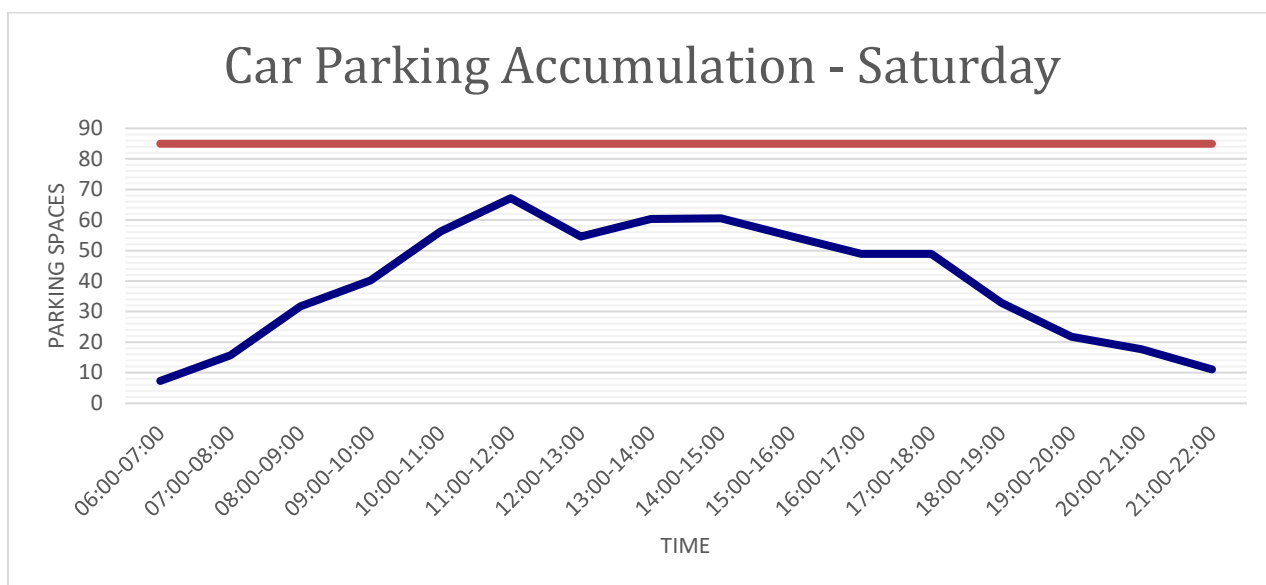


Figure 8.2: Estimated car trip generation and parking accumulation, Saturday



9.0 FUTURE BASELINE TRAFFIC CONDITIONS

Introduction

- 9.1** This chapter describes the future baseline traffic conditions on the local highway network in relation to traffic growth and committed development traffic flows.

Traffic Growth

- 9.2** Capacity assessments have been undertaken for a horizon of 5-years post validation of the planning application. The anticipated future assessment year is therefore 2028.

- 9.3** In order to quantify the level of background traffic growth that could occur on the local network, National Traffic Model (NTM) growth factors, modified by TEMPRO local growth factors, have been used for the Manchester area dataset.

- 9.4** The growth factors used are summarised below: -

2022 - 2023

- AM Factor: 1.0128
- PM Factor: 1.0128
- Saturday Factor: 1.0131

2022 - 2028

- AM Factor: 1.0752
- PM Factor: 1.0750
- Saturday Factor: 1.0767

- 9.5** The above growth factors are applied to the 2022 survey traffic flow data to obtain the 2023 and 2028 baseline traffic flows, as shown in **Traffic Flow Figures 2 and 3**.

Committed Developments

- 9.6** We are not aware of any committed development proposals that need to be allowed for specifically.

10.0 DEVELOPMENT RELATED TRANSPORT MOVEMENTS

10.1 This chapter provides an estimation of the likely trip-generating potential of the extant use on site and the proposed development during the weekday AM, PM and Saturday peak hours. The assessment is based on those peak hours when the combination of the development-related traffic and local highway peak traffic are highest, in order to present a robust, worst-case scenario. In this case, the peak hours to be assessed are 08:00 – 09:00 on a weekday AM, 15:00 – 16:00 on a weekday PM and 13:00 – 14:00 on a Saturday.

10.2 The estimated distribution and assignment of the proposed development-related traffic and background traffic growth forecasts (to the assessment year of 2028) are also set out.

Existing Office Trip Generation

10.3 To determine the potential trip generation of the lawful use on site, the TRICS database has been interrogated. The table below provides the peak hour trip rates for the lawful use during the weekday AM and PM hourly peak periods. It also shows the estimated trip generation associated with the existing office building calculated on an assumed GFA of 3,200m².

Table 10.1 – Office-Use Weekday AM and PM and Peak Hour Trip Rates and Trip Generation (per 100m² GFA)

Office						
Estimated Weekday PM and Saturday Peak Hour Trip Rates and Trip Generation						
	Weekday AM Peak (08:30 – 09:30)		Weekday PM Peak (16:30 – 17:30)		Saturday Peak (N/A)	
	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
Vehicle Trip Rate	1.419	0.191	0.146	1.243	-	-
Vehicle Trip Generation	45	6	5	40	-	-

Proposed Food Store Trip Generation

10.4 In order to present a robust set of capacity assessments later in this TA, trip rates based on other existing Lidl stores within the TRICS database with a similar RFA have been used. The average trip rate was calculated from the TRICS outputs for a weekday and Saturday, shown in **Appendix 8**.

- 10.5** The table below provides the peak hour trip rates for these stores for the weekday PM and Saturday hourly peak periods. It also shows the estimated trip generation associated with the proposed discount food store calculated on an RFA of 1,444m².
- 10.6** The full TRICS outputs are summarised in **Table 10.2** below.

Table 10.2 – Weekday PM and Saturday Peak Hour Trip Rates and Trip Generation (per 100m² RFA)

Discount Food Retail						
Estimated Weekday PM and Saturday Peak Hour Trip Rates and Trip Generation						
Similar Lidl Stores	Weekday AM Peak (0800 – 09:00)		Weekday PM Peak (15:00 – 16:00)		Saturday Peak (13:00 – 14:00)	
	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
Vehicle Trip Rate	3.878	2.632	6.648	6.648	8.795	8.380
Vehicle Trip Generation	56	38	96	96	127	121

Trip Types

- 10.7** The latest research on trip types is set out within the TRICS Research Report 14/1 and supersedes TRICS Research Report 95/2. This has shown that the vast majority of trips associated with new food retail developments are not ‘new’ but are a ‘secondary’ trip as part of an existing journey. The secondary trips can be split into two types; ‘linked’ to other shops and ‘pass-by’ where trips are already on the main road past the site. The research does not specifically mention trips ‘diverted’ from other stores (although this may come under the linked umbrella) or ‘transferred’ from another store (using the new store instead of an existing foodstore). The research relating to linked trips do not differentiate between trips to other stores on the same site or trips to other stores off-site.
- 10.8** From established research, typical proportions of trip types are summarised in **Table 10.2**.

Table 10.2 Typical Trip Type Proportions

Typical Trip Type Proportions		
Research Source	Range of Each Trip Type (%)	
	Linked	Pass-By
Somerfield 1996	46%	
Benison et al 2000 for Tesco	40%	
Tesco 2001	49%	
Harrison et al 2012	57-67%	
Ghezani et al 2012		72%
Wrigley 2006	60%	
Alsop Verrill	20%	
Maclver 1999		15-35%

10.9 The general consensus from the research is that those stores located in Town Centres or on commuter routes will experience higher levels of pass-by and linked trips. Stores with floor areas of less than 4000m² GFA are more likely to act as a convenience store and a convenience store is likely to experience much higher rates of pass-by traffic.

10.10 In light of this research and given the scale of the study area, the following trip type assumptions have been made:

- i) New (primary) trips – Following initial consultation with TfGM, it has been assumed that 50% of trips will be entirely new to the local highway network in this location.
- ii) Pass-by/diverted/linked trips - These are trips that are already on the network as part of a primary trip. Given that the site is on a main route along Mauldeth Road West and Nell Lane, the store may act as a convenience store for commuters on their way to/from work. A proportion of 25% Pass-by and 25% Diverted has been assumed for this purpose.

10.11 The assessment of flows in this way is considered extremely robust as the pass-by trips are likely to make up a higher proportion of all trips given the site's location along a busy road.

Traffic Distribution and Assignment

- 10.12 The distribution of the primary food-store related trips has been split through reference to the percentage distribution of existing traffic passing the site on Nell Lane and on the turning movements at the junction of Nell Lane with Mauldeth Road West. The distribution can be seen in **Traffic Flow Figure 4**. It results in circa 45% to 49% of all Lidl traffic being routed to and from Mauldeth Road West and Nell Lane south, depending upon the particular peak hour and the remainder via Nell Lane north of the application site.
- 10.13 The 'pass-by' and 'diverted' trip distribution has also been calculated using the same method as above and can be seen in **Traffic Flow Figure 5** and **Traffic Flow Figure 6**.
- 10.14 The combined total of new, diverted and pass-by generated traffic distributed on the local highway network from the site is indicated in **Traffic Flow Figure 10**. Fewer than 30 additional vehicles per hour are forecast to be added to the junction of Nell Lane with Mauldeth Road West in the weekday AM peak period. This rises to around 60vph additional forecast turning movements in the weekday PM peak and circa 80 new vehicles per hour on a Saturday during the midday peak.
- 10.15 Traffic flows for the future year of 2028 with this additional Lidl traffic are contained in **Traffic Flow Figure 12**.

11.0 ANTICIPATED HIGHWAY IMPACTS

Introduction

- 11.1 This Chapter describes the anticipated impact of the additional trips generated by the proposed development on the operation of the local highway network.
- 11.2 This TA includes assessments of the capacity of the proposed Lidl access with Nell Lane. It also includes assessments of the Mauldeth Road West / Barlow Moor Road and Mauldeth Road West / Nell Lane signalised junctions near to the site.

Assessment Methodology

- 11.3 Assessments have been undertaken using Junction 9 (PICADY) and LinSig software.
- 11.4 Assessments have been undertaken in the opening base year of 2023 and future assessment year of 2028 with and without the proposed food store.

Proposed Site Access / Nell Lane

- 11.5 The PICADY output is presented in **Appendix 9** with the results summarised in **Table 11.1** below.

Table 11.1 – Proposed Site Access / Nell Lane

Arm	Weekday AM		Weekday PM		Saturday	
	RFC	MMQ	RFC	MMQ	RFC	MMQ
Base 2028 + Lidl						
LT from Site Access	0.05	0	0.13	0	0.16	0
RT from Site Access	0.04	0	0.09	0	0.11	0
RT into Site Access	0.07	0	0.11	0	0.14	0

- 11.6 It can be seen above that the proposed site access arrangement onto Nell Lane will work well within capacity in all scenarios with no queuing occurring.

Mauldeth Road West / Nell Lane

- 11.7** Due to proximity of this junction in relation to the application site, an assessment of the proposed development's impact is required. The LinSig model has been built in line with signal plan data provided by TfGM UTC and it includes for the tram stage.
- 11.8** The LinSig output is presented in **Appendix 10** for the existing network and in **Appendix 11** for the network that includes the improved site access onto Nell Lane. The results can be found summarised in **Table 11.2** and **Table 11.3** below.

Table 11.2 – Mauldeth Road West / Nell Lane - Base

Arm	Weekday AM		Weekday PM		Saturday	
	DOS (%)	MMQ	DOS (%)	MMQ	DOS (%)	MMQ
Base 2023						
Nell Lane (north) LT, ST, RT	58.2	10	51.7	8	38.3	6
Mauldeth Road West (east) LT, ST	59.3	6	59.1	6	36.2	3
Mauldeth Road West (east) ST, RT	72.0	8	65.9	8	42.2	5
Nell Lane (south) LT, ST, RT	85.5	16	79.2	14	47.0	7
Mauldeth Road West (west) LT, ST	56.9	5	45.4	4	35.8	3
Mauldeth Road West (west) ST, RT	61.2	6	46.6	3	35.6	3
Practical Reserve Capacity (PRC%)	5.2		13.6		91.5	
Total Junction Delay (pcuHR)	21.4		17.8		9.8	
Cycle Time (s)	90		90		90	
Base 2028						
Nell Lane (north) LT, ST, RT	60.5	10	53.5	8	42.2	6
Mauldeth Road West (east) LT, ST	69.5	7	66.0	7	37.0	4
Mauldeth Road West (east) ST, RT	80.2	9	73.2	9	42.5	5
Nell Lane (south) LT, ST, RT	90.7	19	83.6	16	51.4	8
Mauldeth Road West (west) LT, ST	65.9	6	54.8	6	37.4	4
Mauldeth Road West (west) ST, RT	67.5	7	60.0	4	35.6	4
Practical Reserve Capacity (PRC%)	-0.8		7.6		75.1	
Total Junction Delay (pcuHR)	26.0		21.4		10.9	
Cycle Time (s)	90		90		90	

Table 11.3 – Mauldeth Road West / Nell Lane - with Lidl

Arm	Weekday AM		Weekday PM		Saturday	
	DOS (%)	MMQ	DOS (%)	MMQ	DOS (%)	MMQ
Base 2028 + Lidl						
Nell Lane (north) LT, ST, RT	62.8	11	59.9	10	48.6	7
Mauldeth Road West (east) LT, ST	79.3	8	70.0	8	39.8	4
Mauldeth Road West (east) ST, RT	78.6	8	75.8	9	44.9	5
Nell Lane (south) LT, ST, RT	93.3	21	89.2	17	52.5	8
Mauldeth Road West (west) LT, ST	67.5	7	73.2	9	38.7	4
Mauldeth Road West (west) ST, RT	68.9	8	54.6	2	39.7	4
Practical Reserve Capacity (PRC%)	-3.7		1.0		71.5	
Total Junction Delay (pcuHR)	28.6		24.8		12.0	
Cycle Time (s)	90		90		90	

11.9 It can be seen from the above summary tables that as a result of the proposed development, there will be minimal impact at this location. There is a consistent queue of circa ten to eleven pcus per cycle from the Nell Lane northern stop line with Mauldeth Road West regardless of whether Lidl traffic is included or not. Keep Clear markings across the site access bellmouth will protect the northbound lane away from Mauldeth Road from becoming blocked behind a right turner.

Mauldeth Road West / Barlow Moor Road

11.10 Due to proximity of this junction in relation to the application site, an assessment of the proposed developments impact is required. The LinSig model has been built in line with signal plan data provided by TfGM UTC.

11.11 The LinSig output is presented in **Appendix 10** for the existing network and in **Appendix 11** for the network that includes the improved site access onto Nell Lane. The results can be found summarised in **Table 11.4** and **11.5** below.

Table 11.4 – Mauldeth Road West / Barlow Moor Road - Base

Arm	Weekday AM		Weekday PM		Saturday	
	DOS (%)	MMQ	DOS (%)	MMQ	DOS (%)	MMQ
Base 2023						
Barlow Moor Road (north) LT, ST	42.8	6	44.2	6	39.5	6
Barlow Moor Road (north) ST	50.8	7	53.0	7	48.9	7
Barlow Moor Road (north) RT	50.8		53.0		48.9	
Mauldeth Road West (east) LT	87.5	11	86.0	11	67.7	5
Mauldeth Road West (east) ST	87.5		86.0		67.7	
Mauldeth Road West (east) RT	62.4	2	49.2	2	62.6	3
Barlow Moor Road (south) LT, ST	87.7	19	84.8	18	71.1	13
Barlow Moor Road (south) RT	87.7		84.8		71.1	
Mauldeth Road West (west) LT	45.6	4	35.0	3	33.1	3
Mauldeth Road West (west) ST, RT	45.6		35.0		33.1	
Practical Reserve Capacity (PRC%)	2.7		4.7		26.6	
Total Junction Delay (pcuHR)	24.1		21.8		15.7	
Cycle Time (s)	90		90		90	
Base 2028						
Barlow Moor Road (north) LT, ST	45.8	6	47.2	6	42.3	6
Barlow Moor Road (north) ST	53.7	7	56.2	8	51.7	7
Barlow Moor Road (north) RT	53.7		56.2		51.7	
Mauldeth Road West (east) LT	92.7	13	91.5	13	71.9	6
Mauldeth Road West (east) ST	92.7		91.5		71.9	
Mauldeth Road West (east) RT	68.0	3	53.9	2	69.1	4
Barlow Moor Road (south) LT, ST	92.9	24	89.9	21	75.6	15
Barlow Moor Road (south) RT	92.9		89.9		75.6	
Mauldeth Road West (west) LT	48.4	5	37.0	4	35.4	3
Mauldeth Road West (west) ST, RT	48.4		37.0		35.4	
Practical Reserve Capacity (PRC%)	-3.2		-1.7		19.1	
Total Junction Delay (pcuHR)	30.3		26.4		17.7	
Cycle Time (s)	90		90		90	

Table 11.5 – Mauldeth Road West / Barlow Moor Road - with Lidl

Arm	Weekday AM		Weekday PM		Saturday	
	DOS (%)	MMQ	DOS (%)	MMQ	DOS (%)	MMQ
Base 2023 + Lidl						
Barlow Moor Road (north) LT, ST	43.5	6	45.0	6	39.1	6
Barlow Moor Road (north) ST	51.1	7	52.3	7	47.8	6
Barlow Moor Road (north) RT	51.1		52.3		47.8	
Mauldeth Road West (east) LT	86.3	10	86.3	11	70.6	5
Mauldeth Road West (east) ST	86.3		86.3		70.6	
Mauldeth Road West (east) RT	63.5	2	50.8	2	67.1	4
Barlow Moor Road (south) LT, ST	87.6	19	84.8	18	70.2	13
Barlow Moor Road (south) RT	87.6		84.8		70.2	
Mauldeth Road West (west) LT	44.5	4	35.3	3	37.0	3
Mauldeth Road West (west) ST, RT	44.5		35.3		37.0	
Practical Reserve Capacity (PRC%)	2.7		4.2		27.4	
Total Junction Delay (pcuHR)	23.8		21.9		15.9	
Cycle Time (s)	90		90		90	
Base 2028 + Lidl						
Barlow Moor Road (north) LT, ST	46.4	6	48.7	6	41.9	6
Barlow Moor Road (north) ST	53.1	7	56.0	8	50.5	7
Barlow Moor Road (north) RT	53.1		56.0		50.5	
Mauldeth Road West (east) LT	91.5	13	87.8	12	75.1	6
Mauldeth Road West (east) ST	91.5		87.8		75.1	
Mauldeth Road West (east) RT	69.2	3	48.6	1	72.9	4
Barlow Moor Road (south) LT, ST	93.0	24	90.2	21	74.5	15
Barlow Moor Road (south) RT	93.0		90.2		74.5	
Mauldeth Road West (west) LT	46.9	4	35.5	3	39.1	3
Mauldeth Road West (west) ST, RT	46.9		35.5		39.1	
Practical Reserve Capacity (PRC%)	-3.3		-0.3		19.8	
Total Junction Delay (pcuHR)	29.8		24.9		17.9	
Cycle Time (s)	90		90		90	

11.12 It can be seen from the above summary tables that as a result of the proposed development, there will be minimal impact at this location with Lidl traffic included to the degree forecast and allowing for growth to five years post validation of the application.

Summary

- 11.13 In summary the above assessments show that the proposed store access will operate well within capacity with the proposed development in place. The capacity assessments are extremely robust given the trip rates used for the site are based on similar Lidl stores elsewhere and that a high proportion (50%) of trips have been assessed as new to the network in the peak hours.
- 11.14 Similarly, the proposed development will result in a minimal impact on queueing at the nearby signalised junction of Barlow Moor Lane with Mauldeth Road West.

12.0 SUMMARY AND CONCLUSION

- 12.1** This Transport Assessment has been prepared on behalf of Lidl Great Britain Limited and provides a review of the transport and highway impacts related to the proposed development of a new discount food store at the corner of Mauldeth Road West and Nell Lane in Chorlton-cum-Hardy, Manchester.
- 12.2** The proposals for the application site include the redevelopment of land with a lawful office-based employment use to a discount food retail unit (Use Class E) with a Gross Internal Area (GIA) of 2,092sqm and a sales area of 1,444sqm. Access to the site will be made via the existing bellmouth along Nell Lane, suitably improved. These improvements will incorporate the widening of Nell Lane locally to the site access to provide a ghost-island right turn arrangement sufficient to remove the prospect of queuing right turners from blocking the north-westbound ahead flow away from Mauldeth Road West. The footways on either side of Nell Lane will be retained at a width of at least 3m. The site access road will be widened to 7m with a footway along the southern side into the site and a build-out on the northern side to aid vehicle/pedestrian intervisibility. A raised crossing of the access road will be provided for the additional safety of pedestrians.
- 12.3** Additional improvements will include a review of traffic regulation orders to prevent on-street parking in the vicinity of the store, the provision of speed indicator devices to reinforce the 20mph speed limit and traffic calming at the improved site access onto Nell Lane.
- 12.4** A total of 76 car parking spaces will be provided across the site. Of the 76 spaces provided, eight will be designated to parent and child standard and four will be DDA compliant. These spaces will be clearly marked and positioned close to the store entrance and trolley bays for customers' convenience. There will also be two electric vehicle charging points of rapid charger type.
- 12.5** Following the review of the accessibility options by different modes of transport, it is considered that the site has very good levels of accessibility. Access to the site on foot and by cycle is of a good standard, there are multiple bus stops nearby providing access to a range of local destinations and the nearby tram stop has potential to transport staff and customers further afield. Moreover, the site is also well connected to the adjacent highway network allowing it to maximise the custom it attracts from existing pass-by traffic.
- 12.6** TfGM and MCC both agreed when consulted on the original planning application on this site that it is in a sustainable location. Lidl are committed to ensuring that the neighbouring

pedestrian and cycle environment is designed to be as safe, convenient and attractive as possible so as to encourage access to the site on foot and by bike. Such measures can come forward through the conditioning of the site access proposal and the entering into a s278 agreement between Lidl, MCC and TfGM, and through the Travel Planning measures which can also be secured by condition.

- 12.7** Servicing for the food store is via a dedicated service yard accessed via Nell Lane. The store will be serviced once a day on average (twice a day at Christmas and Easter) by a maximum legal articulated HGV. Swept path analysis drawings provided demonstrate that a 16.5m articulated HGV can safely enter and exit the site in a forward gear.
- 12.8** To assess the suitability of the proposed parking provision on site, a parking accumulation exercise has been undertaken based upon the forecast trip generation associated with the new development. The proposed parking provision on site has been demonstrated to be sufficient to meet the forecast demand of the proposed development. Furthermore, it offers some additional headroom to service any peaks in demand over the average forecasts plus cater for multi-visitation to the neighbouring local centre.
- 12.9** The proposed means of access into the application site has been tested using Junctions 9 (PICADY) and the results have confirmed that it provides more than adequate levels of service for the forecast turning movements in and out of Lidl at peak times.

12.10 Off-site, the impact of the development has been found to be de minimis.

Conclusion

- 12.11** With regard to the considerations which paragraph 111 of the NPPF requires local authorities to take into account, there remains no evidence of any unacceptable impact on highway safety, or of any severe residual impact as a result of Lidl's proposals. The proposals should therefore be capable of being supported in highways terms, and a positive recommendation to the LPA should result.

S|C|P

APPENDIX 1

SURVEY CONTROL

Client: SCP Transport

Client Contact: Reuben Cutts

Survey Location: Chorlton

Date(s) of Survey: Thursday 9th June 2022
Saturday 11th June 2022

Notes:

On Site Supervisor: Neil Harley/David Cheng

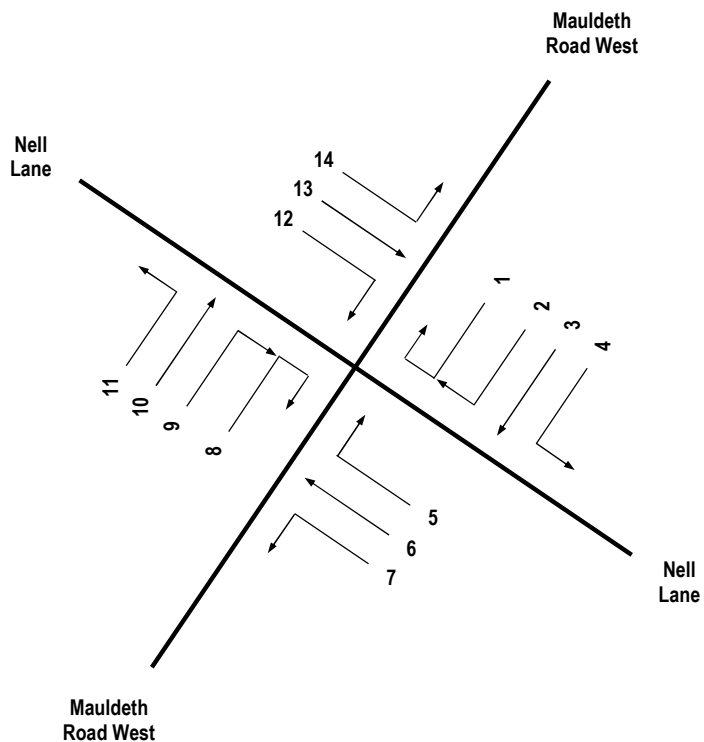
Data Checking: David Cheng

Survey Reference: 22.040 Chorlton

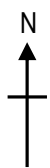
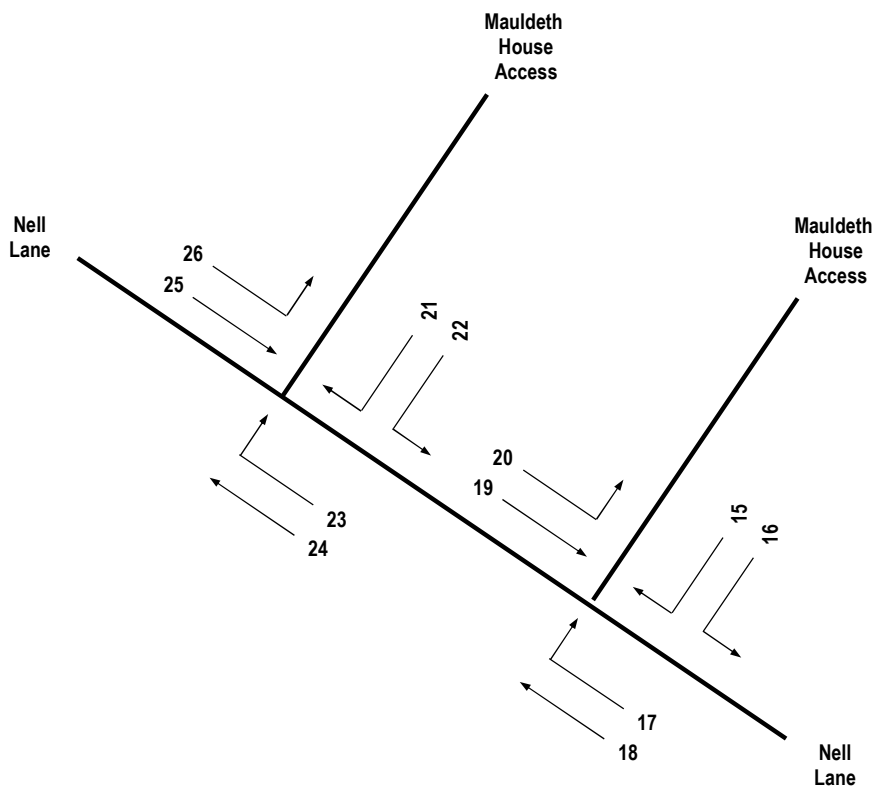
Status: Final

Date of Issue: 20th June 2022

JUNCTION 1



JUNCTION 2



DRAWING TITLE

TRAFFIC MOVEMENT REFERENCE

JOB TITLE

22.040 CHORLTON

DRAWN BY

DC

DATE

JUN 2022

SCALE

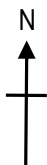
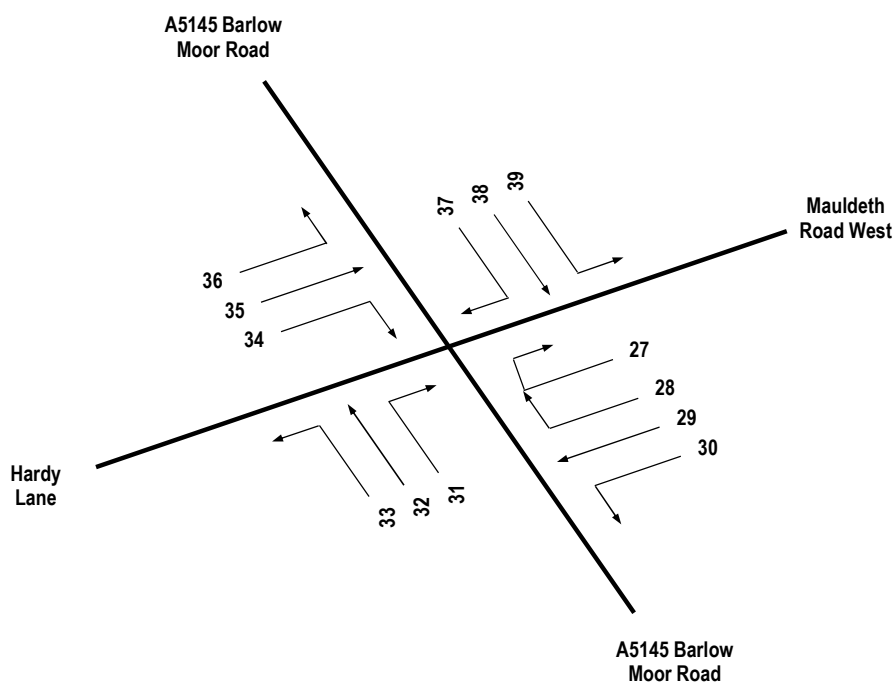
NTS

REF

FIGURE 1

**Transport Data
Specialists Ltd**

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



DRAWING TITLE

TRAFFIC MOVEMENT REFERENCE

JOB TITLE

22.040 CHORLTON

DRAWN BY

DC

DATE

JUN 2022

SCALE

NTS

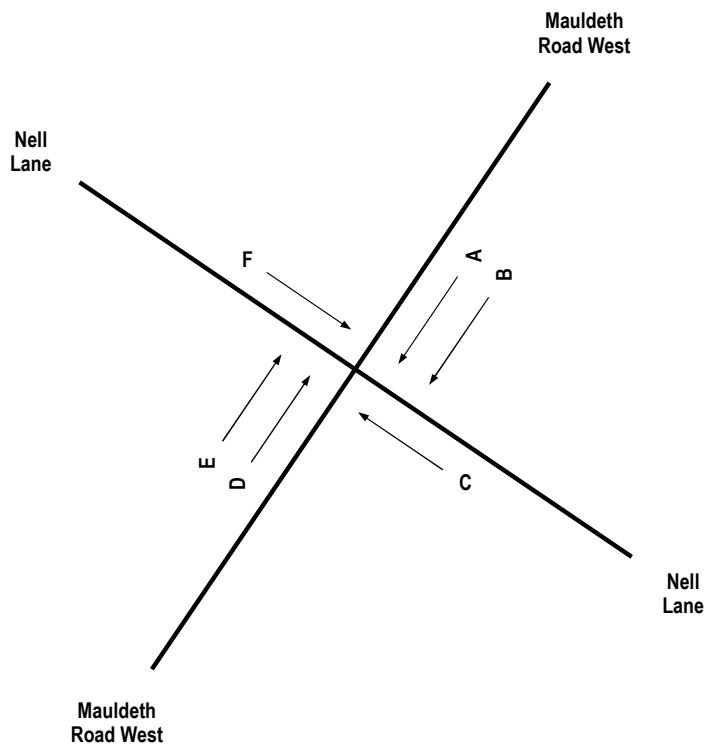
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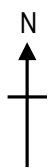
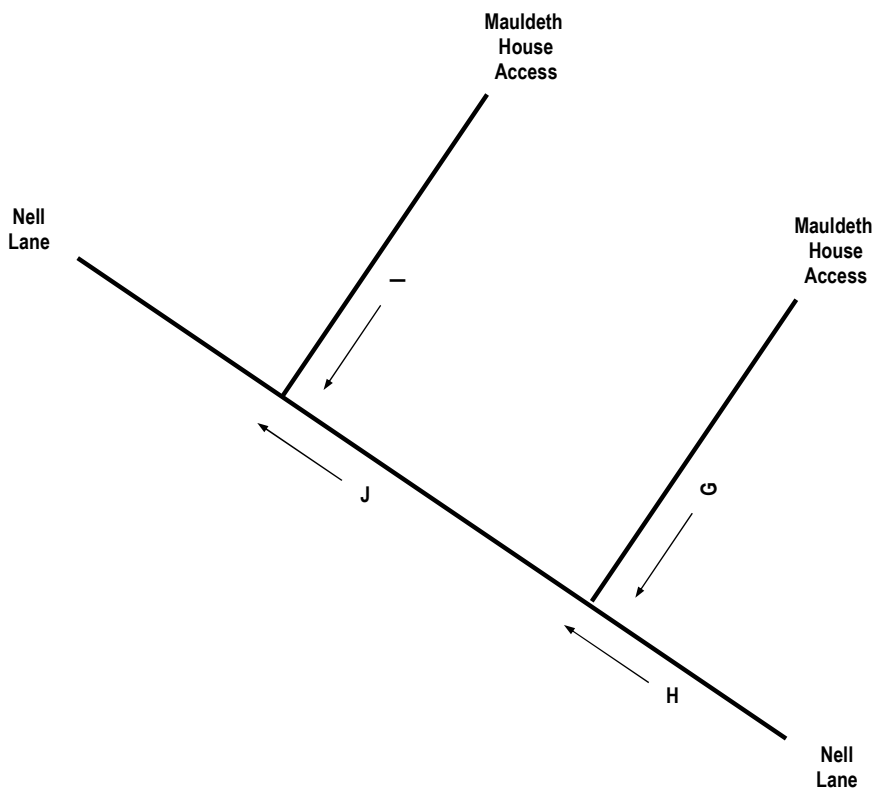
**Transport Data
Specialists Ltd**

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

JUNCTION 1



JUNCTION 2



DRAWING TITLE

QUEUE REFERENCE

JOB TITLE

22.040 CHORLTON

DRAWN BY

DC

DATE

JUN 2022

SCALE

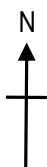
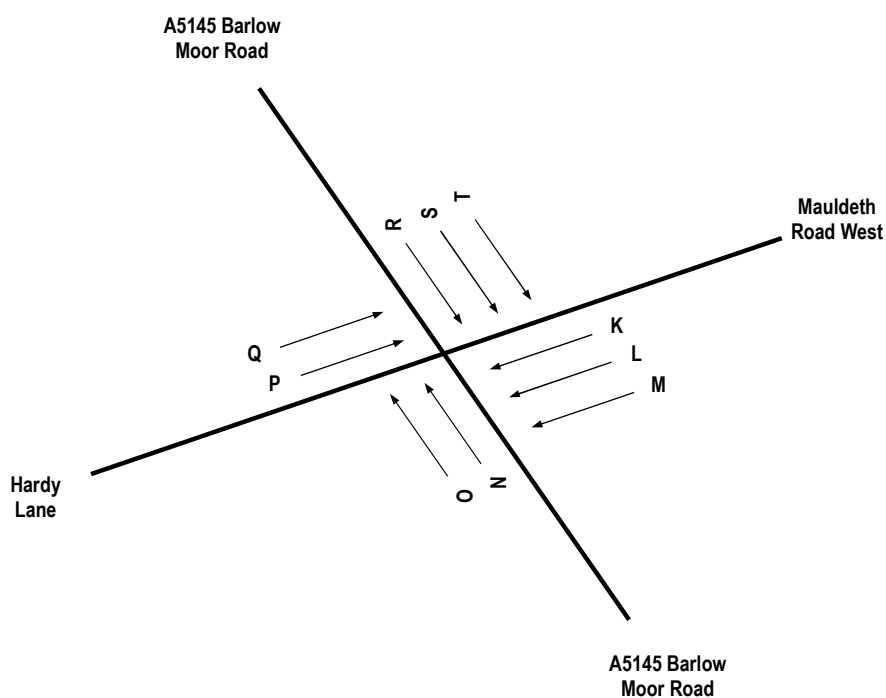
NTS

REF

FIGURE 3

**Transport Data
Specialists Ltd**

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



DRAWING TITLE

QUEUE REFERENCE

JOB TITLE

22.040 CHORLTON

DRAWN BY

DC

DATE

JUN 2022

SCALE

NTS

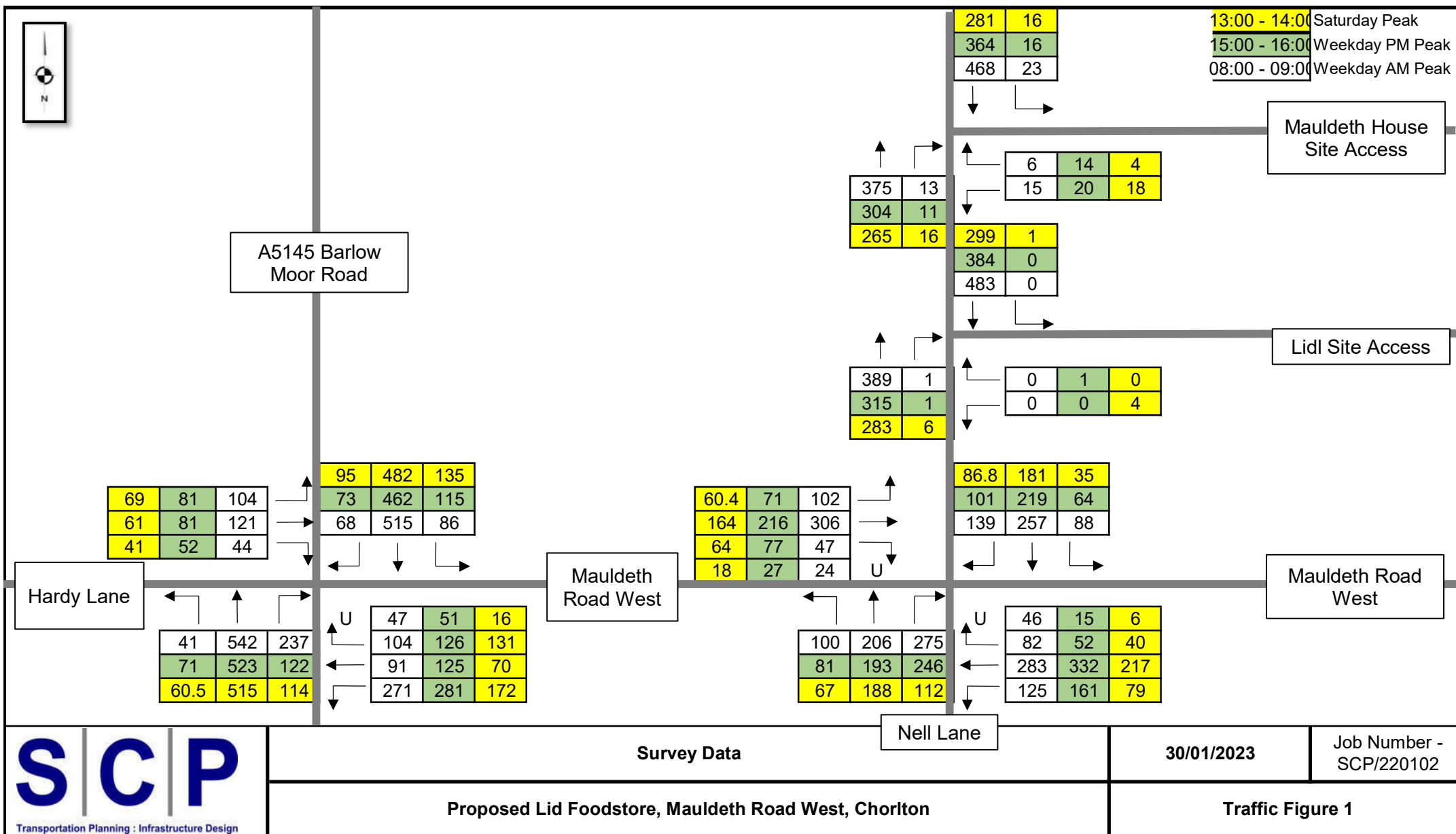
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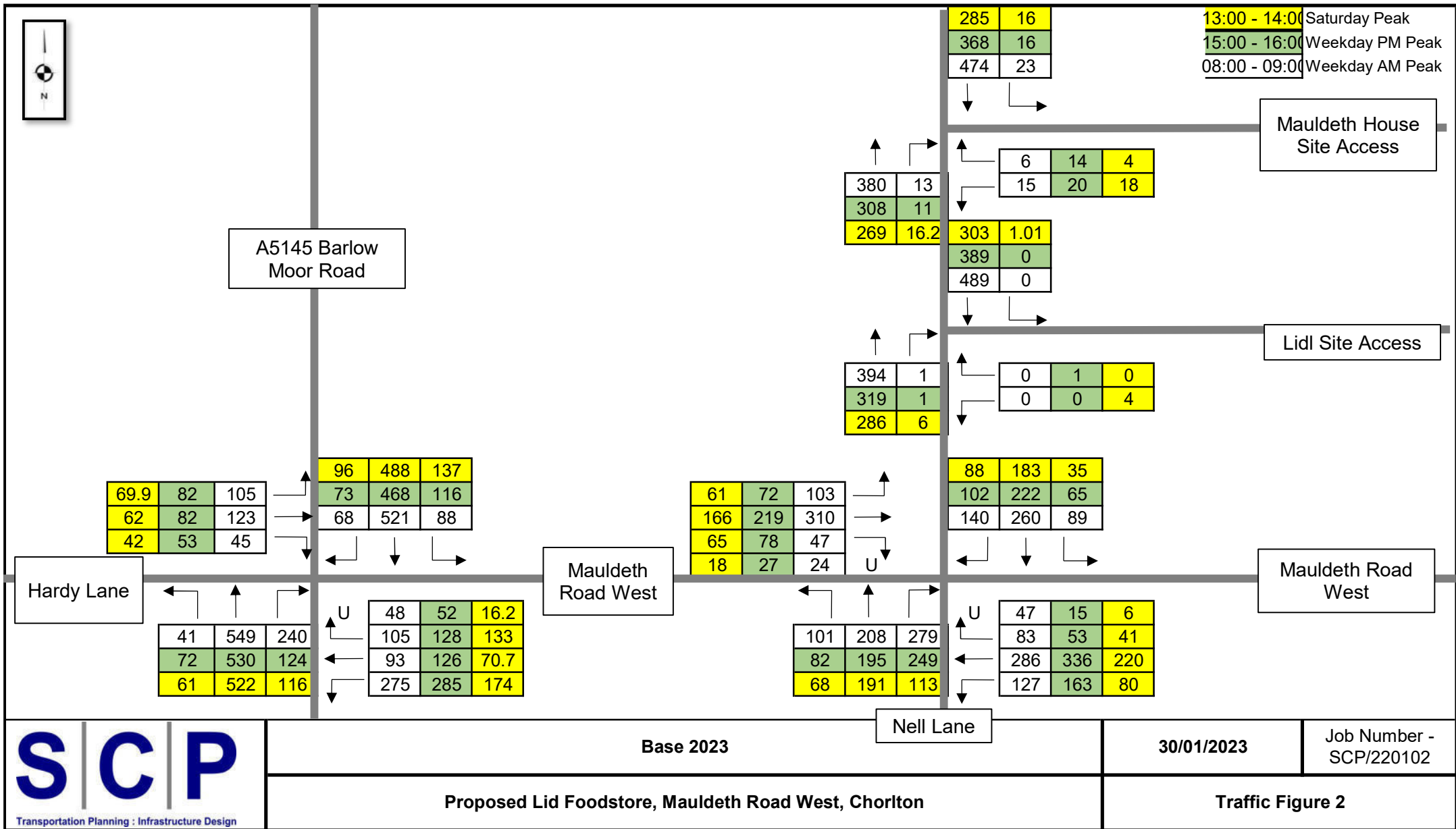
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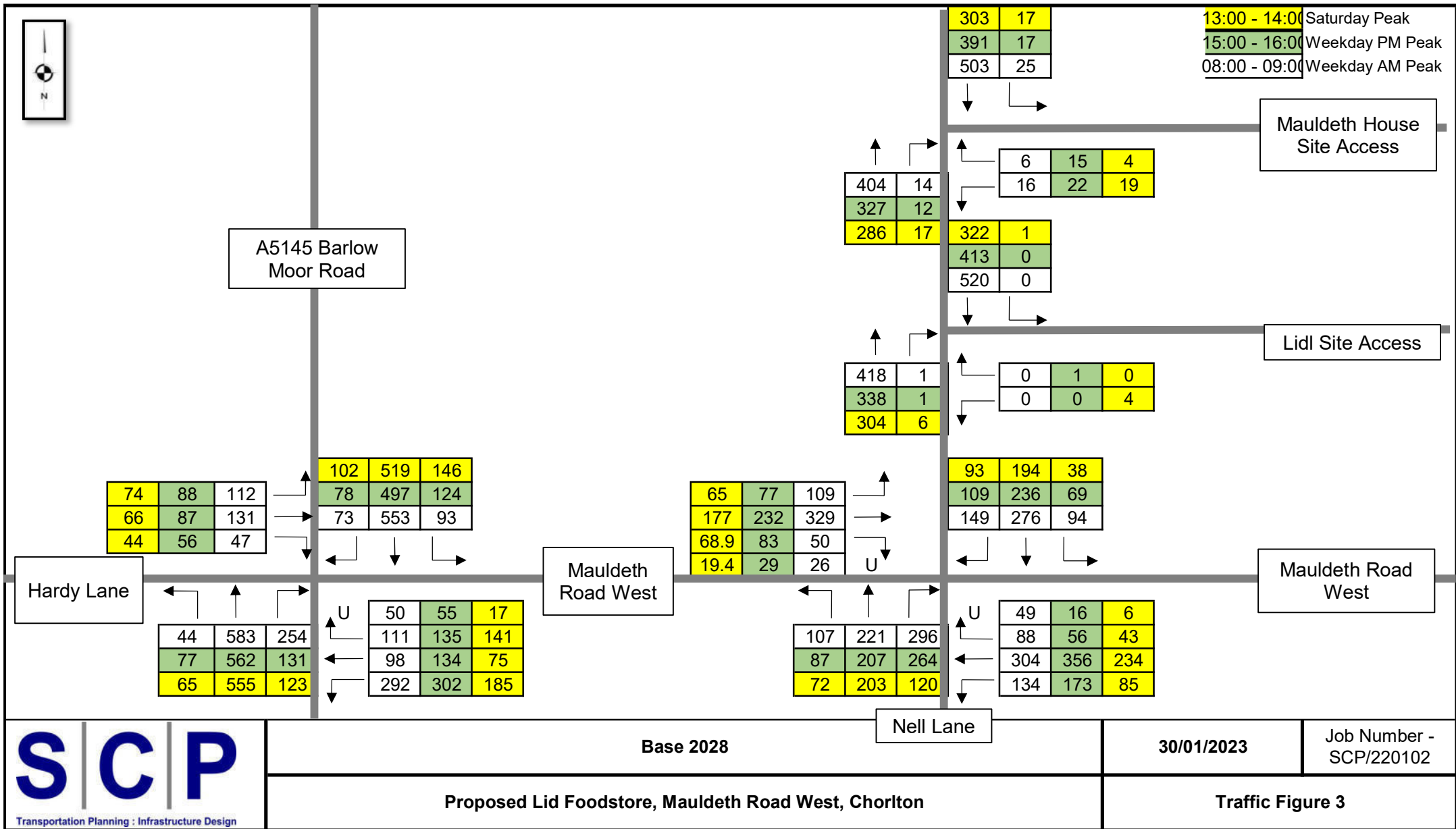
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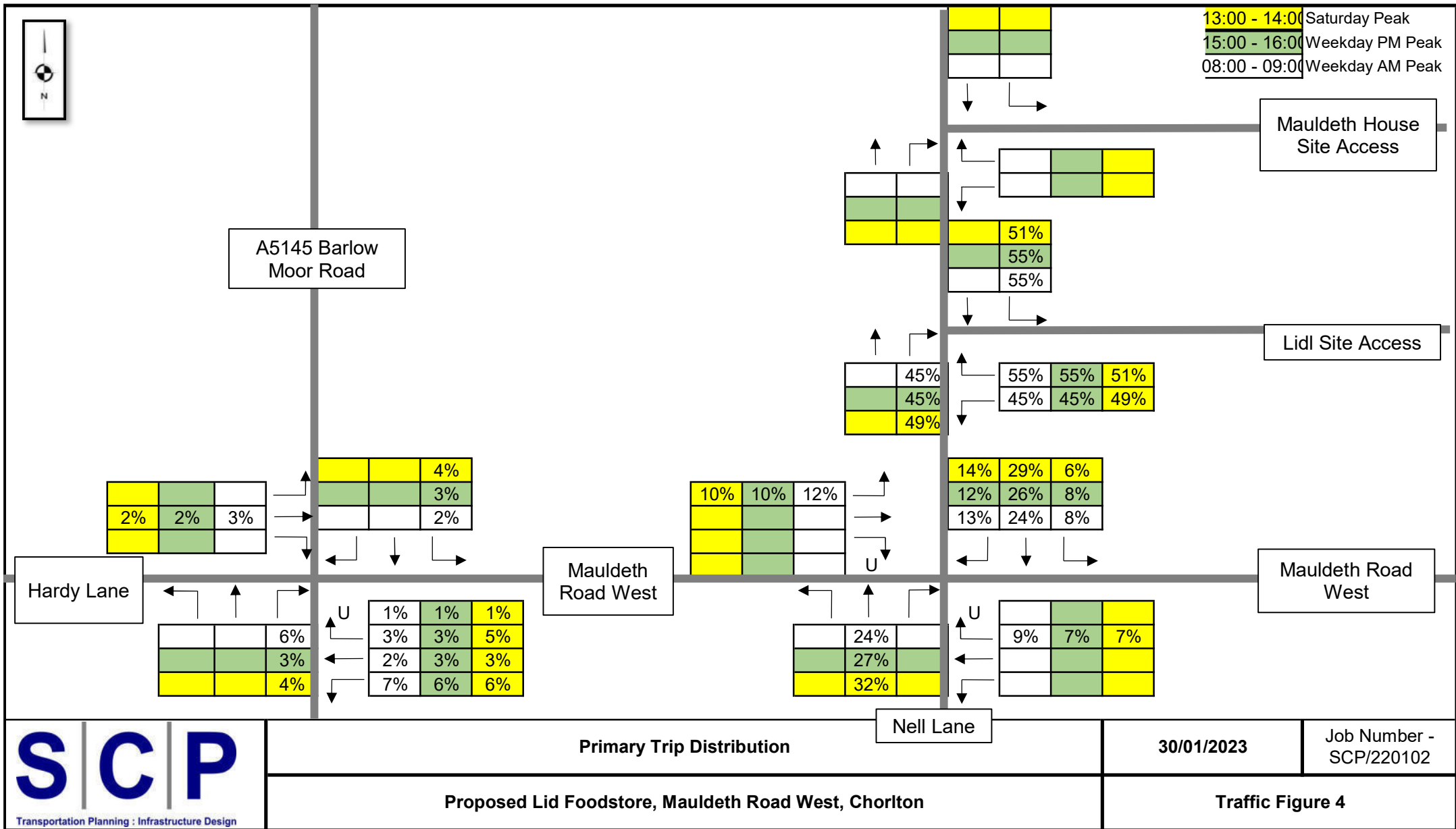
S|C|P

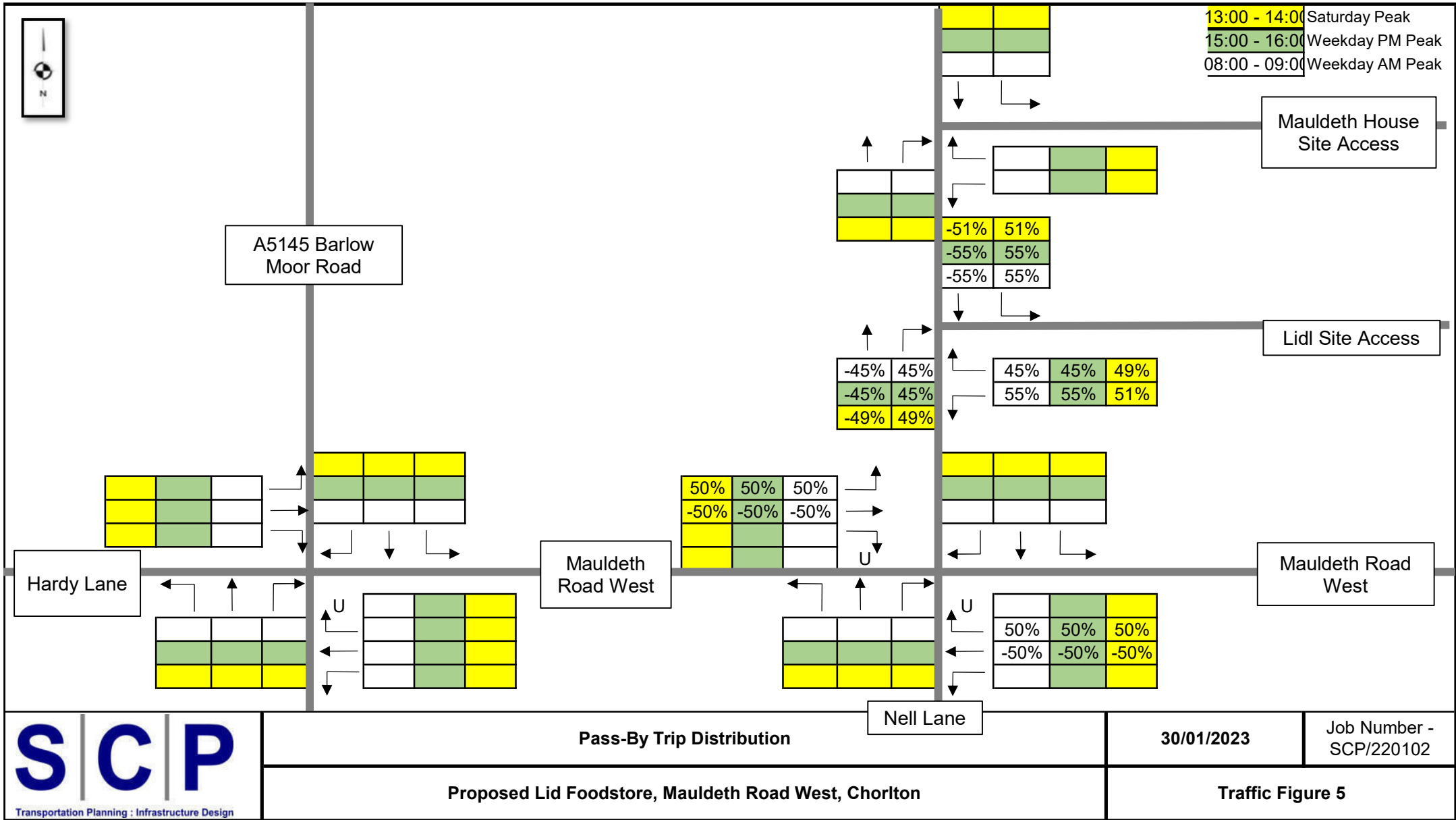
APPENDIX 2

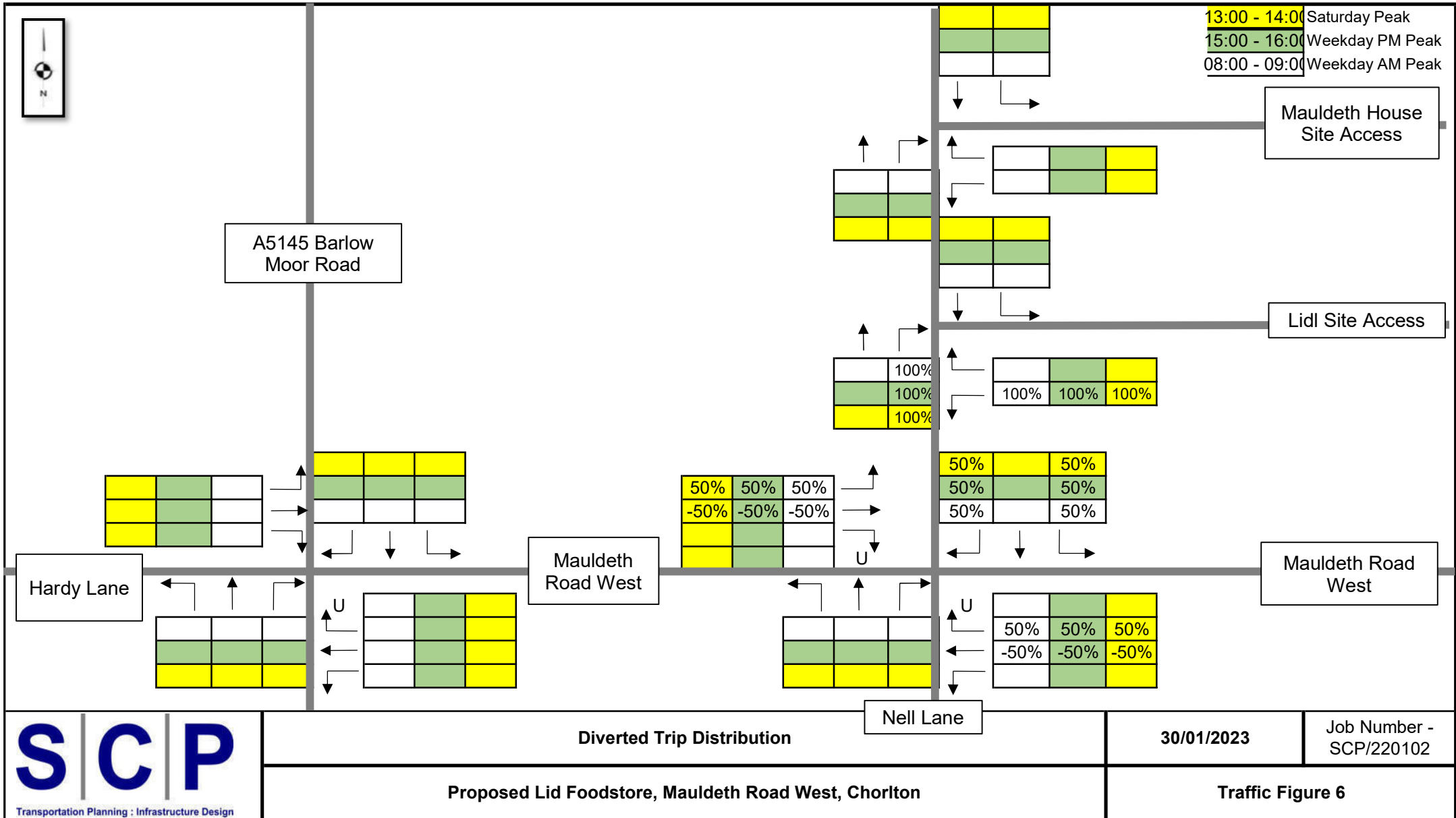


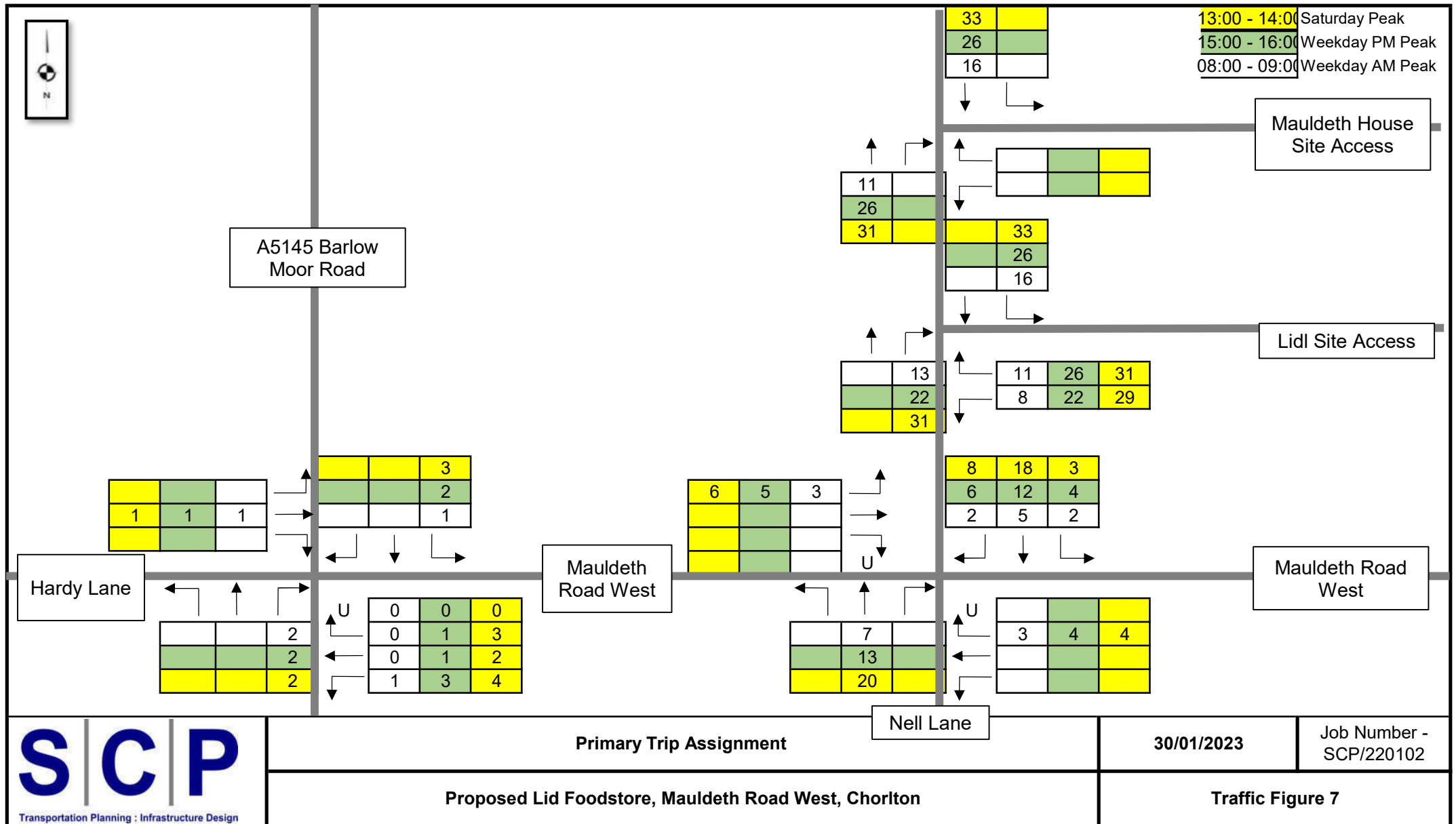


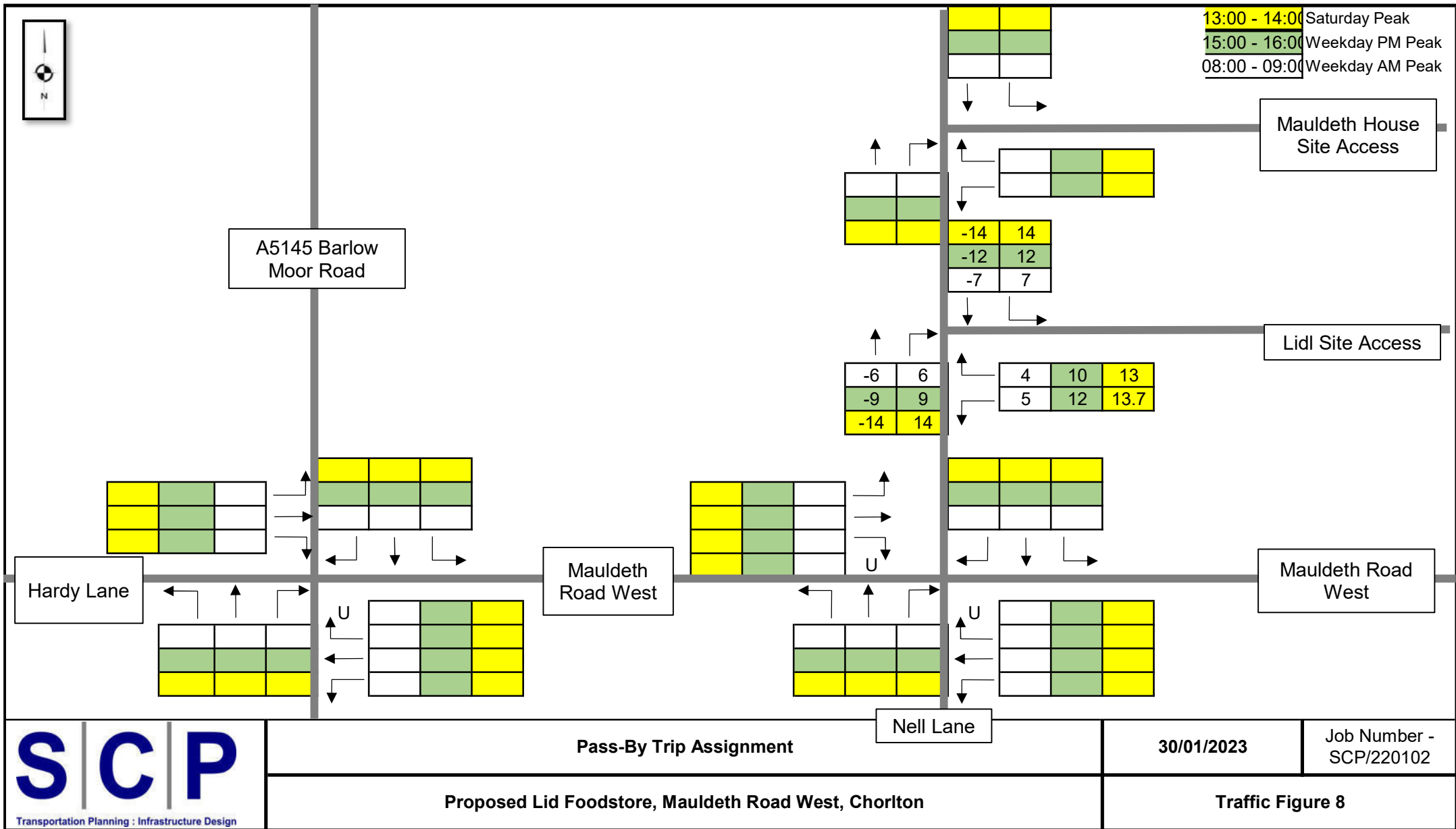


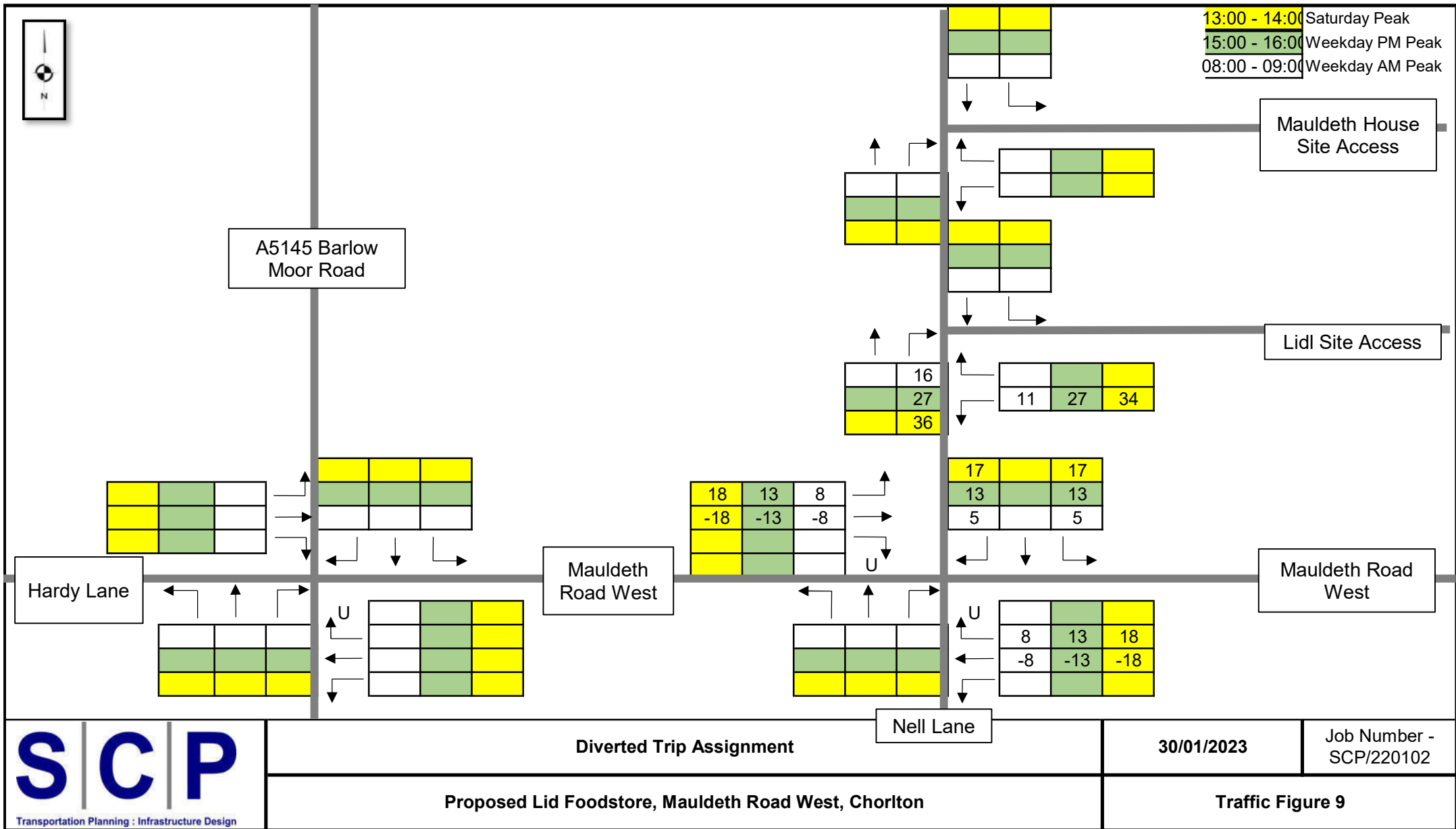


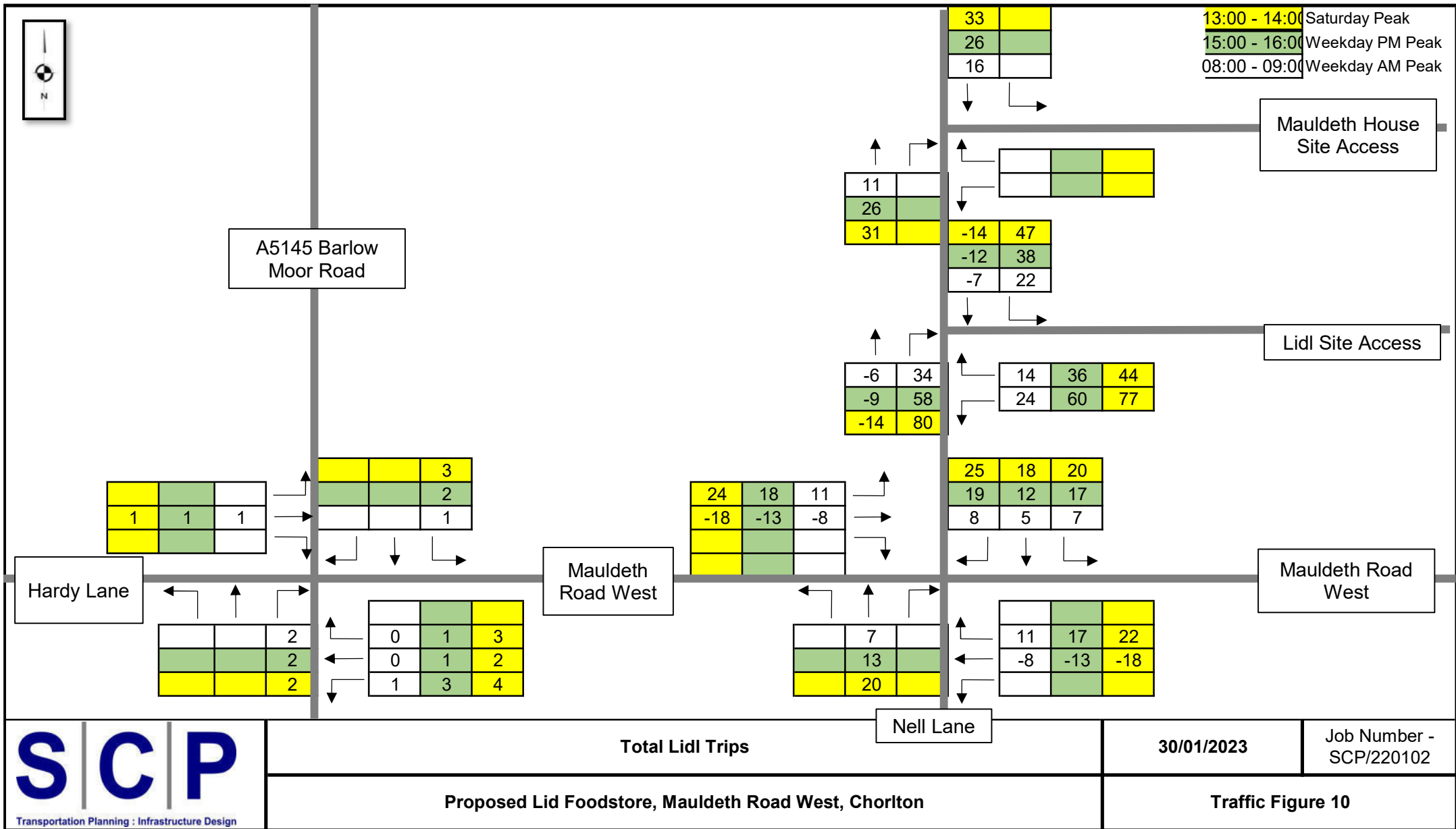


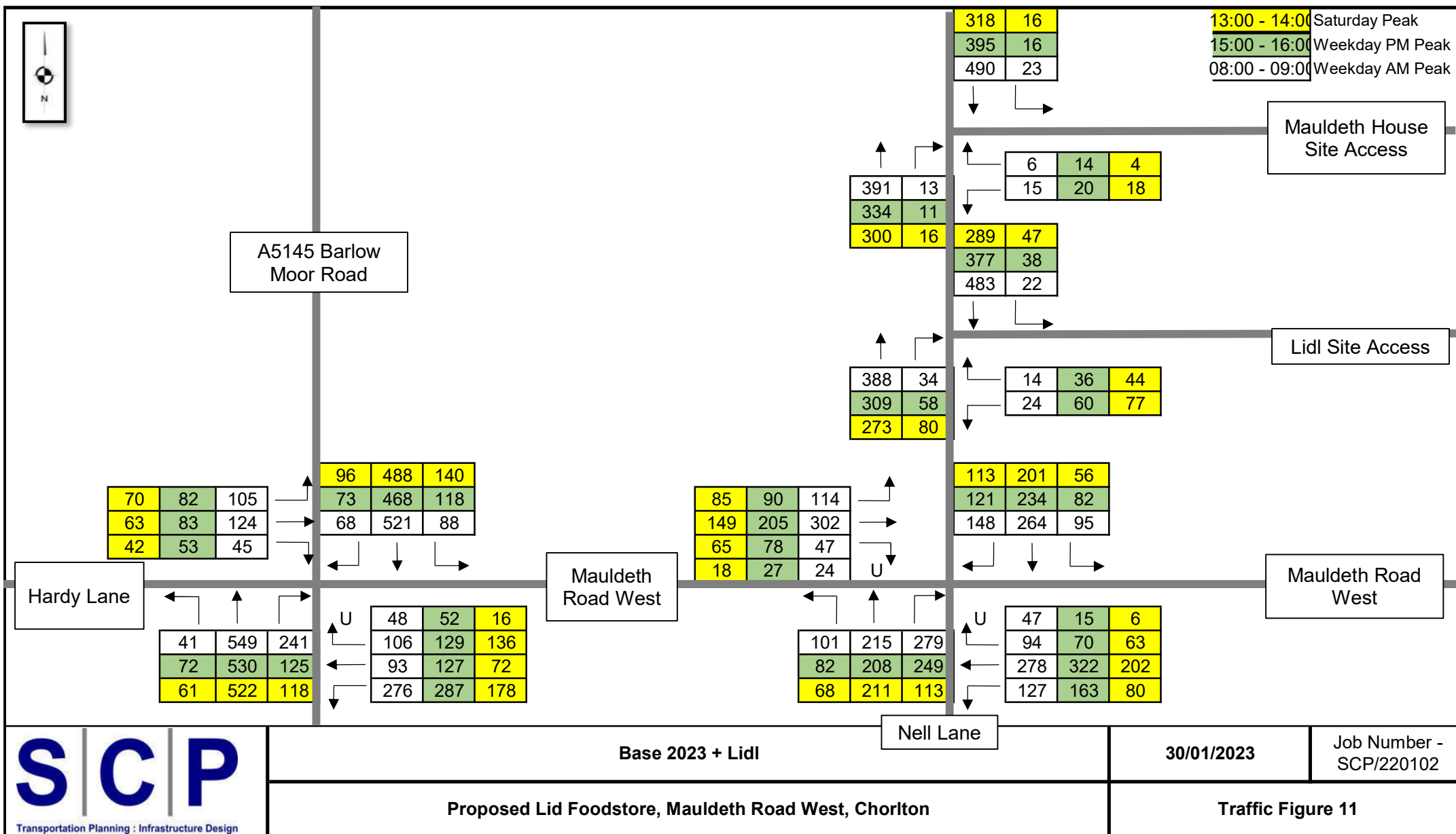


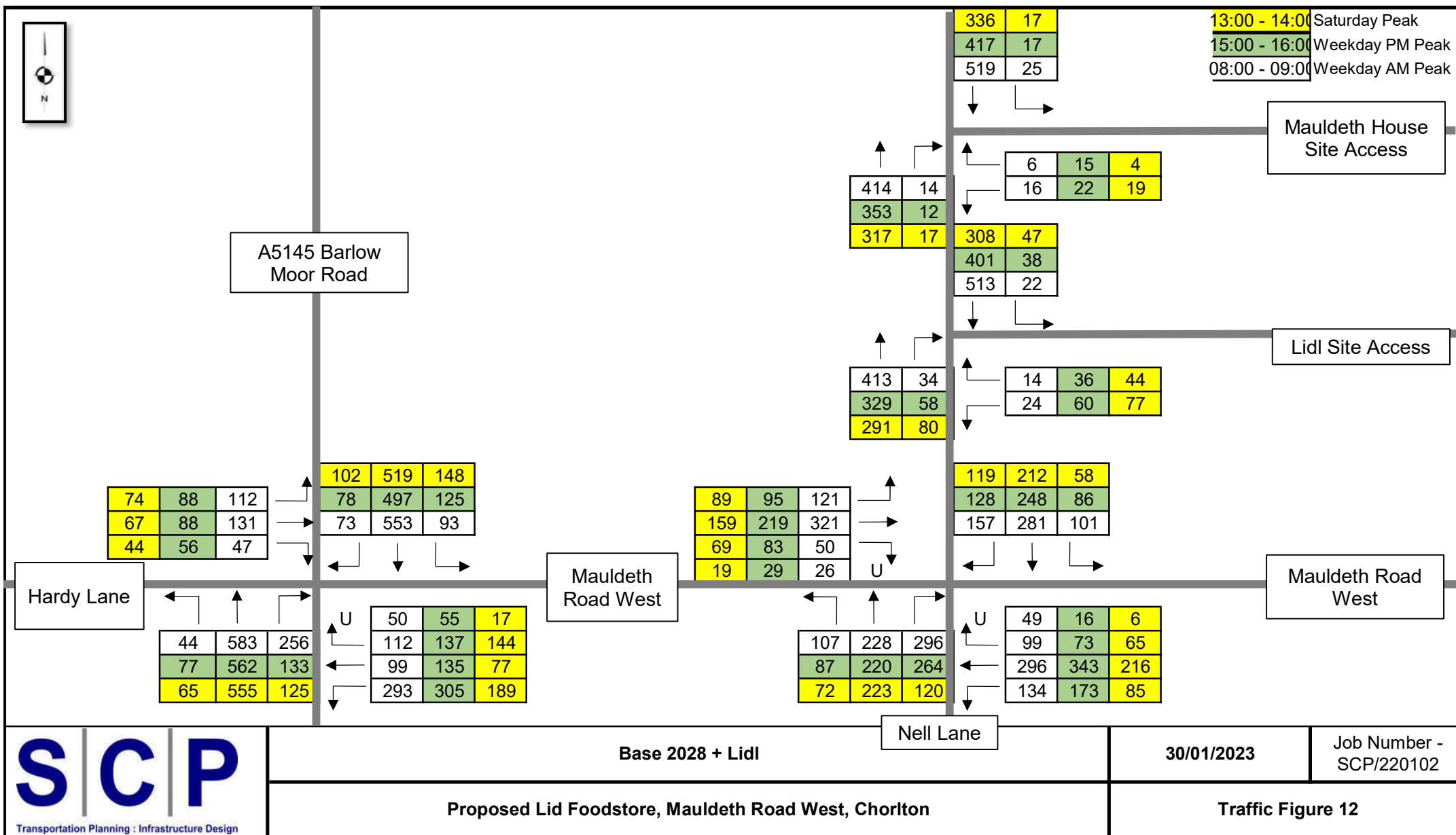






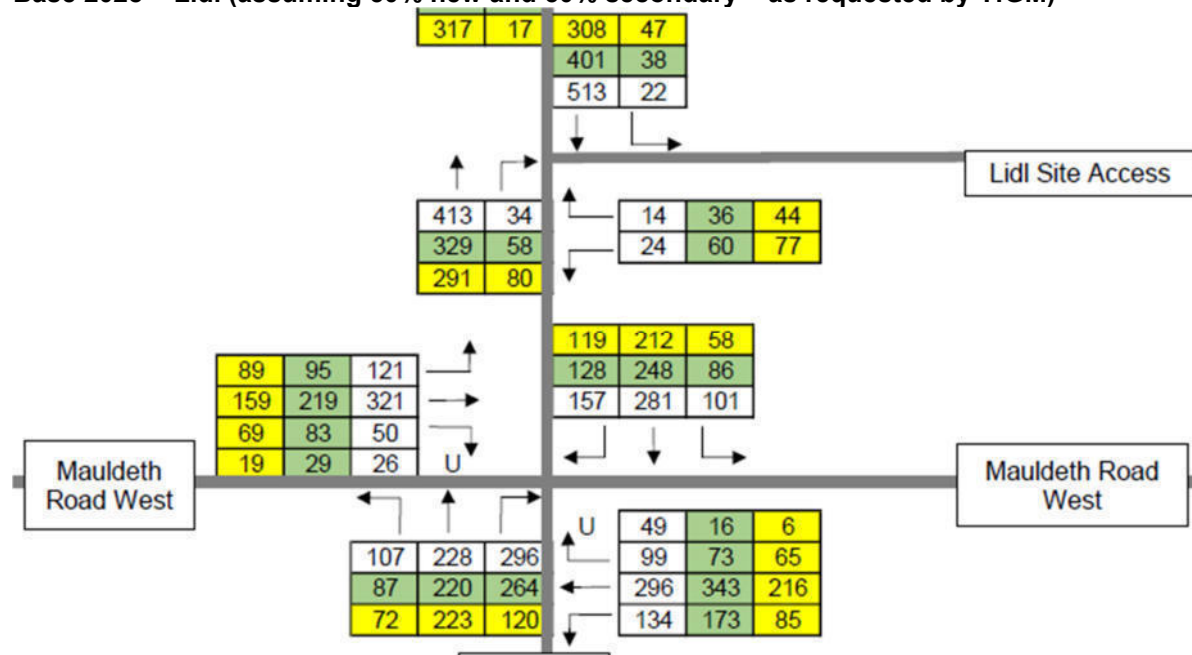




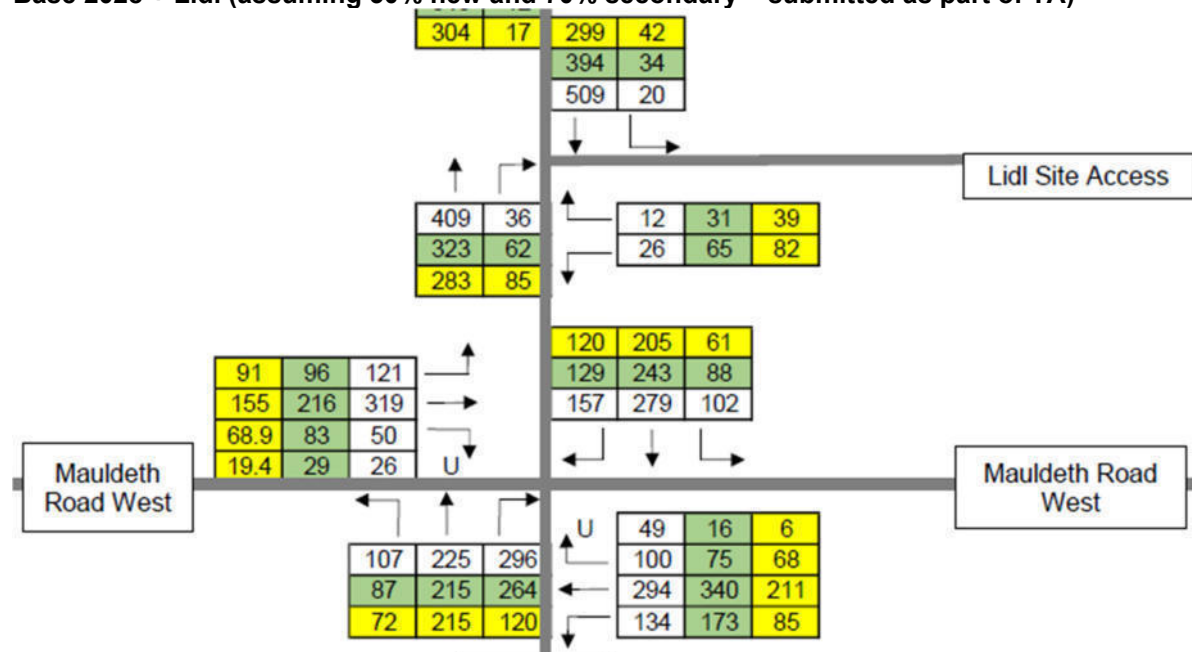


Below is a comparison between the Base 2028 + Lidl scenario submitted as part of the TA and the updated Base 2028 + Lidl scenario which assumes 50% new and 50% secondary. For reference, the previous assumption was 30% new and 70% secondary.

Base 2028 + Lidl (assuming 50% new and 50% secondary – as requested by TfGM)



Base 2028 + Lidl (assuming 30% new and 70% secondary – submitted as part of TA)



S|C|P

APPENDIX 3

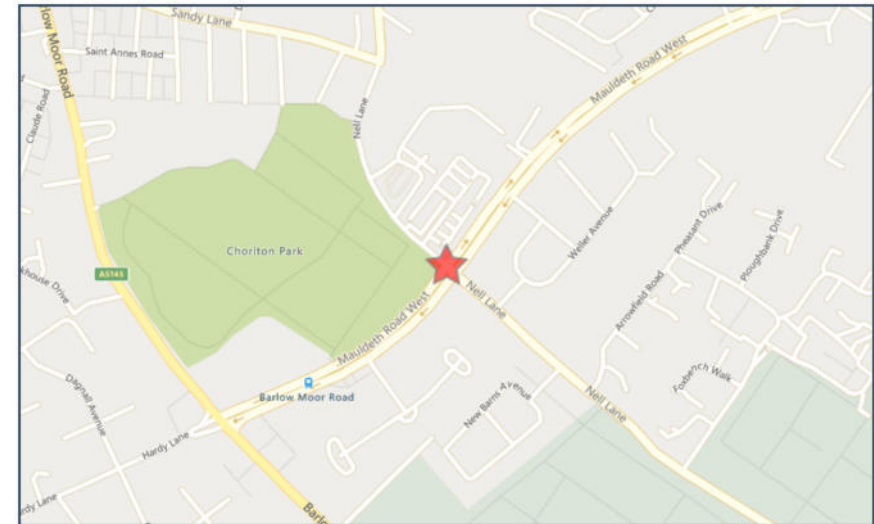


crashmap.co.uk

Validated Data

Crash Date: Tuesday, March 21, 2017 **Time of Crash:** 4:30:00 PM **Crash Reference:** 201706E029480

Highest Injury Severity:	Slight	Road Number:	U0	Number of Casualties:	1
Highway Authority:	Manchester	Number of Vehicles:	2	OS Grid Reference:	382482 393138
Local Authority:	Manchester City				
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Crossroads				
Junction Pedestrian Crossing:	Pedestrian phase at traffic signal junction				
Road Type:	Dual carriageway				
Junction Control:	Auto traffic signal				



For more information about the data please visit: www.crashmap.co.uk/home/Faq
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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Motorcycle over 50cc and up to 125cc		1 Male	26 - 35	Vehicle is performing a U turn	Front	Journey as part of work	None	None
2	Car (excluding private hire)		2 Female	26 - 35	Vehicle proceeding normally along the carriageway, not on a bend	Offside	Unknown	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Male	26 - 35	Unknown or other	Unknown or other

For more information about the data please visit: www.crashmap.co.uk/home/Faq

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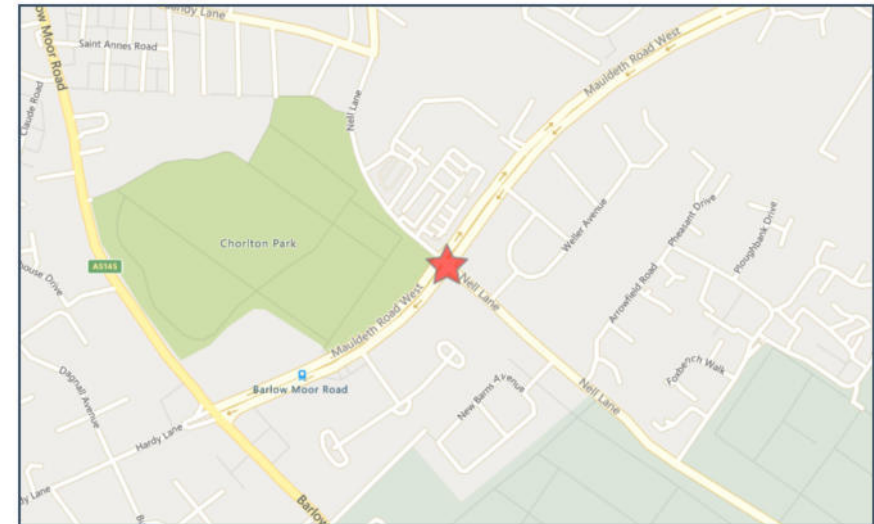


crashmap.co.uk

Validated Data

Crash Date: Thursday, October 12, 2017 **Time of Crash:** 5:00:00 PM **Crash Reference:** 201706E037066

Highest Injury Severity:	Slight	Road Number:	U0	Number of Casualties:	1
Highway Authority:	Manchester	Number of Vehicles:	2	OS Grid Reference:	382492 393124
Local Authority:	Manchester City				
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Crossroads				
Junction Pedestrian Crossing:	Pedestrian phase at traffic signal junction				
Road Type:	Dual carriageway				
Junction Control:	Auto traffic signal				



For more information about the data please visit: www.crashmap.co.uk/home/Faq
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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)		2 Female	26 - 35	Vehicle is in the act of turning right	Front	Journey as part of work	None	None
2	Pedal cycle		-1 Female	46 - 55	Vehicle is in the act of turning right	Back	Commuting to/from work	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Driver or rider	Female	46 - 55	Unknown or other	Unknown or other

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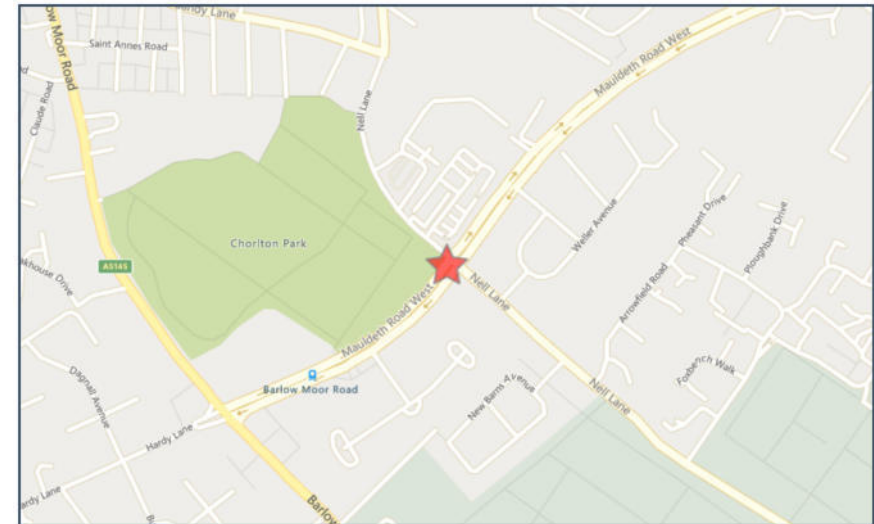


crashmap.co.uk

Validated Data

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Highest Injury Severity:	Slight	Road Number:	U0	Number of Casualties:	1
Highway Authority:	Manchester	Number of Vehicles:	2	OS Grid Reference:	382476 393127
Local Authority:	Manchester City				
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Crossroads				
Junction Pedestrian Crossing:	Pedestrian phase at traffic signal junction				
Road Type:	Single carriageway				
Junction Control:	Auto traffic signal				



For more information about the data please visit: www.crashmap.co.uk/home/Faq
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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	11	Unknown	Unknown	Vehicle is moving off	Offside	Unknown	None	None
2	Car (excluding private hire)	3	Female	26 - 35	Vehicle is moving off	Front	Unknown	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Driver or rider	Female	26 - 35	Unknown or other	Unknown or other

For more information about the data please visit: www.crashmap.co.uk/home/Faq

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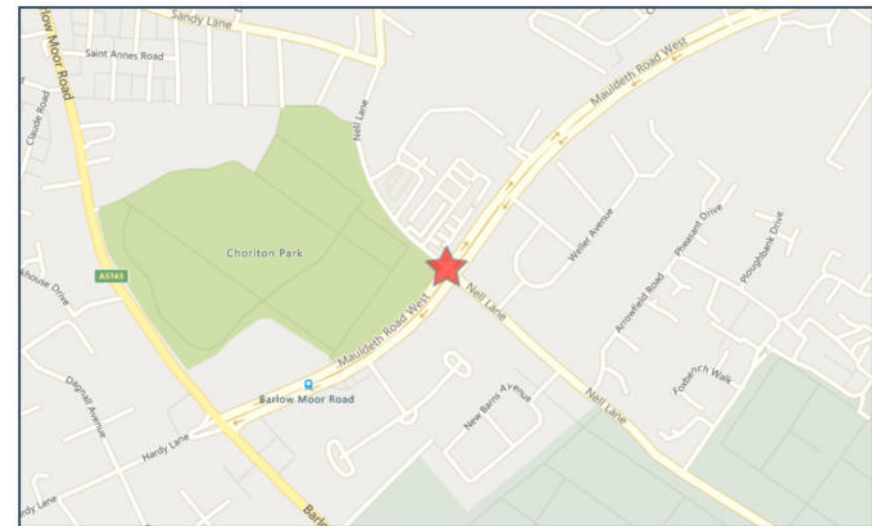


crashmap.co.uk

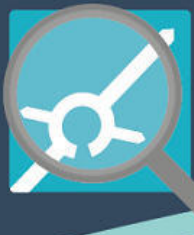
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Highest Injury Severity:	Serious	Road Number:	U0	Number of Casualties:	2
Highway Authority:	Manchester	Number of Vehicles:	2	OS Grid Reference:	382482 393136
Local Authority:	Manchester City				
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Crossroads				
Junction Pedestrian Crossing:	Pedestrian phase at traffic signal junction				
Road Type:	Dual carriageway				
Junction Control:	Auto traffic signal				



For more information about the data please visit: www.crashmap.co.uk/home/Faq
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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Manoeuvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	12	Unknown	Unknown	Vehicle proceeding normally along the carriageway, not on a bend	Front	Unknown	None	None
2	Car (excluding private hire)	4	Male	26 - 35	Vehicle proceeding normally along the carriageway, not on a bend	Front	Unknown	None	Nearside or offside crash barrier

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Serious	Driver or rider	Male	26 - 35	Unknown or other	Unknown or other
2	2	Slight	Vehicle or pillion passenger	Female	36 - 45	Unknown or other	Unknown or other

For more information about the data please visit: www.crashmap.co.uk/home/Faq

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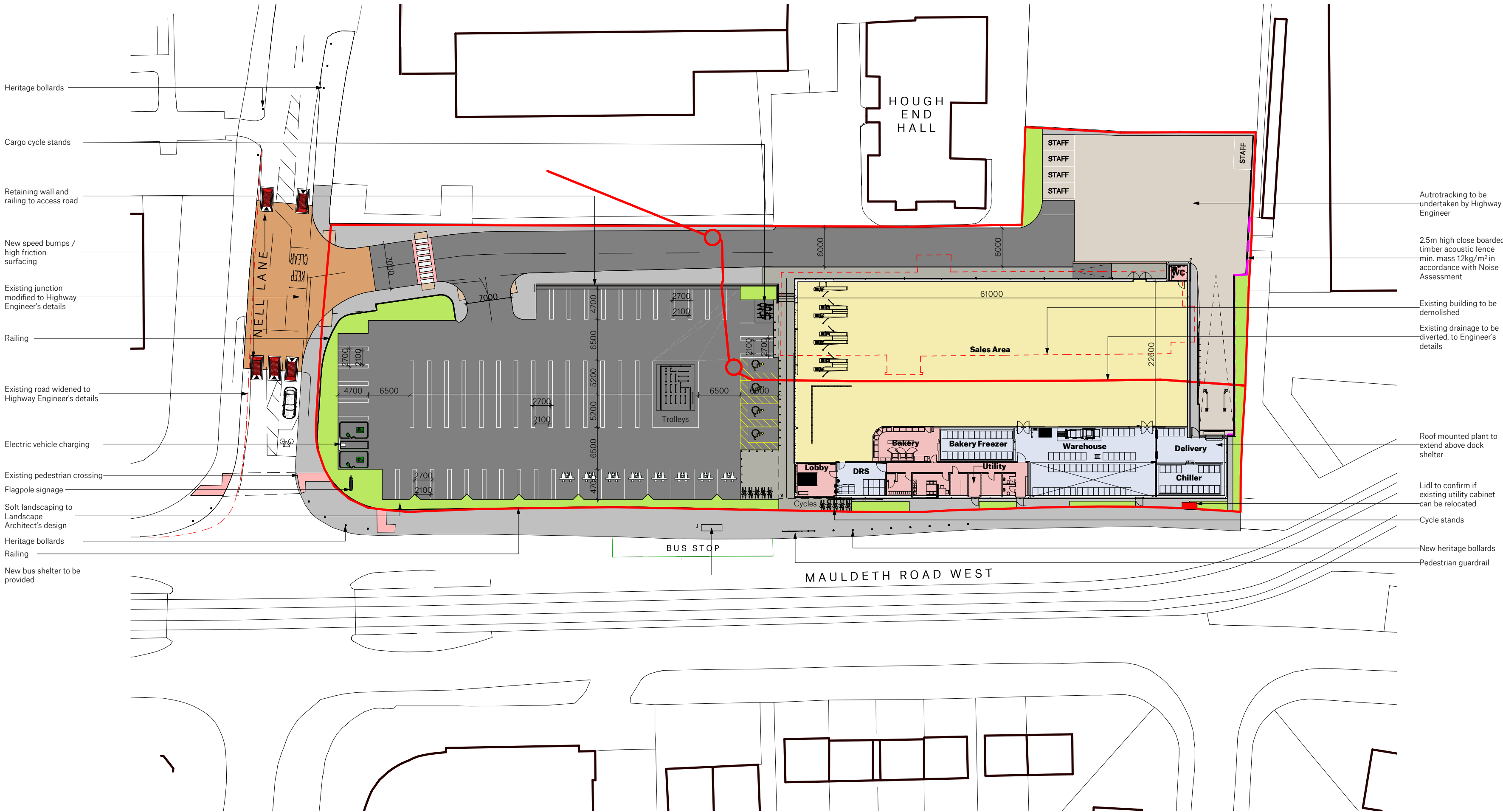
S|C|P

APPENDIX 4

OVERALL

<div></div> SITE AREA (Approx.):	6866 m²
BUILDING AREAS	
<div></div> Sales Area	1444 m²
<div></div> Warehouse Area	435 m²
<div></div> Ancillary Area	212 m²
GROSS INTERNAL AREA (TOTAL)	2092 m²
PARKING	
Disabled	4
Electric Vehicle Charging	2
Parent & Child	8
Staff	5
Standard	57
TOTAL	76
Short Stay Bicycles	20
Cargo Cycle	4

<div></div> Tarmac (Vehicles)	<div></div> Tarmac (Pedestrians)
<div></div> Conservation paving	<div></div> Concrete cast in-situ
<div></div> Soft landscaping	<div></div> Tactile paving
<div></div> Friction surfacing	



Store Specification

Bespoke Type 13

Drawing Purpose

FEASIBILITY

This drawing has been prepared for the sole purpose of forming part of a feasibility study, and should not be used for any other purpose.



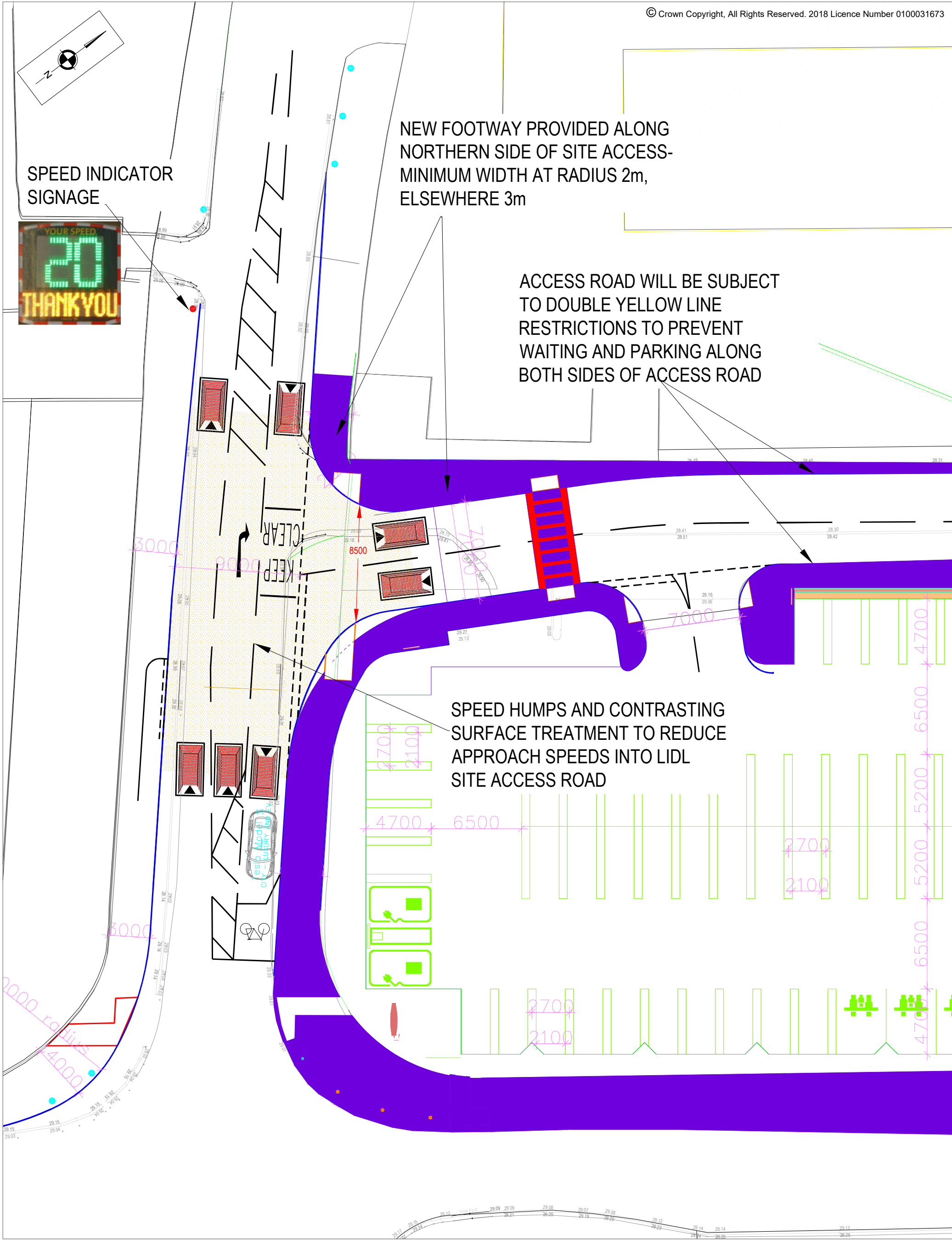
SPACE

Spaceworks, Benton Park Road, Newcastle upon Tyne, NE7 7LX
T: +44 (0)844 800 6660
www.spacearchitects.co.uk

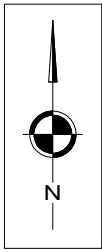
Project Lowry House - Mauldeth Road West				
Drawing Title Proposed Site Plan - Option 2				
Project No. 08474	Drawing No. XX-XX-DR-A-91004	Status S3	Rev. P10	Scale at A2 1:500
File Reference: 08474-SPACE-XX-XX-DR-A-91004-S3-P10				

S|C|P

APPENDIX 5



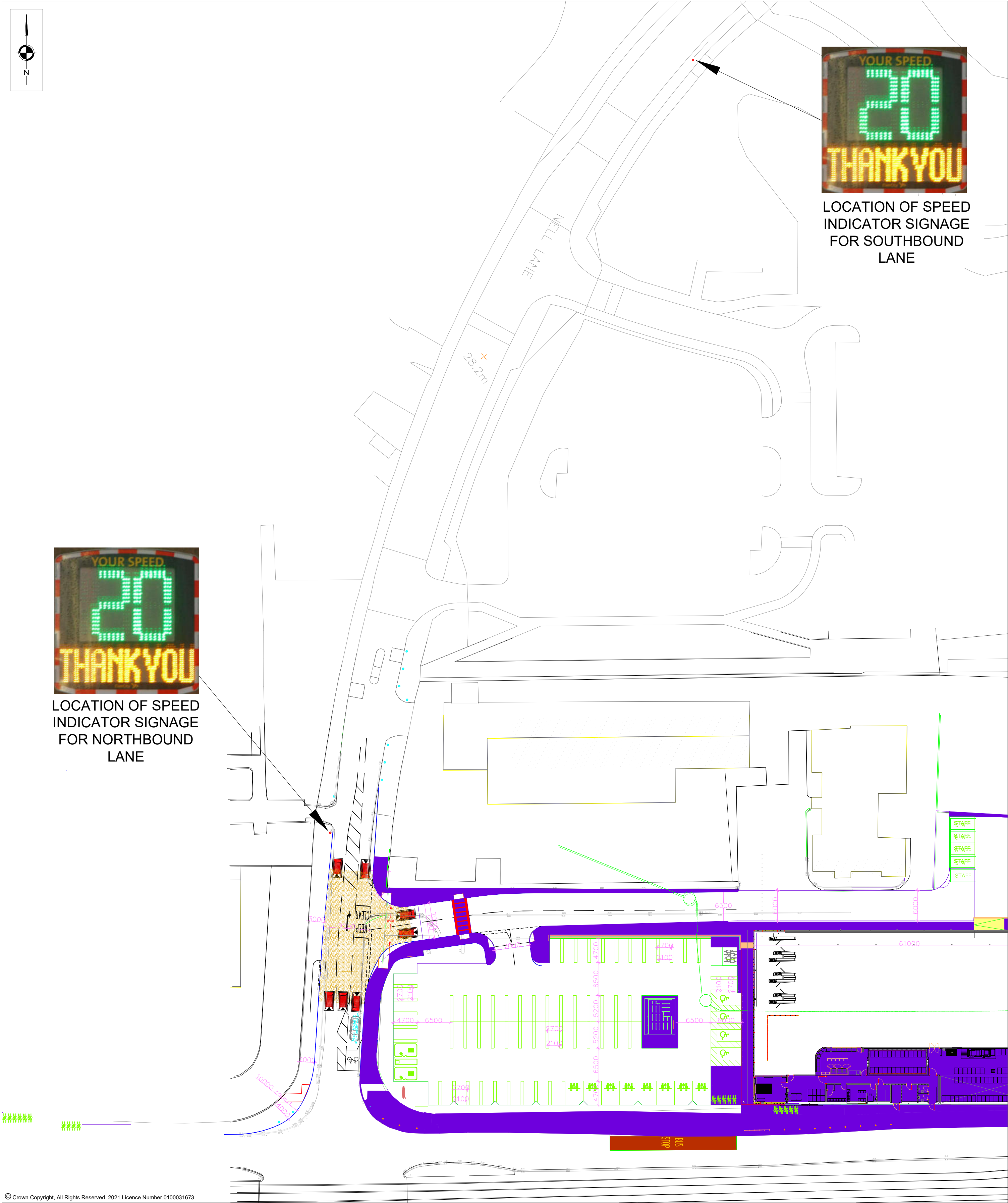
<div>SCP</div> <div>Transportation Planning : Infrastructure Design</div> <div>Colwyn Chambers, 19 York Street, Manchester, M2 3BA, Tel 0161 832 4400, www.scptransport.co.uk, Email info@scptransport.co.uk</div>	Client LIDL GREAT BRITAIN LTD	Drawing Title LOCATION OF PROPOSED SPEED HUMPS AT SITE ACCESS ROAD / NELL LANE JUNCTION	Scale 1:250 @ A3	By WB	Drawing No. SCP/220102/SK12
	Project Title PROPOSED DISCOUNT FOOD STORE AT LOWRY HOUSE, MAULDETH ROAD WEST		Date 24.10.2023	Checked JRB	
			Approved/Unapproved -	Status PLANNING	Revision A



LOCATION OF SPEED INDICATOR SIGNAGE FOR SOUTHBOUND LANE



LOCATION OF SPEED INDICATOR SIGNAGE FOR NORTHBOUND LANE

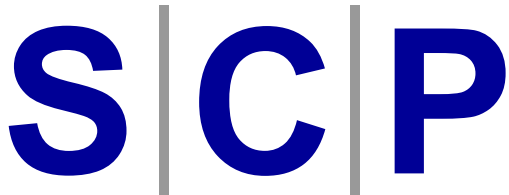


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NOTES

REVISIONS

REV	DESCRIPTION	DATE	BY
-	-	-	-
Date: 24.10.2023		Drawn By: WB	
Scale: 1:500 @ A2		Checked: JRB	
Status: PLANNING		Approved/ Unapproved: UNAPPROVED	

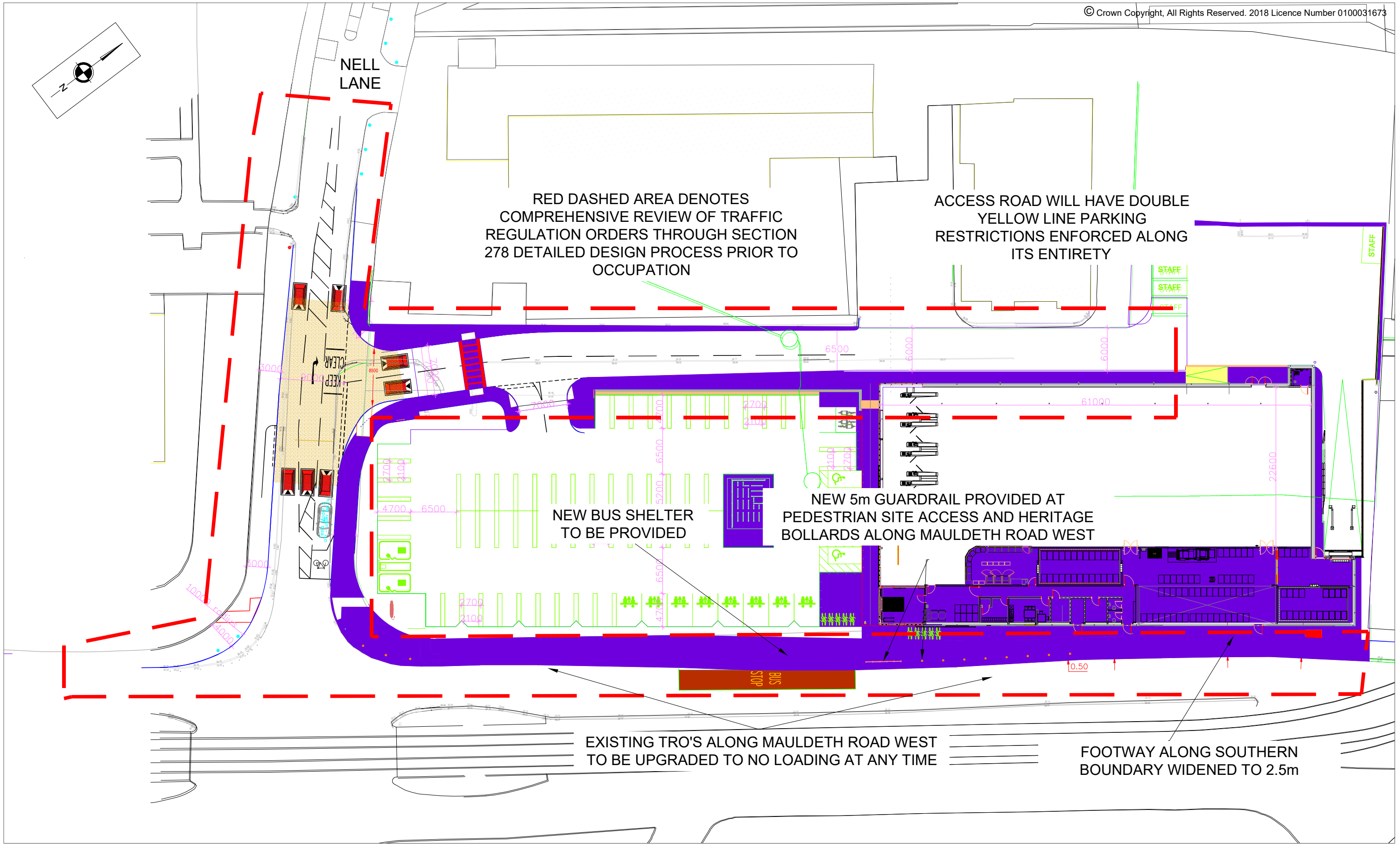


Colwyn Chambers, 19 York Street, Manchester, M2 3BA, Tel 0161 832 4400, www.scptransport.co.uk, Email info@scptransport.co.uk

Client Name: LIDL GREAT BRITAIN LTD
Project Title: PROPOSED DISCOUNT FOODSTORE AT LOWRY HOUSE, MAULDETH ROAD WEST

Drawing Title: PROPOSED LOCATION OF 20MPH SPEED INDICATOR SIGNAGE ALONG NELL LANE

Drawing No. SCP/220102/SK13 Rev. A



<div><div>S C P</div><div>Transportation Planning : Infrastructure Design</div><div>Colwyn Chambers, 19 York Street, Manchester, M2 3BA, Tel 0161 832 4400, www.scptransport.co.uk, Email info@scptransport.co.uk</div></div>	Client LIDL GREAT BRITAIN LTD	Drawing Title REVIEW OF TRAFFIC REGULATION ORDERS	Scale 1:500 @ A3	By WB	Rev	Description	Date	By	Drawing No. SCP/220102/ SK14
	Project Title PROPOSED DISCOUNT FOODSTORE AT LOWRY HOUSE, MAULDETH ROAD WEST		Date 24.10.2023	Checked JRB	— —	— —	— —	— —	Revision A
			Approved/ Unapproved -	Status PLANNING	— —	— —	— —	— —	
					— —	— —	— —	— —	

S|C|P

APPENDIX 6

FAO: Krutika Gopalan
SCP

31st January 2023

Dear Krutika

LIDL LOWRY HOUSE, MAULDETH ROAD WEST, CHORLTON
PROPOSED NEW FOODSTORE DEVELOPMENT
STAGE 1 ROAD SAFETY AUDIT

Please find enclosed the signed and dated PDF of the Stage 1 Road Safety Audit (RSA) Report for the above mentioned project.

As referred to in Section 1.3 of the RSA Report, there are two issues identified and observation made during the Stage 1 RSA and site inspection, which the Terms of Reference exclude from the RSA Report, but which the Audit Team wishes to draw to the attention of yourself and the Overseeing Organisation:

- i. At the time of the site visit it was noted that the existing footway surfacing on the western side of Nell Lane, opposite the location of the proposed development access road, was in poor condition. This should be addressed to ensure that it does not become a trip hazard for pedestrians.
- ii. There were numerous cyclists (school pupils) within the site extents that were observed crossing Nell Road. It is unclear from the drawing provided what the future cycle strategy is along Nell Lane. At present there are cycle facilities to allow cyclists to enter/leave the footway/carriageway areas which do not appear to be replaced as part of the scheme proposals. At the next stage of audit these should be considered.

I look forward to receiving your response to this Covering Letter and the provision of the RSA Decision Log for the purposes of retention on my file.

Should you have any queries, please do not hesitate to contact me.

Yours sincerely



Sarah Bowie

LOWRY HOUSE
MAULDETH ROAD WEST, CHORLTON
Proposed New Foodstore Development

Road Safety Audit – Stage 1

Final Report

January 2023

TBL19/340

REPORT APPROVAL

Project Details

Project Title	Lowly House, Mauldeth Road West, Chorlton		
Project Subtitle	Proposed New Foodstore Development		
Road Safety Audit	Stage 1		
Document Reference	TBL19/340 Rev 0	Audit Brief Date	7 th November 2022
Overseeing Organisation	Manchester City Council		
Design Organisation	Krutika Gopalan	SCP	
Client	-	Lidl Great Britain Ltd	
Maintaining Agent Details	-	-	

Approvals

This document requires the following approvals:

Name	Title
Sarah Bowie	Audit Team Leader
Mario Gatti	Audit Team Member

Distribution

This document has also been distributed to:

Name	Title & Organisation
Krutika Gopalan	Assistant Transport Planner - SCP

1 INTRODUCTION

1.1 The Scheme and its Purpose

This report results from a Stage 1 Road Safety Audit (RSA) carried out on the proposed development access associated with a potential new foodstore development on land at Lowry House, Mauldeth Road West, Chorlton.

Localised widening is proposed to accommodate a new ghost right-turn junction on Nell Lane with a further priority junction into the development site. Additional measures include a pedestrian crossing facility across the development access road.

1.2 Terms of Reference & Audit Report

The Road Safety Audit Brief was approved and issued by Krutika Gopalan of the Design Organisation on behalf of the Overseeing Organisation. The RSA team has been approved by the Overseeing Organisation.

Table 1 - Audit Team Membership

Membership	Name	Details
Audit Team Leader	Sarah Bowie	IEng, MICE, FIHE, MCIHT, MSoRSA, HE RSA Cert Comp
Audit Team Member	Mario Gatti	BSc Civ Eng, MCIHT, MSoRSA, HE RSA Cert Comp

The Road Safety Audit was undertaken in accordance with the requirements of GG 119. No additional audit requirements were requested. The audit comprised of an examination of the brief and the documents provided to the Audit Team, listed in **Appendix A**.

The audit took place at Taylor Bowie Ltd Cambridgeshire office during November 2022 and both Audit Team Members examined the site together in daylight hours on the afternoon of Friday 18th November 2022 between the times of 1500 and 1600hrs. The weather during the site visit was cold and heavy rain. The carriageway was wet. Traffic flows at all times within the site extents were light northbound on Nell Lane with heavy queuing southbound on Nell Lane towards its signalised junction with Mauldeth Road West. Numerous pedestrians and cyclists were observed during the site visit which was undertaken during school finishing times.

The scheme has been examined, and this report compiled only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the designs to any other criteria.

No Departures from Standards (DfS) have been provided to the Audit Team. It is important that if there are any DfS, then they are submitted to the Overseeing Organisation (OO) as soon as possible with appropriate mitigating measures for the OO to approve.

The Audit Team were not provided with any information regarding signage, carriageway surfacing specification or drainage for this stage of audit.

All Problems and Recommendations are referenced to the design drawings and the locations have been indicated on the A4 plan supplied for use by the Audit Team in **Appendix B** (where applicable).

1.3 Audit Administration

Issues identified during the audit and site visit which the Terms of Reference exclude from this report, but which the audit team wishes to draw to the attention of the OO, will be set out in a separate letter. These issues could include maintenance items and operational issues.

In this regard, the Audit Team have made reference to two items as referred to in the covering letter to the Design Organisation, dated 31st January 2023. This covering letter should be supplied to the OO and be considered in conjunction with this Stage 1 RSA.

2 ITEMS RAISED AT PREVIOUS ROAD SAFETY AUDITS

No previous Road Safety Audits have been undertaken on these proposals.

3 ITEMS RAISED AT THIS STAGE 1 ROAD SAFETY AUDIT

3.1 Local Alignment

No Problems identified in this category at this Stage 1 Road Safety Audit.

3.2 General

No Problems identified in this category at this Stage 1 Road Safety Audit.

3.3 Junctions

PROBLEM	1
Location	Proposed development access road junction, Nell Lane (Drwg No. SCP/220102/SK02 Rev B)
Summary	Increased risk of vehicles striking kerbs, pedestrians on adjacent footway areas or using the proposed crossing facility.
<p>The scheme proposals include the introduction of a new ghost right-turn facility into the development access road.</p> <p>At this stage of audit, vehicle swept paths have not been provided for this junction.</p> <p>It is unclear from this information provided whether the relevant design vehicles that may use this junction can safely carry out their turning movements without hitting kerbs. This may increase the risk of kerb strikes and vehicle to pedestrian type collisions.</p>	
RECOMMENDATION	
<p>The Audit Team recommend vehicle swept paths are carried out for all turning movements for Design Vehicles that are likely to be using the proposed development junction. The vehicle swept paths should be safely accommodated within the available carriageway area without overrunning adjacent footway areas.</p>	

PROBLEM	2
Location	Proposed development access junction (Drwg No. SCP/220102/SK02 Rev B)
Summary	Increased risk of vehicles striking kerbs, pedestrians on adjacent footway areas or using the proposed crossing facility.
<p>The scheme proposals include the introduction of a priority junction into the development site.</p> <p>At this stage of audit, vehicle swept paths have not been provided for this junction.</p> <p>It is unclear from the information provided whether the relevant design vehicles that may use this junction can safely carry out their turning movements without hitting kerbs. This may increase the risk of kerb strikes and vehicle to pedestrian type collisions.</p>	
RECOMMENDATION	
<p>The Audit Team recommend vehicle swept paths are carried out for all turning movements for Design Vehicles that are likely to be using the proposed development junction. The vehicle swept paths should be safely accommodated within the available carriageway area without overrunning adjacent footway areas.</p>	

PROBLEM	3
Location	Development access junction (Drwg No. SCP/220102/SK02 Rev B)
Summary	Pull out type collisions.
<p>The site visit has established that there is a significant level difference between the development access road carriageway and the proposed development site.</p> <p>Vehicles waiting to emerge onto the access road from a standing start could experience difficulties due to the difference in levels. This could impact upon a driver's ability to see clearly when looking to the left and right on approach to the junction exit and may increase the risk of vehicle to vehicle or vehicle to pedestrian pull out type collisions.</p>	
RECOMMENDATION	
<p>The Audit Team recommend that at the detailed design stage a dwell/plateau should be provided for the development site junction where it meets the development access road.</p>	

PROBLEM	4
Location	Development access junction (Drwg No. SCP/220102/SK02 Rev B)
Summary	Reduced visibility splay may increase the risk of vehicle pull-out type collisions.
<p>The scheme drawings do not indicate a proposed visibility splay.</p> <p>The site visit has established that the achievable visibility splays may be impacted upon by the presence of vegetation along the eastern kerblines and the existing ground level.</p> <p>A lack of visibility at the junction may increase the risk of pull out type collisions.</p>	
RECOMMENDATION	
The Audit Team recommend that the achievable visibility splays are not compromised.	

3.4 Walking, Cycling and Horse Riding

PROBLEM	5
Location	Proposed pedestrian crossing facility, development access road (Drwg No. SCP/220102/SK02 Rev B)
Summary	Compromised pedestrian to driver intervisibility may result in vehicle to pedestrian type collisions.
<p>The site visit has established that the pedestrian to driver intervisibility when looking to the right from the northern kerblines of the proposed pedestrian crossing facility may be impacted upon by the presence of vegetation.</p> <p>A lack of intervisibility to the right may increase the risk of pedestrians crossing into the path of vehicles entering the development site access road and sustaining injury.</p>	
RECOMMENDATION	
The Audit Team recommend that adequate and compliant pedestrian to driver intervisibility splay is achieved for pedestrians crossing the development access road from the northern footway.	

PROBLEM	6
Location	Proposed pedestrian crossing facility, development access road (Drwg No. SCP/220102/SK02 Rev B)
Summary	Compromised pedestrian to driver intervisibility may result in vehicle to pedestrian type collisions.
<p>The site visit has established that the pedestrian to driver intervisibility when looking to the left and right from the southern kerbline of the proposed pedestrian crossing facility may be impacted upon by the existing ground level and vegetation.</p> <p>A lack of intervisibility to the left and right may increase the risk of pedestrians crossing into the path of vehicles entering the development site access road and sustaining injury.</p>	
RECOMMENDATION	
The Audit Team recommend that adequate and compliant pedestrian to driver intervisibility splay is achieved for pedestrians crossing the development access road from the southern footway.	

3.5 Traffic Signs, Carriageway Markings and Lighting

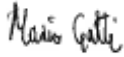
No Problems identified in this category at this Stage 1 Road Safety Audit.

END OF PROBLEMS IDENTIFIED & RECOMMENDATIONS OFFERED IN THIS STAGE 1 ROAD SAFETY AUDIT

4 AUDIT TEAM STATEMENT

We certify that this Road Safety Audit has been carried out in accordance with GG 119.

AUDIT TEAM LEADER	
Name	Sarah Bowie - IEng, MICE, FIHE, MCIHT, MSoRSA, HE RSA Cert Comp
Signed	
Position	Director
Organisation	Taylor Bowie Ltd
Date	31 st January 2023

AUDIT TEAM MEMBER	
Name	Mario Gatti - BSc Civ Eng, MCIHT, MSoRSA, HE RSA Cert Comp
Signed	
Position	Associate Consultant
Organisation	Taylor Bowie Ltd
Date	31 st January 2023

APPENDIX A

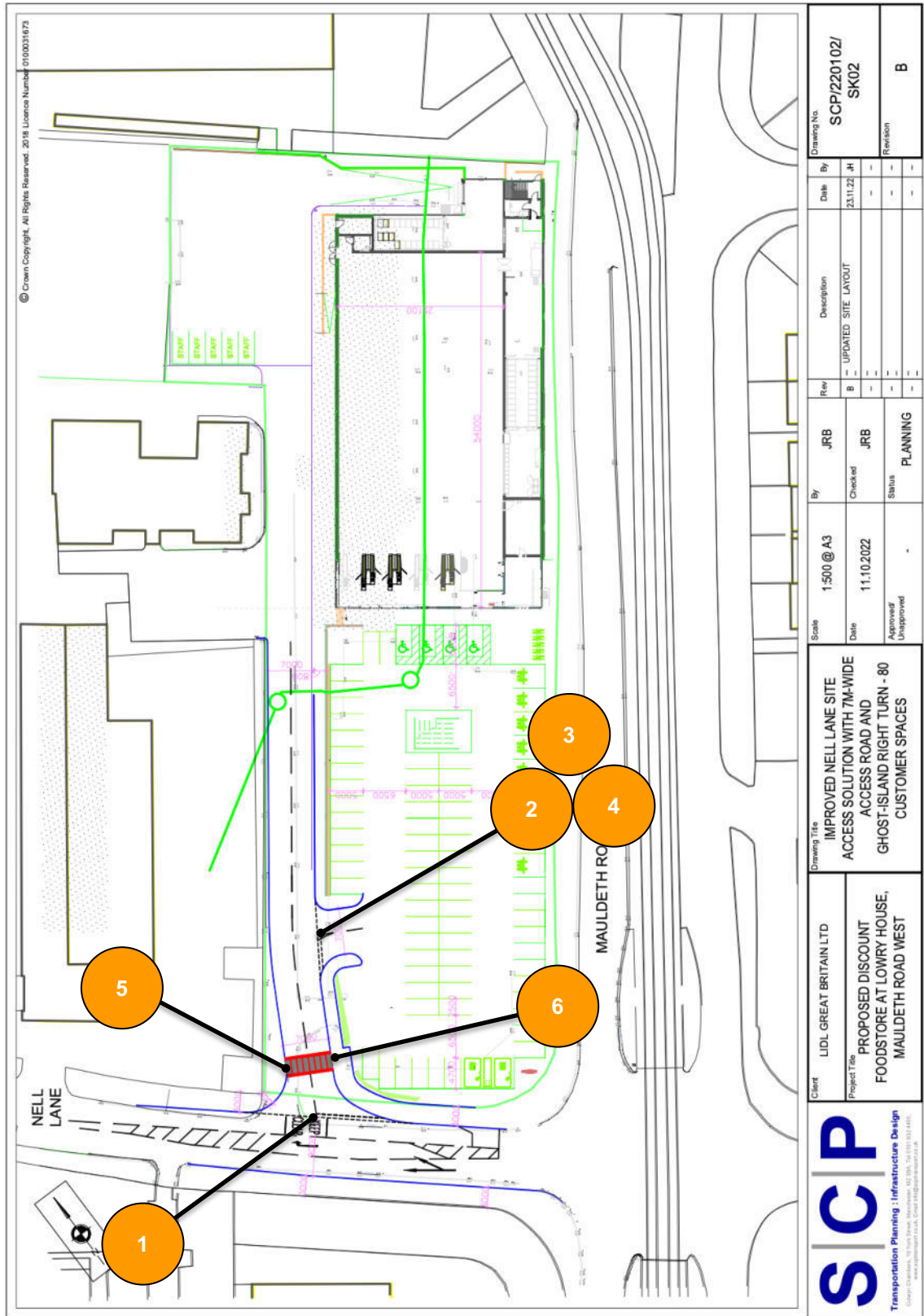
Documents Forming the Audit Brief

Drawings:

DRAWING NO.	TITLE
SCP/220102/ATR06 Rev A	Improved Nell Lane Site Access Solution with Swept Path of Max Legal Articulated HGV Inbound
SCP/220102/ATR07 Rev A	Improved Nell Lane Site Access Solution with Swept Path of Max Legal Articulated HGV Outbound
SCP/220102/SK02 Rev B	Improved Nell Lane Site Access Solution with 7m Wide Access Road and Ghost Island Right Turn – 80 Customer Spaces

APPENDIX B

Problem Location Plan



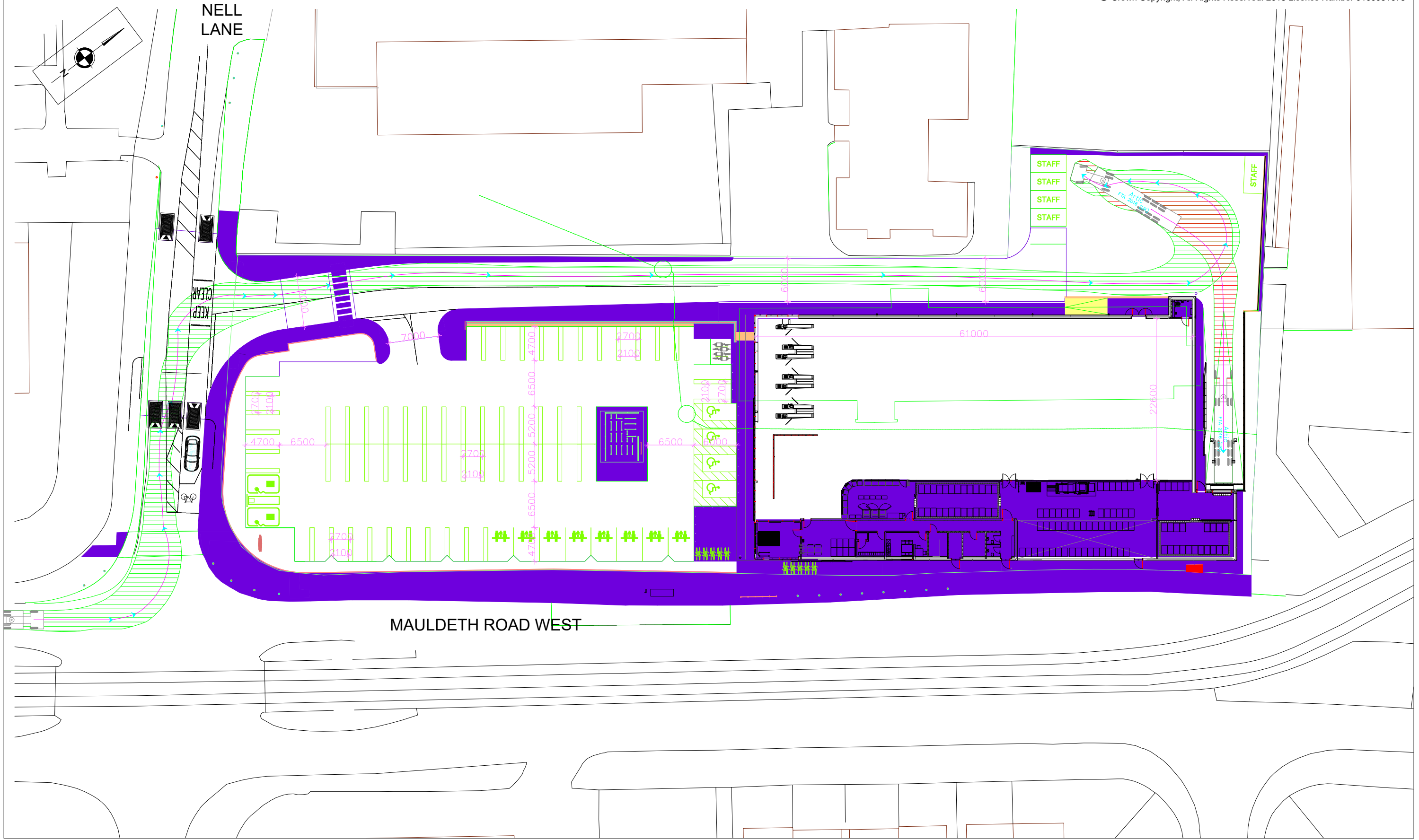
Taylor Bowie Ltd
ROAD SAFETY & TRANSPORTATION CONSULTANCY

E: info@taylorbowie.co.uk

W: www.taylorbowie.co.uk

S|C|P

APPENDIX 7



Client	LIDL GREAT BRITAIN LTD
Project Title	PROPOSED DISCOUNT FOODSTORE AT LOWRY HOUSE, MAULDETH ROAD WEST

Drawing Title	SWEPT PATH OF MAX. LEGAL ARTICULATED HGV, INBOUND
AGAINST PLANNING DRAWING:	08474-SPACE-XX-XX-DR-A-91004

Scale	1:500 @ A3
Date	24.10.2023
Approved/ Unapproved	-

By	WB
Checked	JRB
Status	PLANNING

Rev	Description	Date	By
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Drawing No.	SCP/220102/ ATR10
Revision	A

S|C|P

APPENDIX 8

SCP York Street Manchester

Licence No: 726001

Calculation Reference: AUDIT-726001-211005-1052

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
 Category : C - DISCOUNT FOOD STORES

TOTAL VEHICLESSelected regions and areas:

03	SOUTH WEST	
	SM SOMERSET	1 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	2 days
	NR NORTHAMPTONSHIRE	1 days
	NT NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	2 days
	WO WORCESTERSHIRE	1 days
09	NORTH	
	NB NORTHUMBERLAND	1 days
10	WALES	
	CF CARDIFF	1 days
11	SCOTLAND	
	SR STIRLING	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: Retail floor area
 Actual Range: 1235 to 1425 (units: sqm)
 Range Selected by User: 600 to 1900 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/07/16 to 01/03/20

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:

Saturday 11 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 undertaken using machines.

Selected Locations:

Edge of Town Centre 4
 Suburban Area (PPS6 Out of Centre) 2
 Edge of Town 3
 Neighbourhood Centre (PPS6 Local Centre) 2

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
 Development Zone 1
 Residential Zone 1
 Retail Zone 1
 Built-Up Zone 2
 High Street 1
 No Sub Category 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:

E(a) 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:

5,001 to 10,000	2 days
10,001 to 15,000	3 days
15,001 to 20,000	2 days
20,001 to 25,000	1 days
25,001 to 50,000	2 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	1 days
75,001 to 100,000	2 days
125,001 to 250,000	2 days
250,001 to 500,000	2 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:

0.5 or Less	1 days
0.6 to 1.0	2 days
1.1 to 1.5	8 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.

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	11 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

Not Known	1 days
Yes	2 days
No	8 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.

SCP York Street Manchester

Licence No: 726001

LIST OF SITES relevant to selection parameters

1	CF-01-C-01	LIDL	CARDIFF
	EAST TYNDALL STREET CARDIFF		
	Suburban Area (PPS6 Out of Centre) Development Zone Total Retail floor area: 1407 sqm Survey date: SATURDAY 01/07/17		Survey Type: MANUAL
2	LN-01-C-01	LIDL	LINCOLNSHIRE
	RICHMOND DRIVE SKEGNESS		
	Edge of Town Centre Built-Up Zone Total Retail floor area: 1424 sqm Survey date: SATURDAY 16/07/16		Survey Type: MANUAL
3	LN-01-C-02	LIDL	LINCOLNSHIRE
	DIXON STREET LINCOLN NEW BOULTHAM Suburban Area (PPS6 Out of Centre) No Sub Category Total Retail floor area: 1235 sqm Survey date: SATURDAY 28/10/17		Survey Type: MANUAL
4	NB-01-C-01	LIDL	NORTHUMBERLAND
	SCHALKSMUHLE ROAD BEDLINGTON		
	Edge of Town Centre No Sub Category Total Retail floor area: 1425 sqm Survey date: SATURDAY 10/06/17		Survey Type: MANUAL
5	NR-01-C-02	LIDL	NORTHAMPTONSHIRE
	NEWTON ROAD RUSHDEN		
	Edge of Town Centre Residential Zone Total Retail floor area: 1424 sqm Survey date: SATURDAY 16/07/16		Survey Type: MANUAL
6	NT-01-C-01	LIDL	NOTTINGHAMSHIRE
	CHAPEL LANE BINGHAM		
	Edge of Town Industrial Zone Total Retail floor area: 1424 sqm Survey date: SATURDAY 16/07/16		Survey Type: MANUAL

SCP York Street Manchester

Licence No: 726001

LIST OF SITES relevant to selection parameters (Cont.)

7	SM-01-C-01	LIDL	SOMERSET
	SEAWARD WAY		
	MINEHEAD		
	Edge of Town		
	No Sub Category		
	Total Retail floor area:	1407 sqm	
	Survey date: SATURDAY	24/06/17	Survey Type: MANUAL
8	SR-01-C-01	LIDL	STIRLING
	PLAYERS ROAD		
	STIRLING		
	Edge of Town Centre		
	Built-Up Zone		
	Total Retail floor area:	1424 sqm	
	Survey date: SATURDAY	03/06/17	Survey Type: MANUAL
9	WM-01-C-01	LIDL	WEST MIDLANDS
	MACKADOWN LANE		
	BIRMINGHAM		
	KITT'S GREEN		
	Neighbourhood Centre (PPS6 Local Centre)		
	No Sub Category		
	Total Retail floor area:	1341 sqm	
	Survey date: SATURDAY	09/07/16	Survey Type: MANUAL
10	WM-01-C-02	LIDL	WEST MIDLANDS
	HIGH STREET		
	WEST BROMWICH		
	GUNS VILLAGE		
	Neighbourhood Centre (PPS6 Local Centre)		
	High Street		
	Total Retail floor area:	1341 sqm	
	Survey date: SATURDAY	09/07/16	Survey Type: MANUAL
11	WO-01-C-01	LIDL	WORCESTERSHIRE
	BLACKPOLE ROAD		
	WORCESTER		
	BRICKFIELDS		
	Edge of Town		
	Retail Zone		
	Total Retail floor area:	1424 sqm	
	Survey date: SATURDAY	16/07/16	Survey Type: MANUAL

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
LN-01-C-03	Wrong store

SCP York Street Manchester

Licence No: 726001

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

TOTAL VEHICLES**Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	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	2	1424	0.386	2	1424	0.140	2	1424	0.526
07:00 - 08:00	11	1389	0.812	11	1389	0.183	11	1389	0.995
08:00 - 09:00	11	1389	4.078	11	1389	2.887	11	1389	6.965
09:00 - 10:00	11	1389	5.662	11	1389	5.021	11	1389	10.683
10:00 - 11:00	11	1389	8.196	11	1389	7.004	11	1389	15.200
11:00 - 12:00	11	1389	10.232	11	1389	9.413	11	1389	19.645
12:00 - 13:00	11	1389	9.531	11	1389	10.474	11	1389	20.005
13:00 - 14:00	11	1389	9.492	11	1389	9.060	11	1389	18.552
14:00 - 15:00	11	1389	8.739	11	1389	8.726	11	1389	17.465
15:00 - 16:00	11	1389	8.648	11	1389	9.086	11	1389	17.734
16:00 - 17:00	11	1389	8.098	11	1389	8.523	11	1389	16.621
17:00 - 18:00	11	1389	6.926	11	1389	6.932	11	1389	13.858
18:00 - 19:00	11	1389	4.628	11	1389	5.826	11	1389	10.454
19:00 - 20:00	11	1389	3.411	11	1389	4.235	11	1389	7.646
20:00 - 21:00	11	1389	1.957	11	1389	2.265	11	1389	4.222
21:00 - 22:00	11	1389	0.975	11	1389	1.466	11	1389	2.441
22:00 - 23:00	11	1389	0.065	11	1389	0.347	11	1389	0.412
23:00 - 24:00									
Total Rates:			91.836				91.588	183.424	

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:	1235 - 1425 (units: sqm)
Survey date range:	01/07/16 - 01/03/20
Number of weekdays (Monday-Friday):	0
Number of Saturdays:	11
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	1

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 shown. 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-726001-211005-1017

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
 Category : C - DISCOUNT FOOD STORES

TOTAL VEHICLESSelected regions and areas:

03	SOUTH WEST	
	SM SOMERSET	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	1 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
	NR NORTHAMPTONSHIRE	1 days
	NT NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	2 days
	WO WORCESTERSHIRE	2 days
09	NORTH	
	NB NORTHUMBERLAND	1 days
10	WALES	
	CF CARDIFF	1 days
11	SCOTLAND	
	AD ABERDEEN CITY	1 days
	SR STIRLING	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: Retail floor area
 Actual Range: 900 to 1690 (units: sqm)
 Range Selected by User: 600 to 1900 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/07/16 to 01/03/20

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	2 days
Tuesday	5 days
Wednesday	1 days
Thursday	3 days
Friday	3 days

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

Selected survey types:

Manual count	14 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 undertaken using machines.

Selected Locations:

Edge of Town Centre	5
Suburban Area (PPS6 Out of Centre)	2
Edge of Town	4
Neighbourhood Centre (PPS6 Local Centre)	3

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.

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:

E(a) 14 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
5,001 to 10,000	2 days
10,001 to 15,000	4 days
15,001 to 20,000	1 days
20,001 to 25,000	2 days
25,001 to 50,000	3 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	2 days
50,001 to 75,000	2 days
75,001 to 100,000	2 days
125,001 to 250,000	3 days
250,001 to 500,000	2 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	4 days
1.1 to 1.5	10 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.

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	14 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

Not Known	1 days
Yes	2 days
No	11 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	14 days
-----------------	---------

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

SCP York Street Manchester

Licence No: 726001

LIST OF SITES relevant to selection parameters

1	AD-01-C-01	LIDL	ABERDEEN CITY
	GREENWELL ROAD		
	ABERDEEN		
	EAST TULLOS IND. ESTATE		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Retail floor area:	1650 sqm	
	Survey date: MONDAY	18/11/19	Survey Type: MANUAL
2	CA-01-C-01	LIDL	CAMBRIDGESHIRE
	CROMWELL ROAD		
	WISBECH		
	Edge of Town		
	Retail Zone		
	Total Retail floor area:	913 sqm	
	Survey date: FRIDAY	21/10/16	Survey Type: MANUAL
3	CF-01-C-01	LIDL	CARDIFF
	EAST TYNDALL STREET		
	CARDIFF		
	Suburban Area (PPS6 Out of Centre)		
	Development Zone		
	Total Retail floor area:	1407 sqm	
	Survey date: THURSDAY	29/06/17	Survey Type: MANUAL
4	LN-01-C-01	LIDL	LINCOLNSHIRE
	RICHMOND DRIVE		
	SKEGNESS		
	Edge of Town Centre		
	Built-Up Zone		
	Total Retail floor area:	1424 sqm	
	Survey date: TUESDAY	19/07/16	Survey Type: MANUAL
5	NB-01-C-01	LIDL	NORTHUMBERLAND
	SCHALKSMUHLE ROAD		
	BEDLINGTON		
	Edge of Town Centre		
	No Sub Category		
	Total Retail floor area:	1425 sqm	
	Survey date: MONDAY	12/06/17	Survey Type: MANUAL
6	NF-01-C-01	LIDL	NORFOLK
	AYLSHAM ROAD		
	NORWICH		
	Neighbourhood Centre (PPS6 Local Centre)		
	No Sub Category		
	Total Retail floor area:	1690 sqm	
	Survey date: FRIDAY	29/11/19	Survey Type: MANUAL

SCP York Street Manchester

Licence No: 726001

LIST OF SITES relevant to selection parameters (Cont.)

7	NR-01-C-02	LIDL		NORTHAMPTONSHIRE
	NEWTON ROAD			
	RUSHDEN			
	Edge of Town Centre			
	Residential Zone			
	Total Retail floor area:	1424 sqm		
	Survey date: TUESDAY	19/07/16		Survey Type: MANUAL
8	NT-01-C-01	LIDL		NOTTINGHAMSHIRE
	CHAPEL LANE			
	BINGHAM			
	Edge of Town			
	Industrial Zone			
	Total Retail floor area:	1424 sqm		
	Survey date: FRIDAY	15/07/16		Survey Type: MANUAL
9	SM-01-C-01	LIDL		SOMERSET
	SEAWARD WAY			
	MINEHEAD			
	Edge of Town			
	No Sub Category			
	Total Retail floor area:	1407 sqm		
	Survey date: THURSDAY	22/06/17		Survey Type: MANUAL
10	SR-01-C-01	LIDL		STIRLING
	PLAYERS ROAD			
	STIRLING			
	Edge of Town Centre			
	Built-Up Zone			
	Total Retail floor area:	1424 sqm		
	Survey date: THURSDAY	01/06/17		Survey Type: MANUAL
11	WM-01-C-01	LIDL		WEST MIDLANDS
	MACKADOWN LANE			
	BIRMINGHAM			
	KITT'S GREEN			
	Neighbourhood Centre (PPS6 Local Centre)			
	No Sub Category			
	Total Retail floor area:	1341 sqm		
	Survey date: TUESDAY	12/07/16		Survey Type: MANUAL
12	WM-01-C-02	LIDL		WEST MIDLANDS
	HIGH STREET			
	WEST BROMWICH			
	GUNS VILLAGE			
	Neighbourhood Centre (PPS6 Local Centre)			
	High Street			
	Total Retail floor area:	1341 sqm		
	Survey date: TUESDAY	12/07/16		Survey Type: MANUAL

SCP York Street Manchester

Licence No: 726001

LIST OF SITES relevant to selection parameters (Cont.)

13	WO-01-C-01	LIDL	WORCESTERSHIRE
	BLACKPOLE ROAD		
	WORCESTER		
	BRICKFIELDS		
	Edge of Town		
	Retail Zone		
	Total Retail floor area:	1424 sqm	
	Survey date: WEDNESDAY	13/07/16	Survey Type: MANUAL
14	WO-01-C-02	LIDL	WORCESTERSHIRE
	WORCESTER ROAD		
	MALVERN		
	Edge of Town Centre		
	Residential Zone		
	Total Retail floor area:	900 sqm	
	Survey date: TUESDAY	26/06/18	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.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
DH-01-C-01	Wrong store
TW-01-C-01	Wrong store

SCP York Street Manchester

Licence No: 726001

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

TOTAL VEHICLES**Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	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	2	1424	0.281	2	1424	0.070	2	1424	0.351
07:00 - 08:00	14	1371	0.662	14	1371	0.234	14	1371	0.896
08:00 - 09:00	14	1371	4.204	14	1371	2.845	14	1371	7.049
09:00 - 10:00	14	1371	5.580	14	1371	4.757	14	1371	10.337
10:00 - 11:00	14	1371	6.059	14	1371	5.455	14	1371	11.514
11:00 - 12:00	14	1371	6.950	14	1371	6.596	14	1371	13.546
12:00 - 13:00	14	1371	6.950	14	1371	7.065	14	1371	14.015
13:00 - 14:00	14	1371	6.846	14	1371	7.502	14	1371	14.348
14:00 - 15:00	14	1371	7.325	14	1371	7.164	14	1371	14.489
15:00 - 16:00	14	1371	7.158	14	1371	7.169	14	1371	14.327
16:00 - 17:00	14	1371	7.367	14	1371	7.544	14	1371	14.911
17:00 - 18:00	14	1371	6.742	14	1371	7.211	14	1371	13.953
18:00 - 19:00	14	1371	5.882	14	1371	6.268	14	1371	12.150
19:00 - 20:00	14	1371	4.444	14	1371	4.892	14	1371	9.336
20:00 - 21:00	14	1371	2.688	14	1371	3.532	14	1371	6.220
21:00 - 22:00	14	1371	1.209	14	1371	1.829	14	1371	3.038
22:00 - 23:00	13	1407	0.044	13	1407	0.344	13	1407	0.388
23:00 - 24:00									
Total Rates:			80.391				80.477	160.868	

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:	900 - 1690 (units: sqm)
Survey date range:	01/07/16 - 01/03/20
Number of weekdays (Monday-Friday):	14
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	2

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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

SCP York Street Manchester

Licence No: 726001

Calculation Reference: AUDIT-726001-220412-0418

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
 Category : C - DISCOUNT FOOD STORES

TOTAL VEHICLESSelected regions and areas:

02	SOUTH EAST	
	WS WEST SUSSEX	2 days
03	SOUTH WEST	
	SM SOMERSET	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
	NR NORTHAMPTONSHIRE	1 days
	NT NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	2 days
	WO WORCESTERSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	1 days
09	NORTH	
	NB NORTHUMBERLAND	1 days
10	WALES	
	CF CARDIFF	1 days
11	SCOTLAND	
	AD ABERDEEN CITY	1 days
	SR STIRLING	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: Retail floor area
 Actual Range: 1000 to 1690 (units: sqm)
 Range Selected by User: 600 to 1900 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 23/09/21

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	2 days
Thursday	5 days
Friday	2 days

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

Selected survey types:

Manual count	15 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 undertaken using machines.

Selected Locations:

Edge of Town Centre	5
Suburban Area (PPS6 Out of Centre)	2
Edge of Town	5
Neighbourhood Centre (PPS6 Local Centre)	3

SCP York Street Manchester

Licence No: 726001

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	3
Development Zone	1
Residential Zone	1
Retail Zone	3
Built-Up Zone	2
High Street	1
No Sub Category	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:

E(a)	15 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:

5,001 to 10,000	2 days
10,001 to 15,000	4 days
15,001 to 20,000	1 days
20,001 to 25,000	2 days
25,001 to 50,000	5 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	1 days
75,001 to 100,000	3 days
125,001 to 250,000	5 days
250,001 to 500,000	2 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	6 days
1.1 to 1.5	9 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.

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	15 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

Not Known	1 days
Yes	4 days
No	10 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	15 days
-----------------	---------

SCP York Street Manchester

Licence No: 726001

LIST OF SITES relevant to selection parameters

1	AD-01-C-02	LIDL	ABERDEEN CITY
	GREENWELL ROAD		
	ABERDEEN		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Retail floor area:	1650 sqm	
	Survey date: WEDNESDAY	09/06/21	Survey Type: MANUAL
2	CF-01-C-01	LIDL	CARDIFF
	EAST TYNDALL STREET		
	CARDIFF		
	Suburban Area (PPS6 Out of Centre)		
	Development Zone		
	Total Retail floor area:	1407 sqm	
	Survey date: THURSDAY	29/06/17	Survey Type: MANUAL
3	CH-01-C-03	LIDL	CHESHIRE
	FENNEL STREET		
	WARRINGTON		
	Edge of Town Centre		
	Retail Zone		
	Total Retail floor area:	1000 sqm	
	Survey date: THURSDAY	15/04/21	Survey Type: MANUAL
4	LN-01-C-01	LIDL	LINCOLNSHIRE
	RICHMOND DRIVE		
	SKEGNESS		
	Edge of Town Centre		
	Built-Up Zone		
	Total Retail floor area:	1424 sqm	
	Survey date: TUESDAY	19/07/16	Survey Type: MANUAL
5	NB-01-C-01	LIDL	NORTHUMBERLAND
	SCHALKSMUHLE ROAD		
	BEDLINGTON		
	Edge of Town Centre		
	No Sub Category		
	Total Retail floor area:	1425 sqm	
	Survey date: MONDAY	12/06/17	Survey Type: MANUAL
6	NF-01-C-01	LIDL	NORFOLK
	AYLSHAM ROAD		
	NORWICH		
	Neighbourhood Centre (PPS6 Local Centre)		
	No Sub Category		
	Total Retail floor area:	1690 sqm	
	Survey date: FRIDAY	29/11/19	Survey Type: MANUAL

SCP York Street Manchester

Licence No: 726001

LIST OF SITES relevant to selection parameters (Cont.)

7	NR-01-C-02	LIDL		NORTHAMPTONSHIRE
	NEWTON ROAD			
	RUSHDEN			
	Edge of Town Centre			
	Residential Zone			
	Total Retail floor area:	1424 sqm		
	Survey date: TUESDAY	19/07/16		Survey Type: MANUAL
8	NT-01-C-01	LIDL		NOTTINGHAMSHIRE
	CHAPEL LANE			
	BINGHAM			
	Edge of Town			
	Industrial Zone			
	Total Retail floor area:	1424 sqm		
	Survey date: FRIDAY	15/07/16		Survey Type: MANUAL
9	SM-01-C-01	LIDL		SOMERSET
	SEAWARD WAY			
	MINEHEAD			
	Edge of Town			
	No Sub Category			
	Total Retail floor area:	1407 sqm		
	Survey date: THURSDAY	22/06/17		Survey Type: MANUAL
10	SR-01-C-01	LIDL		STIRLING
	PLAYERS ROAD			
	STIRLING			
	Edge of Town Centre			
	Built-Up Zone			
	Total Retail floor area:	1424 sqm		
	Survey date: THURSDAY	01/06/17		Survey Type: MANUAL
11	WM-01-C-01	LIDL		WEST MIDLANDS
	MACKADOWN LANE			
	BIRMINGHAM			
	KITT'S GREEN			
	Neighbourhood Centre (PPS6 Local Centre)			
	No Sub Category			
	Total Retail floor area:	1341 sqm		
	Survey date: TUESDAY	12/07/16		Survey Type: MANUAL
12	WM-01-C-02	LIDL		WEST MIDLANDS
	HIGH STREET			
	WEST BROMWICH			
	GUNS VILLAGE			
	Neighbourhood Centre (PPS6 Local Centre)			
	High Street			
	Total Retail floor area:	1341 sqm		
	Survey date: TUESDAY	12/07/16		Survey Type: MANUAL

SCP York Street Manchester

Licence No: 726001

LIST OF SITES relevant to selection parameters (Cont.)

13	WO-01-C-01	LIDL	WORCESTERSHIRE
	BLACKPOLE ROAD		
	WORCESTER		
	BRICKFIELDS		
	Edge of Town		
	Retail Zone		
	Total Retail floor area:	1424 sqm	
	Survey date: WEDNESDAY	13/07/16	Survey Type: MANUAL
14	WS-01-C-01	LIDL	WEST SUSSEX
	WESTHAMPNETT ROAD		
	CHICHESTER		
	Edge of Town		
	Retail Zone		
	Total Retail floor area:	1325 sqm	
	Survey date: TUESDAY	20/10/20	Survey Type: MANUAL
15	WS-01-C-03	LIDL	WEST SUSSEX
	SHRIPNEY ROAD		
	BOGNOR REGIS		
	Edge of Town		
	Industrial Zone		
	Total Retail floor area:	1410 sqm	
	Survey date: THURSDAY	23/09/21	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.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
CA-01-C-01	too small
DH-01-C-01	aldi
HI-01-C-02	too small
PK-01-C-02	aldi
SR-01-C-02	too small
TW-01-C-01	aldi
WO-01-C-02	too small
WO-01-C-03	aldi
WS-01-C-02	too small
WY-01-C-01	aldi

SCP York Street Manchester

Licence No: 726001

TRIP RATE for Land Use 01 - RETAIL/C - DISCOUNT FOOD STORES

TOTAL VEHICLES**Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	Trip Rate	No. Days	Ave. RFA	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	3	1391	0.383	3	1391	0.048	3	1391	0.431
07:00 - 08:00	15	1408	0.744	15	1408	0.213	15	1408	0.957
08:00 - 09:00	15	1408	4.300	15	1408	3.102	15	1408	7.402
09:00 - 10:00	15	1408	5.602	15	1408	4.868	15	1408	10.470
10:00 - 11:00	15	1408	6.052	15	1408	5.290	15	1408	11.342
11:00 - 12:00	15	1408	6.772	15	1408	6.478	15	1408	13.250
12:00 - 13:00	15	1408	6.711	15	1408	6.554	15	1408	13.265
13:00 - 14:00	15	1408	6.403	15	1408	6.905	15	1408	13.308
14:00 - 15:00	15	1408	7.004	15	1408	6.815	15	1408	13.819
15:00 - 16:00	15	1408	6.687	15	1408	6.767	15	1408	13.454
16:00 - 17:00	15	1408	6.786	15	1408	7.113	15	1408	13.899
17:00 - 18:00	15	1408	6.156	15	1408	6.725	15	1408	12.881
18:00 - 19:00	15	1408	5.403	15	1408	5.953	15	1408	11.356
19:00 - 20:00	15	1408	3.973	15	1408	4.418	15	1408	8.391
20:00 - 21:00	15	1408	2.463	15	1408	3.187	15	1408	5.650
21:00 - 22:00	15	1408	1.004	15	1408	1.662	15	1408	2.666
22:00 - 23:00	15	1408	0.028	15	1408	0.298	15	1408	0.326
23:00 - 24:00									
Total Rates:			76.471				76.396	152.867	

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:	1000 - 1690 (units: sqm)
Survey date range:	01/01/14 - 23/09/21
Number of weekdays (Monday-Friday):	15
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	10

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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

S|C|P

APPENDIX 9

Junctions 9															
PICADY 9 - Priority Intersection Module															
Version: 9.5.1.7462															
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Filename: Proposed Site Access_Nell Lane.j9

Path: Z:\Job Library\2022\220102 - Lidl, Lowry House, Mauldeth Road, Chorlton-cum-Hardy\Traffic Data\PICADY

Report generation date: 13/10/2022 15:29:36

- »Base 2023 + Lidl, AM
- »Base 2023 + Lidl, PM
- »Base 2023 + Lidl, SAT
- »Base 2028 + Lidl, AM
- »Base 2028 + Lidl, PM
- »Base 2028 + Lidl, SAT

Summary of junction performance

	AM					PM					SAT				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Base 2023 + Lidl														
Stream B-C	D1	0.1	7.06	0.05	A	D2	0.1	7.36	0.13	A	D3	0.2	7.31	0.15	A
Stream B-A		0.0	10.39	0.04	B		0.1	9.99	0.09	A		0.1	9.62	0.10	A
Stream C-AB		0.1	6.26	0.06	A		0.1	6.22	0.11	A		0.2	6.20	0.14	A
	Base 2028 + Lidl														
Stream B-C	D4	0.1	7.18	0.05	A	D5	0.1	7.47	0.13	A	D6	0.2	7.39	0.16	A
Stream B-A		0.0	10.81	0.04	B		0.1	10.31	0.09	B		0.1	9.86	0.11	A
Stream C-AB		0.1	6.37	0.07	A		0.1	6.31	0.11	A		0.2	6.27	0.14	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

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

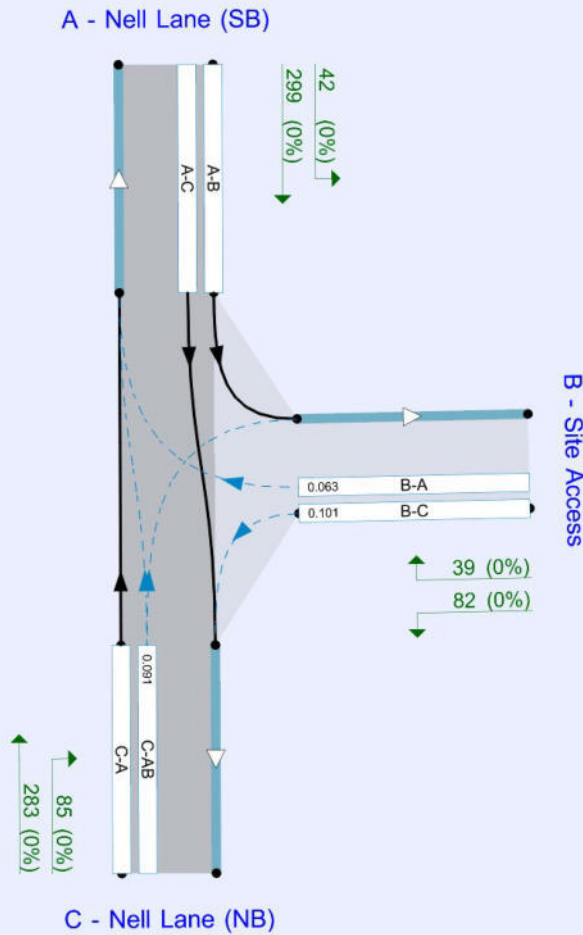
File summary

File Description

Title	
Location	
Site number	
Date	13/10/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SCP\jack.hulme
Description	

Units

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



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

The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	Base 2023 + Lidl	AM	ONE HOUR	07:45	09:15	15
D2	Base 2023 + Lidl	PM	ONE HOUR	14:45	16:15	15
D3	Base 2023 + Lidl	SAT	ONE HOUR	12:45	14:15	15
D4	Base 2028 + Lidl	AM	ONE HOUR	07:45	09:15	15
D5	Base 2028 + Lidl	PM	ONE HOUR	14:45	16:15	15
D6	Base 2028 + Lidl	SAT	ONE HOUR	12:45	14:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Base 2023 + Lidl, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Site Access - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	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		0.56	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Nell Lane (SB)		Major
B	Site Access		Minor
C	Nell Lane (NB)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Nell Lane (NB)	6.00		✓	3.00	250.0	✓	4.00

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

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane plus flare	10.00	3.50	3.50	3.50	3.50	✓	1.00	30	18

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	596	0.108	0.274	0.172	0.392
B-C	686	0.105	0.266	-	-
C-B	781	0.303	0.303	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	Base 2023 + Lidl	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Nell Lane (SB)		✓	499	100.000
B - Site Access		✓	38	100.000
C - Nell Lane (NB)		✓	421	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Nell Lane (SB)	B - Site Access	C - Nell Lane (NB)
From				
	A - Nell Lane (SB)	0	20	479
	B - Site Access	12	0	26
	C - Nell Lane (NB)	385	36	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Nell Lane (SB)	B - Site Access	C - Nell Lane (NB)
From				
	A - Nell Lane (SB)	0	0	0
	B - Site Access	0	0	0
	C - Nell Lane (NB)	0	0	0

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
A - Nell Lane (SB)	07:45-08:00	376	376
	08:00-08:15	449	449
	08:15-08:30	549	549
	08:30-08:45	549	549
	08:45-09:00	449	449
	09:00-09:15	376	376
B - Site Access	07:45-08:00	29	29
	08:00-08:15	34	34
	08:15-08:30	42	42
	08:30-08:45	42	42
	08:45-09:00	34	34
	09:00-09:15	29	29
C - Nell Lane (NB)	07:45-08:00	317	317
	08:00-08:15	378	378
	08:15-08:30	464	464
	08:30-08:45	464	464
	08:45-09:00	378	378
	09:00-09:15	317	317

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.05	7.06	0.1	A
B-A	0.04	10.39	0.0	B
C-AB	0.06	6.26	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	586	0.033	19	0.0	6.356	A
B-A	9	434	0.021	9	0.0	8.459	A
C-AB	27	668	0.041	27	0.0	5.617	A
C-A	290			290			
A-B	15			15			
A-C	361			361			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	566	0.041	23	0.0	6.634	A
B-A	11	403	0.027	11	0.0	9.177	A
C-AB	32	646	0.050	32	0.1	5.870	A
C-A	346			346			
A-B	18			18			
A-C	431			431			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	29	539	0.053	29	0.1	7.058	A
B-A	13	360	0.037	13	0.0	10.385	B
C-AB	40	615	0.064	40	0.1	6.256	A
C-A	424			424			
A-B	22			22			
A-C	527			527			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	29	539	0.053	29	0.1	7.059	A
B-A	13	360	0.037	13	0.0	10.388	B
C-AB	40	615	0.064	40	0.1	6.256	A
C-A	424			424			
A-B	22			22			
A-C	527			527			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	566	0.041	23	0.0	6.636	A
B-A	11	403	0.027	11	0.0	9.180	A
C-AB	32	646	0.050	32	0.1	5.871	A
C-A	346			346			
A-B	18			18			
A-C	431			431			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	586	0.033	20	0.0	6.362	A
B-A	9	434	0.021	9	0.0	8.466	A
C-AB	27	668	0.041	27	0.0	5.620	A
C-A	290			290			
A-B	15			15			
A-C	361			361			

Base 2023 + Lidl, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Site Access - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	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		1.36	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	Base 2023 + Lidl	PM	ONE HOUR	14:45	16:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Nell Lane (SB)		✓	404	100.000
B - Site Access		✓	96	100.000
C - Nell Lane (NB)		✓	366	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Nell Lane (SB)	B - Site Access	C - Nell Lane (NB)
From	A - Nell Lane (SB)	0	34	370
	B - Site Access	31	0	65
	C - Nell Lane (NB)	304	62	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Nell Lane (SB)	B - Site Access	C - Nell Lane (NB)
From	A - Nell Lane (SB)	0	0	0
	B - Site Access	0	0	0
	C - Nell Lane (NB)	0	0	0

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
A - Nell Lane (SB)	14:45-15:00	304	304
	15:00-15:15	363	363
	15:15-15:30	445	445
	15:30-15:45	445	445
	15:45-16:00	363	363
	16:00-16:15	304	304
B - Site Access	14:45-15:00	72	72
	15:00-15:15	86	86
	15:15-15:30	106	106
	15:30-15:45	106	106
	15:45-16:00	86	86
	16:00-16:15	72	72
C - Nell Lane (NB)	14:45-15:00	276	276
	15:00-15:15	329	329
	15:15-15:30	403	403
	15:30-15:45	403	403
	15:45-16:00	329	329
	16:00-16:15	276	276

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.13	7.36	0.1	A
B-A	0.09	9.99	0.1	A
C-AB	0.11	6.22	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

14:45 - 15:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	49	602	0.081	49	0.1	6.506	A
B-A	23	458	0.051	23	0.1	8.268	A
C-AB	47	689	0.068	46	0.1	5.597	A
C-A	229			229			
A-B	26			26			
A-C	279			279			

15:00 - 15:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	58	585	0.100	58	0.1	6.841	A
B-A	28	432	0.065	28	0.1	8.916	A
C-AB	56	671	0.083	56	0.1	5.846	A
C-A	273			273			
A-B	31			31			
A-C	333			333			

15:15 - 15:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	72	561	0.128	71	0.1	7.353	A
B-A	34	394	0.087	34	0.1	9.989	A
C-AB	68	647	0.106	68	0.1	6.222	A
C-A	335			335			
A-B	37			37			
A-C	407			407			

15:30 - 15:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	72	561	0.128	72	0.1	7.356	A
B-A	34	394	0.087	34	0.1	9.994	A
C-AB	68	647	0.106	68	0.1	6.222	A
C-A	335			335			
A-B	37			37			
A-C	407			407			

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	58	585	0.100	59	0.1	6.848	A
B-A	28	431	0.065	28	0.1	8.926	A
C-AB	56	671	0.083	56	0.1	5.851	A
C-A	273			273			
A-B	31			31			
A-C	333			333			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	49	601	0.081	49	0.1	6.519	A
B-A	23	458	0.051	23	0.1	8.281	A
C-AB	47	689	0.068	47	0.1	5.605	A
C-A	229			229			
A-B	26			26			
A-C	279			279			

Base 2023 + Lidl, SAT

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Site Access - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	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		1.89	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	Base 2023 + Lidl	SAT	ONE HOUR	12:45	14:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Nell Lane (SB)		✓	322	100.000
B - Site Access		✓	121	100.000
C - Nell Lane (NB)		✓	350	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Nell Lane (SB)	B - Site Access	C - Nell Lane (NB)
From	A - Nell Lane (SB)	0	42	280
	B - Site Access	39	0	82
	C - Nell Lane (NB)	265	85	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Nell Lane (SB)	B - Site Access	C - Nell Lane (NB)
From	A - Nell Lane (SB)	0	0	0
	B - Site Access	0	0	0
	C - Nell Lane (NB)	0	0	0

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
A - Nell Lane (SB)	12:45-13:00	242	242
	13:00-13:15	289	289
	13:15-13:30	355	355
	13:30-13:45	355	355
	13:45-14:00	289	289
	14:00-14:15	242	242
B - Site Access	12:45-13:00	91	91
	13:00-13:15	109	109
	13:15-13:30	133	133
	13:30-13:45	133	133
	13:45-14:00	109	109
	14:00-14:15	91	91
C - Nell Lane (NB)	12:45-13:00	263	263
	13:00-13:15	315	315
	13:15-13:30	385	385
	13:30-13:45	385	385
	13:45-14:00	315	315
	14:00-14:15	263	263

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.15	7.31	0.2	A
B-A	0.10	9.62	0.1	A
C-AB	0.14	6.20	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

12:45 - 13:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	62	617	0.100	61	0.1	6.470	A
B-A	29	474	0.062	29	0.1	8.082	A
C-AB	64	708	0.090	64	0.1	5.583	A
C-A	200			200			
A-B	32			32			
A-C	211			211			

13:00 - 13:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	74	603	0.122	74	0.1	6.800	A
B-A	35	450	0.078	35	0.1	8.664	A
C-AB	76	694	0.110	76	0.1	5.831	A
C-A	238			238			
A-B	38			38			
A-C	252			252			

13:15 - 13:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	90	583	0.155	90	0.2	7.303	A
B-A	43	417	0.103	43	0.1	9.610	A
C-AB	94	674	0.139	93	0.2	6.198	A
C-A	292			292			
A-B	46			46			
A-C	308			308			

13:30 - 13:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	90	583	0.155	90	0.2	7.307	A
B-A	43	417	0.103	43	0.1	9.618	A
C-AB	94	674	0.139	94	0.2	6.200	A
C-A	292			292			
A-B	46			46			
A-C	308			308			

13:45 - 14:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	74	603	0.122	74	0.1	6.808	A
B-A	35	450	0.078	35	0.1	8.675	A
C-AB	76	694	0.110	77	0.1	5.836	A
C-A	238			238			
A-B	38			38			
A-C	252			252			

14:00 - 14:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	62	617	0.100	62	0.1	6.490	A
B-A	29	474	0.062	29	0.1	8.097	A
C-AB	64	708	0.090	64	0.1	5.593	A
C-A	200			200			
A-B	32			32			
A-C	211			211			

Base 2028 + Lidl, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Site Access - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	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		0.54	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	Base 2028 + Lidl	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Nell Lane (SB)		✓	529	100.000
B - Site Access		✓	38	100.000
C - Nell Lane (NB)		✓	445	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Nell Lane (SB)	B - Site Access	C - Nell Lane (NB)
From	A - Nell Lane (SB)	0	20	509
	B - Site Access	12	0	26
	C - Nell Lane (NB)	409	36	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Nell Lane (SB)	B - Site Access	C - Nell Lane (NB)
From	A - Nell Lane (SB)	0	0	0
	B - Site Access	0	0	0
	C - Nell Lane (NB)	0	0	0

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
A - Nell Lane (SB)	07:45-08:00	398	398
	08:00-08:15	476	476
	08:15-08:30	582	582
	08:30-08:45	582	582
	08:45-09:00	476	476
	09:00-09:15	398	398
B - Site Access	07:45-08:00	29	29
	08:00-08:15	34	34
	08:15-08:30	42	42
	08:30-08:45	42	42
	08:45-09:00	34	34
	09:00-09:15	29	29
C - Nell Lane (NB)	07:45-08:00	335	335
	08:00-08:15	400	400
	08:15-08:30	490	490
	08:30-08:45	490	490
	08:45-09:00	400	400
	09:00-09:15	335	335

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.05	7.18	0.1	A
B-A	0.04	10.81	0.0	B
C-AB	0.07	6.37	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	580	0.034	19	0.0	6.425	A
B-A	9	425	0.021	9	0.0	8.648	A
C-AB	27	661	0.041	27	0.0	5.678	A
C-A	308			308			
A-B	15			15			
A-C	383			383			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	559	0.042	23	0.0	6.724	A
B-A	11	392	0.028	11	0.0	9.445	A
C-AB	32	637	0.051	32	0.1	5.949	A
C-A	368			368			
A-B	18			18			
A-C	458			458			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	29	530	0.054	29	0.1	7.184	A
B-A	13	346	0.038	13	0.0	10.810	B
C-AB	40	605	0.066	40	0.1	6.366	A
C-A	450			450			
A-B	22			22			
A-C	560			560			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	29	530	0.054	29	0.1	7.184	A
B-A	13	346	0.038	13	0.0	10.813	B
C-AB	40	605	0.066	40	0.1	6.366	A
C-A	450			450			
A-B	22			22			
A-C	560			560			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	559	0.042	23	0.0	6.728	A
B-A	11	392	0.028	11	0.0	9.450	A
C-AB	32	637	0.051	32	0.1	5.953	A
C-A	368			368			
A-B	18			18			
A-C	458			458			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	580	0.034	20	0.0	6.428	A
B-A	9	425	0.021	9	0.0	8.657	A
C-AB	27	661	0.041	27	0.0	5.683	A
C-A	308			308			
A-B	15			15			
A-C	383			383			

Base 2028 + Lidl, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Site Access - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	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		1.32	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	Base 2028 + Lidl	PM	ONE HOUR	14:45	16:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Nell Lane (SB)		✓	428	100.000
B - Site Access		✓	96	100.000
C - Nell Lane (NB)		✓	385	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Nell Lane (SB)	B - Site Access	C - Nell Lane (NB)
From	A - Nell Lane (SB)	0	34	394
	B - Site Access	31	0	65
	C - Nell Lane (NB)	323	62	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Nell Lane (SB)	B - Site Access	C - Nell Lane (NB)
From	A - Nell Lane (SB)	0	0	0
	B - Site Access	0	0	0
	C - Nell Lane (NB)	0	0	0

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
A - Nell Lane (SB)	14:45-15:00	322	322
	15:00-15:15	385	385
	15:15-15:30	471	471
	15:30-15:45	471	471
	15:45-16:00	385	385
	16:00-16:15	322	322
B - Site Access	14:45-15:00	72	72
	15:00-15:15	86	86
	15:15-15:30	106	106
	15:30-15:45	106	106
	15:45-16:00	86	86
	16:00-16:15	72	72
C - Nell Lane (NB)	14:45-15:00	290	290
	15:00-15:15	346	346
	15:15-15:30	424	424
	15:30-15:45	424	424
	15:45-16:00	346	346
	16:00-16:15	290	290

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.13	7.47	0.1	A
B-A	0.09	10.31	0.1	B
C-AB	0.11	6.31	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

14:45 - 15:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	49	597	0.082	49	0.1	6.564	A
B-A	23	451	0.052	23	0.1	8.410	A
C-AB	47	684	0.068	46	0.1	5.645	A
C-A	243			243			
A-B	26			26			
A-C	297			297			

15:00 - 15:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	58	579	0.101	58	0.1	6.918	A
B-A	28	423	0.066	28	0.1	9.117	A
C-AB	56	665	0.084	56	0.1	5.909	A
C-A	290			290			
A-B	31			31			
A-C	354			354			

15:15 - 15:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	72	554	0.129	71	0.1	7.463	A
B-A	34	383	0.089	34	0.1	10.298	B
C-AB	68	639	0.107	68	0.1	6.307	A
C-A	356			356			
A-B	37			37			
A-C	434			434			

15:30 - 15:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	72	554	0.129	72	0.1	7.467	A
B-A	34	383	0.089	34	0.1	10.305	B
C-AB	68	639	0.107	68	0.1	6.310	A
C-A	356			356			
A-B	37			37			
A-C	434			434			

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	58	579	0.101	59	0.1	6.925	A
B-A	28	423	0.066	28	0.1	9.127	A
C-AB	56	665	0.084	56	0.1	5.911	A
C-A	290			290			
A-B	31			31			
A-C	354			354			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	49	597	0.082	49	0.1	6.575	A
B-A	23	451	0.052	23	0.1	8.425	A
C-AB	47	684	0.068	47	0.1	5.651	A
C-A	243			243			
A-B	26			26			
A-C	297			297			

Base 2028 + Lidl, SAT

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	B - Site Access - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.
Warning	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		1.84	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	Base 2028 + Lidl	SAT	ONE HOUR	12:45	14:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Nell Lane (SB)		✓	341	100.000
B - Site Access		✓	121	100.000
C - Nell Lane (NB)		✓	368	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Nell Lane (SB)	B - Site Access	C - Nell Lane (NB)
From	A - Nell Lane (SB)	0	42	299
	B - Site Access	39	0	82
	C - Nell Lane (NB)	283	85	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Nell Lane (SB)	B - Site Access	C - Nell Lane (NB)
From	A - Nell Lane (SB)	0	0	0
	B - Site Access	0	0	0
	C - Nell Lane (NB)	0	0	0

Detailed Demand Data

Demand for each time segment

Arm	Time Segment	Demand (PCU/hr)	Demand in PCU (PCU/hr)
A - Nell Lane (SB)	12:45-13:00	257	257
	13:00-13:15	307	307
	13:15-13:30	375	375
	13:30-13:45	375	375
	13:45-14:00	307	307
	14:00-14:15	257	257
B - Site Access	12:45-13:00	91	91
	13:00-13:15	109	109
	13:15-13:30	133	133
	13:30-13:45	133	133
	13:45-14:00	109	109
	14:00-14:15	91	91
C - Nell Lane (NB)	12:45-13:00	277	277
	13:00-13:15	331	331
	13:15-13:30	405	405
	13:30-13:45	405	405
	13:45-14:00	331	331
	14:00-14:15	277	277

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.16	7.39	0.2	A
B-A	0.11	9.86	0.1	A
C-AB	0.14	6.27	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

12:45 - 13:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	62	613	0.101	61	0.1	6.519	A
B-A	29	468	0.063	29	0.1	8.195	A
C-AB	64	704	0.091	64	0.1	5.621	A
C-A	213			213			
A-B	32			32			
A-C	225			225			

13:00 - 13:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	74	598	0.123	74	0.1	6.861	A
B-A	35	443	0.079	35	0.1	8.824	A
C-AB	76	689	0.111	76	0.1	5.880	A
C-A	254			254			
A-B	38			38			
A-C	269			269			

13:15 - 13:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	90	577	0.156	90	0.2	7.391	A
B-A	43	408	0.105	43	0.1	9.852	A
C-AB	94	668	0.140	93	0.2	6.266	A
C-A	312			312			
A-B	46			46			
A-C	329			329			

13:30 - 13:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	90	577	0.156	90	0.2	7.394	A
B-A	43	408	0.105	43	0.1	9.859	A
C-AB	94	668	0.140	94	0.2	6.269	A
C-A	312			312			
A-B	46			46			
A-C	329			329			

13:45 - 14:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	74	598	0.123	74	0.1	6.869	A
B-A	35	443	0.079	35	0.1	8.834	A
C-AB	76	689	0.111	77	0.1	5.883	A
C-A	254			254			
A-B	38			38			
A-C	269			269			

14:00 - 14:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	62	613	0.101	62	0.1	6.536	A
B-A	29	468	0.063	29	0.1	8.213	A
C-AB	64	704	0.091	64	0.1	5.629	A
C-A	213			213			
A-B	32			32			
A-C	225			225			

S|C|P

APPENDIX 10

Basic Results Summary

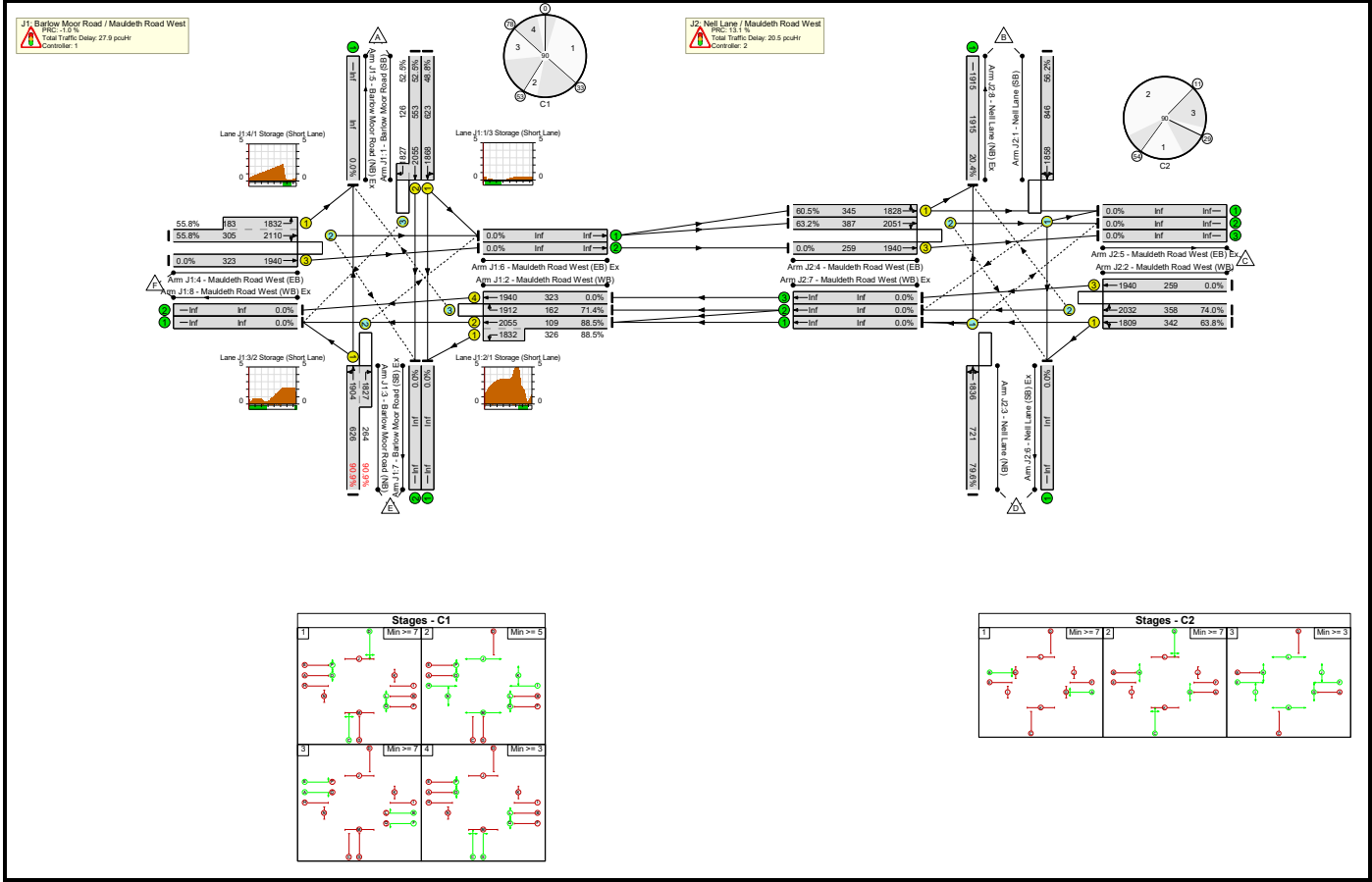
Basic Results Summary

User and Project Details

Project:	
Title:	
Location:	
File name:	Mauldeth_Road_West_2_junction_network_base_model_v2_re_TfGM_comments.lsg3x
Author:	
Company:	
Address:	
Notes:	

Scenario 1: 'Survey 2022 AM' (FG1: 'Survey 2022 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	-	-	-		-	-	-	-	-	-	90.9%	872	81	53	48.4	-	-
J1: Barlow Moor Road / Mauldeth Road West	-	-	-		-	-	-	-	-	-	90.9%	368	81	20	27.9	-	-
1/1	Barlow Moor Road (SB) Left Ahead	U	C1:D		1	29	-	304	1868	623	48.8%	-	-	-	2.5	29.5	6.5
1/2+1/3	Barlow Moor Road (SB) Ahead Right	U+O	C1:D		1	29	-	356	2055:1827	553+126	52.5 : 52.5%	62	0	4	3.2	32.5	7.2
2/2+2/1	Mauldeth Road West (WB) Left Ahead	U	C1:B C1:F		1	12:17	-	384	2055:1832	109+326	88.5 : 88.5%	-	-	-	7.0	65.4	11.1
2/3	Mauldeth Road West (WB) Right	O	C1:B		1	12	-	116	1912	162	71.4%	110	0	6	2.2	68.2	3.9
2/4	Mauldeth Road West (WB) Ahead	U	C1:I		1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
3/1+3/2	Barlow Moor Road (NB) Ahead Right Left	U+O	C1:C	C1:G	1	37	4	809	1904:1827	626+264	90.9 : 90.9%	151	81	8	9.8	43.7	21.0
4/2+4/1	Mauldeth Road West (EB) Left Ahead Right	O+U	C1:A C1:E		1	12:16	-	272	2110:1832	305+183	55.8 : 55.8%	45	0	3	3.2	42.6	4.5
4/3	Mauldeth Road West (EB) Ahead	U	C1:H		1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
J2: Neil Lane / Mauldeth Road West	-	-	-		-	-	-	-	-	-	79.6%	504	0	32	20.5	-	-
1/1	Neil Lane (SB) Left Ahead Right	O	C2:D		1	40	-	476	1858	846	56.2%	129	0	3	3.1	23.1	9.2

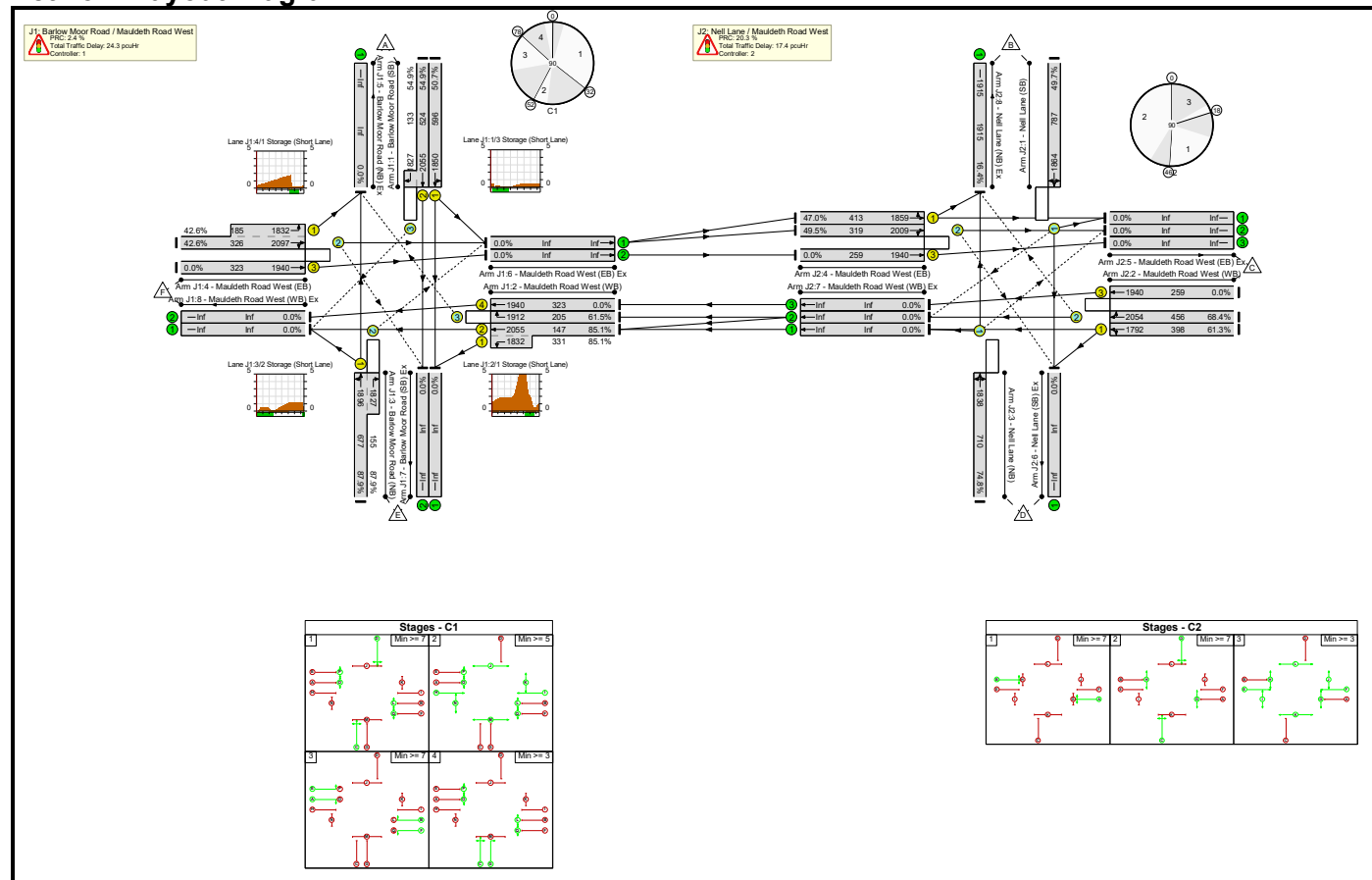
Basic Results Summary

2/1	Mauldeth Road West (WB) Left Ahead	U	C2:A		1	16	-	218	1809	342	63.8%	-	-	-	2.9	48.0	5.9
2/2	Mauldeth Road West (WB) Ahead Right	O	C2:A		1	16	-	265	2032	358	74.0%	60	0	23	4.1	55.1	7.5
2/3	Mauldeth Road West (WB) Ahead	U	C2:F		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
3/1	Neil Lane (NB) Right Left Ahead	O	C2:C		1	40	-	574	1836	721	79.6%	269	0	6	6.0	37.4	14.5
4/1	Mauldeth Road West (EB) Ahead Left	U	C2:B		1	16	-	209	1828	345	60.5%	-	-	-	1.9	32.7	5.1
4/2	Mauldeth Road West (EB) Ahead Right	O	C2:B		1	16	-	245	2051	387	63.2%	45	0	1	2.5	36.0	6.1
4/3	Mauldeth Road West (EB) Ahead	U	C2:E		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
8/1	Neil Lane (NB) Ex	U	-		-	-	-	390	1915	1915	20.4%	-	-	-	0.1	1.2	0.1
<div>C1</div> <div>C2</div> <div>PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):</div> <div>-1.0 13.1 -1.0</div> <div>Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):</div> <div>27.92 20.34 48.38</div> <div>Cycle Time (s): Cycle Time (s):</div> <div>90 90</div>																	

Basic Results Summary

Scenario 2: 'Survey 2022 PM' (FG2: 'Survey 2022 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	-	-	-		-	-	-	-	-	-	87.9%	796	47	25	41.7	-	-
J1: Barlow Moor Road / Mauldeth Road West	-	-	-		-	-	-	-	-	-	87.9%	327	47	12	24.3	-	-
1/1	Barlow Moor Road (SB) Left Ahead	U	C1:D		1	28	-	302	1850	596	50.7%	-	-	-	2.6	30.8	6.6
1/2+1/3	Barlow Moor Road (SB) Ahead Right	U+O	C1:D		1	28	-	361	2055:1827	524+133	54.9 : 54.9%	69	0	4	3.4	33.8	7.4
2/2+2/1	Mauldeth Road West (WB) Left Ahead	U	C1:B C1:F		1	13:18	-	407	2055:1832	147+331	85.1 : 85.1%	-	-	-	5.8	51.7	9.9
2/3	Mauldeth Road West (WB) Right	O	C1:B		1	13	-	126	1912	205	61.5%	126	0	0	1.8	52.5	3.8
2/4	Mauldeth Road West (WB) Ahead	U	C1:I		1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
3/1+3/2	Barlow Moor Road (NB) Ahead Right Left	U+O	C1:C	C1:G	1	36	4	731	1896:1827	677+155	87.9 : 87.9%	86	47	3	8.2	40.5	18.9
4/2+4/1	Mauldeth Road West (EB) Left Ahead Right	O+U	C1:A C1:E		1	13:17	-	218	2097:1832	326+185	42.6 : 42.6%	46	0	5	2.4	39.4	3.5
4/3	Mauldeth Road West (EB) Ahead	U	C1:H		1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
J2: Neil Lane / Mauldeth Road West	-	-	-		-	-	-	-	-	-	74.8%	469	0	13	17.4	-	-
1/1	Neil Lane (SB) Left Ahead Right	O	C2:D		1	37	-	391	1864	787	49.7%	103	0	2	2.6	23.9	7.6

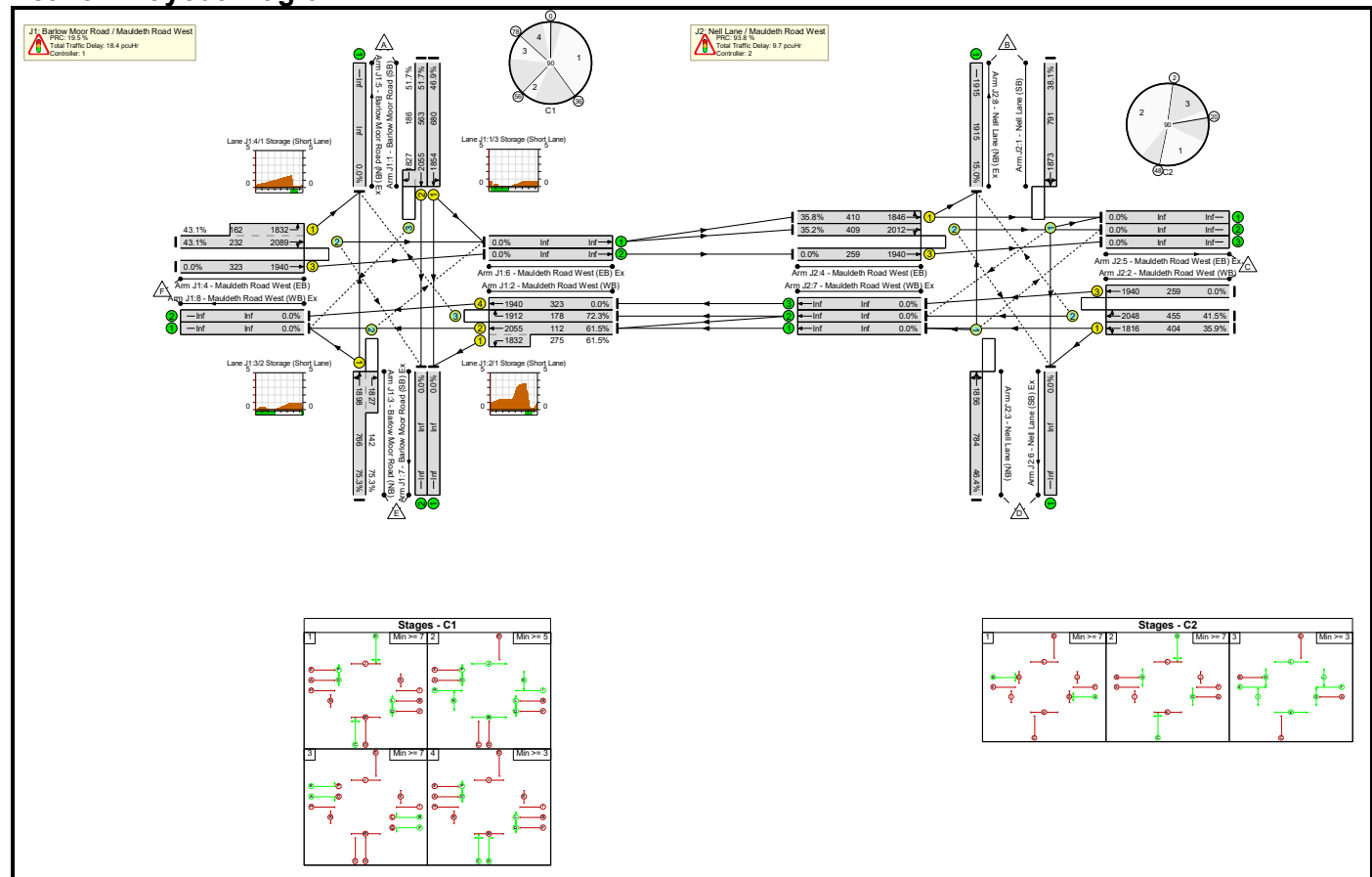
Basic Results Summary

2/1	Mauldeth Road West (WB) Left Ahead	U	C2:A		1	19	-	244	1792	398	61.3%	-	-	-	2.9	43.1	6.3
2/2	Mauldeth Road West (WB) Ahead Right	O	C2:A		1	19	-	312	2054	456	68.4%	51	0	1	3.9	44.7	8.2
2/3	Mauldeth Road West (WB) Ahead	U	C2:F		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
3/1	Neil Lane (NB) Right Left Ahead	O	C2:C		1	37	-	531	1838	710	74.8%	245	0	6	5.2	35.2	12.8
4/1	Mauldeth Road West (EB) Ahead Left	U	C2:B		1	19	-	194	1859	413	47.0%	-	-	-	1.3	24.0	3.8
4/2	Mauldeth Road West (EB) Ahead Right	O	C2:B		1	19	-	158	2009	319	49.5%	70	0	4	1.4	32.5	3.2
4/3	Mauldeth Road West (EB) Ahead	U	C2:E		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
8/1	Neil Lane (NB) Ex	U	-		-	-	-	315	1915	1915	16.4%	-	-	-	0.1	1.1	0.1
<div>C1</div> <div>C2</div> <div>PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):</div> <div>2.4 20.3 2.4</div> <div>Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes (pcuHr):</div> <div>24.27 17.30 41.67</div> <div>Cycle Time (s): Cycle Time (s):</div> <div>90 90</div>																	

Basic Results Summary

Scenario 3: 'Survey 2022 SAT' (FG3: 'Survey 2022 Saturday', 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	-	-	-		-	-	-	-	-	-	75.3%	614	38	24	28.1	-	-
J1: Barlow Moor Road / Mauldeth Road West	-	-	-		-	-	-	-	-	-	75.3%	317	38	18	18.4	-	-
1/1	Barlow Moor Road (SB) Left Ahead	U	C1:D		1	32	-	319	1854	680	46.9%	-	-	-	2.4	26.8	6.5
1/2+1/3	Barlow Moor Road (SB) Ahead Right	U+O	C1:D		1	32	-	387	2055:1827	563+186	51.7 : 51.7%	94	0	2	3.2	29.3	7.3
2/2+2/1	Mauldeth Road West (WB) Left Ahead	U	C1:B C1:F		1	9:14	-	238	2055:1832	112+275	61.5 : 61.5%	-	-	-	3.0	45.3	4.5
2/3	Mauldeth Road West (WB) Right	O	C1:B		1	9	-	129	1912	178	72.3%	118	0	11	2.6	72.4	4.5
2/4	Mauldeth Road West (WB) Ahead	U	C1:I		1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
3/1+3/2	Barlow Moor Road (NB) Ahead Right Left	U+O	C1:C	C1:G	1	40	4	684	1898:1827	766+142	75.3 : 75.3%	66	38	2	5.2	27.6	14.5
4/2+4/1	Mauldeth Road West (EB) Left Ahead Right	O+U	C1:A C1:E		1	9:13	-	170	2089:1832	232+162	43.1 : 43.1%	40	0	2	2.1	44.0	2.7
4/3	Mauldeth Road West (EB) Ahead	U	C1:H		1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
J2: Neil Lane / Mauldeth Road West	-	-	-		-	-	-	-	-	-	46.4%	296	0	6	9.7	-	-
1/1	Neil Lane (SB) Left Ahead Right	O	C2:D		1	37	-	301	1873	791	38.1%	84	0	2	1.9	23.1	5.4

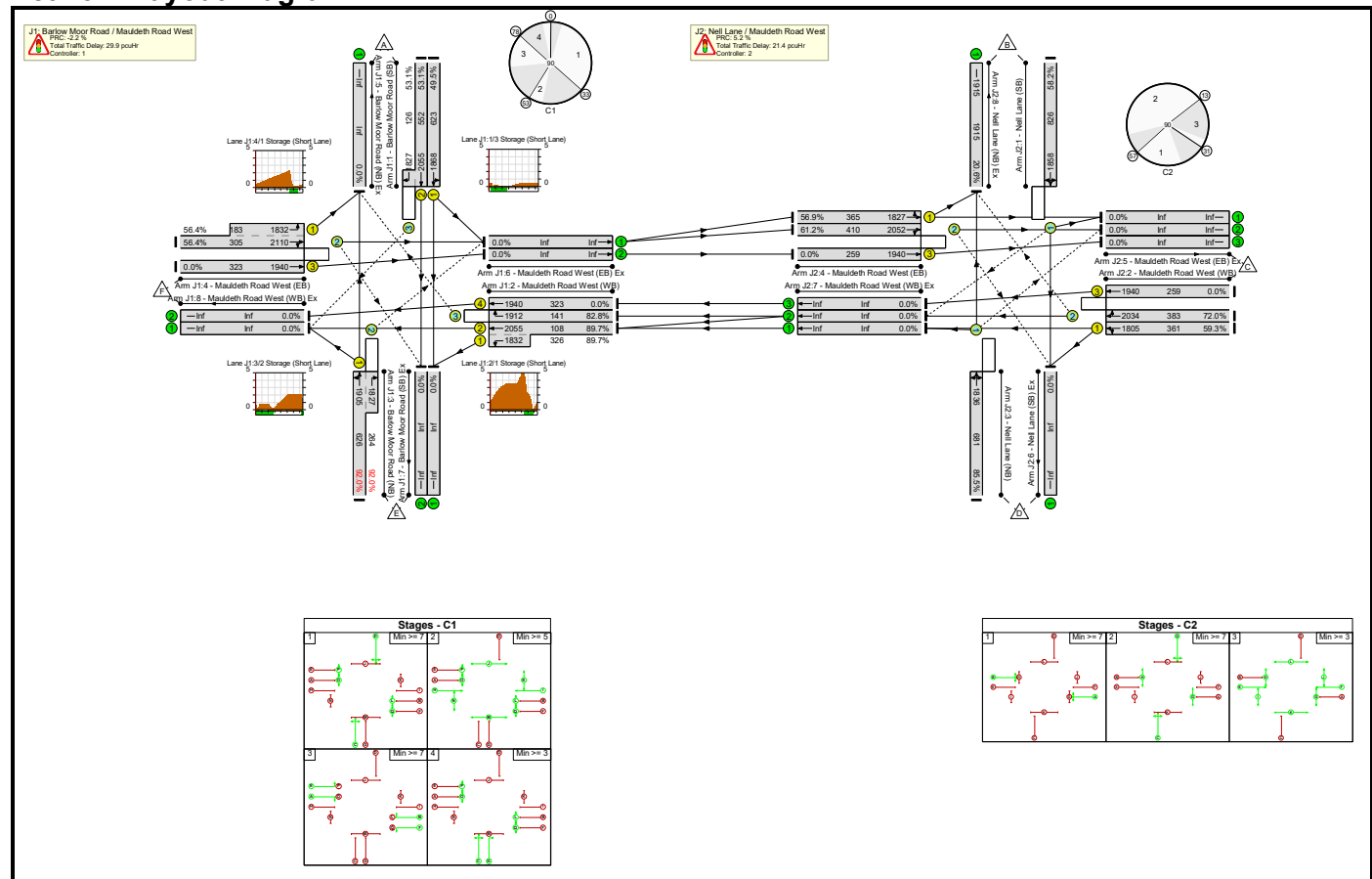
Basic Results Summary

2/1	Mauldeth Road West (WB) Left Ahead	U	C2:A		1	19	-	145	1816	404	35.9%	-	-	-	1.5	36.5	3.3
2/2	Mauldeth Road West (WB) Ahead Right	O	C2:A		1	19	-	189	2048	455	41.5%	40	0	0	1.9	37.1	4.4
2/3	Mauldeth Road West (WB) Ahead	U	C2:F		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
3/1	Nell Lane (NB) Right Left Ahead	O	C2:C		1	37	-	364	1856	784	46.4%	109	0	2	2.4	24.0	6.9
4/1	Mauldeth Road West (EB) Ahead Left	U	C2:B		1	19	-	147	1846	410	35.8%	-	-	-	0.9	21.0	2.8
4/2	Mauldeth Road West (EB) Ahead Right	O	C2:B		1	19	-	144	2012	409	35.2%	64	0	1	1.0	24.0	2.8
4/3	Mauldeth Road West (EB) Ahead	U	C2:E		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
8/1	Nell Lane (NB) Ex	U	-		-	-	-	287	1915	1915	15.0%	-	-	-	0.1	1.1	0.1
				C1 C2	PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):			19.5 93.8 19.5	Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes (pcuHr):			18.44 9.59 28.12	Cycle Time (s): Cycle Time (s): Cycle Time (s):			90 90 90	

Basic Results Summary

Scenario 4: 'Base 2023 AM' (FG4: 'Base 2023 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	-	-	-		-	-	-	-	-	-	92.0%	875	81	62	51.3	-	-
J1: Barlow Moor Road / Mauldeth Road West	-	-	-		-	-	-	-	-	-	92.0%	358	81	37	29.9	-	-
1/1	Barlow Moor Road (SB) Left Ahead	U	C1:D		1	29	-	308	1868	623	49.5%	-	-	-	2.5	29.7	6.6
1/2+1/3	Barlow Moor Road (SB) Ahead Right	U+O	C1:D		1	29	-	360	2055:1827	552+126	53.1 : 53.1%	55	0	12	3.3	32.8	7.3
2/2+2/1	Mauldeth Road West (WB) Left Ahead	U	C1:B C1:F		1	12:17	-	389	2055:1832	108+326	89.7 : 89.7%	-	-	-	7.3	67.4	11.8
2/3	Mauldeth Road West (WB) Right	O	C1:B		1	12	-	117	1912	141	82.8%	109	0	8	3.0	93.0	4.7
2/4	Mauldeth Road West (WB) Ahead	U	C1:I		1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
3/1+3/2	Barlow Moor Road (NB) Ahead Right Left	U+O	C1:C	C1:G	1	37	4	819	1905:1827	626+264	92.0 : 92.0%	148	81	14	10.5	46.1	21.8
4/2+4/1	Mauldeth Road West (EB) Left Ahead Right	O+U	C1:A C1:E		1	12:16	-	275	2110:1832	305+183	56.4 : 56.4%	46	0	3	3.3	42.7	4.6
4/3	Mauldeth Road West (EB) Ahead	U	C1:H		1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
J2: Neil Lane / Mauldeth Road West	-	-	-		-	-	-	-	-	-	85.5%	517	0	25	21.4	-	-
1/1	Neil Lane (SB) Left Ahead Right	O	C2:D		1	39	-	481	1858	826	58.2%	130	0	3	3.2	24.2	9.6

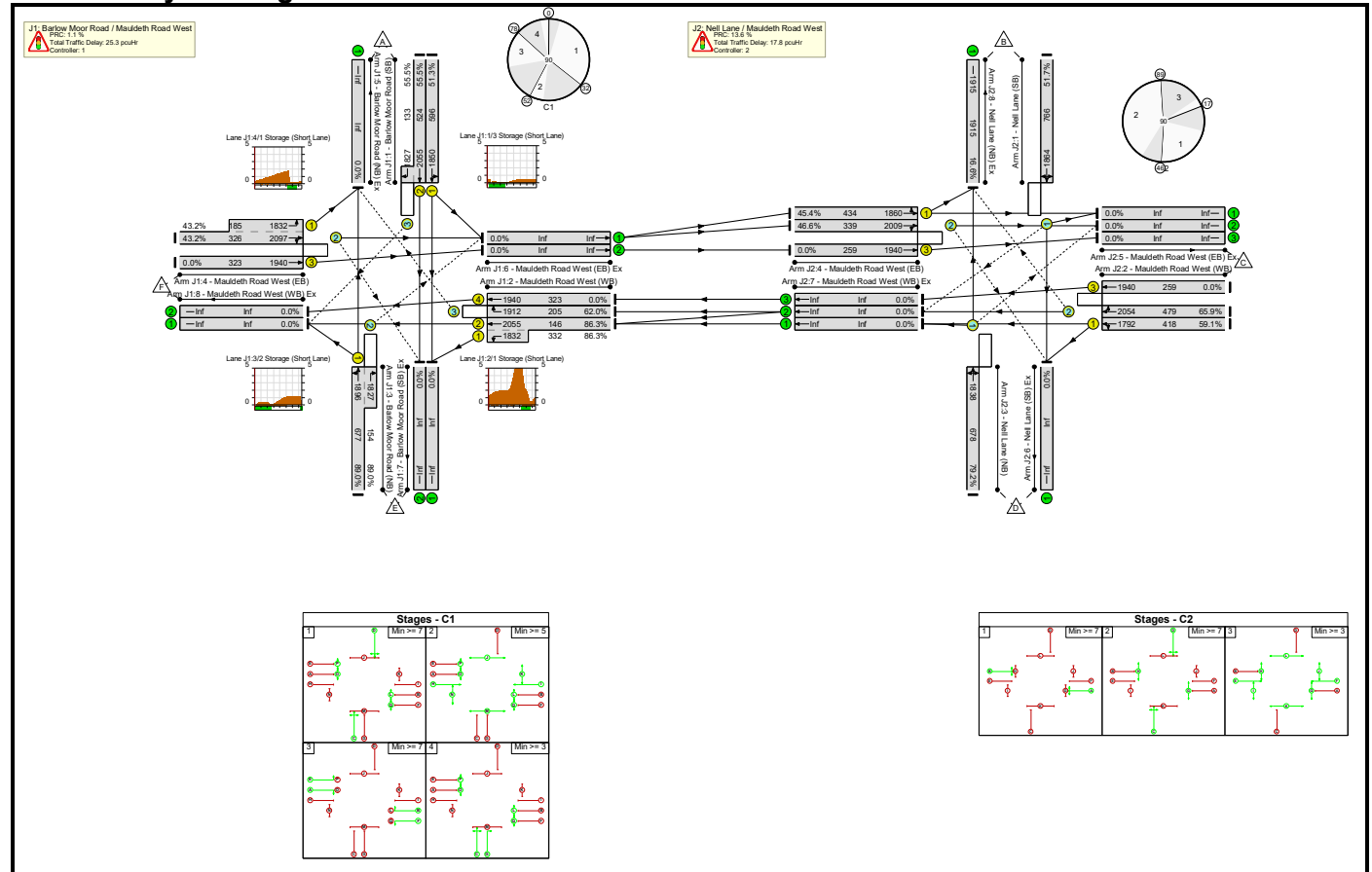
Basic Results Summary

2/1	Mauldeth Road West (WB) Left Ahead	U	C2:A		1	17	-	214	1805	361	59.3%	-	-	-	2.7	44.8	5.5
2/2	Mauldeth Road West (WB) Ahead Right	O	C2:A		1	17	-	276	2034	383	72.0%	76	0	8	4.0	52.0	7.6
2/3	Mauldeth Road West (WB) Ahead	U	C2:F		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
3/1	Neil Lane (NB) Right Left Ahead	O	C2:C		1	39	-	582	1836	681	85.5%	265	0	14	7.2	44.4	16.1
4/1	Mauldeth Road West (EB) Ahead Left	U	C2:B		1	17	-	208	1827	365	56.9%	-	-	-	1.9	32.3	5.2
4/2	Mauldeth Road West (EB) Ahead Right	O	C2:B		1	17	-	251	2052	410	61.2%	46	0	0	2.4	33.8	6.2
4/3	Mauldeth Road West (EB) Ahead	U	C2:E		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
8/1	Neil Lane (NB) Ex	U	-		-	-	-	395	1915	1915	20.6%	-	-	-	0.1	1.2	0.1
				C1 C2	PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):			-2.2 5.2 -2.2	Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes (pcuHr):			29.87 21.29 51.29	Cycle Time (s): Cycle Time (s):		90 90		

Basic Results Summary

Scenario 5: 'Base 2023 PM' (FG5: 'Base 2023 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	-	-	-		-	-	-	-	-	-	89.0%	800	47	30	43.1	-	-
J1: Barlow Moor Road / Mauldeth Road West	-	-	-		-	-	-	-	-	-	89.0%	323	47	20	25.3	-	-
1/1	Barlow Moor Road (SB) Left Ahead	U	C1:D		1	28	-	306	1850	596	51.3%	-	-	-	2.6	31.0	6.7
1/2+1/3	Barlow Moor Road (SB) Ahead Right	U+O	C1:D		1	28	-	365	2055:1827	524+133	55.5 : 55.5%	61	0	13	3.5	34.1	7.5
2/2+2/1	Mauldeth Road West (WB) Left Ahead	U	C1:B C1:F		1	13:18	-	412	2055:1832	146+332	86.3 : 86.3%	-	-	-	6.2	54.1	10.2
2/3	Mauldeth Road West (WB) Right	O	C1:B		1	13	-	127	1912	205	62.0%	127	0	0	1.9	53.5	3.9
2/4	Mauldeth Road West (WB) Ahead	U	C1:I		1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
3/1+3/2	Barlow Moor Road (NB) Ahead Right Left	U+O	C1:C	C1:G	1	36	4	740	1896:1827	677+154	89.0 : 89.0%	87	47	3	8.7	42.1	19.5
4/2+4/1	Mauldeth Road West (EB) Left Ahead Right	O+U	C1:A C1:E		1	13:17	-	221	2097:1832	326+185	43.2 : 43.2%	48	0	4	2.4	39.5	3.6
4/3	Mauldeth Road West (EB) Ahead	U	C1:H		1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
J2: Neil Lane / Mauldeth Road West	-	-	-		-	-	-	-	-	-	79.2%	477	0	10	17.8	-	-
1/1	Neil Lane (SB) Left Ahead Right	O	C2:D		1	36	-	396	1864	766	51.7%	104	0	2	2.8	25.0	7.9

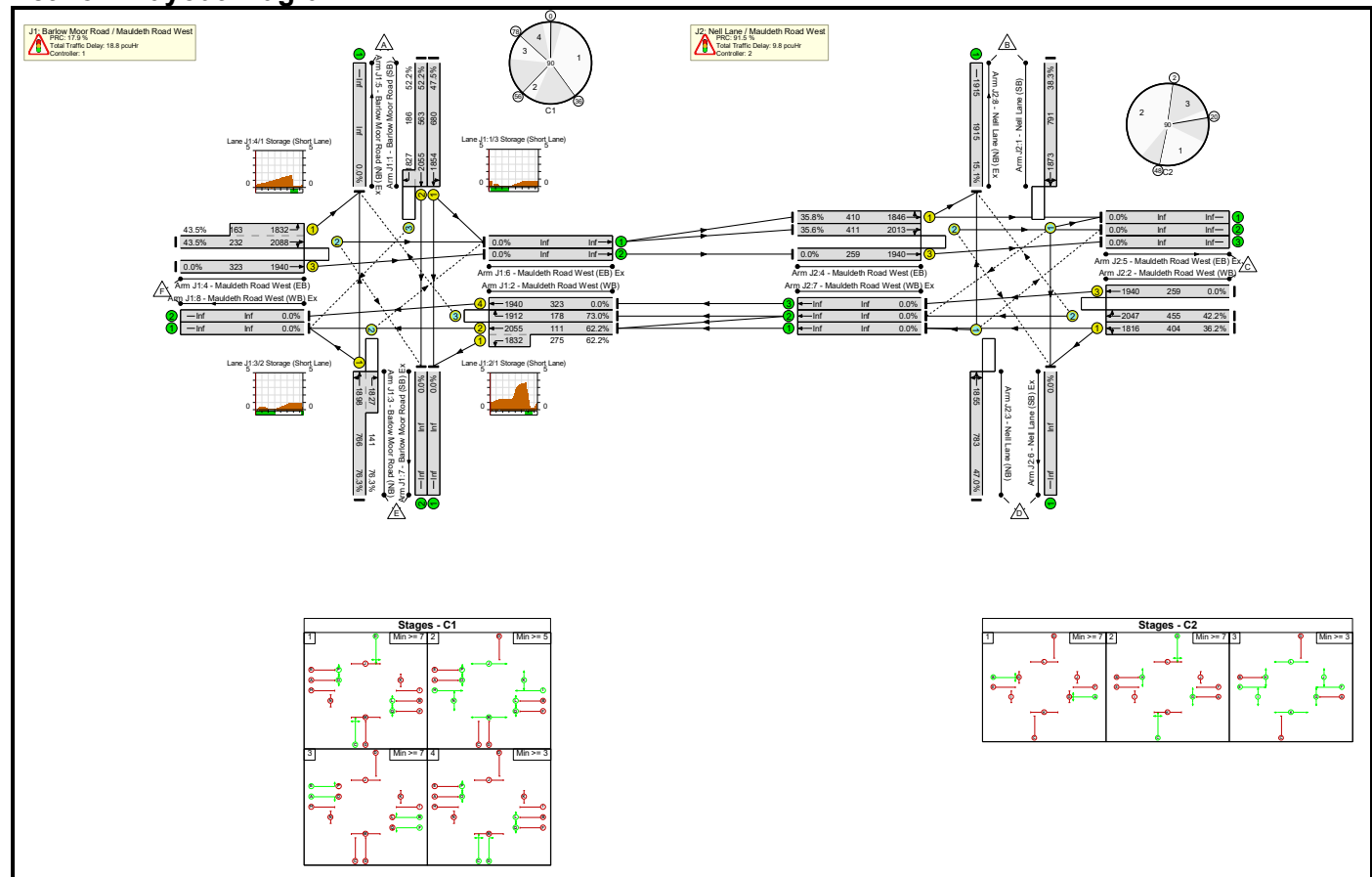
Basic Results Summary

2/1	Mauldeth Road West (WB) Left Ahead	U	C2:A		1	20	-	247	1792	418	59.1%	-	-	-	2.8	41.1	6.2
2/2	Mauldeth Road West (WB) Ahead Right	O	C2:A		1	20	-	316	2054	479	65.9%	52	0	1	3.7	42.5	8.1
2/3	Mauldeth Road West (WB) Ahead	U	C2:F		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
3/1	Neil Lane (NB) Right Left Ahead	O	C2:C		1	36	-	537	1838	678	79.2%	248	0	6	5.8	39.0	13.8
4/1	Mauldeth Road West (EB) Ahead Left	U	C2:B		1	20	-	197	1860	434	45.4%	-	-	-	1.2	22.8	3.8
4/2	Mauldeth Road West (EB) Ahead Right	O	C2:B		1	20	-	158	2009	339	46.6%	73	0	1	1.3	30.7	3.0
4/3	Mauldeth Road West (EB) Ahead	U	C2:E		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
8/1	Neil Lane (NB) Ex	U	-		-	-	-	318	1915	1915	16.6%	-	-	-	0.1	1.1	0.1
C1 C2				PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):			1.1 13.6 1.1	Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes (pcuHr):			25.26 17.72 43.08	Cycle Time (s): Cycle Time (s): Cycle Time (s):			90 90 90		

Basic Results Summary

Scenario 6: 'Base 2023 SAT' (FG6: 'Base 2023 Saturday', 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	-	-	-		-	-	-	-	-	-	76.3%	619	38	25	28.6	-	-
J1: Barlow Moor Road / Mauldeth Road West	-	-	-		-	-	-	-	-	-	76.3%	320	38	20	18.8	-	-
1/1	Barlow Moor Road (SB) Left Ahead	U	C1:D		1	32	-	323	1854	680	47.5%	-	-	-	2.4	26.9	6.6
1/2+1/3	Barlow Moor Road (SB) Ahead Right	U+O	C1:D		1	32	-	391	2055:1827	563+186	52.2 : 52.2%	95	0	2	3.2	29.6	7.4
2/2+2/1	Mauldeth Road West (WB) Left Ahead	U	C1:B C1:F		1	9:14	-	240	2055:1832	111+275	62.2 : 62.2%	-	-	-	3.0	45.6	4.6
2/3	Mauldeth Road West (WB) Right	O	C1:B		1	9	-	130	1912	178	73.0%	117	0	13	2.6	73.2	4.5
2/4	Mauldeth Road West (WB) Ahead	U	C1:I		1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
3/1+3/2	Barlow Moor Road (NB) Ahead Right Left	U+O	C1:C	C1:G	1	40	4	693	1898:1827	766+141	76.3 : 76.3%	67	38	2	5.4	28.0	14.7
4/2+4/1	Mauldeth Road West (EB) Left Ahead Right	O+U	C1:A C1:E		1	9:13	-	172	2088:1832	232+163	43.5 : 43.5%	41	0	2	2.1	44.1	2.7
4/3	Mauldeth Road West (EB) Ahead	U	C1:H		1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
J2: Neil Lane / Mauldeth Road West	-	-	-		-	-	-	-	-	-	47.0%	298	0	6	9.8	-	-
1/1	Neil Lane (SB) Left Ahead Right	O	C2:D		1	37	-	303	1873	791	38.3%	84	0	2	1.9	23.1	5.5

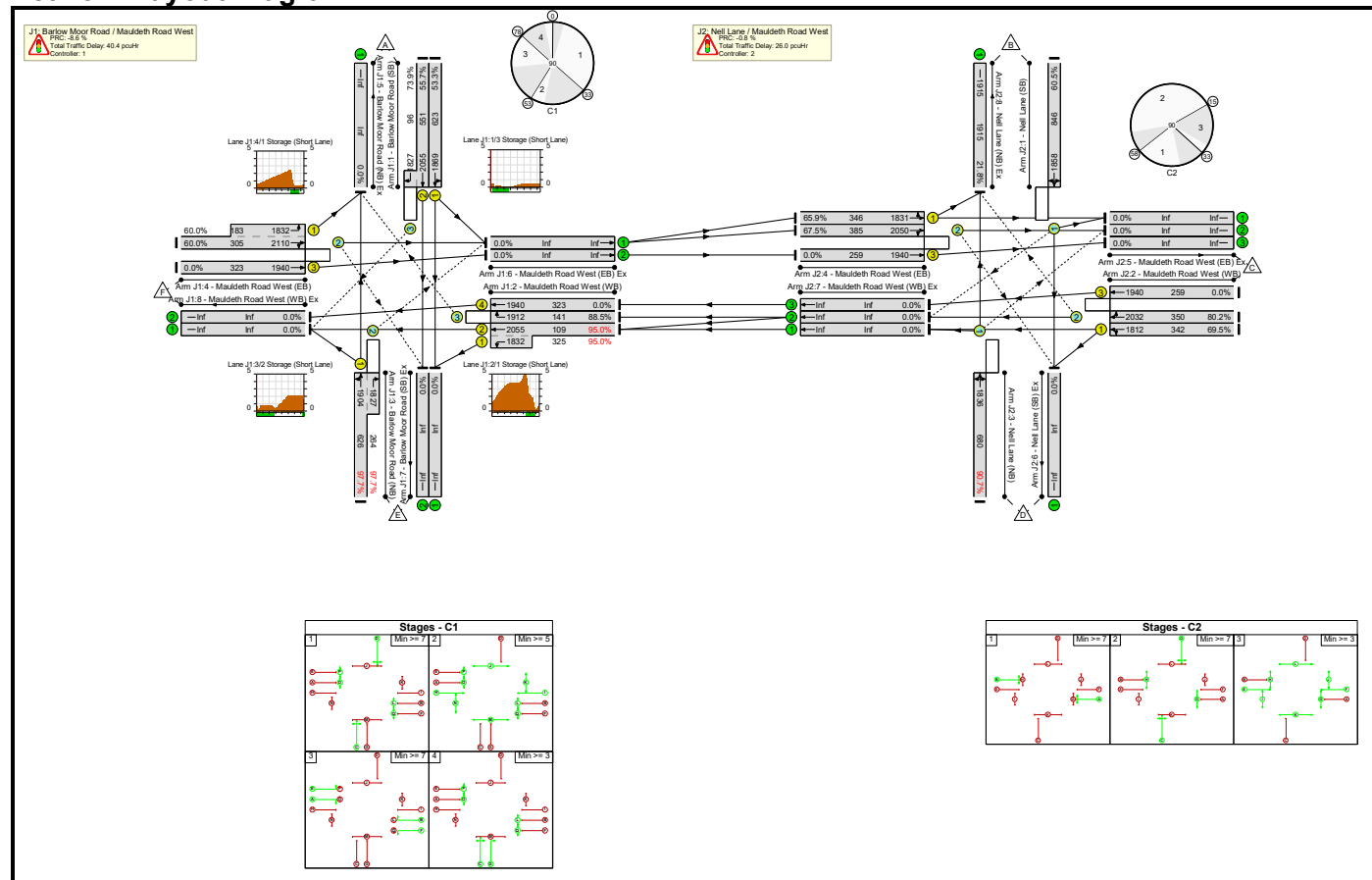
Basic Results Summary

2/1	Mauldeth Road West (WB) Left Ahead	U	C2:A	1	19	-	146	1816	404	36.2%	-	-	-	-	1.5	36.6	3.4
2/2	Mauldeth Road West (WB) Ahead Right	O	C2:A	1	19	-	192	2047	455	42.2%	41	0	0	0	2.0	37.3	4.5
2/3	Mauldeth Road West (WB) Ahead	U	C2:F	1	11	-	0	1940	259	0.0%	-	-	-	-	0.0	0.0	0.0
3/1	Nell Lane (NB) Right Left Ahead	O	C2:C	1	37	-	368	1855	783	47.0%	110	0	2	2	2.5	24.1	7.0
4/1	Mauldeth Road West (EB) Ahead Left	U	C2:B	1	19	-	147	1846	410	35.8%	-	-	-	-	0.9	20.9	2.7
4/2	Mauldeth Road West (EB) Ahead Right	O	C2:B	1	19	-	146	2013	411	35.6%	64	0	1	1	1.0	24.1	2.8
4/3	Mauldeth Road West (EB) Ahead	U	C2:E	1	11	-	0	1940	259	0.0%	-	-	-	-	0.0	0.0	0.0
8/1	Nell Lane (NB) Ex	U	-	-	-	-	290	1915	1915	15.1%	-	-	-	-	0.1	1.1	0.1
		C1 C2	PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):			17.9 91.5 17.9	Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes (pcuHr):			18.82 9.71 28.62	Cycle Time (s): Cycle Time (s): Cycle Time (s):			90 90 90			

Basic Results Summary

Scenario 7: 'Base 2028 AM' (FG7: 'Base 2028 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	-	-	-		-	-	-	-	-	-	97.7%	800	81	202	66.4	-	-
J1: Barlow Moor Road / Mauldeth Road West	-	-	-		-	-	-	-	-	-	97.7%	301	81	123	40.4	-	-
1/1	Barlow Moor Road (SB) Left Ahead	U	C1:D		1	29	-	332	1869	623	53.3%	-	-	-	2.8	30.5	7.2
1/2+1/3	Barlow Moor Road (SB) Ahead Right	U+O	C1:D		1	29	-	378	2055:1827	551+96	55.7 : 73.9%	15	0	56	3.6	34.6	7.9
2/2+2/1	Mauldeth Road West (WB) Left Ahead	U	C1:B C1:F		1	12:17	-	413	2055:1832	109+325	95.0 : 95.0%	-	-	-	9.9	86.0	14.8
2/3	Mauldeth Road West (WB) Right	O	C1:B		1	12	-	125	1912	141	88.5%	103	0	22	3.9	111.3	5.6
2/4	Mauldeth Road West (WB) Ahead	U	C1:I		1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
3/1+3/2	Barlow Moor Road (NB) Ahead Right Left	U+O	C1:C	C1:G	1	37	4	870	1904:1827	626+264	97.7 : 97.7%	134	81	43	16.6	68.9	29.7
4/2+4/1	Mauldeth Road West (EB) Left Ahead Right	O+U	C1:A C1:E		1	12:16	-	293	2110:1832	305+183	60.0 : 60.0%	50	0	2	3.6	43.6	5.0
4/3	Mauldeth Road West (EB) Ahead	U	C1:H		1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
J2: Neil Lane / Mauldeth Road West	-	-	-		-	-	-	-	-	-	90.7%	499	0	78	26.0	-	-
1/1	Neil Lane (SB) Left Ahead Right	O	C2:D		1	40	-	512	1858	846	60.5%	139	0	3	3.4	24.1	10.3

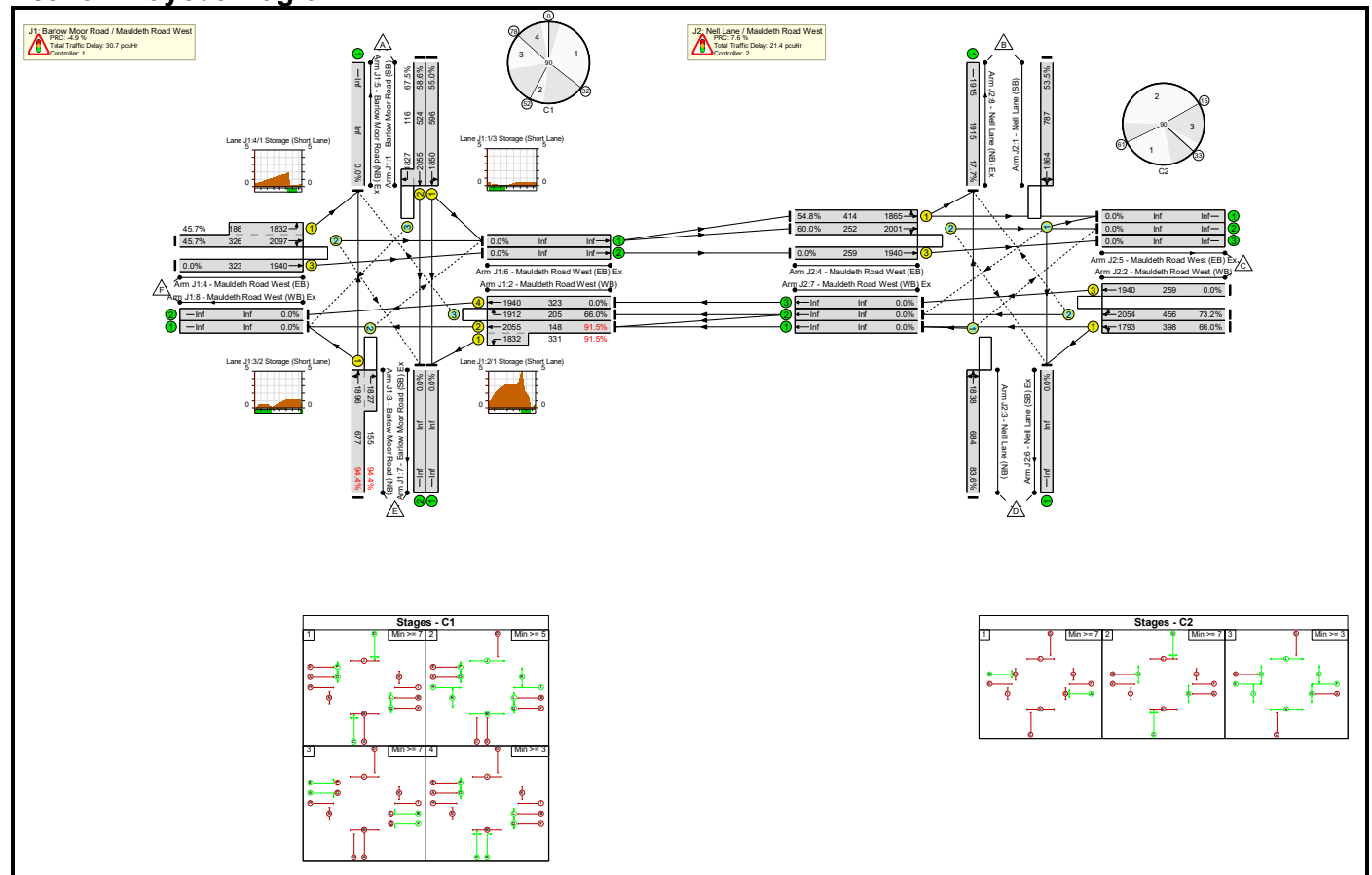
Basic Results Summary

2/1	Mauldeth Road West (WB) Left Ahead	U	C2:A		1	16	-	238	1812	342	69.5%	-	-	-	3.4	51.0	6.7
2/2	Mauldeth Road West (WB) Ahead Right	O	C2:A		1	16	-	281	2032	350	80.2%	53	0	36	4.8	61.6	8.5
2/3	Mauldeth Road West (WB) Ahead	U	C2:F		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
3/1	Neil Lane (NB) Right Left Ahead	O	C2:C		1	40	-	617	1836	680	90.7%	257	0	39	9.1	52.9	18.9
4/1	Mauldeth Road West (EB) Ahead Left	U	C2:B		1	16	-	228	1831	346	65.9%	-	-	-	2.4	37.4	6.1
4/2	Mauldeth Road West (EB) Ahead Right	O	C2:B		1	16	-	260	2050	385	67.5%	50	0	0	2.8	38.9	6.8
4/3	Mauldeth Road West (EB) Ahead	U	C2:E		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
8/1	Neil Lane (NB) Ex	U	-		-	-	-	418	1915	1915	21.8%	-	-	-	0.1	1.2	0.1
<div>C1 C2</div> <div>PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):</div> <div>-8.6 -0.8 -8.6</div> <div>Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes (pcuHr):</div> <div>40.37 25.85 66.36</div> <div>Cycle Time (s): Cycle Time (s):</div> <div>90 90</div>																	

Basic Results Summary

Scenario 8: 'Base 2028 PM' (FG8: 'Base 2028 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	-	-	-		-	-	-	-	-	-	94.4%	799	47	86	52.0	-	-
J1: Barlow Moor Road / Mauldeth Road West	-	-	-		-	-	-	-	-	-	94.4%	312	47	55	30.7	-	-
1/1	Barlow Moor Road (SB) Left Ahead	U	C1:D		1	28	-	328	1850	596	55.0%	-	-	-	2.9	31.8	7.4
1/2+1/3	Barlow Moor Road (SB) Ahead Right	U+O	C1:D		1	28	-	385	2055:1827	524+116	58.6 : 67.5%	31	0	47	3.8	35.8	8.2
2/2+2/1	Mauldeth Road West (WB) Left Ahead	U	C1:B C1:F		1	13:18	-	438	2055:1832	148+331	91.5 : 91.5%	-	-	-	7.5	62.0	13.2
2/3	Mauldeth Road West (WB) Right	O	C1:B		1	13	-	135	1912	205	66.0%	135	0	0	1.8	47.9	3.3
2/4	Mauldeth Road West (WB) Ahead	U	C1:I		1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
3/1+3/2	Barlow Moor Road (NB) Ahead Right Left	U+O	C1:C	C1:G	1	36	4	785	1896:1827	677+155	94.4 : 94.4%	95	47	3	12.0	55.1	24.2
4/2+4/1	Mauldeth Road West (EB) Left Ahead Right	O+U	C1:A C1:E		1	13:17	-	234	2097:1832	326+186	45.7 : 45.7%	51	0	4	2.6	39.8	3.8
4/3	Mauldeth Road West (EB) Ahead	U	C1:H		1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
J2: Neil Lane / Mauldeth Road West	-	-	-		-	-	-	-	-	-	83.6%	486	0	32	21.4	-	-
1/1	Neil Lane (SB) Left Ahead Right	O	C2:D		1	37	-	421	1864	787	53.5%	110	0	3	2.9	24.7	8.4

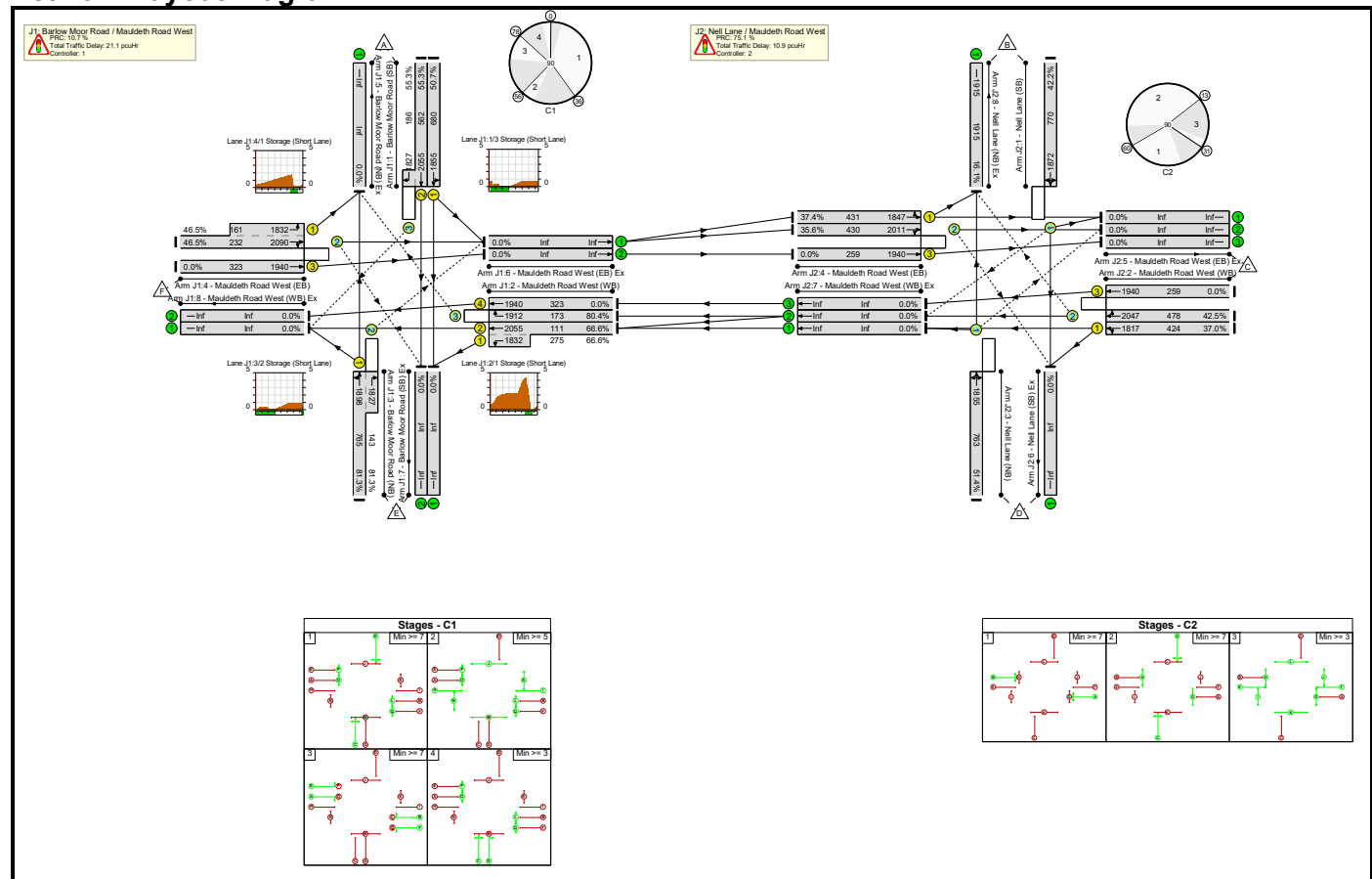
Basic Results Summary

2/1	Mauldeth Road West (WB) Left Ahead	U	C2:A		1	19	-	263	1793	398	66.0%	-	-	-	3.3	45.0	6.9
2/2	Mauldeth Road West (WB) Ahead Right	O	C2:A		1	19	-	334	2054	456	73.2%	55	0	1	4.4	47.7	9.0
2/3	Mauldeth Road West (WB) Ahead	U	C2:F		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
3/1	Neil Lane (NB) Right Left Ahead	O	C2:C		1	37	-	572	1838	684	83.6%	264	0	6	6.7	42.4	15.5
4/1	Mauldeth Road West (EB) Ahead Left	U	C2:B		1	19	-	227	1865	414	54.8%	-	-	-	2.0	31.6	6.1
4/2	Mauldeth Road West (EB) Ahead Right	O	C2:B		1	19	-	151	2001	252	60.0%	57	0	22	1.9	45.8	4.2
4/3	Mauldeth Road West (EB) Ahead	U	C2:E		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
8/1	Neil Lane (NB) Ex	U	-		-	-	-	339	1915	1915	17.7%	-	-	-	0.1	1.1	0.1
<div>C1</div> <div>C2</div> <div>PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):</div> <div>-4.9 7.6 -4.9</div> <div>Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes (pcuHr):</div> <div>30.68 21.24 52.03</div> <div>Cycle Time (s): Cycle Time (s): Cycle Time (s):</div> <div>90 90 90</div>																	

Basic Results Summary

Scenario 9: 'Base 2028 SAT' (FG9: 'Base 2028 Saturday', 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	-	-	-		-	-	-	-	-	-	81.3%	651	39	39	32.1	-	-
J1: Barlow Moor Road / Mauldeth Road West	-	-	-		-	-	-	-	-	-	81.3%	330	39	34	21.1	-	-
1/1	Barlow Moor Road (SB) Left Ahead	U	C1:D		1	32	-	345	1855	680	50.7%	-	-	-	2.6	27.5	7.2
1/2+1/3	Barlow Moor Road (SB) Ahead Right	U+O	C1:D		1	32	-	414	2055:1827	562+186	55.3 : 55.3%	101	0	2	3.6	31.0	8.0
2/2+2/1	Mauldeth Road West (WB) Left Ahead	U	C1:B C1:F		1	9:14	-	257	2055:1832	111+275	66.6 : 66.6%	-	-	-	3.4	47.1	5.4
2/3	Mauldeth Road West (WB) Right	O	C1:B		1	9	-	139	1912	173	80.4%	112	0	27	3.0	76.5	5.3
2/4	Mauldeth Road West (WB) Ahead	U	C1:I		1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
3/1+3/2	Barlow Moor Road (NB) Ahead Right Left	U+O	C1:C	C1:G	1	40	4	738	1898:1827	765+143	81.3 : 81.3%	75	39	3	6.3	30.9	16.8
4/2+4/1	Mauldeth Road West (EB) Left Ahead Right	O+U	C1:A C1:E		1	9:13	-	183	2090:1832	232+161	46.5 : 46.5%	43	0	2	2.3	44.7	3.0
4/3	Mauldeth Road West (EB) Ahead	U	C1:H		1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
J2: Neil Lane / Mauldeth Road West	-	-	-		-	-	-	-	-	-	51.4%	321	0	5	10.9	-	-
1/1	Neil Lane (SB) Left Ahead Right	O	C2:D		1	36	-	325	1872	770	42.2%	91	0	2	2.2	24.7	6.1

Basic Results Summary

2/1	Mauldeth Road West (WB) Left Ahead	U	C2:A		1	20	-	157	1817	424	37.0%	-	-	-	1.6	35.7	3.6
2/2	Mauldeth Road West (WB) Ahead Right	O	C2:A		1	20	-	203	2047	478	42.5%	43	0	0	2.1	36.6	4.7
2/3	Mauldeth Road West (WB) Ahead	U	C2:F		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
3/1	Nell Lane (NB) Right Left Ahead	O	C2:C		1	36	-	392	1855	763	51.4%	117	0	3	2.8	25.9	7.8
4/1	Mauldeth Road West (EB) Ahead Left	U	C2:B		1	20	-	161	1847	431	37.4%	-	-	-	1.1	23.6	3.8
4/2	Mauldeth Road West (EB) Ahead Right	O	C2:B		1	20	-	153	2011	430	35.6%	70	0	0	1.1	26.5	3.5
4/3	Mauldeth Road West (EB) Ahead	U	C2:E		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
8/1	Nell Lane (NB) Ex	U	-		-	-	-	309	1915	1915	16.1%	-	-	-	0.1	1.1	0.1
		C1 C2			PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):			10.7 75.1 10.7	Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes (pcuHr):			21.13 10.85 32.08	Cycle Time (s): Cycle Time (s):		90 90		

S|C|P

APPENDIX 11

Basic Results Summary

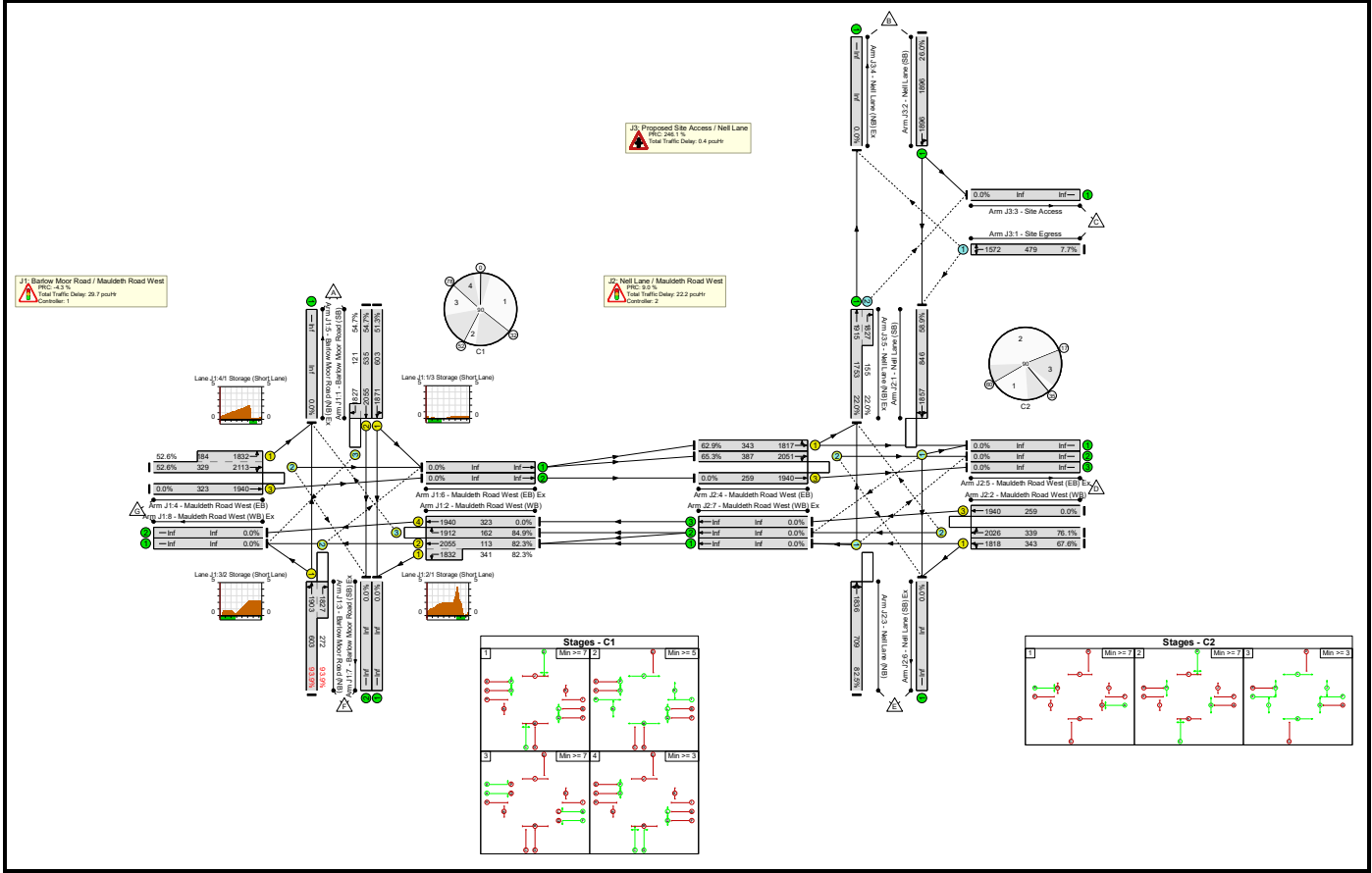
Basic Results Summary

User and Project Details

Project:	
Title:	
Location:	
File name:	Mauldeth_Road_West_2_junction_network_proposed_model_v2_re_TfGM_comments.lsg3x
Author:	
Company:	
Address:	
Notes:	

Scenario 1: 'Base 2023 + Lidl AM' (FG10: 'Base 2023 + Lidl AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

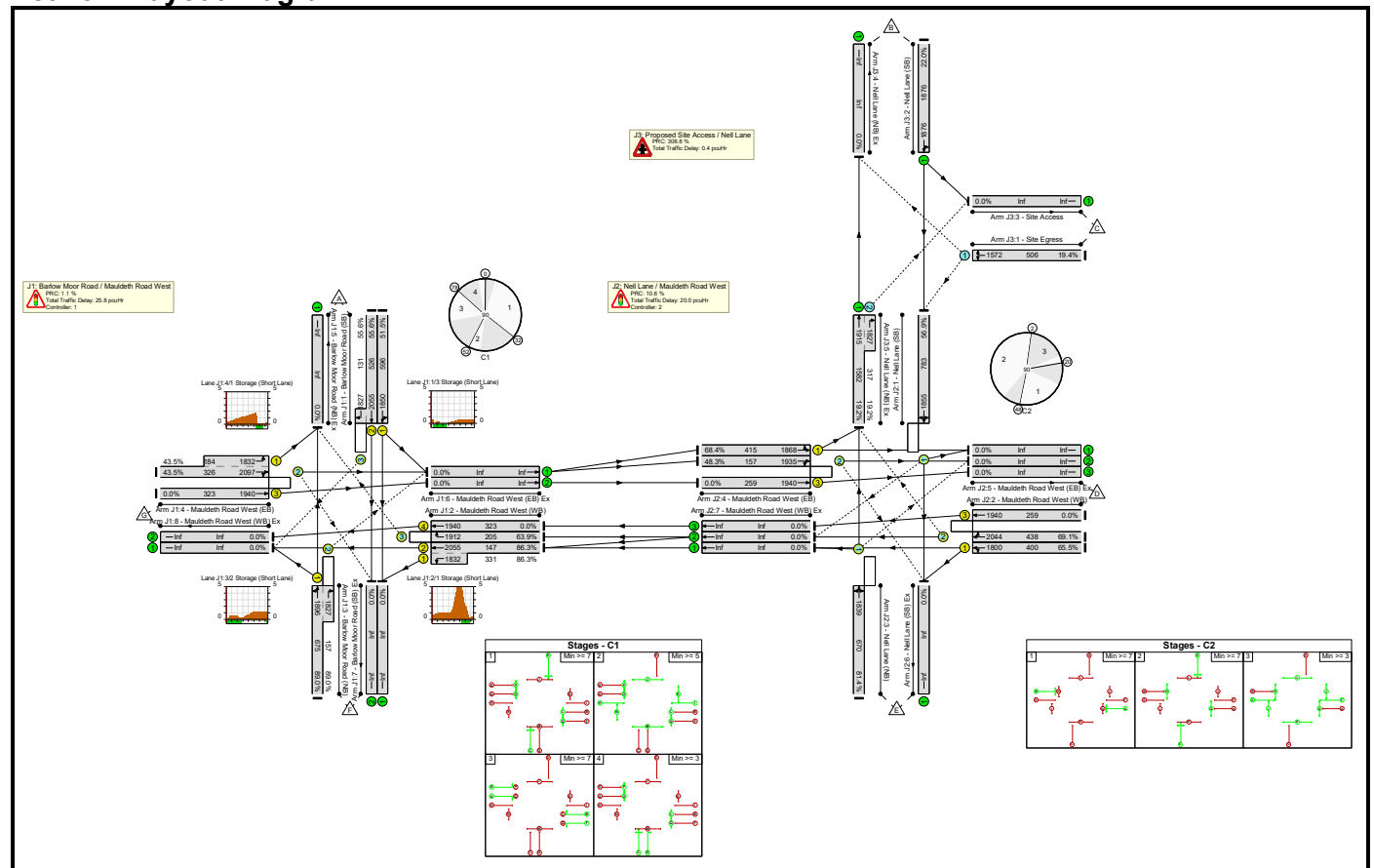
Network Results

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	-	-	-	-	-	-	-	-	-	-	93.9%	950	81	96	52.3	-	-
J1: Barlow Moor Road / Mauldeth Road West	-	-	-	-	-	-	-	-	-	-	93.9%	354	81	69	29.7	-	-
1/1	Barlow Moor Road (SB) Left Ahead	U	C1:D	-	1	28	-	309	1871	603	51.3%	-	-	-	2.6	30.9	6.8
1/2+1/3	Barlow Moor Road (SB) Ahead Right	U+O	C1:D	-	1	28	-	359	2055:1827	535+121	54.7 : 54.7%	48	0	18	3.4	33.7	7.4
2/2+2/1	Mauldeth Road West (WB) Left Ahead	U	C1:B C1:F	-	1	13:18	-	374	2055:1832	113+341	82.3 : 82.3%	-	-	-	4.0	38.6	10.3
2/3	Mauldeth Road West (WB) Right	O	C1:B	-	1	13	-	138	1912	162	84.9%	123	0	15	4.7	122.3	5.8
2/4	Mauldeth Road West (WB) Ahead	U	C1:I	-	1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
3/1+3/2	Barlow Moor Road (NB) Ahead Right Left	U+O	C1:C	C1:G	1	36	4	821	1903:1827	603+272	93.9 : 93.9%	139	81	35	12.0	52.4	23.3
4/2+4/1	Mauldeth Road West (EB) Left Ahead Right	O+U	C1:A C1:E	-	1	13:17	-	270	2113:1832	329+184	52.6 : 52.6%	45	0	1	3.1	40.8	4.5
4/3	Mauldeth Road West (EB) Ahead	U	C1:H	-	1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
J2: Nell Lane / Mauldeth Road West	-	-	-	-	-	-	-	-	-	-	82.5%	525	0	27	22.2	-	-
1/1	Nell Lane (SB) Left Ahead Right	O	C2:D	-	1	40	-	498	1857	846	58.9%	135	0	3	3.3	23.8	9.8

Basic Results Summary

2/1	Mauldeth Road West (WB) Left Ahead	U	C2:A		1	16	-	232	1818	343	67.6%	-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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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	-	-	-	-	-	-	-	-	-	-	89.0%	1007	48	29	46.2	-	-
J1: Barlow Moor Road / Mauldeth Road West	-	-	-	-	-	-	-	-	-	-	89.0%	329	48	19	25.8	-	-
1/1	Barlow Moor Road (SB) Left Ahead	U	C1:D	-	1	28	-	307	1850	596	51.5%	-	-	-	2.6	31.0	6.8
1/2+1/3	Barlow Moor Road (SB) Ahead Right	U+O	C1:D	-	1	28	-	365	2055:1827	526+131	55.6 : 55.6%	61	0	12	3.5	34.1	7.5
2/2+2/1	Mauldeth Road West (WB) Left Ahead	U	C1:B C1:F	-	1	13:18	-	413	2055:1832	147+331	86.3 : 86.3%	-	-	-	5.4	47.1	10.7
2/3	Mauldeth Road West (WB) Right	O	C1:B	-	1	13	-	131	1912	205	63.9%	131	0	0	3.2	87.7	3.9
2/4	Mauldeth Road West (WB) Ahead	U	C1:I	-	1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
3/1+3/2	Barlow Moor Road (NB) Ahead Right Left	U+O	C1:C	C1:G	1	36	4	741	1896:1827	675+157	89.0 : 89.0%	89	48	3	8.7	42.1	19.5
4/2+4/1	Mauldeth Road West (EB) Left Ahead Right	O+U	C1:A C1:E	-	1	13:17	-	222	2097:1832	326+184	43.5 : 43.5%	48	0	4	2.4	39.5	3.6
4/3	Mauldeth Road West (EB) Ahead	U	C1:H	-	1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
J2: Nell Lane / Mauldeth Road West	-	-	-	-	-	-	-	-	-	-	81.4%	520	0	10	20.0	-	-
1/1	Nell Lane (SB) Left Ahead Right	O	C2:D	-	1	37	-	446	1855	783	56.9%	125	0	3	3.2	25.6	9.1

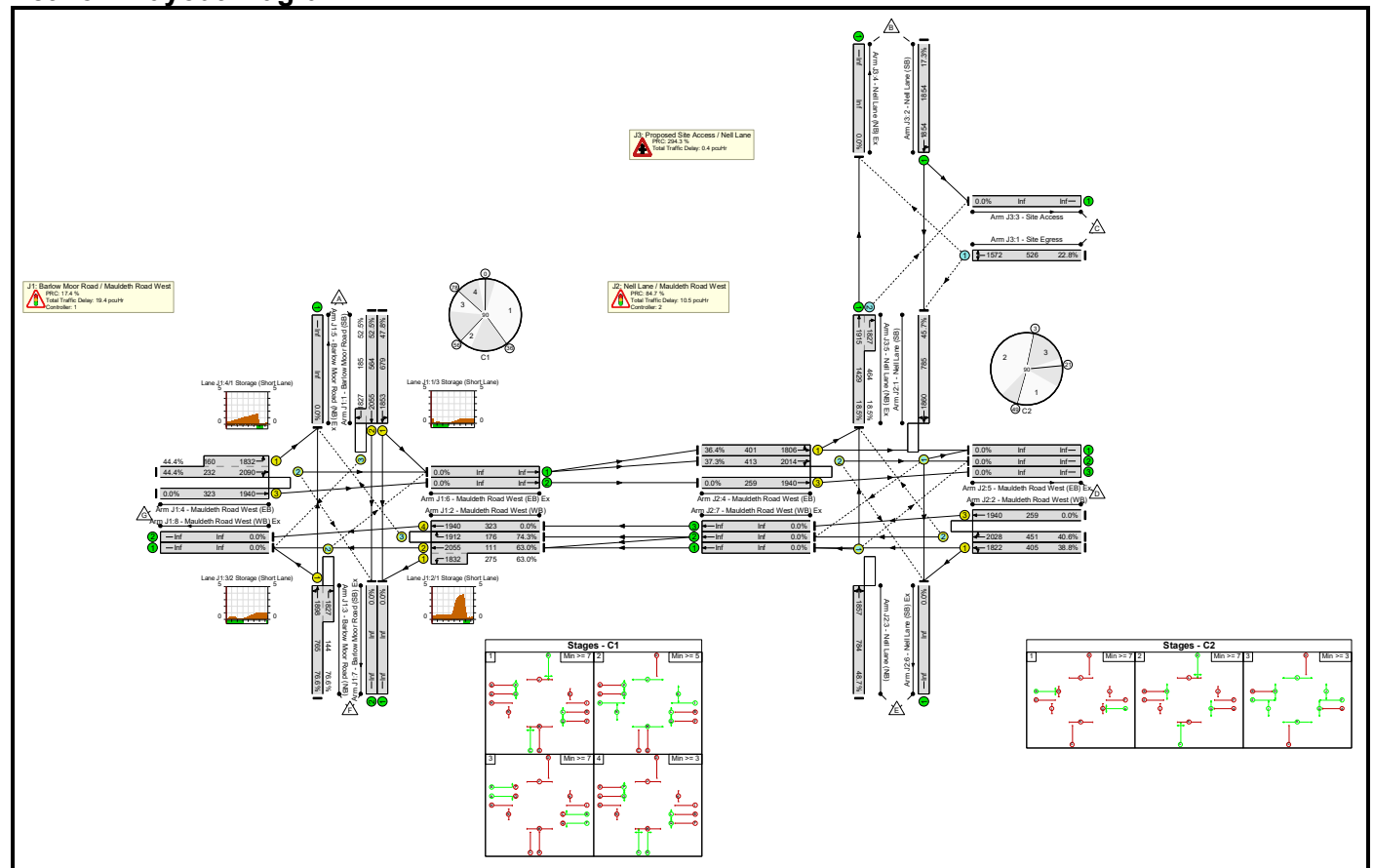
Basic Results Summary

2/1	Mauldeth Road West (WB) Left Ahead	U	C2:A		1	19	-	262	1800	400	65.5%	-	-	-	3.3	44.7	6.8
2/2	Mauldeth Road West (WB) Ahead Right	O	C2:A		1	19	-	303	2044	438	69.1%	71	0	1	3.9	46.9	8.0
2/3	Mauldeth Road West (WB) Ahead	U	C2:F		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
3/1	Nell Lane (NB) Right Left Ahead	O	C2:C		1	37	-	545	1839	670	81.4%	248	0	6	6.2	40.9	14.4
4/1	Mauldeth Road West (EB) Ahead Left	U	C2:B		1	19	-	284	1868	415	68.4%	-	-	-	2.4	30.9	6.9
4/2	Mauldeth Road West (EB) Ahead Right	O	C2:B		1	19	-	76	1935	157	48.3%	75	0	1	1.0	46.6	1.7
4/3	Mauldeth Road West (EB) Ahead	U	C2:E		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
J3: Proposed Site Access / Nell Lane	-	-	-		-	-	-	-	-	-	22.0%	159	0	0	0.4	-	-
1/1	Site Egress Left Right	O	-		-	-	-	98	1572	506	19.4%	98	0	0	0.1	4.4	0.1
2/1	Nell Lane (SB) Ahead Left	U	-		-	-	-	413	1876	1876	22.0%	-	-	-	0.1	1.2	0.1
5/1+5/2	Nell Lane (NB) Ex Right Ahead	U+O	-		-	-	-	365	1915:1827	1582+317	19.2 : 19.2%	61	0	0	0.1	1.2	0.1
<div>C1 C2</div> <div>PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):</div> <div>1.1 10.6 1.1</div> <div>Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes (pcuHr):</div> <div>25.80 19.99 46.17</div> <div>Cycle Time (s): Cycle Time (s): Cycle Time (s):</div> <div>90 90 90</div>																	

Basic Results Summary

Scenario 3: 'Base 2023 + Lidl SAT' (FG12: 'Base 2023 + Lidl Saturday', 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	-	-	-	-	-	-	-	-	-	-	76.6%	873	39	29	30.3	-	-
J1: Barlow Moor Road / Mauldeth Road West	-	-	-	-	-	-	-	-	-	-	76.6%	320	39	22	19.4	-	-
1/1	Barlow Moor Road (SB) Left Ahead	U	C1:D	-	1	32	-	325	1853	679	47.8%	-	-	-	2.4	27.0	6.7
1/2+1/3	Barlow Moor Road (SB) Ahead Right	U+O	C1:D	-	1	32	-	393	2055:1827	564+185	52.5 : 52.5%	95	0	2	3.2	29.6	7.5
2/2+2/1	Mauldeth Road West (WB) Left Ahead	U	C1:B C1:F	-	1	9:14	-	243	2055:1832	111+275	63.0 : 63.0%	-	-	-	2.5	37.1	4.7
2/3	Mauldeth Road West (WB) Right	O	C1:B	-	1	9	-	131	1912	176	74.3%	115	0	16	3.6	99.9	4.6
2/4	Mauldeth Road West (WB) Ahead	U	C1:I	-	1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
3/1+3/2	Barlow Moor Road (NB) Ahead Right Left	U+O	C1:C	C1:G	1	40	4	696	1898:1827	765+144	76.6 : 76.6%	69	39	2	5.4	28.2	14.8
4/2+4/1	Mauldeth Road West (EB) Left Ahead Right	O+U	C1:A C1:E	-	1	9:13	-	174	2090:1832	232+160	44.4 : 44.4%	41	0	2	2.1	44.3	2.8
4/3	Mauldeth Road West (EB) Ahead	U	C1:H	-	1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
J2: Nell Lane / Mauldeth Road West	-	-	-	-	-	-	-	-	-	-	48.7%	347	0	6	10.5	-	-
1/1	Nell Lane (SB) Left Ahead Right	O	C2:D	-	1	37	-	359	1860	785	45.7%	108	0	2	2.5	24.7	6.8

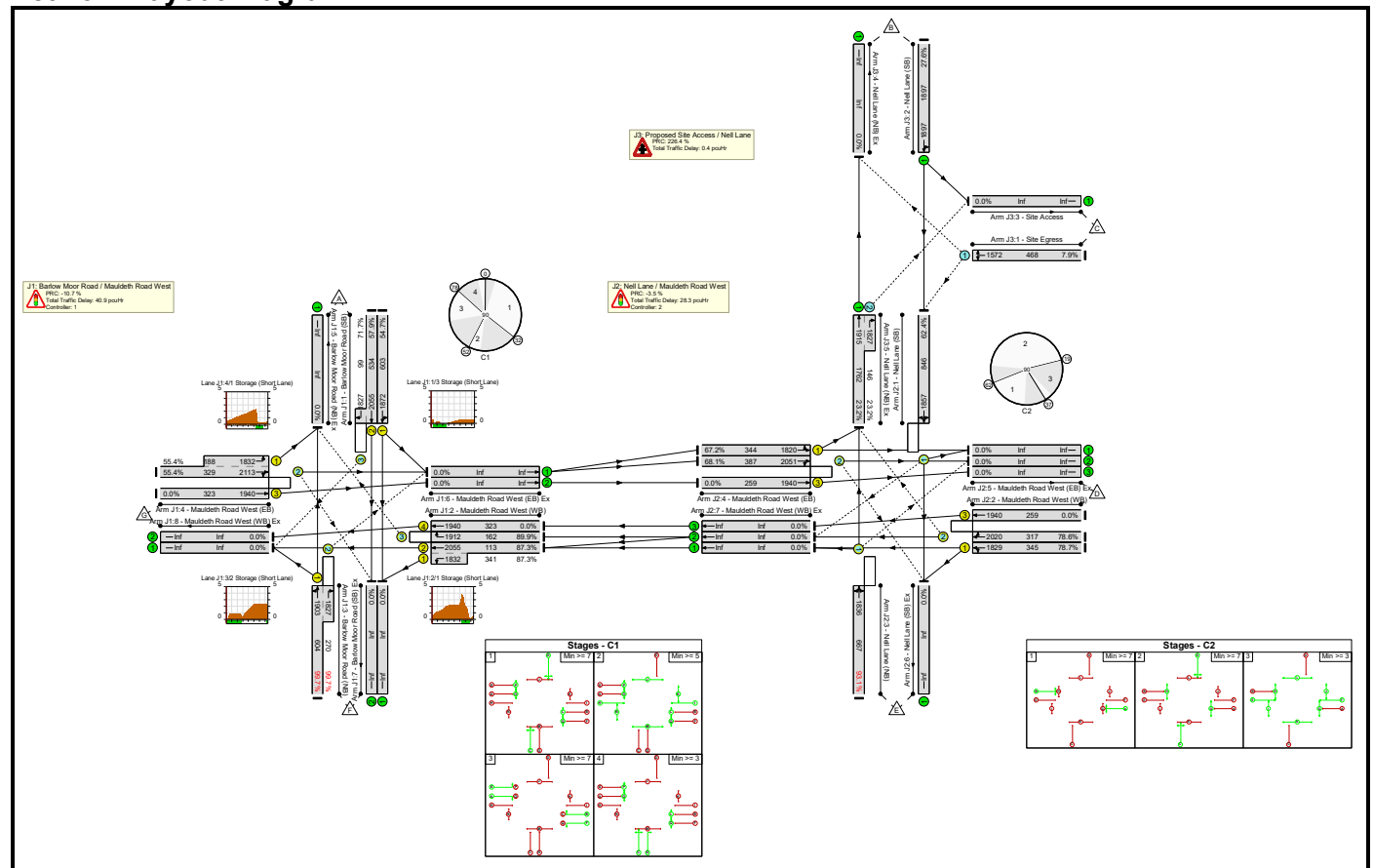
Basic Results Summary

2/1	Mauldeth Road West (WB) Left Ahead	U	C2:A		1	19	-	157	1822	405	38.8%	-	-	-	1.6	37.0	3.6
2/2	Mauldeth Road West (WB) Ahead Right	O	C2:A		1	19	-	183	2028	451	40.6%	62	0	1	1.9	37.7	4.2
2/3	Mauldeth Road West (WB) Ahead	U	C2:F		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
3/1	Nell Lane (NB) Right Left Ahead	O	C2:C		1	37	-	382	1857	784	48.7%	110	0	3	2.6	24.8	7.4
4/1	Mauldeth Road West (EB) Ahead Left	U	C2:B		1	19	-	146	1806	401	36.4%	-	-	-	0.9	21.4	2.9
4/2	Mauldeth Road West (EB) Ahead Right	O	C2:B		1	19	-	154	2014	413	37.3%	66	0	1	1.0	23.7	3.0
4/3	Mauldeth Road West (EB) Ahead	U	C2:E		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
J3: Proposed Site Access / Nell Lane	-	-	-		-	-	-	-	-	-	22.8%	206	0	0	0.4	-	-
1/1	Site Egress Left Right	O	-		-	-	-	120	1572	526	22.8%	120	0	0	0.1	4.4	0.1
2/1	Nell Lane (SB) Ahead Left	U	-		-	-	-	320	1854	1854	17.3%	-	-	-	0.1	1.2	0.1
5/1+5/2	Nell Lane (NB) Ex Right Ahead	U+O	-		-	-	-	351	1915:1827	1429+464	18.5 : 18.5%	86	0	0	0.1	1.2	0.1
										C1 C2	PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):	17.4 84.7 17.4	Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes (pcuHr):	19.39 10.50 30.26	Cycle Time (s): Cycle Time (s): Cycle Time (s):	90 90 90	

Basic Results Summary

Scenario 4: 'Base 2028 + Lidl AM' (FG13: 'Base 2028 + Lidl 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	-	-	-	-	-	-	-	-	-	-	99.7%	871	81	239	69.6	-	-
J1: Barlow Moor Road / Mauldeth Road West	-	-	-	-	-	-	-	-	-	-	99.7%	296	81	157	40.9	-	-
1/1	Barlow Moor Road (SB) Left Ahead	U	C1:D	-	1	28	-	330	1872	603	54.7%	-	-	-	2.9	31.7	7.4
1/2+1/3	Barlow Moor Road (SB) Ahead Right	U+O	C1:D	-	1	28	-	380	2055:1827	534+99	57.9 : 71.7%	9	0	62	3.8	35.6	8.1
2/2+2/1	Mauldeth Road West (WB) Left Ahead	U	C1:B C1:F	-	1	13:18	-	397	2055:1832	113+341	87.3 : 87.3%	-	-	-	4.9	44.3	12.5
2/3	Mauldeth Road West (WB) Right	O	C1:B	-	1	13	-	146	1912	162	89.9%	118	0	28	5.6	137.6	6.8
2/4	Mauldeth Road West (WB) Ahead	U	C1:I	-	1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
3/1+3/2	Barlow Moor Road (NB) Ahead Right Left	U+O	C1:C	C1:G	1	36	4	871	1903:1827	604+270	99.7 : 99.7%	124	81	64	20.5	84.8	33.3
4/2+4/1	Mauldeth Road West (EB) Left Ahead Right	O+U	C1:A C1:E	-	1	13:17	-	286	2113:1832	329+188	55.4 : 55.4%	45	0	3	3.3	41.3	4.8
4/3	Mauldeth Road West (EB) Ahead	U	C1:H	-	1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
J2: Nell Lane / Mauldeth Road West	-	-	-	-	-	-	-	-	-	-	93.1%	504	0	82	28.3	-	-
1/1	Nell Lane (SB) Left Ahead Right	O	C2:D	-	1	40	-	528	1857	846	62.4%	143	0	3	3.6	24.6	10.8

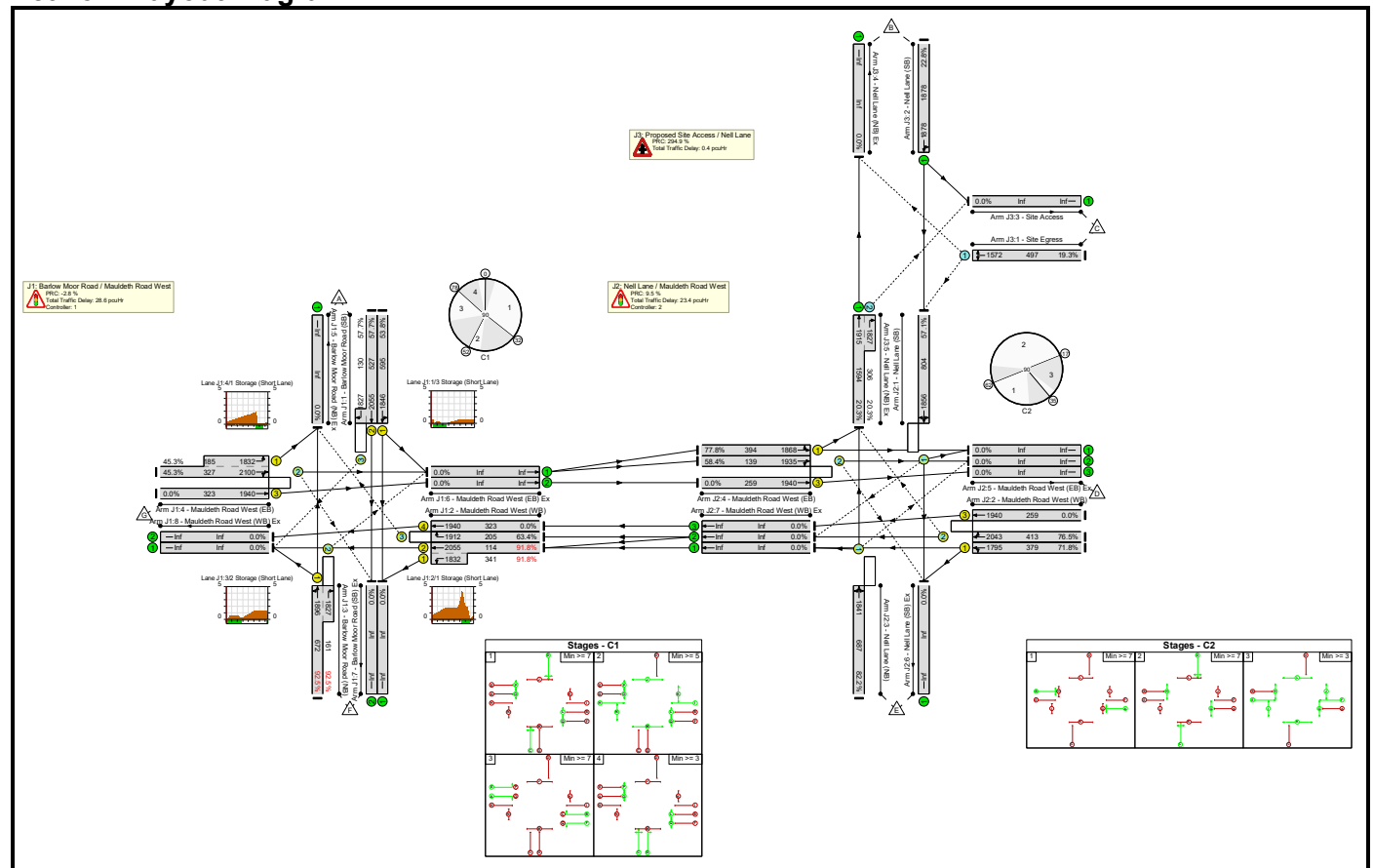
Basic Results Summary

2/1	Mauldeth Road West (WB) Left Ahead	U	C2:A	1	16	-	272	1829	345	78.7%	-	-	-	4.4	58.2	8.2
2/2	Mauldeth Road West (WB) Ahead Right	O	C2:A	1	16	-	249	2020	317	78.6%	73	0	25	4.3	62.3	7.5
2/3	Mauldeth Road West (WB) Ahead	U	C2:F	1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
3/1	Nell Lane (NB) Right Left Ahead	O	C2:C	1	40	-	621	1836	667	93.1%	245	0	47	10.4	60.1	20.3
4/1	Mauldeth Road West (EB) Ahead Left	U	C2:B	1	16	-	231	1820	344	67.2%	-	-	-	2.6	41.0	6.5
4/2	Mauldeth Road West (EB) Ahead Right	O	C2:B	1	16	-	264	2051	387	68.1%	43	0	7	3.0	41.1	7.4
4/3	Mauldeth Road West (EB) Ahead	U	C2:E	1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
J3: Proposed Site Access / Nell Lane	-	-	-	-	-	-	-	-	-	27.6%	71	0	0	0.4	-	-
1/1	Site Egress Left Right	O	-	-	-	-	37	1572	468	7.9%	37	0	0	0.0	4.2	0.0
2/1	Nell Lane (SB) Ahead Left	U	-	-	-	-	523	1897	1897	27.6%	-	-	-	0.2	1.3	0.2
5/1+5/2	Nell Lane (NB) Ex Right Ahead	U+O	-	-	-	-	443	1915:1827	1762+146	23.2 : 23.2%	34	0	0	0.2	1.2	0.2
<div>C1 C2</div> <div>PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):</div> <div>-10.7 -3.5 -10.7</div> <div>Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):</div> <div>40.92 28.32 69.62</div> <div>Cycle Time (s): Cycle Time (s):</div> <div>90 90</div>																

Basic Results Summary

Scenario 5: 'Base 2028 + Lidl PM' (FG14: 'Base 2028 + Lidl PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

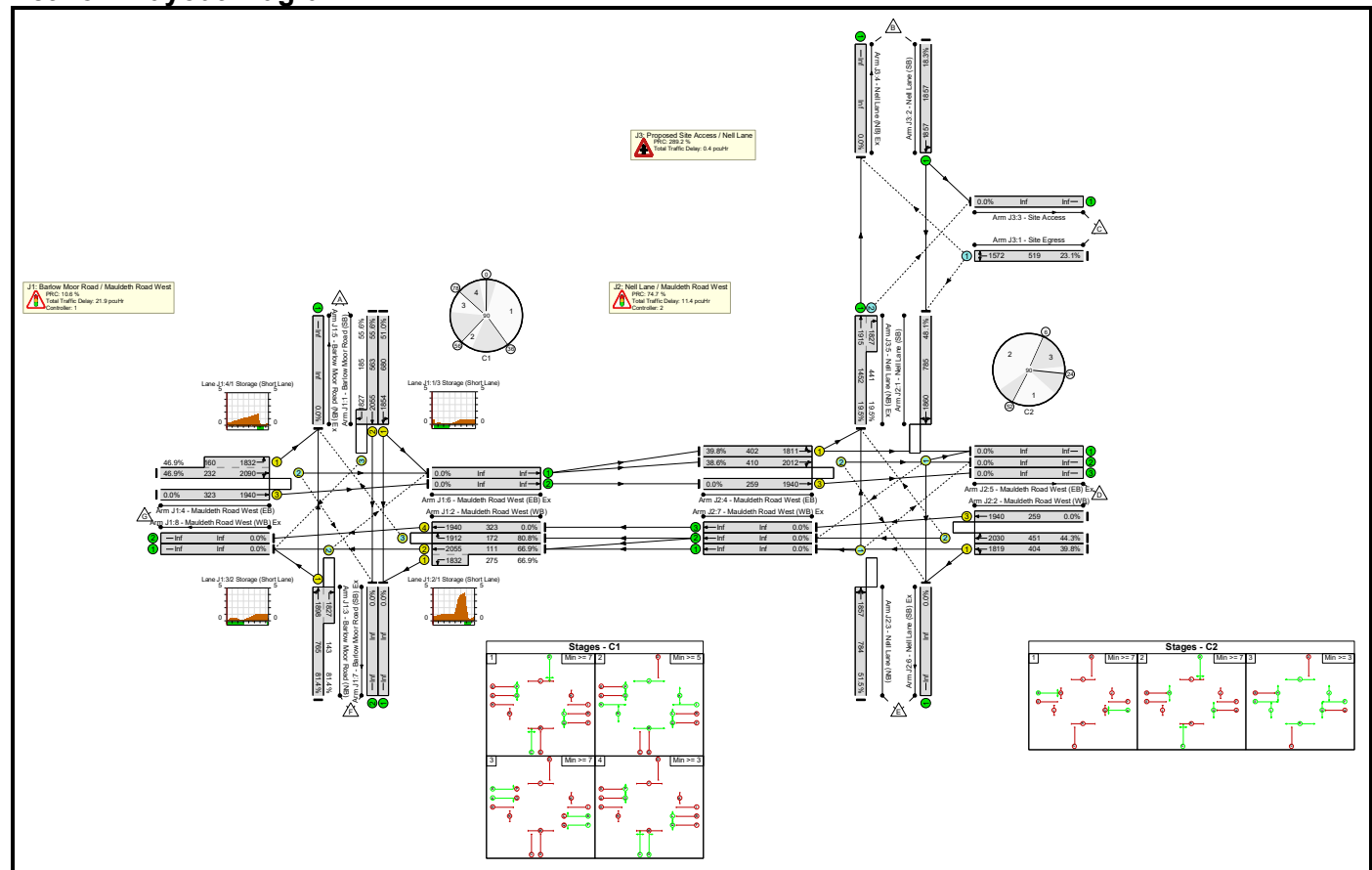
Network Results

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	-	-	-	-	-	-	-	-	-	-	92.5%	981	50	85	52.5	-	-
J1: Barlow Moor Road / Mauldeth Road West	-	-	-	-	-	-	-	-	-	-	92.5%	316	50	40	28.6	-	-
1/1	Barlow Moor Road (SB) Left Ahead	U	C1:D	-	1	28	-	320	1846	595	53.8%	-	-	-	2.8	31.5	7.1
1/2+1/3	Barlow Moor Road (SB) Ahead Right	U+O	C1:D	-	1	28	-	379	2055:1827	527+130	57.7 : 57.7%	42	0	33	3.7	34.9	8.0
2/2+2/1	Mauldeth Road West (WB) Left Ahead	U	C1:B C1:F	-	1	13:18	-	418	2055:1832	114+341	91.8 : 91.8%	-	-	-	6.2	53.0	14.2
2/3	Mauldeth Road West (WB) Right	O	C1:B	-	1	13	-	130	1912	205	63.4%	130	0	0	2.9	80.8	4.1
2/4	Mauldeth Road West (WB) Ahead	U	C1:I	-	1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
3/1+3/2	Barlow Moor Road (NB) Ahead Right Left	U+O	C1:C	C1:G	1	36	4	771	1896:1827	672+161	92.5 : 92.5%	96	50	3	10.5	49.2	22.1
4/2+4/1	Mauldeth Road West (EB) Left Ahead Right	O+U	C1:A C1:E	-	1	13:17	-	232	2100:1832	327+185	45.3 : 45.3%	48	0	4	2.6	39.6	3.7
4/3	Mauldeth Road West (EB) Ahead	U	C1:H	-	1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
J2: Nell Lane / Mauldeth Road West	-	-	-	-	-	-	-	-	-	-	82.2%	506	0	45	23.4	-	-
1/1	Nell Lane (SB) Left Ahead Right	O	C2:D	-	1	38	-	459	1856	804	57.1%	125	0	3	3.2	24.8	9.2

Basic Results Summary

2/1	Mauldeth Road West (WB) Left Ahead	U	C2:A		1	18	-	272	1795	379	71.8%	-	-	-	3.7	49.5	7.5
2/2	Mauldeth Road West (WB) Ahead Right	O	C2:A		1	18	-	316	2043	413	76.5%	62	0	14	4.7	53.3	8.9
2/3	Mauldeth Road West (WB) Ahead	U	C2:F		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
3/1	Nell Lane (NB) Right Left Ahead	O	C2:C		1	38	-	565	1841	687	82.2%	260	0	6	6.4	41.0	14.9
4/1	Mauldeth Road West (EB) Ahead Left	U	C2:B		1	18	-	307	1868	394	77.8%	-	-	-	4.0	46.3	9.3
4/2	Mauldeth Road West (EB) Ahead Right	O	C2:B		1	18	-	81	1935	139	58.4%	59	0	22	1.5	64.9	2.5
4/3	Mauldeth Road West (EB) Ahead	U	C2:E		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
J3: Proposed Site Access / Nell Lane	-	-	-		-	-	-	-	-	-	22.8%	158	0	0	0.4	-	-
1/1	Site Egress Left Right	O	-		-	-	-	96	1572	497	19.3%	96	0	0	0.1	4.5	0.1
2/1	Nell Lane (SB) Ahead Left	U	-		-	-	-	428	1878	1878	22.8%	-	-	-	0.1	1.2	0.1
5/1+5/2	Nell Lane (NB) Ex Right Ahead	U+O	-		-	-	-	385	1915:1827	1594+306	20.3 : 20.3%	62	0	0	0.1	1.2	0.1
										Total Delay for Signalled Lanes (pcuHr):			28.64	Cycle Time (s):			90
										Total Delay for Signalled Lanes (pcuHr):			23.43	Cycle Time (s):			90
										Total Delay Over All Lanes (pcuHr):			52.46				
				C1	PRC for Signalled Lanes (%):			-2.8	Total Delay for Signalled Lanes (pcuHr):			28.64	Cycle Time (s):			90	
				C2	PRC for Signalled Lanes (%):			9.5	Total Delay for Signalled Lanes (pcuHr):			23.43	Cycle Time (s):			90	
					PRC Over All Lanes (%):			-2.8	Total Delay Over All Lanes (pcuHr):			52.46					

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	-	-	-	-	-	-	-	-	-	-	81.4%	902	39	42	33.6	-	-
J1: Barlow Moor Road / Mauldeth Road West	-	-	-	-	-	-	-	-	-	-	81.4%	329	39	35	21.9	-	-
1/1	Barlow Moor Road (SB) Left Ahead	U	C1:D	-	1	32	-	347	1854	680	51.0%	-	-	-	2.7	27.6	7.3
1/2+1/3	Barlow Moor Road (SB) Ahead Right	U+O	C1:D	-	1	32	-	416	2055:1827	563+185	55.6 : 55.6%	101	0	2	3.6	31.1	8.2
2/2+2/1	Mauldeth Road West (WB) Left Ahead	U	C1:B C1:F	-	1	9:14	-	258	2055:1832	111+275	66.9 : 66.9%	-	-	-	2.8	39.5	5.3
2/3	Mauldeth Road West (WB) Right	O	C1:B	-	1	9	-	139	1912	172	80.8%	111	0	28	4.2	108.0	5.4
2/4	Mauldeth Road West (WB) Ahead	U	C1:I	-	1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
3/1+3/2	Barlow Moor Road (NB) Ahead Right Left	U+O	C1:C	C1:G	1	40	4	739	1898:1827	765+143	81.4 : 81.4%	75	39	3	6.4	31.0	16.8
4/2+4/1	Mauldeth Road West (EB) Left Ahead Right	O+U	C1:A C1:E	-	1	9:13	-	184	2090:1832	232+160	46.9 : 46.9%	43	0	2	2.3	44.8	3.0
4/3	Mauldeth Road West (EB) Ahead	U	C1:H	-	1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
J2: Nell Lane / Mauldeth Road West	-	-	-	-	-	-	-	-	-	-	51.5%	366	0	7	11.4	-	-
1/1	Nell Lane (SB) Left Ahead Right	O	C2:D	-	1	37	-	378	1860	785	48.1%	113	0	3	2.7	25.3	7.3

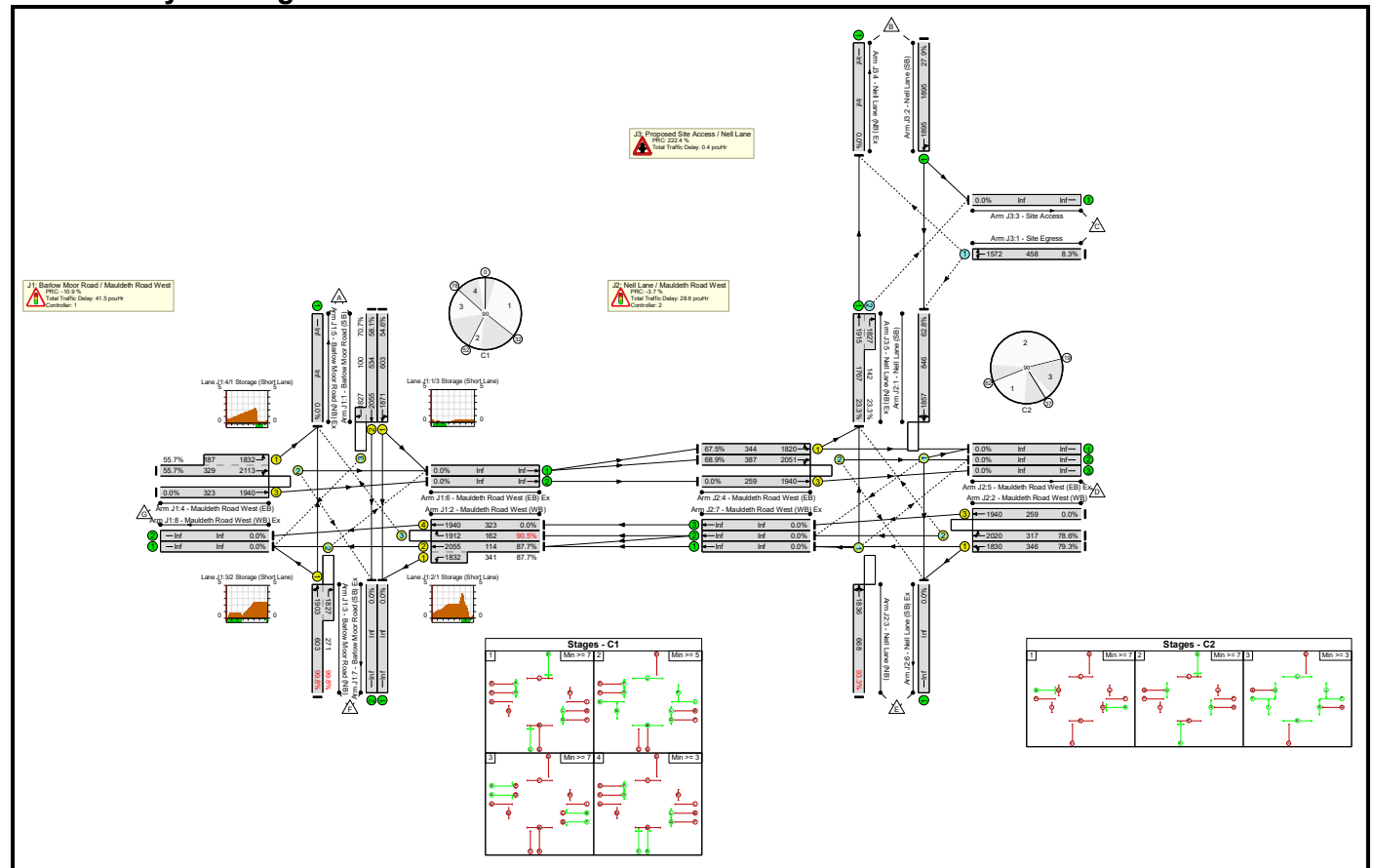
Basic Results Summary

2/1	Mauldeth Road West (WB) Left Ahead	U	C2:A		1	19	-	161	1819	404	39.8%	-	-	-	1.7	37.3	3.7
2/2	Mauldeth Road West (WB) Ahead Right	O	C2:A		1	19	-	200	2030	451	44.3%	65	0	1	2.1	38.6	4.7
2/3	Mauldeth Road West (WB) Ahead	U	C2:F		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
3/1	Nell Lane (NB) Right Left Ahead	O	C2:C		1	37	-	404	1857	784	51.5%	117	0	3	2.9	25.5	7.9
4/1	Mauldeth Road West (EB) Ahead Left	U	C2:B		1	19	-	160	1811	402	39.8%	-	-	-	1.0	21.8	3.2
4/2	Mauldeth Road West (EB) Ahead Right	O	C2:B		1	19	-	158	2012	410	38.6%	70	0	1	1.1	24.3	3.2
4/3	Mauldeth Road West (EB) Ahead	U	C2:E		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
J3: Proposed Site Access / Nell Lane	-	-	-		-	-	-	-	-	-	23.1%	206	0	0	0.4	-	-
1/1	Site Egress Left Right	O	-		-	-	-	120	1572	519	23.1%	120	0	0	0.2	4.5	0.2
2/1	Nell Lane (SB) Ahead Left	U	-		-	-	-	339	1857	1857	18.3%	-	-	-	0.1	1.2	0.1
5/1+5/2	Nell Lane (NB) Ex Right Ahead	U+O	-		-	-	-	369	1915:1827	1452+441	19.5 : 19.5%	86	0	0	0.1	1.2	0.1
<div>C1 C2</div> <div>PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):</div> <div>10.6 74.7 10.6</div> <div>Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes (pcuHr):</div> <div>21.90 11.36 33.65</div> <div>Cycle Time (s): Cycle Time (s): Cycle Time (s):</div> <div>90 90 90</div>																	

Basic Results Summary

Scenario 7: 'Base 2028 + Lidl AM (50% secondary)' (FG16: 'Base 2028 + Lidl AM (50% secondary)', 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	-	-	-	-	-	-	-	-	-	-	99.8%	867	81	248	70.6	-	-
J1: Barlow Moor Road / Mauldeth Road West	-	-	-	-	-	-	-	-	-	-	99.8%	295	81	161	41.5	-	-
1/1	Barlow Moor Road (SB) Left Ahead	U	C1:D	-	1	28	-	329	1871	603	54.6%	-	-	-	2.9	31.6	7.4
1/2+1/3	Barlow Moor Road (SB) Ahead Right	U+O	C1:D	-	1	28	-	381	2055:1827	534+100	58.1 : 70.7%	9	0	62	3.8	35.5	8.1
2/2+2/1	Mauldeth Road West (WB) Left Ahead	U	C1:B C1:F	-	1	13:18	-	399	2055:1832	114+341	87.7 : 87.7%	-	-	-	5.0	44.8	12.6
2/3	Mauldeth Road West (WB) Right	O	C1:B	-	1	13	-	147	1912	162	90.5%	118	0	29	5.7	140.2	7.0
2/4	Mauldeth Road West (WB) Ahead	U	C1:I	-	1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
3/1+3/2	Barlow Moor Road (NB) Ahead Right Left	U+O	C1:C	C1:G	1	36	4	873	1903:1827	603+271	99.8 : 99.8%	124	81	66	20.9	86.2	33.7
4/2+4/1	Mauldeth Road West (EB) Left Ahead Right	O+U	C1:A C1:E	-	1	13:17	-	287	2113:1832	329+187	55.7 : 55.7%	45	0	3	3.3	41.4	4.8
4/3	Mauldeth Road West (EB) Ahead	U	C1:H	-	1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
J2: Nell Lane / Mauldeth Road West	-	-	-	-	-	-	-	-	-	-	93.3%	501	0	87	28.6	-	-
1/1	Nell Lane (SB) Left Ahead Right	O	C2:D	-	1	40	-	531	1857	846	62.8%	144	0	3	3.6	24.7	10.9

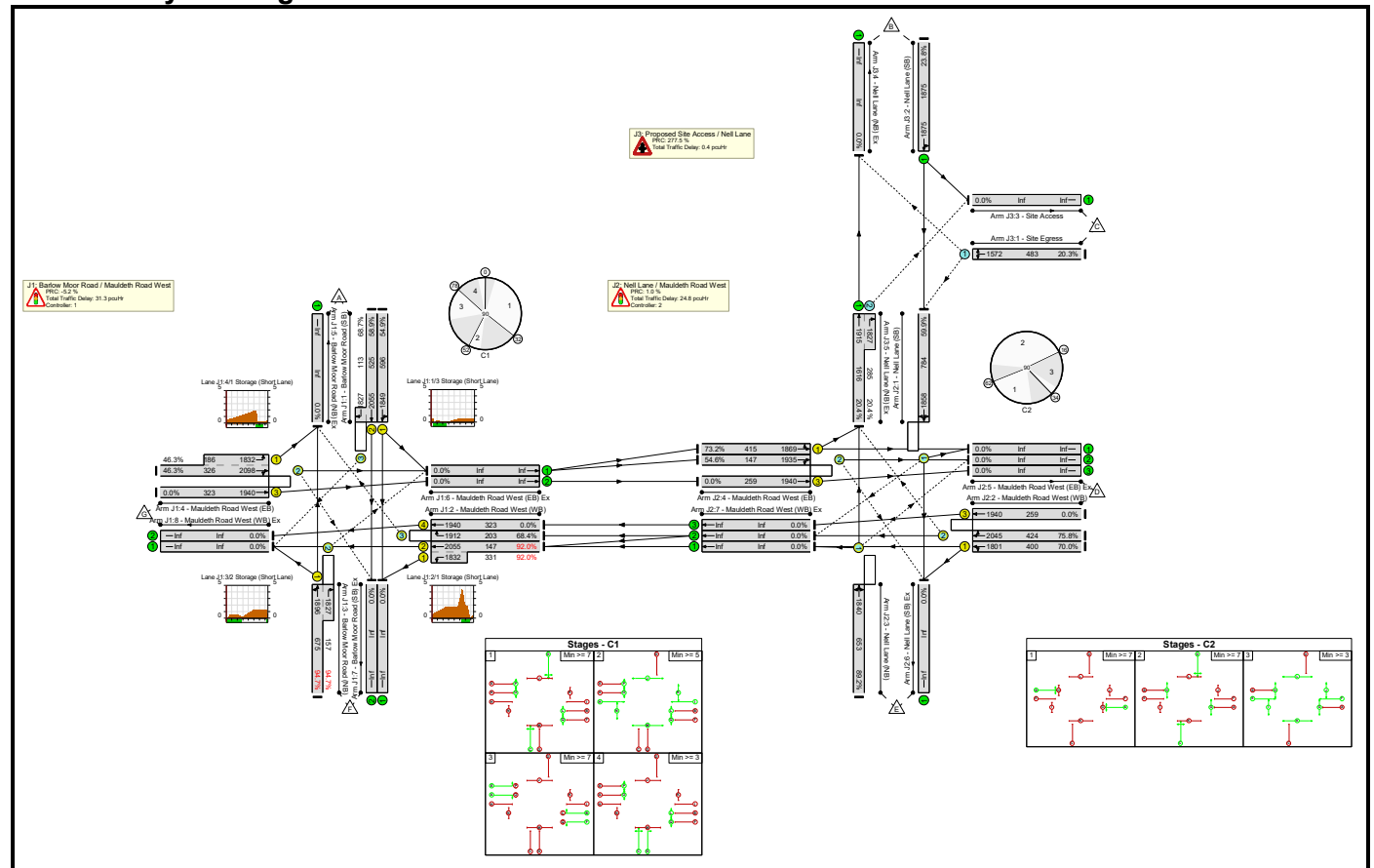
Basic Results Summary

2/1	Mauldeth Road West (WB) Left Ahead	U	C2:A	1	16	-	274	1830	346	79.3%	-	-	-	4.5	58.7	8.3
2/2	Mauldeth Road West (WB) Ahead Right	O	C2:A	1	16	-	249	2020	317	78.6%	71	0	27	4.3	62.3	7.5
2/3	Mauldeth Road West (WB) Ahead	U	C2:F	1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
3/1	Neill Lane (NB) Right Left Ahead	O	C2:C	1	40	-	623	1836	668	93.3%	242	0	50	10.5	60.5	20.5
4/1	Mauldeth Road West (EB) Ahead Left	U	C2:B	1	16	-	232	1820	344	67.5%	-	-	-	2.6	41.1	6.6
4/2	Mauldeth Road West (EB) Ahead Right	O	C2:B	1	16	-	267	2051	387	68.9%	43	0	8	3.1	41.5	7.5
4/3	Mauldeth Road West (EB) Ahead	U	C2:E	1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
J3: Proposed Site Access / Neill Lane	-	-	-	-	-	-	-	-	-	27.9%	71	0	0	0.4	-	-
1/1	Site Egress Left Right	O	-	-	-	-	38	1572	458	8.3%	38	0	0	0.0	4.3	0.0
2/1	Neill Lane (SB) Ahead Left	U	-	-	-	-	529	1895	1895	27.9%	-	-	-	0.2	1.3	0.2
5/1+5/2	Neill Lane (NB) Ex Right Ahead	U+O	-	-	-	-	445	1915:1827	1767+142	23.3 : 23.3%	33	0	0	0.2	1.2	0.2
<div>C1</div> <div>PRC for Signalled Lanes (%): -10.9</div> <div>C2</div> <div>PRC for Signalled Lanes (%): -3.7</div> <div>PRC Over All Lanes (%): -10.9</div> <div>Total Delay for Signalled Lanes (pctHr): 41.55</div> <div>Total Delay for Signalled Lanes (pctHr): 28.63</div> <div>Total Delay Over All Lanes(pctHr): 70.57</div> <div>Cycle Time (s): 90</div> <div>Cycle Time (s): 90</div>																

Basic Results Summary

Scenario 8: 'Base 2028 + Lidl PM (50% secondary)' (FG17: 'Base 2028 + Lidl PM (50% secondary)', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

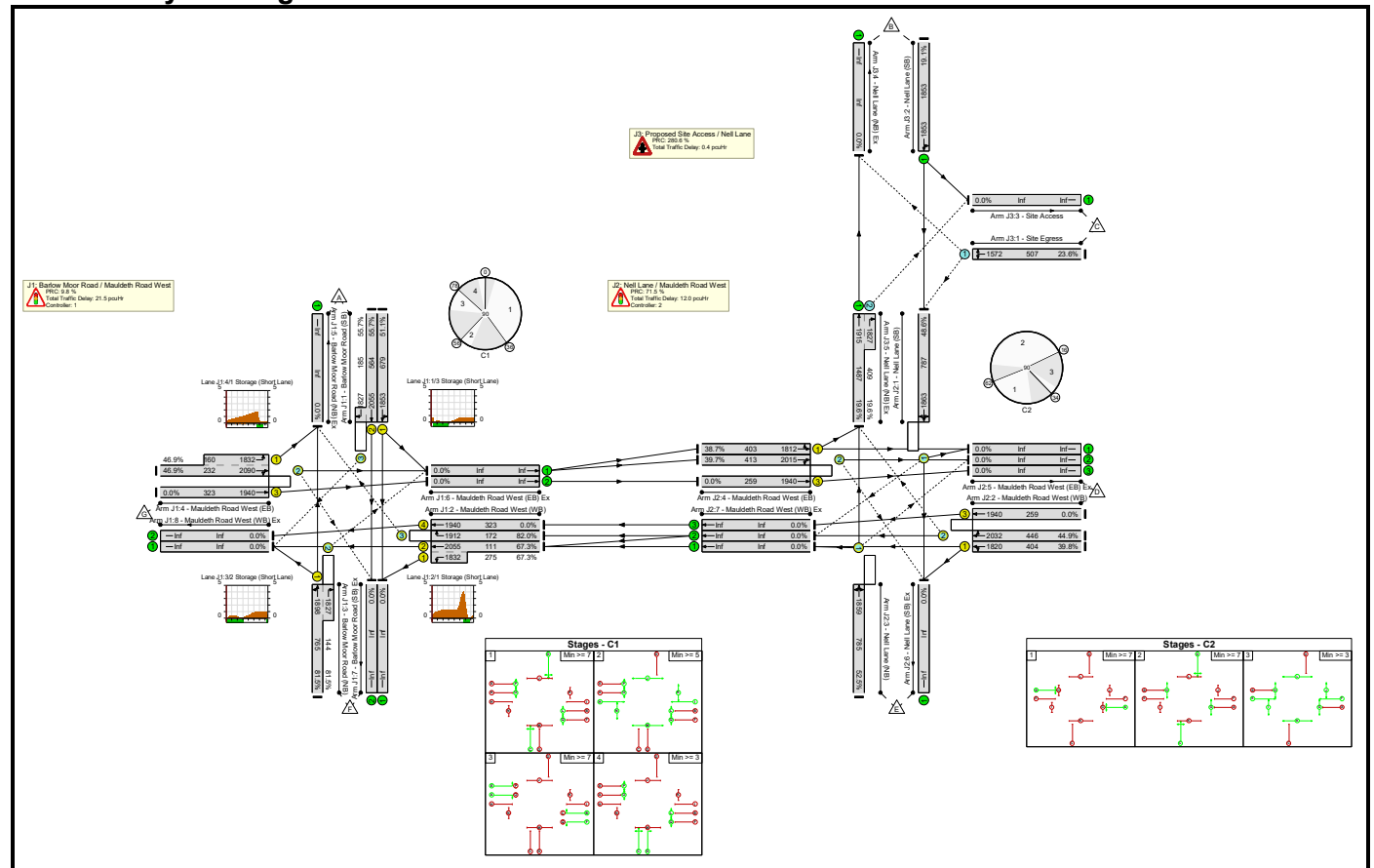
Network Results

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	-	-	-	-	-	-	-	-	-	-	94.7%	984	48	100	56.5	-	-
J1: Barlow Moor Road / Mauldeth Road West	-	-	-	-	-	-	-	-	-	-	94.7%	316	48	56	31.3	-	-
1/1	Barlow Moor Road (SB) Left Ahead	U	C1:D	-	1	28	-	327	1849	596	54.9%	-	-	-	2.9	31.8	7.3
1/2+1/3	Barlow Moor Road (SB) Ahead Right	U+O	C1:D	-	1	28	-	387	2055:1827	525+113	58.9 : 68.7%	29	0	49	3.9	35.9	8.2
2/2+2/1	Mauldeth Road West (WB) Left Ahead	U	C1:B C1:F	-	1	13:18	-	440	2055:1832	147+331	92.0 : 92.0%	-	-	-	6.5	52.9	14.1
2/3	Mauldeth Road West (WB) Right	O	C1:B	-	1	13	-	139	1912	203	68.4%	139	0	0	3.2	83.4	4.5
2/4	Mauldeth Road West (WB) Ahead	U	C1:I	-	1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
3/1+3/2	Barlow Moor Road (NB) Ahead Right Left	U+O	C1:C	C1:G	1	36	4	788	1896:1827	675+157	94.7 : 94.7%	97	48	3	12.3	56.0	24.5
4/2+4/1	Mauldeth Road West (EB) Left Ahead Right	O+U	C1:A C1:E	-	1	13:17	-	237	2098:1832	326+186	46.3 : 46.3%	51	0	4	2.6	39.9	3.8
4/3	Mauldeth Road West (EB) Ahead	U	C1:H	-	1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
J2: Nell Lane / Mauldeth Road West	-	-	-	-	-	-	-	-	-	-	89.2%	512	0	43	24.8	-	-
1/1	Nell Lane (SB) Left Ahead Right	O	C2:D	-	1	37	-	470	1858	784	59.9%	130	0	3	3.4	26.3	9.8

Basic Results Summary

2/1	Mauldeth Road West (WB) Left Ahead	U	C2:A		1	19	-	280	1801	400	70.0%	-	-	-	3.7	46.9	7.5
2/2	Mauldeth Road West (WB) Ahead Right	O	C2:A		1	19	-	321	2045	424	75.8%	72	0	1	4.6	51.3	8.9
2/3	Mauldeth Road West (WB) Ahead	U	C2:F		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
3/1	Nell Lane (NB) Right Left Ahead	O	C2:C		1	37	-	582	1840	653	89.2%	243	0	26	8.3	51.5	17.3
4/1	Mauldeth Road West (EB) Ahead Left	U	C2:B		1	19	-	304	1869	415	73.2%	-	-	-	3.5	41.1	8.9
4/2	Mauldeth Road West (EB) Ahead Right	O	C2:B		1	19	-	80	1935	147	54.6%	67	0	13	1.3	60.1	2.3
4/3	Mauldeth Road West (EB) Ahead	U	C2:E		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0
J3: Proposed Site Access / Nell Lane	-	-	-		-	-	-	-	-	-	23.8%	156	0	0	0.4	-	-
1/1	Site Egress Left Right	O	-		-	-	-	98	1572	483	20.3%	98	0	0	0.1	4.7	0.1
2/1	Nell Lane (SB) Ahead Left	U	-		-	-	-	447	1875	1875	23.8%	-	-	-	0.2	1.3	0.2
5/1+5/2	Nell Lane (NB) Ex Right Ahead	U+O	-		-	-	-	387	1915:1827	1616+285	20.4 : 20.4%	58	0	0	0.1	1.2	0.1
										C1 C2	PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):	-5.2 1.0 -5.2	Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes (pcuHr):	31.33 24.79 56.54	Cycle Time (s): Cycle Time (s): Cycle Time (s):	90 90 90	

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	-	-	-	-	-	-	-	-	-	-	82.0%	894	39	43	33.8	-	-
J1: Barlow Moor Road / Mauldeth Road West	-	-	-	-	-	-	-	-	-	-	82.0%	330	39	37	21.5	-	-
1/1	Barlow Moor Road (SB) Left Ahead	U	C1:D	-	1	32	-	347	1853	679	51.1%	-	-	-	2.7	27.6	7.3
1/2+1/3	Barlow Moor Road (SB) Ahead Right	U+O	C1:D	-	1	32	-	417	2055:1827	564+185	55.7 : 55.7%	101	0	2	3.6	31.1	8.2
2/2+2/1	Mauldeth Road West (WB) Left Ahead	U	C1:B C1:F	-	1	9:14	-	260	2055:1832	111+275	67.3 : 67.3%	-	-	-	2.6	35.9	5.4
2/3	Mauldeth Road West (WB) Right	O	C1:B	-	1	9	-	141	1912	172	82.0%	111	0	30	3.9	100.3	5.5
2/4	Mauldeth Road West (WB) Ahead	U	C1:I	-	1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
3/1+3/2	Barlow Moor Road (NB) Ahead Right Left	U+O	C1:C	C1:G	1	40	4	740	1898:1827	765+144	81.5 : 81.5%	76	39	3	6.4	31.0	16.8
4/2+4/1	Mauldeth Road West (EB) Left Ahead Right	O+U	C1:A C1:E	-	1	9:13	-	184	2090:1832	232+160	46.9 : 46.9%	43	0	2	2.3	44.8	3.0
4/3	Mauldeth Road West (EB) Ahead	U	C1:H	-	1	14	-	0	1940	323	0.0%	-	-	-	0.0	0.0	0.0
J2: Nell Lane / Mauldeth Road West	-	-	-	-	-	-	-	-	-	-	52.5%	364	0	6	12.0	-	-
1/1	Nell Lane (SB) Left Ahead Right	O	C2:D	-	1	37	-	382	1863	787	48.6%	113	0	3	2.7	25.5	7.4

Basic Results Summary

2/1	Mauldeth Road West (WB) Left Ahead	U	C2:A		1	19	-	161	1820	404	39.8%	-	-	-	1.7	37.2	3.7												
2/2	Mauldeth Road West (WB) Ahead Right	O	C2:A		1	19	-	200	2032	446	44.9%	62	0	1	2.2	38.7	4.7												
2/3	Mauldeth Road West (WB) Ahead	U	C2:F		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0												
3/1	Nell Lane (NB) Right Left Ahead	O	C2:C		1	37	-	412	1859	785	52.5%	117	0	3	2.9	25.7	8.1												
4/1	Mauldeth Road West (EB) Ahead Left	U	C2:B		1	19	-	156	1812	403	38.7%	-	-	-	1.1	26.3	3.9												
4/2	Mauldeth Road West (EB) Ahead Right	O	C2:B		1	19	-	164	2015	413	39.7%	71	0	0	1.4	29.8	4.1												
4/3	Mauldeth Road West (EB) Ahead	U	C2:E		1	11	-	0	1940	259	0.0%	-	-	-	0.0	0.0	0.0												
J3: Proposed Site Access / Nell Lane	-	-	-		-	-	-	-	-	-	23.6%	200	0	0	0.4	-	-												
1/1	Site Egress Left Right	O	-		-	-	-	120	1572	507	23.6%	120	0	0	0.2	4.6	0.2												
2/1	Nell Lane (SB) Ahead Left	U	-		-	-	-	353	1853	1853	19.1%	-	-	-	0.1	1.2	0.1												
5/1+5/2	Nell Lane (NB) Ex Right Ahead	U+O	-		-	-	-	371	1915:1827	1487+409	19.6 : 19.6%	80	0	0	0.1	1.2	0.1												
C1 C2												PRC for Signalled Lanes (%): PRC for Signalled Lanes (%): PRC Over All Lanes (%):			9.8 71.5 9.8			Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr):			21.46 11.96 33.81			Cycle Time (s): Cycle Time (s): Cycle Time (s):			90 90 90		