Land North-East of Jn10 M42 Motorway, North Warwickshire

784-B033920

Transport Assessment Addendum

Hodgetts Estates

December 2023

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1.0 INTRODUCTION

1.1 Tetra Tech (TT) were engaged by Hodgetts Estates in January 2022 to advise on transport and highway matters in relation to their proposals for a major development consisting of 100,000sqm of employment uses and a 150-space lorry park with 400sqm amenity block, located off the A5 Watling Street, north-east of the M42 Junction 10 (M42 Jn10) interchange, in Warwickshire.

1.2 An outline planning application for the development site was submitted to North Warwickshire Borough Council (NWBC), with details of access submitted for approval in full and all other matters reserved. The application (ref: PAP/2021/0663) was validated on 2 December 2021.

1.3 The application was initially supported by a Transport Assessment (TA) and Framework Travel Plan (FTP) produced by Bancroft Consulting. The 'Bancroft TA' was then superseded by a 'Revised TA', prepared by TT, dated February 2023 which was based on new traffic surveys carried out in March 2022, and, as set out in the agreed (with National Highways (NH) and Warwickshire County Council (WCC)) Modelling Strategy, a TRANSYT 16 model of the A5 between and including its junctions with the M42 (Junction 10) in the east and the junction for the Core 42 Industrial Estate in the west was used to assess the impact of the proposed development. Through subsequent discussions with Staffordshire County Council (SCC) the impact at the two Pennine Way/ A5 roundabouts was also assessed using Junctions10. The Revised TA sets out the background to the Modelling Strategy, the development of the TRANSYT 16 model, its validation and the assessment of the impact of the development on the A5, using Reference Case and Local Plan traffic flows, as well as on the A5/ Pennine Way junctions.

1.4 The Revised TA set out the details of a proposed traffic signal junction on the A5 to serve the development site and the TRANSYT 16 model showed that it operated within acceptable queue and delay parameters.

1.5 The Revised TA also set out the accessibility of the site to journeys by walking, cycling and by public transport. Significant improvements in the pedestrian, cycling and wheeling linkages between the site, Dordon and Tamworth were proposed by upgrading the facilities along the A5 and around the north side on M42 Jn10, as well as to public rights of way through the site from Birchmoor to the A5 and to Dordon. The walking and cycling provision was underpinned by a WCHAR in accordance with GG142. A public transport strategy was developed, and it was agreed with Stagecoach that the 766 Tamworth- Hinckley bus service will divert into the site to provide convenient bus access.

1.6 Although the March 2022 traffic surveys had been agreed with WCC and NH for use in the TA, Government guidance in December 2022 indicated that traffic flows in 2022 may be still unstable following the Covid 19 pandemic, and new traffic surveys were requested. Although the extent of the network to be assessed had been agreed with WC and NH, NH requested that the TRANSYT 16 model was extended to include the A5/ Long Street junction, 'Dordon Roundabout'. SCC requested that the two A5/ Pennine Way roundabouts were also included in the TRANSYT model.

1.7 WCC, based on the Government guidance, advised that the base traffic data in the A5-Atherstone Paramics model could no longer be relied upon, but that the committed development flows and proposed development traffic flows could be used. The use of development flows and committed development flows was agreed provided that the committed development flows were updated to

2023 in accordance with the survey data. WCC advised that they had commenced the development of an A5 Paramics model which included the section between M42 Jn10 and M69 Jn1.

1.8 A Consolidated Modelling Note was prepared which set out the approach to TRANSYT modelling, the extent of the network to be assessed, the traffic survey data required, and the derivation of the committed development traffic flows to be used in the assessment. The Modelling Note has been agreed by WCC (25 July 2023, attached at Appendix A1), NH (27 November 2023, attached at Appendix A2) and SCC (30 November 2023, attached at Appendix A3).

1.9 Traffic surveys were originally scheduled for March 2023, however extensive road works on the A5 meant that the earliest that the surveys could be undertaken was 4 July 2023. The date of the survey and the survey results have been agreed with WCC, NH and SCC, and Appendices A4 to A6 refer.

1.10 The 2022 validated TRANSYT 16 model was extended to include the two A5/ Pennine Way roundabouts, and Dordon Roundabout and was revalidated. A Baseline TRANSYT Validation Report was issued to WCC, NH and SCC in August 2023. At the time of writing the Validation report is agreed by NH, with the exception of the A5/ Core 42 signal timings. Because WCC and SCC do not operate TRANSYT 16, NH is taking the lead on the validation and once agreed with NH, it will be reviewed by WCC and SCC.

1.11 In late December 2022, Department for Transport Circular 01/2022 “Strategic Network and the Delivery of Sustainable Development” was published. NH advised that although the application was lodged prior to the Circular coming into force, because the transport modelling was being revised, the provisions of the new Circular would apply. To comply with the Circular a Vision was developed for the site and was agreed with NH as part of the Vision Based Travel Plan. As required by the Circular this Transport Assessment Addendum (TAA) commences with the Vision.

1.12 Circular 01/2022 requires that the residual traffic impacts of a development are assessed. The residual impacts being those which include for the effects of the travel plan and other sustainable transport measures aimed at reducing vehicular traffic. A Vision Based Led Travel Plan was produced. It is agreed with SCC and is close to being agreed with NH. Since the residual traffic flows were very similar to the agreed vehicular trip generation, NH agreed that the TRANSYT modelling should be based on the agreed vehicular trip generation.

1.13 This TAA report:

updates and extends the Road Safety assessment to include the extended network and to include recent accident data up to 23 October 2023,

updates the site access junction visibility based on the 2023 85th percentile surveyed traffic speeds and predicted queuing from the updated TRANSYT 16 assessment,

updates the Operational Assessment using the updated TRANSYT 16 assessment.

1.14 The other sections of the Revised TA dated February 2023 remain unchanged.

1.15 A Trigger Report, as required by Circular 01/2022 will be submitted under separate cover.

2.0 VISION

2.1 In accordance with Circular 01/2022, a vision for the proposed development at Land NE of M42 Jn10 has been prepared together with a Vision Based Travel Plan which sets out how the vision can be achieved, includes suitable multi-modal (person) trip rates, clear targets and commitments to manage down the traffic impact of development and maximise the accessibility of the site by walking, wheeling, cycling, public transport and shared travel.

2.2 The Vision Based Travel Plan (VBTP) was submitted to NH, WCC and SCC on 18 September 2023 and a copy is attached at Appendix P.

2.3 The vision for Land NE of M42 Jn10 is to create:

"The Greenest Business Park in the West Midlands"

2.4 The vision is derived from Hodgetts Estates' commitment to achieving the highest possible level of sustainability and design and to mitigate possible climate change impacts. The vision will be achieved through:

Sustainability Strategy

Sustainable Transport & Highways

2.5 The details of these are within the VBTP document, as well as the broader submission (e.g., the Design Guide and Zero-Emission Goods Vehicles Statement). From a transport perspective the main threads are:

Proximity to the SRN – logistics, manufacturing and lorry parks are SRN dependent developments.

Walking and Cycling Connectivity – the proposed development includes significant enhancements to connectivity between the site, Tamworth, Polesworth, Dordon and the cluster of surrounding business park at M42 Jn10 and Birch Coppice which will assist people travelling to and from the development site, as well as to and from other nearby major employment sites.

Public Transport Connectivity – the extension of the Stagecoach 766/ 767 Tamworth and Nuneaton services from the A5 into the proposed development has been agreed with Stagecoach and WCC.

Rail Served Site – The development site is located close enough to Birmingham Intermodal Freight Terminal (BIFT) at Birch Coppice to be classed as a 'rail served' site, allowing long distance freight to and from the site to be conveniently moved by rail, rather than by road.

Electric Vehicles – SMART charging points to 20% of all car, motorcycle and light goods vehicle (LGV) parking spaces and 10% of HGV parking spaces and/or loading docks will be provided. In addition, ducting to all remaining car, motorcycle, LGV and HGV parking spaces and loading docks for easy future conversion will be provided. As such, the proposals would facilitate the possible future conversion of the site to an 'all-electric business park'.

Hydrogen – in addition, various measures have been incorporated into the proposals to enable easy future transition to hydrogen being the primary UK fuel for long-distance freight haulage, including demarked service channels left clear for future hydrogen mains supply to all premises and hydrogen tanking (bunkers) to be provided to all premises, subject to occupier requirements. The package of measures above would ensure the scheme is 'net-zero ready' at the point of delivery.

Travel Plan – a travel plan will be implemented at the site and will actively promote sustainable travel choices, and a will monitor travel patterns to check progress to travel reduction targets.

2.6 The VBTP includes targets to reduced car trip generation, based on advice from TAG Unit M5.2 which suggests a reduction of 18% in car driver mode share for employment sites. The VBTP Targets are summrised below in Table 2.1.

Table 2.1: Current and Target Mode Share, Employment

Mode of Travel	Residential	
	Current	Target
Car Driver	78%	64%
Car Passenger	11%	16% (+5%)
Bus	2%	7% (+5%)
Cycle	3%	5% (+2%)
Walk (inc. Wheeling)	5%	7% (+2%)
Motorcycle	1%	1%

2.7 Table 2.2 below, extracted from the VBTP, shows the current mode shares for the proposed development, the future mode shares and residual travel volumes with the successful implementation of the Travel Plan.

Table 2.2: Current and Target Multi Modal Trips

	Arrivals			Departures		
Time Period	Current	Target	Difference	Current	Target	Difference
Car Driver/ Light Vehicles						
Weekday AM Peak 08:00 to 09:00	126	104	**-22**	34	28	**-6**
Weekday PM Peak 17:00 to 18:00	40	33	**-7**	150	122	**-28**
Car Passenger						
Weekday AM Peak 08:00 to 09:00	18	26	**+8**	5	7	**+2**
Weekday PM Peak 17:00 to 18:00	6	8	**+2**	21	31	**+10**
Bus						
Weekday AM Peak 08:00 to 09:00	3	11	**+8**	1	3	**+2**
Weekday PM Peak 17:00 to 18:00	1	4	**+3**	4	14	**+10**

Motorcycle						
Weekday AM Peak 08:00 to 09:00	2	2	**0**	0	0	**0**
Weekday PM Peak 17:00 to 18:00	1	1	**0**	2	2	**0**
Cycle						
Weekday AM Peak 08:00 to 09:00	5	8	**+3**	1	2	**+1**
Weekday PM Peak 17:00 to 18:00	2	3	**+1**	6	10	**+4**
Walk						
Weekday AM Peak 08:00 to 09:00	8	11	**+3**	2	3	**+1**
Weekday PM Peak 17:00 to 18:00	3	4	**+1**	10	14	**+4**
HGV						
Weekday AM Peak 08:00 to 09:00	50	45	**-5**	52	47	**-5**
Weekday PM Peak 17:00 to 18:00	52	47	**-5**	28	25	**-3**

Note: No change in total HGV movement at the site access, the reduction of trips on the wider network going to/ from BIFT at Birch Coppice.

2.8 The VBTP was approved by SCC on 26 October 2023. Comments of a minor nature were received from NH on 9 October 2023 (attached at Appendix A7), and at the time of writing are being addressed. No comments have been received from WCC since its submission on 18 September 2023. In NH's 9th October email it was confirmed that, because there is only a small difference between the agreed trip generation and the residual trip generation, that the assessment of the traffic impacts arising from the proposed development should use the agreed trip generation.

3.0 PROPOSED DEVELOPMENT

Development Masterplan

3.1 The application is in outline for up to 100,000sqm of B8 use, of which up to 10,000sqm (10%) could be flexible E(g)(iii)/B2/B8 use, and a 150 space lorry park and associated 400sqm amenity block, with all matters reserved apart from access. A copy of the latest illustrative masterplan is shown at Chetwoods Drawing 4263-CA-00-00-DR-A-00090-SK5 attached at Appendix B.

Highway Access

3.2 The proposed site access arrangement is shown in drawings 784-B033920-TTE-00-ZZ-PL-H-0002-P02 attached in Appendix C1. The proposed layout has been prepared in accordance with the requirements of CD123 "Geometric Design of At-Grade Priority and Signal-Controlled Junctions". It comprises a new signalised junction from the A5 and includes widening on the A5 to provide 3 lanes on the eastern approach, and 3 on the western approach. Fully signalised pedestrian and cycle crossing of the site access arm is provided as well as a fully signal controlled pedestrians crossing of the A5. In addition, there are pedestrian and cycle improvements along the A5 which are discussed in more detail below.

3.3 There is a 0.7m level difference between the A5 eastbound and westbound carriageways. To form the junction, it will be necessary to raise the level of eastbound carriageway to that of the westbound lane. The necessary vertical alignment of the eastbound carriageway has been assessed and confirmed that the carriageway can be reprofiled in accordance with CD109 Highway Link Design based on a 120kph design speed.

3.4 Paragraph 2.27 of CD123 states that where *"the 85th percentile speed on the approach roads is greater than or equal to 104kph (65mph), a signal-controlled junction shall not be provided"*. Radar speed surveys were carried on the A5 eastbound and westbound movements immediately to the west of the proposed site access junction from Wednesday 12 July to Tuesday 18 July 2023. The results are attached at Appendix D. The 7-day 85th percentile eastbound speed was 74.0kph (46.0mph) and the westbound speed was 78.1kph (48.5mph). Therefore, based on the observed 85th percentile speeds signals are appropriate, although the national speed limit of 70mph applies. As part of the mitigation measures discussion in Section 5 below, it is proposed to extend the existing 50mph speed limit (which commences some 220m east of the site access junction, westwards along the A5 to approximately 120m west of the Pennine Way overbridge. TT Drawings 784-B033920-TTE-00-ZZ-PL-H-0002-P02 and 784-B033920-TTE-00-ZZ-SK-H-0001-P04 both attached in Appendix C1 and C3 respectively show the proposed relocated speed limits.

3.5 Based on the observed 85th percentile speeds for eastbound traffic (74.0kph) the appropriate stopping sight distance (SSD) from CD109 Highway Link Design is 160m. The 160m SSD can be provided to the signal heads for approaching traffic exiting from M42 Jn10, and to the back of the maximum predicted queue of 17pcu (see Chapter 5). The A5 eastbound approach to the junction would include both nearside and off-side primary signal heads and a minimum of two signals would be visible from each stop line.

3.6 Based on the observed 85th percentile speeds for westbound traffic (78.1kph), 160m SSD is also required and can be provided to the signal heads for approaching traffic from the A5/ Birch Coppice junction, and to the back of the maximum predicted queue of 4pcu (see Chapter 5). The A5 westbound approach to the junction would include both nearside and off-side primary signal heads and a minimum of two signals would be visible from each stop line.

3.7 The proposed layout shows that the required Junction Intervisibility Zone can be achieved throughout the layout, with a minimum 2.5m setback from each stop line. In accordance with paragraph 7.6 of CD123 the proposed layout has been designed to include 3.5m lane widths throughout (minimum of 3m required).

3.8 All tapers within the proposed layout are provided in accordance with the minimum requirement for 1 in 5m, set out within paragraph 7.8 of CD123. All storage lanes for turning traffic have been designed with consideration of the potential demand for turning traffic. The proposed layout requires the A5 eastbound offside approach lane to merge with the middle lane as it passes through the junction and the return taper complies with the requirements of CD123.

3.9 As required by paragraph 7.16.2 of CD123 the proposed right turn from the A5 (westbound) arm into the site would be separately controlled within the overall staging sequence.

3.10 The proposed access junction will require the removal of the two laybys on the A5 which are mainly used by HGVs. The development proposals include a designated lorry parking area for up to 150 HGVs within the site and will more than off-set the loss of the existing parking laybys which have a maximum capacity of around 7 to 8 lorries.

3.11 As part of the access design the existing eastbound bus layby east of the site frontage has been relocated and redesigned/upgraded in accordance with CD169 'The Design of Lay-Bys, Maintenance Hardstandings, Rest Areas, Service Areas and Observation Platforms',

3.12 The access road has a 7.3m wide carriageway with 3m foot/cycleways. At the junction, there are two 3.5m right-turn lanes and one 4m left-turn lane. Along the A5, the foot-cycleway is increased to 3m with a 2m separation strip in compliance with CD143 "Designing For Walking, Cycling And Horse-Riding".

3.13 To address any concerns regarding the suitability of the proposed layout to accommodate all likely turning manoeuvres, TT Drawings 784-B033920-TTE-00-ZZ-PL-H-0002-P01 sheet 2 attached in Appendix C1 shows how a 16.5m articulated lorry could satisfactorily manoeuvre between each arm of the junction.

Pedestrian & Cycle Connectivity

3.14 Throughout the site, 3m wide shared foot/cycleways will be provided. Fully signalised pedestrian/cycle crossings will be provided across the mouth of the proposed access junction with the A5 and a fully-signalised pedestrian crossing of the A5 carriageway is to be introduced.

3.15 Externally, enhancements will be made to the pedestrian/ cycle path on the A5 eastbound carriageway together with improving the pedestrian and cycle facilities on the northern part of the M42 Jn10 as shown at TT Drawings 784-B033920-TTE-00-ZZ-PL-H-0003-P02, 784-B033920-TTE-00-ZZ-PL-H-0004-P02 and 784-B033920-TTE-00-ZZ-PL-H-0005-P02 at Appendix C2. Signalised crossings will replace uncontrolled crossings on the north facing slips and also on Green Lane. From Green Lane to the A5/ Pennine Way north roundabout the existing narrow footway/ cycleway will be widened and improved providing a key link into Stoneydelph and onwards to Tamworth.

3.16 The site will provide connections onto the existing Public Bridleways and Public Footpaths adjacent to the site (AE45, AE46 and AE48). In addition these ways will also be upgraded to make them wider and with higher quality surfaces, providing excellent connectivity from the site to/ from Birchmoor, with connections to Tamworth, and to/ from Polesworth and Dordon. Footpath AE46 will be upgraded and diverted to provide a more direct route between Birchmoor / Polesworth / Tamworth and the A5 opposite the entrance to Birch Coppice Business Park. There will also be new footpaths/ cycleways (new Public Rights of Way), running parallel with the A5 between the site (at Footpath AE46) and Dordon (at Barn Close) and between Footpath AE46 and the A5 opposite the entrance to Core 42 Business Park. All of these will significantly enhance the sustainable routes available to both local residents in the area and also employees of both the development site and surrounding employment centres as shown on the Chetwoods drawings 00801/P3, 00802/P3 and 00803/P6 attached in Appendix E.

3.17 All of the new and improved existing Public Footpaths, Bridleways, cycleways and pavements will be designed to be the Equalities Act 2010 compliant, to provide access to all (subject to the agreement of WCC Rights of Way Team).

3.18 To encourage walking, wheeling and cycling, showers and changing facilities will be provided to all employment units. In addition, communal cycle parking, showers and changing facilities will also be provided at the ancillary Hub Office, available to the employees of all site occupiers and the general public including staff from neighbouring business parks.

Proposed Highway Improvements

3.19 As set out in the Revised TA dated February 2023 highway improvements at M42 Jn10 and the A5 eastbound approach were required to mitigate the impact of the proposed development. These are shown at 784-B033920-TTE-00-ZZ-PL-H-0001-P04, attached at Appendix C3, as well as the drawings in Appendix C2 and Appendix E. Based on the updated TRANSYT 16 results reported in the Operational Assessment chapter below, these off-site highway works are still required. The highway improvements, including the accessibility improvements, comprise:

Widening the A5 eastbound approach to M42 Jn10 to provide 3 lanes.

Widening the M42 Jn10 circulatory carriageway on the approach to the Green Lane signals to 4 lanes.

Signal controlled pedestrian and cycle crossing of the Green Lane approach.

Signal controlled pedestrian and cycle crossing of the M42 northbound on-slip.

Signal controlled pedestrian and cycle crossing of the M42 southbound off slip.

Signal controlled pedestrian crossing of the A5 at the proposed site access junction.

Signal controlled pedestrian and cycle crossing of the proposed site access junction.

Extended 4 lane flared section on the A5 westbound approach to M42 Jn10.

- Improved shared foot/cycleway on the north side of the A5 between the site access and the Pennine Way north roundabout, including the northern part of Jn10.
- A new separate 3.0m wide offline shared foot/cycleway between the site access and the A5 near to Browns Lane, Dordon.
- 50mph speed limit on the A5 from a point 120m west of the Pennine Way overbridge to the existing 50mph speed limit east of the site.
- A foot-cycle connection is proposed to Bridleway AE45 and to Footpath AE46, both of which lie on the eastern boundary of the site.
- A new footpath/bridleway is proposed to connect from AE46 to Barn Close in Dordon.
- A new footpath/bridleway is proposed to connect from AE46 to the A5 at the entrance to Core 42 Business Park.
- A diversion to AE46 is proposed to provide a more direct route between Tamworth/Birchmoor and the entrance to Birch Coppice Business Park.

3.20 The development proposals have been subject to a WCHAR assessment in line with GG142 “Walking, cycling and Horse-riding Assessment and Review”, and following agreements to the modelling results and proposed highway mitigation works, the WCHAR will be revised.

3.21 Following agreements to the modelling results a Stage 1 RSA will be undertaken in accordance with GG119 “Road Safety Audit” on the proposed access arrangement and off-site improvements. In addition, a Safety Risk Assessment will be undertaken, in accordance with GG104. The Audits will submitted under separate cover.

4.0 HIGHWAY SAFETY

Personal Injury Accident Data

4.1 The Revised TA reported accidents between 2017 and 2019 inclusive, and excluded data from 2020 and 2021 because during those years traffic patterns had been affected by the Covid Pandemic. More recent accident data is available which is up to 23 September 2023. For this TAA the accident data for 1 January 2018 to 31 December 2019 and from 1 January 2022 to 23 September 2023 is presented. Accidents which have occurred in 2020 and 2021 have again been excluded because of the effects of the Covid-19 pandemic. The accident data presented covers 3 years and 10 months.

4.2 Road traffic collision records have been obtained from SCC and from WCC. The study area comprises the two Pennine Way/ A5 roundabouts, the A5 from Pennine Way to the A5/ Dordon roundabout and includes the M42 Jn10 and proposed site access location.

4.3 Summary details of the accidents are given below (from west to east), and copies of the collision records are attached in Appendix F and include accident location plans. It should be noted that WCC's records do not specify the factors involved in the accident, so this information is interpreted from the incident descriptions where possible.

Pennine Way Roundabouts & Slip Road to the A5.

4.4 In the assessment period 6 accidents were reported at the Pennine Way roundabouts and slip roads to the A5 Fazeley-Two Gates-Wilnecote Bypass. The accidents are summarised in Table 4.1 below. Of the 6 accidents, 2 occurred at the Pennine Way South roundabout, 2 at the Pennine Way north roundabout, and 2 occurred at the Pennine Way/ A5 slip roads. There were no accidents at the other locations, such as the Pennine Way overbridge.

Table 4.1: Pennine Way Roundabouts and A5 Bypass up to Junction 10

Reference/ Date	Location	Lighting	Dry/ Wet	Severity	Casualties
Pennine Way South Roundabout					
18322469 02/07/18	On roundabout near junction with Centurion Way	Daylight	Dry	Slight	1 cyclist and 1 car driver
A car and a bicycle have been traveling in the same direction (from A5 slip on southeast to Quarry Hill) entering the roundabout. The cyclist has unexpectedly entered the carriageway from the footway, to go ahead and the car failed to stop in time and collided with the cyclist, causing slight injury. Factors: Illegal turn or direction of travel, Cyclist entering road from pavement.					
18338615 25/09/18	On roundabout near junction with Centurion Way	Daylight	Dry	Slight	1 car driver
Two cars were traveling in the same direction (north-east Pennine Way north roundabout to Quarry Hill north-west) and one of the vehicles stopped mid turn. The rear car failed to stop in time and caused a collision. Factors: Failed to look properly.					

Pennine Way North Roundabout					
221139087 21/01/22	Approx. 60m from Pennine North Roundabout, at junction with Pennymore Road	Daylight	Dry	Slight	1 car driver
A car was turning left out of Pennymoor Road onto Pennine Way heading south and has misjudged the speed of a goods vehicles heading northbound along Pennine Way. The two vehicles have collided. Factors: N/A					
221195045 11/04/22	At Pennine North Roundabout near A5 slip on	Daylight	Dry	Slight	1 car driver
A car was heading onto the A5 slip road from Pennine Way (North) when another car also heading to the A5 slip road from the south west entered the roundabout and collided. Factors: Following too close, Sudden braking					
A5/ Pennine Way Slips					
19868172 18/07/2019	On A5 north-east bound at off slip junction	Daylight	Dry	Slight	1 motorcyclist
A motorcyclist was traveling northwest along A5. For unknown/ unrecorded reasons, the rider has sustained a slight injury. Factors: Dazzling sun, Swerved.					
18299447 21/04/18	On Slip towards roundabout, approx. 20m from roundabout.	Daylight	Wet/ Damp	Slight	1 car driver
A car driver was heading westbound along the slip road onto the south Pennine Way roundabout, and has lost control of the vehicle and crashed. Factors: Poor turn or manoeuvre, Sudden braking, Loss of control					

4.5 The number of accidents reported at the two Pennine Way roundabouts and the A5 slip roads is low. There are no particular clusters or common factors, and the report descriptions describe driver or cyclist error rather than poor junction design.

M42 Junction 10 Interchange

4.6 In the assessment period 28 accidents were reported at the M42 Jn10 interchange and its approach roads. The accidents are summarised in Table 4.2 below. In the table the accidents have been grouped by approach arm and the adjacent section of the circulatory carriageway.

Table 4.2: M42 Junction 10 Interchange

<table>
<tr><th>Reference/ Date</th><th>Location</th><th>Lighting</th><th>Dry/ Wet</th><th>Severity</th><th>Casualties</th></tr>
<tr><td colspan="6">A5 West and Circulatory c/w</td></tr>
<tr><td>19400169
28/05/2019</td><td>A5 north -west arm on north-west bound side</td><td>Daylight</td><td>Dry</td><td>Slight</td><td>1 motorcyclist</td></tr>
<tr><td colspan="6">A motorcyclist heading north west from the interchange has, for unclear reasons, suffered a slight injury. Factors, Dazzling sun.</td></tr>
<tr><td>19887971
07/09/2019</td><td>From A5 north west heading towards interchange</td><td>Daylight</td><td>Dry</td><td>Slight</td><td>1 car passenger</td></tr>
<tr><td colspan="6">It is not clear from the accident record, but it is presumed that a car has failed to stop in time and collided with a stationary car waiting on the A5 south eastbound to join the interchange.
Factors: Following too closely, Failed to look properly, failed to judge other persons path or speed.</td></tr>
<tr><td>221241676
09/11/22</td><td>A5 north west arm on north east bound side</td><td>Darkness - Street Lit</td><td>Dry</td><td>Slight</td><td>1 car driver</td></tr>
<tr><td colspan="6">A car heading north west from the interchange along the a5 has failed to stop in time and collided with the rear of another car. Factors: N/A</td></tr>
<tr><td>901455
12/10/19</td><td>A5 north west arm on eastbound side</td><td>Daylight</td><td>Wet/ Damp</td><td>Slight</td><td>4 casualties</td></tr>
<tr><td colspan="6">A car was waiting at the traffic lights waiting to join the circulatory when another car has failed to stop in time and collided with the rear of the stationary car</td></tr>
<tr><td colspan="6">Green Lane and circulatory c/w</td></tr>
<tr><td>845291
04/04/19</td><td>On circulatory near junction with Green Lane</td><td>Daylight</td><td>We/Damp</td><td>Slight</td><td>1 casualty</td></tr>
<tr><td colspan="6">A car changed lanes last moment to try and avoid traffic, causing a car behind to brake suddenly. This has caused a moped behind the braking car to collide with the rear of the braking car.</td></tr>
<tr><td>296034
13/05/18</td><td>A5 north west arm on eastbound side</td><td>Daylight</td><td>Dry</td><td>Serious</td><td>2 casualties</td></tr>
<tr><td colspan="6">A car was waiting at the traffic lights to the roundabout from Tamworth. When the car has attempted to move forward it has stalled. A car in the queue behind the stalled car has gone to maneuver into the offside lane and overtake the queue of traffic caused by the stalled car, and when attempting to move back into the nearside lane to use the M42 slip road, has traveled into the path of an ongoing vehicle and collided.</td></tr>
<tr><td colspan="6">M42 Northbound on-slip and mainline</td></tr>
<tr><td>283565
03/04/18</td><td>On M42 northbound</td><td>Daylight</td><td>Dry</td><td>Slight</td><td>1 casualty</td></tr>
<tr><td colspan="6">Approaching the M42 roundabout on-slip merge, a car has braked causing a HGV behind to collide with the rear of the braking car.</td></tr>
<tr><td>1197723
08/07/22</td><td>At M42 on-slip merge</td><td>Daylight</td><td>Dry</td><td>Serious</td><td>2 casualties</td></tr>
</table>

A car was traveling along the on-slip onto the M42. The car fails to judge the distance of an oncoming HGV along the M42. The HGV collides with the rear of the car when the car moves over into the main flow traffic.					
1160685 26/03/22	At M42 just after on-slip merge	Daylight	Dry	Slight	1 casualty
A dog was loose on the M42 causing a build up of traffic. A car has picked up speed in the queueing but had to slow down again. Another car behind has failed to slow in time and collided with the rear of the slowing car.					
M42 Southbound off slip and mainline					
298660 02/06/18	At traffic lights at off-slip onto roundabout	Daylight	Dry	slight	2 casualties
A car has failed to brake in time and collided with a car waiting at the traffic lights.					
323746 01/09/19	At traffic lights at off-slip at roundabout	Daylight	Dry	slight	2 casualties
An ambulance is going around the roundabout on the circulatory with sirens on. A car traveling around the roundabout moved and slowed to allow the ambulance to pass, however a car traveling behind has not braked in time and collided with the rear of the slowing car.					
A5 East and circulatory c/w					
1356753 23/09/23	At junction with Watling Street	Daylight	Dry	Serious	1 casualty
A motorcycle and a car were traveling on the roundabout heading south east. The motorcyclist became frustrated at how near the car is traveling along side them, and decided to punch the wing mirror.					
861055 23/07/19	At junction with Watling Street	Daylight	Dry	Slight	2 casualties
Two motorcyclists were traveling around the roundabout and both gone to leave at the Watling Street exit. When leaving the roundabouts, the riders have collided causing them both to fall from the motorbikes.					
297756 18/0/18	A5 near junction with roundabout	Darkness – Street lit	Dry	Slight	2 casualties
Two cars have been approaching the roundabout from the east, when the rear car has failed to stop in time, and collided with the rear of the car in front. The car which collided with the rear of the car fled the scene.					
1176610 12/05/22	A5 near junction with roundabout	Daylight	Dry	Slight	2 casualties
Approaching the roundabout from the A5, a car has been intending to go straight ahead in the middle lane. A goods vehicle has veered across from the left and collided with the car and has then failed to stop.					
340418 29/10/18	A5 near junction with roundabout	Daylight	Wet/Damp	Slight	1 casualty
A car is stationary in traffic when another car fails to stop in time and collides with the rear of the stationary car					
869960 24/05/19	A5 near junction with roundabout	Daylight	Fine	Serious	1 casualty
A motorbike was filtering through traffic and was heading towards the traffic lights (which were not working at the time with signs showing this) The biker has then stopped at the stop line, but has been hit from behind from a car causing injury to the rider.					

Trinity Way and circulatory					
863408 12/07/19	On circulatory next to Trinity Way arm	Daylight	Fine	Slight	1 casualty
A car was traveling in lane 1 of the roundabout towards the south on slip, when the car has veered out of lane 1 and into lane 2 where another car was already going around the circulatory. The car veering into the second lane has caused a collision.					
815904 06/02/19	On circulatory next to Trinity Way arm	Dark – Street lit	Wet / Damp	Slight	1 bicyclist
A bicyclist was cycling around the roundabout when a goods vehicle has veered into the path of the cyclist and bumped their arm.					
831674 06/02/19	On circulatory next to Trinity Way arm	Dark – Street Lit	Dry	Slight	1 bicyclist
A bicyclist has been traveling on the A5 towards the roundabout junction. Crossing the roundabout, the cyclist has been struck by a recovery vehicle and has caused a collision injuring the cyclist.					
298692 25/05/18	On Trinity Way arm near roundabout	Daylight	Dry	Slight	3 casualties
A car has existed the M42 and driven onto Trinity Way, and on the gradual right hand bend, the driver has decided to change into the opposite lane and collided head on with an oncoming vehicle.					
M42 Southbound on-slip and mainline					
316792 14/07/18	On southbound on slip	Dark – Street lit	Dry	Slight	2 casualties
A HGV has taken the M42 slip road towards the south however has cut across a car heading in the same direction, collided, and caused the car to spin around.					
1271765 25/01/23	On M42 southbound	Daylight	Dry	Slight	2 casualties
A van was traveling southbound on the M42 and has failed to stop in time and collided with slowing traffic. The collision has caused a domino effect with multiple collisions.					
1234610 22/10/22	On M42 southbound	Daylight	Wet/Damp	Slight	3 casualties
A car was heading southbound on the M42 and has lost control of the vehicle, potentially due to aquaplaning and hit another vehicle, and has flipped onto its roof as a result of the collision.					
M42 Northbound off-slip and mainline					
288480 28/04/18	On M42 just past off slip diverge to roundabout	Daylight	Wet/ Damp	Slight	1 casualty
A car was traveling northbound on the M42 and has aquaplaned on water, causing the vehicle to collide with the central reserve barrier before rebounding across the carriageway and colliding with another barrier.					
1189699 18/06/22	On M42 just past off slip diverge to roundabout	Daylight	Wet/Damp	Slight	1 casualty
Another road traffic accident has caused a queue on the motorway. A car has failed to stop in time and collided with the rear of a vehicle.					

1190478 18/06/22	On M42 northbound	Daylight	Wet/Damp	Slight	1 casualty
A car was traveling northbound on the M42 and has aquaplaned on water, lost control of the vehicle, and collided with the central barrier.					
400169 28/05/19	On off-slip with junction with roundabout	Daylight	Dry	Slight	1 casualty
A rider has existed the island from the M42 onto the A5 and the low sun has caused a lack of visibility. The rider has lost control of the motorcycle, collided with a junction marker, and fell off the motorcycle.					

4.7 Four of the 28 accidents at M42 Jn10 resulted in serious injury with the remaining 34 resulting in slight injury. Five accidents occurred during the hours of darkness; the proportion of these accident types is not sufficiently high to be a cause for concern. In eight accidents, a wet/ damp road was recorded, that is 29%, however there were no common locations. Nine of the 28 accidents occurred on the circulatory carriageway but occurred at a range of different locations across the interchange, two occurred near to Green Lane and four occurred between the M42 southbound off slip and exit to A5 east. At the A5 eastern arm four accidents were reported.

4.8 Two cycle accidents were reported in the study period, both traveling on the circulatory and have been struck by a vehicle, potentially as a result of vehicle drivers not looking properly rather than junction design.

4.9 The main causes of accidents appear to be driver error: a vehicle pulling into the path of another vehicle and rear end shunts and changing lanes. These occurred at a number of different locations. The number and type of accidents are typical at a large grade separated junction, which carry high volumes of daily traffic.

A5 between M42 Junction 10 and A5/Core 42

4.10 In the assessment period seven accidents were reported on the A5 between the M42 Jn10 and A5/Core 42 junction. This section includes the traffic signal junction for Birch Coppice as well as several other minor accesses. The accident data is summarised in Table 4.3 below. For ease of reference, accidents have been grouped as involving either eastbound or westbound traffic.

Table 4.3: A5 between M42 Junction 10 and Core 42

Reference/ Date	Location	Lighting	Dry/ Wet	Severity	Casualties
A5 Eastbound					
1257748 23/12/22	A5 at Danny Morson Way	Dark – Street lit	Wet/Damp	Slight	1 casualty
Two cars were traveling in opposite directions along the A5. One of the vehicles has gone through a red light, and crossed into the path of the other car, causing a collision.					
274607 01/03/18	A5 at Danny Morson Way	Dark – Street lit	Frost/ Ice	Slight	1 casualty
A car was traveling along the A5 and approaching the traffic lights. At the same time, while the traffic lights were still on green for vehicles, a pedestrian cyclist has gone to cross the road and the car has failed to stop in time, causing a collision.					
1265189 18/01/23	A5 at Danny Morson Way	Dark – Street lit	Wet/Damp	Serious	1 casualty
A cyclist was traveling eastbound from the roundabout, and a car has also been traveling in the same direction behind the cyclist. At the lights, the cyclist has intended to turn right into the industrial estate, but has gone across the eastbound traffic, and into the path of a car.					
A5 Westbound					
1175238 28/04/22	Watling Street A5	Daylight	Dry	Serious	1 casualty
Two cars were heading towards the [M42 Jn10] roundabout. Attempting to move into the offside lane, the ahead car slows down, however the following car does not stop in time and collides with the rear of the vehicle.					
312805 06/07/18	Watling Street A5	Daylight	Dry	Serious	2 casualties
A car has been on the inside lane on the A5 heading westbound towards the [M42 Jn10] roundabout. Another vehicle has been in the offside lane going past. The vehicle in the inside lane has intended to move into the offside lane, but has not seen the other car going past and they have collided.					
1149096 28/02/22	Near Danny Morson Way	Daylight	Wet/Damp	Slight	1 casualty
Two cars heading westbound along the A5 come up to the traffic lights at Danny Morson Way. The front car slows down however the rear car failed to stop in time and causes a collision with the slowing car.					

4.11 The number of accidents reported on this 1.3km section of the A5 including 2 signal controlled junctions is low. There were no accidents at the A5/ Core 42 junction.

4.12 In the eastbound direction the three accidents occurred at the A5/ Danny Morson Way, the Birch Coppice junction. All three accidents occurred during the hours of darkness, and wet/ damp or frosty road surface conditions were noted in all accidents. It is suggested that NH review the lighting and road surface conditions for eastbound traffic at this junction.

4.13 In the westbound direction there are two accidents approaching M42 Jn10, but are reasonably well separated and of different types, and 1 accident on the approach to the A5/ Danny Morson Way junction. Two of the accidents resulted in serious injuries and 1 in a slight injury.

4.14 In the westbound direction there are no particular clusters or common factors. The main factors appear to be misjudgement rather than highway design.

A5 from A5/ Core 42 to approximately 200m east of Dordon Roundabout

4.15 This section of the A5 commences to the east of the A5/ Core 42 junction and ends at a point some 200m to the east of Dordon Roundabout. This section includes Dordon Roundabout as well as a number of minor junctions and accesses.

4.16 In the assessment period four accidents were reported on this section of the A5 from east of Core 42 junction to the east of the Dordon Roundabout. The accident data is summarised in Table 4.4 below. For ease of reference, accidents have been grouped as occurring either west, at, or east of Dordon Roundabout.

Table 4.4: East of Core 42 junction to approximately 200m east of Dordon Roundabout

<table>
<tr><th>Reference/ Date</th><th>Location</th><th>Lighting</th><th>Dry/ Wet</th><th>Severity</th><th>Casualties</th></tr>
<tr><td colspan="6">A5 West of Dordon Roundabout</td></tr>
<tr><td>324359
24/07/18</td><td>Near to Vicarage Close</td><td>Daylight</td><td>Dry</td><td>Slight</td><td>1 casualty</td></tr>
<tr><td colspan="6">A car has been heading towards the M42 roundabout but decided to turn around at the gap in the central reservation opposite Vicarage Close. The driver has done this without regard for another car coming the other way which then had to take evasive action to avoid the turning vehicles. The cars did not collide but the car heading eastbound hit the kerb resulting in a damaged wheel and exhaust.</td></tr>
<tr><td colspan="6">At Dordon Roundabout</td></tr>
<tr><td>1249150
01/12/22</td><td>Long St nr junction with Watling St</td><td>Darkness – Street Lit</td><td>Dry</td><td>Slight</td><td>2 casualties</td></tr>
<tr><td colspan="6">A car has been waiting to use the roundabout at the north arm, when another car has failed to stop in time and collided with the rear of the stopped vehicle.</td></tr>
<tr><td colspan="6">A5 East of Dordon Roundabout</td></tr>
<tr><td>326291
09/09/18</td><td>Watling Street A5</td><td>Daylight</td><td>Dry</td><td>Slight</td><td>2 casualties</td></tr>
<tr><td colspan="6">Two cars have been traveling in slow moving traffic. When the front car has slowed to approach the roundabout, the rear vehicle has failed to stop in time and collided with the rear of the slowing vehicle.</td></tr>
<tr><td>845299
30/05/19</td><td>Watling Street A5</td><td>Daylight</td><td>Dry</td><td>Slight</td><td>2 casualties</td></tr>
<tr><td colspan="6">A car was stationary waiting to turn towards Dordon. The car misjudged the turn, clipped a stationary car causing it to flip onto its side.</td></tr>
</table>

4.17 The number of accidents reported on this section of the A5 from east of Core 42 junction to the east of the Dordon Roundabout is low. There are no particular clusters or common factors, and the report descriptions describe driver error rather than poor junction design.

Summary

4.18 The accident records between 1 January 2018 and 23 September 2023, excluding 2020 and 2021, have been assessed for the study area which comprising the two Pennine Way/ A5 roundabouts, the A5 from Pennine Way to the A5/ Dordon roundabout, and including M42 Jn10, A5/ Danny Morson Way and A5/ Core 42 junction. The data was provided by SCC and WCC.

4.19 The assessment has shown there were:

- 6 accidents on the two Pennine Way roundabouts and the A5 slip roads. There were no significant clusters and contributory factors appear to be driver error rather than inadequate highway design.
- 28 accidents occurred at M42 Jn10 or on the approach roads. There were no significant clusters and contributory factors appear to be driver error rather than inadequate highway design.
- 6 accidents on the A5 east of Jn10 up to and including A5/ Core 42 junction. There was a cluster of 3 accidents all of which occurred on the eastbound carriageway at the A5/ Danny Morson Way (Birch Coppice) junction. All three accidents occurred in the dark and on a wet/ damp or icy road surface. It is considered that NH should review the lighting and road surface at this location. There were no significant clusters on the westbound carriageway and contributory factors appear to be driver error rather than inadequate highway design.
- 4 accidents on the section of road from the east of the A5/ Core 42 junction, to approximately 200m east of the Dordon roundabout, including Dordon Roundabout and the Long Street and Gypsy Lane approaches. There were no clusters of accidents or common factors, and the accidents could be attributed to driver error rather than junction design.

4.20 It can be concluded that the road network operates within acceptable levels of road safety and that mitigation measures for safety reasons as a result of development are not required. It is considered that NH should review the lighting at the A5/ Danny Morson Way junction.

4.21 The proposed highway improvements discussed at Chapter 5 below (A5 speed limit reduced to 50mph, improved pedestrian/ cycle facilities and crossings offer a safety betterment to all road users. It is therefore expected that the increase in traffic due to the proposed development will not pose an unacceptable highway safety risk, and there may be some betterment to some use classes.

5.0 OPERATIONAL ASSESSMENT

Background

5.1 There have been extensive discussions on highway matters with NH, WCC and SCC through regular meetings facilitated by NWBC.

5.2 The extent of the assessment agreed with NH, WCC and SCC comprises the following junctions:

B5080 Pennine Way North/ A5 Eastbound on/ off slip road, 3-arm roundabout junction

B5080 Pennine Way South/ A5 Westbound on/ off slip road/ Centurion Way/ Quarry Hill, 4-arm roundabout junction

M42 Junction 10, 6-arm grade-separated signalised interchange

A5/ Proposed site access, 3-arm signalised junction

A5/ Danny Morson Way (Birch Coppice), 4-arm signalised junction

A5/ Meridian Drive (Core 42), 3-arm signalised junction

A5/ Long Street/ Gypsy Lane, 4-arm roundabout (Dordon Roundabout)

5.3 A Consolidated Modelling Strategy Note, dated 7 June 2023 was approved by WCC in July 2023. NH and SCC provided some minor comments to the Note, therefore a v2 Consolidated Modelling Strategy Note, dated 1 November 2023 was submitted and has been approved by SCC and NH. A copy is attached at Appendix G. As set out in the v2 Consolidated Modelling note, based on previous modelling work undertaken in 2022, it has been agreed that impacts of the proposed development requires a mitigation scheme at Junction 10 to address increases in queues and delays. The proposed mitigation scheme also provides foot/ cycle improvements. Because the need for mitigation has already been accepted, the analysis in this TAA does not include an assessment of the With Development traffic flows on the existing network. The With Development assessments all include the Junction 10 improvement scheme shown at TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0001 Rev P04 attached in Appendix C3.

2023 Baseline TRANSYT 16 Model

5.4 A TRANSYT 16 model of the road network and junctions listed above was prepared following the methodology in the Consolidated Modelling Strategy Note. Using the July 2023 traffic survey data a validated model was prepared. The model validation was reported in the TRANSYT 2023 Baseline Validation Report, dated 21 August 2023. The report and model was submitted to NH, SCC and WCC. On 21st September, NH provided comments on the Validation report and TT produced a response to those comments, dated 9 October 2023. On 26 October 2023, NH confirmed that all matters had been addressed and closed, with the exception of the stage sequence, signal timings and frequency of the demand dependant stages at the A5/ Core 42 junction. TT provided a revised validated model and results to NH on 30th November, addressing the A5/ Core 42 alterations. At the time of writing a response is awaited from NH.

5.5 It is anticipated that the proposed changes to the A5/ Core 42 junction will be acceptable, therefore the changes have been made and updated modelling results (as issued on 30 November 2023) are attached at Table 5.1a in Appendix H. The updated validation model results are summarised below.

2023 AM Peak Summary Results

5.6 The Pennine Way roundabouts validate well, with most queuing observed on the Pennine Way North arm with an observed average queue of 5pcu and the modelled queue is 4pcu. The modelled queues are very similar to those observed on all approaches at the two roundabouts.

5.7 The most notable queues and delays are experienced on the A5 eastbound approach to the M42 Jn10 with the queue extending west beyond the Pennine Way overbridge for about half of the peak hour period. The majority of traffic is in the nearside lane in order to be in the correct lane at the stop line for circulating the roundabout. The modelled queues in the nearside lane are similar to those observed (63pcu vs 47pcu respectively) whilst the offside lane modelled queue is also more than the observed queue (46pcu vs 32cpu respectively). The observed average queue on the eastbound merge lane is 4pcu and the modelled queue is 9pcu. Upon review of the videos the queue on the slip road is predominantly a moving queue and thus the recorded queue is under reported. The modelled queues presented at Table 5.1a in Appendix H are considered a fair representation of the existing conditions.

5.8 All other approaches and circulatory lanes on Junction 10 validate well and have modelled queues which are a reasonable match to the observed. There are instances in the model when the queuing does extend back momentarily from one stop line to the upstream junction, slightly affecting the performance of the upstream link, and this is considered an accurate representation of on-street conditions based upon review of the survey videos.

5.9 The A5/ Birch Coppice junction validates well with most queueing on the westbound approaches. The modelled queues are considered a good match to the observed queues.

5.10 Likewise the A5/ Core 42 junction validates well, and the modelled queues are considered a good match to the observed queues. Whilst the modelled queues validate well against observed, the delays in the model for the Core 42 right turn to the A5 eastbound are notably higher. This results from the infrequent call of Core 42 right turn stage as observed on site (13% in the AM peak, i.e., once every 8 cycles on average). In the TRANSYT model the stage frequency is averaged across the hour, as is the traffic flow leading the longer delays. In reality the A5/ Core 42 signals are vehicle actuated and when a vehicle is detected the Core 42 stage is called and the actual delays are much less.

5.11 The A5/ Dordon roundabout validates well with the modelled queues closely matching the observed.

5.12 The 2023 AM peak model is considered a good base to use and amend for the future 2026/ 2033 Reference Case and 2033 Local Plan scenarios.

2023 PM Peak Summary Results

5.13 The Pennine Way roundabouts validate well with the most queuing observed on the Quarry Hill approach with a queue of 6pcu and the modelled queue is also 6pcu. The modelled queues are very similar to those observed on all approaches at the two roundabouts.

5.14 The PM peak operates in a similar manner to the AM peak with the most notable queues and delays experienced on the M42 Jn10 northbound off slip, the two circulating lanes at the south overbridge. The M42 northbound off-slip has an average observed queue of 15pcu in the nearside lane and the model reflects this with a queue of 18pcu. The M42 northbound nearside circulating lane has a modelled queue of 24pcu, longer than the observed average queue of 16pcu, whilst the offside circulating lane has a modelled queue of 15pcu and the observed average queue of 14pcu. Although the modelled queue is longer on the nearside lane it is considered reasonable to retain.

5.15 There was also some queueing on the A5 eastbound approach to the M42 Jn10, although much less than in the AM peak hour. The modelled queues are similar to those observed and it is considered a fair representation of the existing conditions. For consistency, the correction made to the eastbound merge from Pennine Way was also applied to the PM peak hour and resulted in a close match between the observed and modelled queue.

5.16 On all the other approaches and circulatory lanes at M42 Jn10 the lanes validate well, and the modelled queues are considered a good match with the observed. There are instances in the model when the queuing momentarily extends back from one stop line to the previous, slightly affecting the performance of the upstream junction and this is considered accurate upon observation of the survey videos.

5.17 The A5/ Birch Coppice junction validates well with most queueing on the westbound approaches. The modelled queues are considered a good match to the observed queues. As expected, there is slightly more queuing on the Birch Coppice exit approach as a result of the workforce finishing for the day.

5.18 Likewise the A5/ Core 42 junction validates well, and the modelled queues are considered a good match to the observed queues. As noted above, the modelled delays for the Core 42 right turn to the A5 eastbound are higher, and results for the infrequent call of Core 42 right turn stage, 24% in the PM, i.e., once every 4 cycles.

5.19 The A5/ Dordon roundabout validates well with the modelled queues closely matching the observed.

5.20 The 2023 PM peak model is considered a good base to use and amend for the future 2026/ 2033 Reference Case and 2033 Local Plan scenarios.

Further Validation Adjustment

5.21 When assessing the 2033 Reference Case assessments, particularly in the No Development scenarios (see further below), the validated model produced very long queues on the Pennine Way North arm and upon closer inspection, these stem from the initial validation of this approach.

5.22 Our initial validation reduced the intercept of this approach to 630pcu/hr, so that the modelled queues equalled the average observed queue of 5pcu. However, this did not take into account the effect of blocking back from the A5 slip road which results in longer queues that would otherwise be the case with a free flow exit from the roundabout. Upon review of the survey video, it was clear that there was no blocking back from the slip road to the roundabout from 07:30 to 07:52 and 07:55 to 07:58. The average queue on Pennine Way North during this time period was only 1pcu in each lane. From 07:53 to 07:54 and 07:59 to 08:30 the queue from the slip road blocks back to the roundabout, blocking the exit and the average queue in the nearside lane was 9pcu and 2pcu in the offside lane. The average queue across the full hour was 5pcu in the nearside lane and 2pcu in the offside lane.

5.23 The 2023 baseline model was therefore adjusted by removing the intercept correction and reducing the capacity of the A5 eastbound on-slip to 1650pcu/hr so that the queues on Pennine Way North are generated by queuing back from the A5 eastbound slip road. As discussed above, the queueing back predominantly occurs from 08:00 to 08:30 and the model (watching the simulation video) now shows queuing back from 08:05 to 08:30, replicating the observed operating conditions well. The average modelled queue over the AM peak hour is 5pcu, the same as the observed, but now more accurately reflect the on-street situation.

5.24 Image 5.1 below shows the typical queueing on the Pennine Way North roundabout and A5 eastbound on-slip between 07:30 to 08:00 when blocking back does not occur and Image 5.2 shows the typical queueing situation between 08:00 to 08:30 when blocking back occurs.

Image 5.1 – 2023 AM Peak TRANSYT Queue Simulation at 07:50.

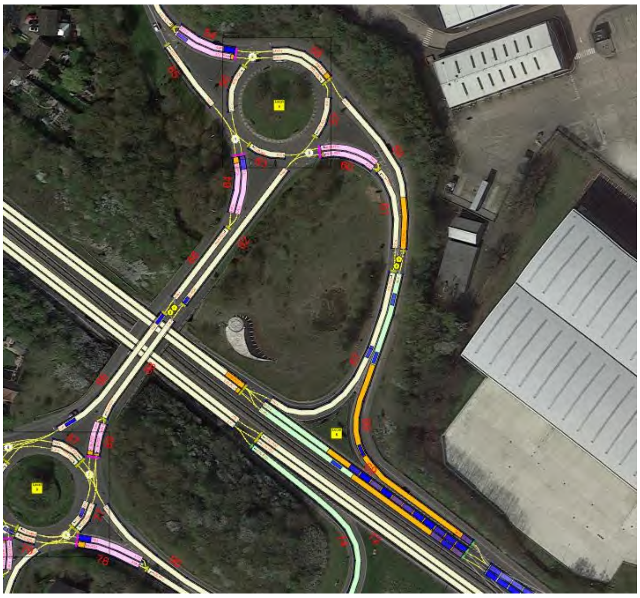
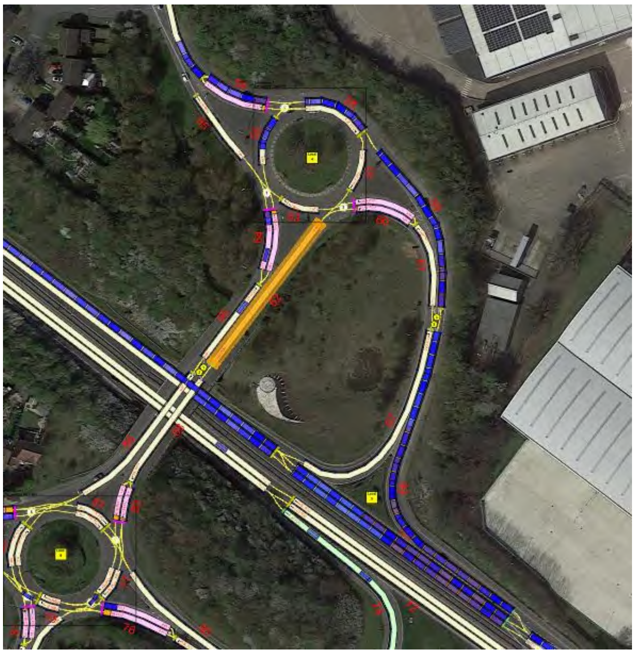


Image 5.2 – 2023 AM Peak TRANSYT Queue Simulation at 07:50.



5.25 Table 5.1b attached in Appendix H shows the updated 2023 revised validated model results. The further adjustment of the Pennine Way north approach and A5 eastbound on-slip has been carried through to the Reference case and Local Plan assessments set out below.

2026 Reference Case TRANSYT 16 Model

5.26 The v2 Consolidated Modelling Strategy Note at Appendix G sets out the derivation of the 2026 Reference Case flows in detail. The 2023 AM and PM peak surveyed flows have been factored to 2026 by applying the agreed traffic growth factors of 1.008 and 1.0079 respectively. For ease of reference the 2023 AM and PM peak surveyed flows are shown at Figures 1 and 2 attached in Appendix I and the 2026 AM and PM peak baseline Reference Case traffic flows are shown at Figures 3 and 4 respectively in Appendix I.

5.27 The committed development flows in 2026 have been extracted from the v2 Consolidated Modelling Strategy Note and for ease of reference Figure 5 attached in Appendix I shows the 2026 AM Peak committed flows and Figure 6 shows the PM peak equivalent. The committed development flows have been added to the 2026 Reference Case baseline flows to generate the 2026 AM Peak Reference Case No Development flows as shown at Figure 7 in Appendix I and the PM peak equivalent are shown at Figure 8.

5.28 The proposed development flows have been extracted from the v2 Consolidated Modelling Strategy Note and for ease of reference Figure 9 attached in Appendix I shows the AM Peak development generated flows and Figure 10 shows the PM peak equivalent. The proposed development flows have been added to the 2026 Reference Case No Development flows to generate the 2026 AM Peak Reference Case With Development flows as shown at Figure 11 in Appendix I and the PM peak equivalent are shown at Figure 12.

5.29 The No Development TRANSYT assessment uses the existing highway arrangements and is based on the 2023 validated model including the further adjustment discussed above. The Lane Simulation feature in TRANSYT 16 cannot optimise the signal timings or lane allocations, therefore they have been manually adjusted to reduce the queueing and delays on the network as would be expected in reality due to the junctions operating on MOVA and drivers switching lanes to join the shortest queue.

5.30 The With Development model is based on the No Development model but with the inclusion of the proposed site access arrangement (TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0002-P02 in Appendix C1) and the M42 Junction 10 improvement scheme (TT Drawing 784-B033920-TTE-00-ZZ-SK-H-0001-P04 in Appendix C3). Through discussions with NH on the 2022 TRANSYT model it was agreed (email dated 26 July 2023 attached at Appendix A8) that the saturation flows used at the site access junction should be determined using RR67 calculated saturation flows together with a the a local factor derived from the RR67 and observed saturation flows at the nearby Birch Coppice junction. The local conversion factor which was applied to the RR77 saturation flows is 0.958.

5.31 Table 5.2 attached in Appendix J shows the tabulated results across the network in the No Development and With Development scenarios. For ease of identifying where the largest differences in queues and delays are between the two scenarios, the green highlighted cells in

Table 5.2 are where the impact of the development has a reduction in queue of 10pcu or more and/ or a reduction in delay of over 1 minute. The red highlighted cells are where the impact of the development results in an increase in queue of 10pcu or over and/ or an increase in delay of over 1 minute.

2026 AM Peak Reference Case Summary Results

5.32 At the Pennine Way North junction, the longest queue in the No Development scenario is 2pcu on the Pennine Way North approach. With the addition of the development generated traffic the queues and delays are very similar, with the longest queue of 1pcu on the same approach.

5.33 At the Pennine Way South junction, the longest queue in the No Development scenario is 1pcu on the Quarry Hill approach. With the addition of the development generated traffic the queues and delays are very similar, with the longest queue of 1pcu on the same approach.

5.34 With the proposed Junction 10 mitigation in place and the additional development generated traffic, the queue on the A5 eastbound on-slip merge towards Junction 10 decreases from 12pcu to 0pcu and a reduction in delay of 32 seconds. The A5 eastbound queue at Junction 10 significantly reduces from 28pcu to 5pcu in the nearside and offside lanes whilst the delay also decreases by over 2 minutes per lane. It should be noted that the No Development queue and delays on the A5 eastbound are shorter than in the 2023 results. This is because the signal timings have been manually adjusted to make the junction perform more efficiently, which could be carried out by NH in the future.

5.35 The nearside M42 northbound circulatory lane sees a reduction in queue from 15pcu to 3pcu with a 2 second reduction in delay.

5.36 At the site access junction, the longest predicted queue on the A5 eastbound approach (queue extending back towards Junction 10) is 7pcu. A forward SSD visibility of 160m to the back of this queue is readily achievable as shown at TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0012-P01 in Appendix C. Note that this drawing shows a 160m visibility to the back of a 17pcu queue, which is the longest modelled queue, from the 2033 PM Peak Local Plan scenario (see further below).

5.37 At the A5/ Birch Coppice junction the longest queue in the No Development scenario is 11pcu on the westbound approach (lane 3) whilst the longest delay is 1 minute 15 seconds on the A5 eastbound offside right turn lane. With the addition of the development generated traffic the queues and delays are very similar, with the longest queue of 12pcu on the A5 eastbound right turn and the delay increases by 43 seconds to 1 minute 58 seconds on this lane.

5.38 At the A5/ Core 42 junction the longest queue in the No Development is 8pcu on the westbound approach (lane 1) whilst the longest delay is 7 minutes 56 seconds at the right turn lane coming out of Core 42. As discussed at para 5.10 above, This results from the infrequent call of Core 42 stage as observed on site and that the TRANSYT model uses the average stage frequency and the average flows across the peak hour. In reality the A5/ Core 42 signals are vehicle actuated and the delays are much less. With the addition of the development generated traffic the queues and delays are very similar, with a longest queue of 8pcu on the westbound approach (lane 1) whilst the longest delay is 7 minutes 8 seconds at the right turn lane coming out of Core 42.

5.39 At the A5/ Dordon roundabout junction the longest queue in the No Development scenario is 5pcu on the westbound approach (lane 1) whilst the longest delay is 33 seconds on Long Street. With the addition of the development generated traffic the queues and delays are very similar, with a longest queue of 8pcu on the westbound approach (lane 1) whilst the longest delay is 37 seconds on Long Street.

2026 PM Peak Reference Case Summary Results

5.40 At the Pennine Way North junction, the longest queue in the No Development scenario is 4pcu on the Northbound overbridge approach. With the addition of the development generated traffic the queues and delays are very similar, with a longest queue of 3pcu on the same approach.

5.41 At the Pennine Way South junction, the longest queue in the No Development situation is 8pcu on the Quarry Hill approach. With the addition of the development generated traffic the queues and delays are very similar, with the longest queue of 9pcu on the same approach.

5.42 In the PM peak it is only the M42 southbound circulating nearside lane which has an increase of over 10pcu queue (4 to 15), however the delay only increases by 2 seconds, from 7 to 9 seconds.

5.43 At the site access junction, the longest predicted queue on the A5 eastbound approach (queue extending back to Junction 10) is 11pcu. A forward SSD visibility of 160m to the back of this queue is readily achievable as shown at TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0012-P01 in Appendix C which shows the SSD to the back of a 17pcu queue.

5.44 At the A5/ Birch Coppice junction the longest queue in the No Development scenario is 18pcu on the westbound approach (lane 2) whilst the longest delay is 1 minute on the same lane. With the addition of the development generated traffic the queues and delays are very similar, with the longest queue of 15pcu on westbound approach (lane 2) with the longest delay of 1 minute 6 seconds on the offside westbound approach (lane 3)

5.45 At the A5/ Core 42 junction the longest queue in the No Development situation is 5pcu on the westbound approach (lane 1) whilst the longest delay is 3 minutes 58 seconds at the right turn lane coming out of Core 42. As above, this long delay results from the way TRANSYT models infrequently called stages. With the addition of the development generated traffic the queues and delays are very similar, with a longest queue of 5pcu on the westbound approach (lane 1) whilst the longest delay is 3 minutes 57 seconds at the right turn lane coming out of Core 42.

5.46 At the A5/ Dordon roundabout junction the longest queue in the No Development scenario is 6pcu on the eastbound approach (lane 1) whilst the longest delay is 36 seconds on Long Street. With the addition of the development generated traffic the queues and delays are very similar, with a longest queue of 13pcu on the eastbound approach (lane 1) whilst the longest delay is 37 seconds on Long Street.

2026 Reference Case Summary

5.47 It is clear that with the proposed Junction 10 improvements in place, together with the new site access and the development generated traffic that the performance of the network in 2026 is improved in the AM peak and is only marginally worse in the PM peak. The impacts from the development, with mitigation in place are not considered severe with reference to NPPF para 111 and no additional mitigation to that identified for the M42 Junction 10 is required.

2033 Reference Case TRANSYT 16 Model

5.48 The v2 Consolidated Modelling Strategy Note describes the derivation of the 2033 Reference Case flows in detail. The 2023 AM and PM peak surveyed flows have been factored to 2033 by applying the agreed growth factors of 1.0253 and 1.0246 respectively. For ease of reference the 2023 AM and PM peak surveyed flows are shown at Figures 1 and 2 attached in Appendix I and the 2033 AM and PM peak baseline Reference Case traffic flows are shown at Figures 13 and 14 respectively in Appendix I.

5.49 The committed development flows in 2033 have been extracted from the v2 Consolidated Modelling Strategy Note and for ease of reference Figure 15 attached in Appendix I shows the 2033 AM Peak committed flows and Figure 16 shows the PM peak equivalent. The committed development flows have been added to the 2033 Reference Case baseline flows to generate the 2033 AM Peak Reference Case No Development flows as shown at Figure 17 in Appendix I and the PM peak equivalent are shown at Figure 18.

5.50 The proposed development flows have been extracted from the v2 Consolidated Modelling Strategy Note and for ease of reference Figure 9 attached in Appendix I shows the AM Peak development generated flows and Figure 10 shows the PM peak equivalent. The proposed development flows have been added to the 2033 Reference Case No Development flows to generate the 2033 AM Peak Reference Case With Development flows as shown at Figure 19 in Appendix I and the PM peak equivalent are shown at Figure 20.

5.51 The With Development model includes the site access junction as described in para 5.30 above,

5.52 Table 5.3 attached in Appendix K shows the tabulated results across the network in the No Development and With Development scenarios.

2033 AM Peak Reference Case Summary Results

5.53 At the Pennine Way North junction, the longest queue in the No Development is 12pcu on the Pennine Way North approach with a delay of 1minute and 58 seconds. With the addition of the development generated traffic and Junction 10 improvement scheme, this queue is reduced to 2pcu with over a 1½ minute reduction in delay.

5.54 At the Pennine Way South junction, the longest queue in the No Development is 1pcu on the Quarry Hill approach. With the addition of the development generated traffic the queues and delays are very similar, with the longest queue of 1pcu on the same approach.

5.55 With the proposed Junction 10 mitigation in place and the additional development generated traffic, the queue on the A5 eastbound on-slip merge towards Junction 10 decreases from 28pcu to 0pcu and delay decreases by over 2 minutes.

5.56 The A5 eastbound queue at Junction 10 also significantly reduces from 46pcu to 7pcu in the nearside lane whilst the delay also decreases by 3 minutes. In the offside lane the queue decreases from 53pcu to 9pcu. As discussed above, it should be noted that the No Development queue and delays on the A5 eastbound are shorter than the 2023 results, that is because the signal timings have been manually adjusted to make the junction perform more efficiently, which could be carried out by NH in the future.

5.57 The nearside M42 northbound circulatory lane sees a reduction in queue from 16pcu to 3pcu.

5.58 At the site access junction, the longest predicted queue on the A5 eastbound approach (queue extending back to Junction 10) is 8pcu. A forward SSD visibility of 160m to the back of this queue is readily achievable as shown at TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0012-P01 in Appendix C which shows the SSD to the back of a 17pcu queue.

5.59 At the A5/ Birch Coppice junction the longest queue in the No Development is 11pcu on the westbound approach (lane3) whilst the longest delay is 1 minute 19 seconds on the A5 eastbound offside right turn lane. With the addition of the development generated traffic the queues and delays are very similar, with a longest queue of 15pcu on the A5 eastbound right turn and the longest delay of 1 minute 56 seconds also on this lane.

5.60 At the A5/ Core 42 junction the longest queue in the No Development is 7pcu on the westbound approach (lane 1) whilst the longest delay is 7 minutes 29 seconds at the right turn lane coming out of Core 42. With the addition of the development generated traffic the queues and delays are very similar, with a longest queue of 8pcu on the westbound approach (lane 1) whilst the longest delay is 7 minutes 12 seconds at the right turn lane coming out of Core 42. As above, this long delay results from the way TRANSYT models infrequently called stages.

5.61 At the A5/ Dordon roundabout junction the longest queue in the No Development is 9pcu on the westbound approach (lane 1) whilst the longest delay is 34 seconds on Long Street. With the addition of the development generated traffic the queues and delays are very similar, with a longest queue of 10pcu on the westbound approach (lane 1) whilst the longest delay is 42 seconds on Long Street.

2033 PM Peak Reference Case Summary Results

5.62 At the Pennine Way North junction, the longest queue in the No Development scenarios 4pcu on the Northbound overbridge approach. With the addition of the development generated traffic the queues and delays are very similar, with a longest queue of 5pcu on the same approach.

5.63 At the Pennine Way South junction, the longest queue in the No Development scenario is 15pcu on the A5 westbound off-slip approach. With the addition of the development generated traffic the queues and delays are very similar, with the longest queue of 18pcu on the Quarry Hill Lane approach (6pcu more than the No Development scenario) and a 30 second increase in delay.

5.64 In the PM peak it is only the M42 southbound circulating nearside lane which has an increase of over 10pcu queue (3 to 14), however the delay only increases by 2 seconds to to 9 seconds.

5.65 At the site access junction, the longest predicted queue on the A5 eastbound approach (queue extending back to Junction 10) is 11pcu. A forward SSD visibility of 160m to the back of this queue is readily achievable as shown at TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0012-P01 in Appendix C which shows the SSD to the back of a 17pcu queue.

5.66 At the A5/ Birch Coppice junction the longest queue in the No Development scenario is 21pcu on the westbound approach (lane 3) whilst the longest delay is 1 minute 20 seconds on the same lane. With the addition of the development generated traffic the queues and delays are very similar, with a longest queue of 23pcu on westbound approach (lane 2) with the longest delay of 1 minute 31 seconds on the same lane.

5.67 At the A5/ Core 42 junction the longest queue in the No Development is 6pcu on the A5 eastbound right turn (lane 3) whilst the longest delay is 4 minutes 12 seconds at the right turn lane coming out of Core 42. With the addition of the development generated traffic the queues and delays are very similar, with a longest queue of 6pcu on the same eastbound right turn (lane 3) whilst the longest delay is 4 minutes 16 seconds at the right turn lane coming out of Core 42. As above, this long delay on the right turn from Core 42 results from the way TRANSYT models infrequently called stages.

5.68 At the A5/ Dordon roundabout junction the longest queue in the No Development scenario is 7pcu on the eastbound approach (lane 1) whilst the longest delay is 38 seconds on Long Street. With the addition of the development generated traffic the queues and delays are very similar, with a longest queue of 15pcu on the eastbound approach (lane 1) whilst the longest delay is 40 seconds on Long Street.

2033 Reference Case Summary

5.69 It is clear that with the proposed Junction 10 improvements in place, together with the new site access and the development generated traffic that the performance of the network in 2033 is improved in the AM peak and is only marginally worse in the PM peak. The impacts from the development with mitigation in place are not considered severe with reference to NPPF para 111 and no additional mitigation to that identified for the M42 Junction 10 is required.

2033 Local Plan TRANSYT 16 Model

5.70 The v2 Consolidated Modelling Strategy Note discusses the derivation of the 2033 Local Plan flows in detail. The 2023 AM and PM peak surveyed flows have been factored to 2033 by applying the agreed growth factors of 1.0485 and 1.0481 respectively. For ease of reference the 2023 AM and PM peak surveyed flows are shown at Figures 1 and 2 attached in Appendix I and the 2033 AM and PM peak Local Plan baseline traffic flows are shown at Figures 21 and 22 respectively in Appendix I.

5.71 The committed development flows in 2033 have been extracted from the v2 Consolidated Modelling Strategy Note and for ease of reference Figure 15 attached in Appendix I shows the 2033 AM Peak committed flows and Figure 16 shows the PM peak equivalent. The total Local Plan Allocation flows in 2033 have been extracted from the v2 Consolidated Modelling Strategy Note and for ease of reference Figure 23 attached in Appendix I shows the 2033 AM Peak Local Plan development flows and Figure 24 shows the PM peak equivalent. The committed development flows and the total Local Plan flows have been added onto the 2033 Local Plan baseline flows to generate the 2033 Local Plan No Development flows. Figure 25 attached in Appendix I shows the AM peak flows and Figure 26 shows the PM peak equivalent.

5.72 The proposed development flows have been extracted from the v2 Consolidated Modelling Strategy Note and for ease of reference Figure 9 attached in Appendix I shows the AM Peak development generated flows and Figure 10 shows the PM peak equivalent. The proposed development flows have been added to the 2033 Local Plan No Development flows to generate the 2033 AM Peak Local Plan With Development flows as shown at Figure 27 in Appendix I and the PM peak equivalent are shown at Figure 28.

No Development Model

5.73 The 2033 Local Plan No Development TRANSYT assessment includes the associated Local Plan highway infrastructure and is based upon the 2023 validated model including the further adjustment at Pennine Way North discussed above.

M42 Junction 10

5.74 The Local Plan includes a mitigation scheme at Junction 10 as shown at Phil Jones Associates Drawing 02853-01 Rev A attached at Appendix L1. The Local Plan No Development TRANSYT model includes the coding of this arrangement.

A5/ Long Street/ Gypsy Lane (Dordon Roundabout)

5.75 The Dordon roundabout junction will be upgraded as part of the A5 Dordon to Atherstone project, and which was identified as ID6 in the North Warwickshire Infrastructure Delivery Plan, dated March 2018. An illustrative drawing of the traffic signal junction Dordon Roundabout was included in Appendix C of the Vectos Strategic Transport Assessment, which, and for ease of reference, is attached at Appendix L2 to this report. A scheme for A5 DOrdon – Atherstone has been developed by WCC through the Housing Infrastructure Grant (HIG) in 2019, provided by the Department for Levelling Up, Housing and Communities. The application is supported by NH.

5.76 Since additional funding is required for the Dordon- Atherstone improvement, the project is being delivered by NH. A public consultation event ran for 7 weeks up to 27 October 2022 which presented 3 options, all of which involve a bypass carriageway to the south of the current A5 between Dordon roundabout to a point 500m west of Grendon roundabout. The main differences between the options are the treatment of the Dordon Roundabout junction. In Option A, the roundabout is replaced by traffic signals, in Option B a new larger roundabout is provided to the south east, and in Option C a left on/ left off- junction arrangement is proposed. The February 2023 Consultation Report concluded that of the three options presented, Option B was the preferred route overall. The next stage for the project is option selection at which point DfT will decide if the scheme is to progress to preferred route selection stage.

5.77 Given the uncertainty of the scheme to be progressed, NH advised (at the 23 May 2023 meeting) that the Local Plan models should be tested with the current proposal in the Local Plan (ID6), that is Option A (signalised junction), attached at Appendix L2. In order to accurately model the traffic signal junction, TT have prepared an indicative traffic signal junction layout based on the Vectos illustrative but with a a new dual carriageway to the east as in the Option A sketch shown in the A5 Dordon to Atherstone project report, dated 21 February 2023. TT Drawing 784-B033920-TTE-00-ZZ-SK-H-0009 Rev P01 attached in Appendix L3 shows the indicative traffic signals scheme and proposed staging sequence. The Local Plan No Development TRANSYT model includes the coding of this arrangement.

5.78 The saturation flows for the ne junction have been calculated using RR67, and , as agreed with NH (see para 5.10) with the application of the same local factor.

With Development Model

5.79 The 2033 Local Plan With Development TRANSYT model is based on the 2033 Local Plan No Development model, discussed above.

5.80 The Local Plan improvements as per the Phil Jones Associates Drawing 02853-01 Rev A are included except for the left turn slip from the M42 southbound off-slip to the A5 east which is removed. The improvements to the A5 west and North West sector of the circulatory carriageway are taken from the TT proposals which are very similar in capacity terms to those on the Phil Jones Associates drawing, but the TT scheme includes signal controlled pedestrian/ cycle crossings of the north facing slip roads (as required by DMRB) and Green Lane. It also provides a single lane feed to the M42 northbound opposed to two lanes on Phil Jones Associates plan. The only other slight difference is the A5 westbound approach to Junction 10. The TT drawing lengthens the offside flared approach as a result of introducing the proposed site access junction.

5.81 Table 5.4 attached in Appendix M shows the tabulated results across the network in the No Development and With Development scenarios. For ease of identifying where the largest differences in queues and delays are between the two scenarios, the green highlighted cells in Table 5.4 are where the impact of the development has a reduction in queue of 10pcu or more and/ or a reduction in delay of over 1 minute. The red highlighted cells are where the impact of the development results in an increase in queue of 10pcu or over and/ or an increase in delay of over 1 minute.

2033 AM Peak Local Plan Summary Results

5.82 At the Pennine Way North junction, the longest queue in the No Development scenario is 5pcu on the Pennine Way North approach. With the addition of the development generated traffic the queues and delays are very similar, with the longest queue of 7pcu on the same approach.

5.83 At the Pennine Way South junction, the longest queue in the No Development situation is 1pcu on the Quarry Hill approach. With the addition of the development generated traffic the queues and delays are very similar, with the longest queue of 1pcu on the same approach.

5.84 With the additional development generated traffic, the queue on the A5 eastbound on-slip towards Junction 10 increases from 7pcu to 12pcu and delay increases by 16 seconds. The A5 eastbound queue in lane 2 at Junction 10 increases from 33pcu to 45pcu with a delay increase of 43 seconds. The A5 eastbound queue in lane 4 at Junction 10 increases from 33pcu to 34pcu with a delay increase of 16 seconds. The increase in queues and delays as a result of the development generated traffic are considered minor.

5.85 At the site access junction, the longest predicted queue on the A5 eastbound approach (queue extending back to Junction 10) is 13pcu. A forward SSD visibility of 160m to the back of this queue is readily achievable as shown at TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0012-P01 in Appendix C which shows the SSD to the back of a 17pcu queue.

5.86 At the A5/ Birch Coppice junction the longest queue in the No Development scenario is 15pcu on the eastbound offside right turn lane and the longest delay is 2 minute 18 seconds in the same lane. With the addition of the development generated traffic the queues and delays are very similar, with the longest queue of 13pcu on the same approach and the longest delay of 2 minute 9 seconds also on this lane.

5.87 At the A5/ Core 42 junction the longest queue in the No Development scenario is 16pcu on the westbound approach (lane 1) whilst the longest delay is 8 minutes 52 seconds at the right turn lane coming out of Core 42. As above, this long delay results from the way TRANSYT models infrequently called stages.. With the addition of the development generated traffic the queues and delays are very similar, with a longest queue of 15pcu on the same westbound approach lane whilst the longest delay is 8 minutes 5 second at the right turn lane coming out of Core 42.

5.88 At the upgraded signal controlled A5/ Dordon junction the longest queue in the No Development scenario is 13pcu on the two eastbound approach lanes whilst the longest delay is 1 minute 16 seconds on Long Street. With the addition of the development generated traffic the queues and delays are very similar, with a longest queue of 12pcu on the eastbound approach lanes whilst the longest delay is 1 minute 15 seconds on Long Street.

2033 PM Peak Local Plan Summary Results

5.89 In the No Development scenario, the network performs reasonably well with manageable queues and delays on all approaches to each junction apart from;

The A5 eastbound queue in lane 2 at Junction 10 with a queue of 37pcu and delay of 2 minutes 46 seconds. The A5 eastbound queue in lane 4 at Junction 10 with a queue of 21pcu and delay of 1 minutes 57 seconds.

The A5 westbound off-slip approach to the southern Pennine Way roundabout with a queue of 40pcu and 1 minute 45 second delay.

The Quarry Hill approach to the southern Pennine Way roundabout with a queue of 25pcu and 2 minutes 49 second delay.

The offside lane at Green Lane with a 21pcu queue and 3 minutes 9 second delay.

5.90 In the With Development situation the network performs similarly. On the approaches where queues were noted in the No Development situation the following queues and delays are estimated:

the A5 eastbound queue at lane 2 increases to 57pcu with an additional 1 minute 12 second delay. In lane 4 the queue increases by 15pcu with a 1 minute 40 second delay increase.

The A5 westbound off-slip approach to the southern Pennine Way roundabout has a 1pcu decrease in queue..

The Quarry Hill approach to the southern Pennine Way roundabout has a 1pcu increase in queue and 9 second delay increase.

The offside lane at Green Lane decreases by 1 pcu with a 14 second reduction in delay.

5.91 At the site access junction, the longest predicted queue on the A5 eastbound approach (queue extending back to Junction 10) is 17pcu. A forward SSD visibility of 160m to the back of this queue is readily achievable as shown at TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0012-P01 in Appendix C.

5.92 At the A5/ Birch Coppice junction the longest queue in the No Development is 12pcu on the A5 westbound approach (lane 2) and the longest delay is 1 minute 1 second on the A5 eastbound right turn lane. With the addition of the development generated traffic the queues and delays are very similar, with a longest queue of 13pcu on the same A5 westbound approach lane and the longest delay of 59 seconds on the A5 eastbound right turn lane.

5.93 At the A5/ Core 42 junction the longest queue in the No Development is 7pcu on the westbound approach (lane 1) whilst the longest delay is 5 minute 5 seconds at the right turn lane coming out of

Core 42. With the addition of the development generated traffic the queues and delays are very similar, with a longest queue of 7pcu on the same westbound approach lane whilst the longest delay is 4 minutes 52 seconds at the right turn lane coming out of Core 42.

5.94 At the upgraded signal controlled A5/ Dordon junction the longest queue in the No Development scenario is 21pcu on the offside eastbound A5 approach lane whilst the longest delay is 2 minutes 13 seconds on Long Street. With the addition of the development generated traffic the queues and delays are very similar, with the longest queue of 19pcu on the nearside eastbound A5 approach lane whilst the longest delay is 2 minutes 8 seconds on Long Street.

2033 Local Plan Summary

5.95 In the Local Plan scenario, the effect of the proposed development at Land NE of M42 Jn10 is the greatest in the PM peak. Here 2 lanes on the A5 eastbound approach to M42 Junction 10 (out of 4) experience an increase in delay of between 1 minute and 1½ minutes per vehicle. This impact is not considered to be severe with regard to the NPPF paragraph 111 because it occurs for one short period of the day and, is small in relation to typical commuter journey times.

5.96 The proposed development does not result in a significant constraint to the delivery of Local Plan allocated sites and will deliver some of the highway improvements needed to accommodate the Local Plan allocations on the highway network.

2033 Local Plan - Additional Mitigation

5.97 Although further improvements are not considered necessary, a potential additional mitigation scheme has been considered to reduce the queues and delays on the A5 eastbound approach in particular for the PM peak period.

5.98 The problem in the PM peak is unequal lane usage, with the A5 eastbound nearside lane has a lower use than the other 3 lanes. In the PM peak With Development scenario the nearside lane (allocated for the services and M42 North) has 380pcu, whilst the 2 middle lanes allocated for the A5 West has 1,174 shared across them (on average 587 per lane). The offside lane is allocated for Trinity Way and M42 South which has 622pcu.

5.99 By allocating some A5 eastbound traffic to the nearside lane the queues and delays on the A5 eastbound approach can be reduced. To have 3 lanes with A5 traffic requires 3 allocated lanes on the north overbridge and 3 lanes on the A5 eastbound exit. The proposed A5/ Site access junction already proposes 3 lanes on its eastbound approach. TT Drawings 784-B033920-TTE-00-ZZ-SK-H-0010-P01 and 784-B033920-TTE-00-ZZ-SK-H-0011-P01 attached in Appendix C shows the suggested lane allocations on the A5 eastbound approach to M42 Jn10, on the north overbridge and a widening of the A5 eastbound exit to 3 lanes. In the TRANSYT model 25% of the A5 eastbound flow (293 vehicles in the PM Peak) has been assumed to use the nearside lane on the A5 eastbound west approach to Jn10, increasing the flow to 674 vehicles. The middle of the 3 lanes on the approach has 763pcu and the offside lane 742pcu, thus all three approach lanes (before the approach flares to 4 lanes) are reasonably well balanced.

5.100 Table 5.5 attached in Appendix O shows the tabulated results across the network in the No Development and With Development scenarios. For ease of identifying where the largest differences in queues and delays are between the two scenarios, the green highlighted cells in

Table 5.5 are where the impact of the development has a reduction in queue of 10pcu or more and/ or a reduction in delay of over 1 minute. The red highlighted cells are where the impact of the development results in an increase in queue of 10pcu or over and/ or an increase in delay of over 1 minute.

2033 AM Peak Local Plan Summary Results with Additional Mitigation

5.101 With the additional mitigation in place, the A5 eastbound nearside lane (lane 1) approach to junction 10 increases from 10pcu to 22pcu with delay increase of 29 secs, however the queue on lane 2 decreases from 33pcu to 29pcu with a 15 second reduction in delay and in lane 4 the queue also decreases from 33pcu to 22pcu with a 34 second reduction in delay. This is as a result of the A5 eastbound traffic redistributing across the three available lanes.

5.102 The only other lanes that have a 10pcu queue increase are the circulating nearside lane past Green Lane, which increases from 1pcu to 15pcu, but the delay is only 9 secs; the circulating lane 2 past the A5 westbound also increases by 5pcu to 16pcu and the delay increases by 30 seconds per vehicle and finally the 4th circulating lane past the M42 southbound offslip increasing from 1pcu to 11pcu with a 18 second delay increase.

5.103 At the site access junction, the longest predicted queue on the A5 eastbound approach (queue extending back to Junction 10) is 13pcu. A forward SSD visibility of 160m to the back of this queue is readily achievable as shown at TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0012-P01 in Appendix C which shows the SSD to the back of a 17pcu queue.

5.104 On all of the other lanes at each junction the difference in queues and delays are no more than 10pcu or 1 minute and are similar to the previous Local Plan results reported above, i.e., without the additional mitigation.

2033 PM Peak Local Plan Summary Results with Additional Mitigation

5.105 With the additional mitigation in place there is only 1 lane which has a queue increase of 10pcu or more and/or a delay increase over 1 minute, that is the A5 westbound (lane 1) approach to Junction 10 but the delay only increases by 17 seconds. The A5 eastbound approach to Junction 10 has a reduction in queue from 37pcu to 19pcu in lane 2 with over 1½ minute reduction in delay, whilst there is a 13pcu queue reduction and over 1 minute reduction in delay on lane 4.

5.106 The queue on the M42 southbound circulating lane 1 also decreases from 13pcu to 3pcu, with a 4 second reduction in delay.

5.107 At the site access junction, the longest predicted queue on the A5 eastbound approach (queue extending back to Junction 10) is 17pcu. A forward SSD visibility of 160m to the back of this queue is readily achievable as shown at TT Drawing 784-B033920-TTE-00-ZZ-PL-H-012-P01 in Appendix C.

5.108 On all of the other lanes at each junction the difference in queues and delays are no more than 10pcu or 1 minute and are similar to the previous Local Plan results reported above, i.e., without the additional mitigation.

2033 Local Plan Summary with Additional Mitigation

5.109 The effect of the additional mitigation is to reduce queues and the delay increase in the PM peak on the A5 west approach to Junction 10 from 1 minute to 1½ minutes per vehicle to up to 1½ minute reduction in delay per vehicle compared to the No Development scenario. The effect of the additional mitigation in the AM peak is small, but the effect of the development in this time period is less.

5.110 With the additional mitigation the impact of the development is less, is not severe and does not significantly constrain the delivery of Local Plan allocations or highway improvement schemes.

Road Safety Implications

5.111 Chapter 3 above provides a detailed review of the road traffic accidents that have taken place within the study area. Whilst there has been a total of 46 recorded incidents, 6 were reported on the A5 west of Junction 10, including the two Pennine Way roundabouts, 28 were at M42 Jn10, 6 were on the A5 east of Junction 10 up to and including Core 42 and 4 between Core 42 and to the east of Dordon Roundabout. The accident review concluded that mitigation measures for safety reasons as a result of the proposed development are not required.

5.112 A GG104 Safety Risk Assessment will be carried out, in accordance with DMRB, to evaluate the changes in safety risk arising from the proposed access junction, which will introduce turning movements across the A5, as well as the other measures which are proposed.

5.113 The proposed improvement schemes at M42 Jn10 and along the A5 are expected to deliver tangible highway safety benefits for both existing and proposed users of the highway network. These can be summarised as follows:

Widened foot/cycleways between Pennine Way north roundabout and the proposed site access which include a separation strip between vulnerable users and moving traffic mostly in accordance with CD143.

Signal controlled pedestrian and cycle crossing of the M42 north facing slip roads in accordance with CD143, at the Green Lane arm of M42 Jn10, and at the proposed site access junction.

Signal controlled pedestrian crossing of the A5 near to the AE55 Public Footpath south of the A5 and Public Bridleway AE45 north of the A5, replacing the existing uncontrolled crossing.

Improved bus stop facilities at the northern edge of the A5, with a layout that segregates cyclists from pedestrians and includes standard merge and diverge tapers and a wider bus stop area.

Provision of an internal link connecting the A5 to Birchmoor, thus offering a higher quality route for pedestrians and cyclists travelling between the A5 and areas to the north and west including Tamworth.

Provision of separate (offline) pedestrian/ cycle way between site access and Browns Lane away from the A5 avoiding the narrow 1.0m wide foot/ cycleway at A5/ Birch Coppice junction.

Reduction in speed limit to 50mph on the A5 between Pennine Way overbridge and the existing 50mph speed limit east of the proposed site access.

Removal of existing parking laybys that do not meet current design requirements, in favour of a high-quality lorry parking facility for up to 150 vehicles, to include supporting facilities for drivers.

5.114 The proposals are expected to have a beneficial effect on road safety and therefore provide safe means of access for all users in accordance with NPPF paragraph 110 and will not have, in relation to NPPF paragraph 111, an unacceptable impact on road safety.

Summary

5.115 A Consolidated Modelling Strategy Note, dated 7 June 2023 was approved by WCC in July 2023. Following comments from NH and SCC, a v2 Consolidated Modelling Strategy Note, dated 1 November 2023 was submitted and has been agreed by NH and SCC.

5.116 A TRANSYT 2023 Baseline Validation Report has been produced using the agreed traffic surveys from July 2023. At the time of writing, the only outstanding matter to be agreed with NH is the stage sequence, signal timings and frequency of the demand dependant stages at the A5/ Core 42 junction. It is anticipated NH will approve the suggested timings put forwards by TT. The validated 2023 baseline results presented in this report demonstrates the model is a good representation of the existing network performance and is appropriate to assess the future assessment year scenarios.

5.117 A TRANSYT assessment for the 2026 and 2033 Reference Case scenarios was carried out and has shown that with the proposed M42 junction 10 mitigation works, together with the site access junction, the development generated traffic can be accommodated on the network and the performance is improved in the AM peak in 2026 and 2033. In the PM peak the performance of the network is only marginally worse in the 2026 and 2033 assessment years. The impact of the development with the identified mitigation measures is not considered severe with reference to NPPF para 111, and no additional mitigation to that identified for the M42 Junction 10 is required.

5.118 The proposed improvement scheme proposals are expected to have a beneficial effect on road safety and therefore provide safe means on access for all users in accordance with NPPF paragraph 110, and will not have, in relation to NPPF paragraph 111, an unacceptable impact on road safety.

5.119 A TRANSYT assessment for the 2033 Local Plan scenario was carried out and showed that the impact of the proposed development is not considered severe with reference to para 111 of NPPF and no additional mitigation to that identified for the Local Plan scheme is considered necessary. Although further improvements are not considered necessary, a potential additional mitigation scheme has been considered to reduce the queues and delays on the A5 eastbound approach in particular for the PM peak period. The additional mitigation reduces the queues and delays on the A5 eastbound approach particularly in the PM peak.

5.120 The proposed development can be delivered without compromising the Local Plan proposals and it will deliver some of the required highway improvements needed to mitigate the Local Plan allocations.

6.0 SUMMARY AND CONCLUSIONS

6.1 Tetra Tech (TT) was engaged by Hodgetts Estates in January 2022 to advise on transport and highway matters in relation to their proposals for a development of 100,000sqm of employment uses and a 150-space lorry park with 400sqm amenity block, accessed from the A5 Watling Street, north-east of the M42 Junction 10 (M42 Jn10) interchange, in Warwickshire.

6.2 The outline application for the site (ref: PAP/2021/0663) was validated on 2 December 2021 and was initially supported by a Transport Assessment (TA) and Framework Travel Plan (FTP) produced by Bancroft Consulting. These reports were superseded by a Revised TA, prepared by TT, dated February 2023. This was based on traffic surveys carried out in March 2022, used TRANSYT 16 to assess the impacts on the A5 between and including the M42 Jn10 and A5/ Core 42 junctions. The assessment considered both a Reference Case and Local Plan Case and showed that with mitigation the development did not result in a severe impact.

6.3 The Revised TA also proposed a package of accessibility improvements to the pedestrian and cycling linkages between the site, Dordon, Polesworth and Tamworth underpinned by a WCHAR in accordance with GG142. In addition a public transport strategy was developed, and it was agreed with Stagecoach that the 766 Tamworth- Hinckley bus service will divert into the site to provide convenient bus access.

6.4 In January 2023, NH and WCC advised that the 2022 surveys were no longer acceptable, and also that the TRANSYT model should be extended to include the A5/ Long Street “Dordon Roundabout”. SCC also requested that the TRANSYT model was extended to include the two Pennine Way roundabouts, which had previously been modelled with Junctions10.

6.5 A Consolidated Modelling Note was prepared which set out the approach to TRANSYT modelling, the extent of the network to be assessed, the traffic survey data required, and the derivation of the committed development traffic flows to be used in the assessment. This note has been agreed by NH, WCC and SCC. Traffic surveys were carried out on 4 July 2023, as agreed with NH, WCC and SCC.

6.6 This TAA amended the Revised TA submitted in February 2023 with the updated TRANSYT model results. The opportunity has been taken to update the accident data to 23 September 2023, and, in response to Circular 01/2022, include a Vision, and to report on the Vision Based Travel Plan.

6.7 The vision for the proposed development is to be the greenest business park in the West Midlands. The vision is underpinned by a sustainability strategy and a sustainable transport and highway strategy. The sustainable transport and highway strategy includes proximity of the site to the SRN and to the intermodal rail freight site at Birch Coppice (BIFT), walking, cycling and public transport connectivity, connectivity for electric vehicles and active promotion of sustainable transport choices through a travel plan.

6.8 A Vision Based Travel Plan which sets out how the vision can be achieved, includes suitable multi-modal (person) trip rates, clear targets and commitments to manage down has been submitted. It has been agreed by SCC. NH have some comments which are being addressed. The VBTP proposes a reduction in car travel of 18% in line with TAG.

6.9 The accident records between 1 January 2018 and 23 September 2023, excluding 2020 and 2021, have been assessed for a study area which comprised the two Pennine Way/ A5 roundabouts, the A5 from Pennine Way to the A5/ Dordon roundabout, and includes the M42 Jn10. The data was provided by SCC and WCC.

6.10 The road safety assessment has shown there were:

6 accidents on the two Pennine Way roundabouts and the A5 slip roads. There were no significant clusters and contributory factors appear to be driver error rather than inadequate highway design.

28 accidents occurred at M42 Jn10 or on the approach roads. There were no significant clusters and contributory factors appear to be driver error rather than inadequate highway design.

6 accidents on the A5 east of Jn10 up to and including A5/ Core 42 junction. There was a cluster of 3 accidents all of which occurred on the eastbound carriageway at the A5/ Danny Morson Way (Birch Coppice) junction. All three accidents occurred in the dark and on a wet/ damp or icy road surface. It is considered that NH should review the lighting and road surface at this location. There were no significant clusters on the westbound carriageway and contributory factors appear to be driver error rather than inadequate highway design.

4 accidents on the section of road from the east of the A5/ Core 42 junction, to approximately 200m east of the Dordon roundabout, including Dordon Roundabout and the Long Street and Gypsy Lane approaches. There were no clusters of accidents or common factors, and the accidents could be attributed to driver error rather than junction design.

6.11 It can be concluded that the road network operates within acceptable levels of road safety and that mitigation measures for safety reasons as a result of development are not required. It is considered that NH should review the lighting at the A5/ Danny Morson Way junction.

6.12 The proposed highway improvements discussed at Chapter 5 below (A5 speed limit reduced to 50mph, improved pedestrian / cycle facilities and crossings offer a safety betterment to all road users. It is therefore expected that the increase in traffic due to the proposed development will not pose an unacceptable highway safety risk, and there may be some betterment to some use classes.

6.13 A Consolidated Modelling Strategy Note, dated 7th June 2023 was approved by WCC in July 2023. Following comments from NH and SCC, a v2 Consolidated Modelling Strategy Note, dated 1st November 2023 was submitted and has been agreed by NH and SCC.

6.14 A TRANSYT 2023 Baseline Validation Report has been produced using the agreed traffic surveys from July 2023. At the time of writing, the only outstanding matter to be agreed with NH is the stage sequence, signal timings and frequency of the demand dependant stages at the A5/ Core 42 junction. It is anticipated NH will approve the suggested timings put forwards by TT. The validated 2023 baseline results presented in this report demonstrates the model is a good representation of the existing network performance and is appropriate to assess the future assessment year scenarios.

6.15 A TRANSYT assessment for the 2026 and 2033 Reference Case scenarios was carried out and has shown that with the proposed M42 Jn10 mitigation works, together with the site access junction, the development generated traffic can be accommodated on the network and the performance is improved in the AM peak in 2026 and 2033. In the PM peak the performance of the network is only marginally worse in the 2026 and 2033 assessment years. The impact of the development with the identified mitigation measures is not considered severe with reference to NPPF para 111, and no additional mitigation to that identified for the M42 Junction 10 is required.

6.16 The proposed improvement scheme proposals are expected to have a beneficial effect on road safety and therefore provide safe means on access for all users in accordance with NPPF paragraph 110, and will not have, in relation to NPPF paragraph 111, an unacceptable impact on road safety.

6.17 A TRANSYT assessment for the 2033 Local Plan scenario was carried out and showed that the impact of the proposed development is not considered severe with reference to para 111 of NPPF and no additional mitigation to that identified for the Local Plan scheme is considered necessary. Although further improvements are not considered necessary, a potential additional mitigation scheme has been considered to reduce the queues and delays on the A5 eastbound approach in particular for the PM peak period. The additional mitigation reduces the queues and delays on the A5 eastbound approach particularly in the PM peak.

6.18 The proposed development can be delivered without compromising the Local Plan proposals and it will deliver some of the required highway improvements needed to mitigate the Local Plan allocations.

6.19 In conclusion, having regard to Paragraphs 110 and 111 of the NPPF, it has been shown that the opportunities to travel by sustainable modes for both workers and the movements of goods have been comprehensively provided for and will be promoted through a Travel Plan, a safe and suitable access for all users can be provided, and that the impacts of the development can be adequately mitigated. Overall, the cumulative residual impact of the development is not severe and there are no unacceptable road safety consequences. As a result, subject to resolution of all other technical and planning policy matters, there are no substantive highway reasons which should prevent the proposed development from being approved.

APPENDIX A CORRESPONDENCE

Appendix A1

WCC Email 25 July 2023

Wakenshaw, Gareth

From: Moises Muguerza <MoisesMuguerza@warwickshire.gov.uk>
Sent: 25 July 2023 18:01
To: Wakenshaw, Gareth; Andrew Collinson; Tony Burrows; Alan Law; Piechocki, Amrit (E,I&S); dwh@hodgettsestates.co.uk; Bunn, Nick; Patrick Thomas; Spencer, Will (E,I&S); jane@hodgettsestates.co.uk; 'Ed'; james.warrington@wsp.com; Evans, Mark (E,I&S); richard-powell@tamworth.gov.uk
Subject: RE: PAP/2021/0663 - Land NE of M42 J10 - Meeting Agenda Wednesday 26th July [Filed 26 Jul 2023 08:07]
Attachments: Level Intervention 2B+C+D+E+F - Standard.zip

OFFICIAL - Sensitive

Hi Gareth,

Please find below our comments:

- Coton House Farm and Dunstall Lane: These developments are too far from Warwickshire's network to be considered as an impact. Coton House Farm been considered within TEMPRO growths and the number of trips going to the A5 from Dunstall Ln seem ok.
- With regards to point 6 and the link road effect, we can only say that the link road needs to be in place to deliver the allocated sites. It is necessary for that link road to come forward, in order to all the other developments to be delivered. It is not supposed to be the purpose of this development to evaluate iterations for the link road.
- We have reviewed the rest of consolidated note and we can confirm it includes everything discussed so far.

I am attaching to this email PJA's CAD for the M42 J10 mitigation scheme.

Kind Regards,

Moises Muguerza MSc MRTPI MCIHT MTPS
Principal Transport Planner
Transport & Highways
Communities
Warwickshire County Council
Tel: 01926 412254
Email: moisesmuguerza@warwickshire.gov.uk
https://www.warwickshire.gov.uk/modelling-surveys

From: Wakenshaw, Gareth <Gareth.Wakenshaw@tetratech.com>
Sent: 25 July 2023 15:44
To: Andrew Collinson <andrewcollinson@northwarks.gov.uk>; Tony Burrows <tonyburrows@warwickshire.gov.uk>; Alan Law <alanlaw@warwickshire.gov.uk>; Piechocki, Amrit (E,I&S) <amrit.piechocki@staffordshire.gov.uk>; dwh@hodgettsestates.co.uk; Bunn, Nick <Nick.Bunn@tetratech.com>; Patrick Thomas <Patrick.Thomas@nationalhighways.co.uk>; Moises Muguerza <MoisesMuguerza@warwickshire.gov.uk>; Spencer, Will (E,I&S) <will.spencer@staffordshire.gov.uk>; jane@hodgettsestates.co.uk; 'Ed' <edward@hodgettsestates.co.uk>; james.warrington@wsp.com; Evans, Mark (E,I&S) <mark.evans@staffordshire.gov.uk>; richard-powell@tamworth.gov.uk
Subject: PAP/2021/0663 - Land NE of M42 J10 - Meeting Agenda Wednesday 26th July

Appendix A2

WCC Email 27 November 2023

Wakenshaw, Gareth

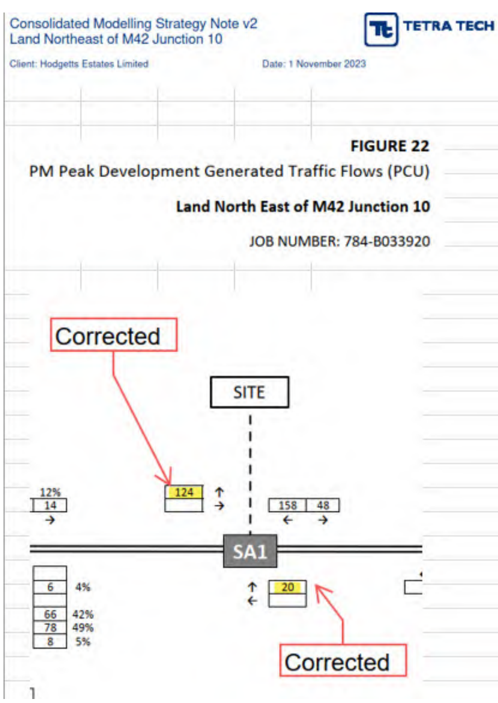
From:	Adrian Chadha <Adrian.Chadha@nationalhighways.co.uk>
Sent:	27 November 2023 11:24
To:	Wakenshaw, Gareth
Cc:	Patrick Thomas; Morris, Chris
Subject:	RE: Land NE of M42 J10 2023 - Baseline Transyt Validation Report & Consildated Modelling Strategy Note NH review

Hi Gareth,

Thank you for your email, please find our comments as below.

<u>Consolidated Modelling Strategy Note:</u>

We note the Consolidated Modelling Strategy Note has been updated to correct a discrepancy found in the PM development trip figure (Figure 22). We note that the error has now been corrected in the revised note (Version 2, dated Nov 2023) and is now in line with the agreed trip generation. National Highways agree that there are no further comments for the applicant to address regarding trip generation associated with the development.



<u>Demand Dependent Stage Frequency:</u>

We have reviewed queries raised by Tetra Tech via email on 6th November 2023 regarding AM peak call frequencies, as listed in our previous comments on 25th October 2023. The applicant should note that these figures are a result of checks performed by AECOM to determine the frequency of stages being called at the A5/Meridian Drive junction in the AM Peak, based on an analysis of the signal data supplied by the applicant. This analysis was undertaken with the purpose of determining the accuracy of Demand Dependency values used in the v5 models submitted in October 2023. Therefore, we require the applicant to determine the frequency demand dependent stages and demonstrated how signal data has been determined in the modelling of this junction.

For information the signal data supplied for this junction had been recorded for each phase or movement. Therefore, the data will require sorting such that the stages running can then be determined. In our stage frequency analysis, we summated the signal data and then sorted the phase start and end green times for each movement (sorted by the start of green time). We then determined which stage was running throughout the peak hour. We suggest that you could carry out a similar analysis for both peak hours and then use this data to determine suitable stage lengths.

Furthermore, we require the applicant to undertake an analysis of the phase signal data at the A5 / Meridian Drive junction to determine how often, and how long each stage runs for. We require this to be presented in an Excel spreadsheet showing how the observed phase signal timings lead to the stage duration and demand dependency data that is entered into the TRANSYT model. We note that following this, National Highways require TRANSYT models updated with the calculated data, for our review and comment.

Furthermore, the applicant should note that based on the screenshots included within the applicant's email dated 30th October 2023, the A5 Eastbound ahead movement (Phase A) should be running in Stage 4, so please can you add it into the Stage Library tab for the junction (Controller 8).

Kind regards,

Adrian Chadha
Spatial Planning Team (Midlands Central)
Operations Directorate
National Highways
The Cube | 199 Wharfside Street | Birmingham | B1 1RN
www.nationalhighways.co.uk

From: Wakenshaw, Gareth <Gareth.Wakenshaw@tetratech.com>
Sent: Monday, November 27, 2023 10:48 AM
To: Morris, Chris <chris.morris1@aecom.com>
Cc: Adrian Chadha <Adrian.Chadha@nationalhighways.co.uk>; Patrick Thomas <Patrick.Thomas@nationalhighways.co.uk>
Subject: RE: Land NE of M42 J10 2023 - Baseline Transyt Validation Report & Consildated Modelling Strategy Note NH review

Hi Chris,

Have you had a chance to review my email further below dated 6th November?

Appendix A3

SCC Email 30 November 2023

Wakenshaw, Gareth

From:	Evans, Mark (E,I&S) <mark.evans@staffordshire.gov.uk>
Sent:	30 November 2023 10:37
To:	Wakenshaw, Gareth
Subject:	PAP/2021/0663 - Land NE of M42 J10 - Consolidated Modelling Strategy Note v2
Attachments:	Consolidated M42 Jn10 Modelling Strategy v2.pdf
Importance:	High

Morning Gareth,

Once again, apologies for the delay in coming back to you on revised Modelling Strategy Note.

I can now confirm that Staffordshire County Council has no objection to the revised document as all of our previous comments have been addressed.

One thing I would however like to point out is that I believe there is a typo at para. 5.36 which states 2031 instead of 2033.

Regards,

Mark

Staffordshire County Council

Mark Evans | Senior Engineer
Sustainable Development Team - Highways and Built County
Third Floor, Staffordshire Place 1
Tipping Street, Stafford ST16 2DH
Mobile: **07977 064503**
Email: **mark.evans@staffordshire.gov.uk**
www.staffordshire.gov.uk

From: Wakenshaw, Gareth <Gareth.Wakenshaw@tetratech.com>
Sent: Thursday, November 23, 2023 9:05 AM
To: Evans, Mark (E,I&S) <mark.evans@staffordshire.gov.uk>
Subject: RE: CM: RE: PAP/2021/0663 - Land NE of M42 J10 - Consolidated Modelling Strategy Note v2

Hi Mark,

No worries, hopefully its straightforward as I have taken on board all of Amrit's comments and queries.

Kind Regards

Appendix A4

WCC Email 24 April 2023

Wakenshaw, Gareth

From:	Moises Muguerza <MoisesMuguerza@warwickshire.gov.uk>
Sent:	24 April 2023 14:49
To:	Mudhar, Amrit (E,I&S); Wakenshaw, Gareth; Alan Law; Andrew Collinson; richard-powell@tamworth.gov.uk
Cc:	dwh@hodgettsestates.co.uk; Bunn, Nick; 'Warrington, James'; Tony Burrows; Evans, Mark (E,I&S); 'Jane Hodgetts'; 'Edward Hodgetts'; Simm, Ben
Subject:	RE: PAP/2021/0663 - Land NE of M42 J10 - Obtaining Committed/ LP and Development Traffic Flows from A5 Atherstone Model [Filed 24 Apr 2023 15:14]

OFFICIAL - Sensitive

Hi Gareth,

Thanks for your email.

- Traffic Surveys: We can agree with the survey date. Please keep an eye on the strikes calendar.
- Committed & LP Sites to be included in the model: We need confirmation from @Andrew that the proposed occupations are aligned with NWBC trajectory.
- Method of data extraction from VM for Committed and LP: None of the options proposed for HGV percentage calculations would give us a robust estimate of HGV percentage for the junctions. Because of the level of detail for the split when producing the models and that most of the developments are residential, the HGVs would potentially be underestimated in both cases for undertaking individual junctions' assessments in this area. The most robust method would be using the percentage of HGVs percentage from the surveys and apply this percentage to the forecasted scenarios.

Kind Regards,

Moises Muguerza MSc MRTPI MCIHT MTPS
Principal Transport Planner
Transport & Highways
Communities
Warwickshire County Council
Tel: 01926 412254
Email: moisesmuguerza@warwickshire.gov.uk
https://www.warwickshire.gov.uk/modelling-surveys

From: Mudhar, Amrit (E,I&S) <amrit.mudhar1@staffordshire.gov.uk>
Sent: 24 April 2023 12:57
To: Wakenshaw, Gareth <Gareth.Wakenshaw@tetratech.com>; Moises Muguerza <MoisesMuguerza@warwickshire.gov.uk>; Alan Law <alanlaw@warwickshire.gov.uk>; Andrew Collinson <AndrewCollinson@NorthWarks.gov.uk>; richard-powell@tamworth.gov.uk
Cc: dwh@hodgettsestates.co.uk; Bunn, Nick <Nick.Bunn@tetratech.com>; 'Warrington, James' <james.warrington@wsp.com>; Tony Burrows <tonyburrows@warwickshire.gov.uk>; Evans, Mark (E,I&S) <mark.evans@staffordshire.gov.uk>; 'Jane Hodgetts' <jane@hodgettsestates.co.uk>; 'Edward Hodgetts' <edward@hodgettsestates.co.uk>; Simm, Ben <Ben.Simm@nationalhighways.co.uk>
Subject: RE: PAP/2021/0663 - Land NE of M42 J10 - Obtaining Committed/ LP and Development Traffic Flows from A5 Atherstone Model

Appendix A5

NH Email 3 May 2023

Wakenshaw, Gareth

From: Ben Simm <Ben.Simm@nationalhighways.co.uk>
Sent: 03 May 2023 14:15
To: Wakenshaw, Gareth; Alan Law; 'Mudhar, Amrit (E,I&S)'
Cc: Moises Muguerza; Chris Whatcott; Tony Burrows; Patrick Thomas; Adrian Chadha
Subject: RE: A5 surveys Land North East of M42 J10 [Filed 03 May 2023 15:00]

Hi Gareth

I can confirm that the 4th July is acceptable, but this is caveated in regards to any potential roadworks or delays to the A5 resurfacing works as you identify below.

Thanks

Ben

Ben Simm MPlan MRTPI MTPS
Spatial Planning Manager – Midlands
Operations Directorate
National Highways | The Cube | 199 Wharfside Street | Birmingham | B1 1RN
Tel: +44 (0) 300 4708152
Mob: +44 (0)7784 006 211
Web: www.nationalhighways.co.uk

For information about our engagement with the planning system please visit
https://highwaysengland.co.uk/our-work/planning-and-the-strategic-road-network-in-england/

From: Wakenshaw, Gareth <Gareth.Wakenshaw@tetratech.com>
Sent: 17 April 2023 17:38
To: Ben Simm <Ben.Simm@nationalhighways.co.uk>; Alan Law <alanlaw@warwickshire.gov.uk>; 'Mudhar, Amrit (E,I&S)' <amrit.mudhar1@staffordshire.gov.uk>
Cc: Moises Muguerza <MoisesMuguerza@warwickshire.gov.uk>; Chris Whatcott <chriswhatcott@warwickshire.gov.uk>; Tony Burrows <tonyburrows@warwickshire.gov.uk>; Patrick Thomas <Patrick.Thomas@nationalhighways.co.uk>; Adrian Chadha <Adrian.Chadha@nationalhighways.co.uk>
Subject: RE: A5 surveys Land North East of M42 J10

Hi Ben,

Thanks for confirming the survey methodology, that has all parties now in agreement.

I have pencilled the surveys in for Tuesday 4th July, it would be great to get everyone to confirm that day is acceptable whilst keeping an eye on potential additional roadworks and/ or delays to the A5 resurfacing works.

Kind Regards

Gareth Wakenshaw
Associate Transport Planner

Appendix A6

SCC Email 21 April 2023

Wakenshaw, Gareth

From: Mudhar, Amrit (E,I&S) <amrit.mudhar1@staffordshire.gov.uk>
Sent: 21 April 2023 18:52
To: Wakenshaw, Gareth; Ben Simm; Alan Law
Cc: Moises Muguerza; Chris Whatcott; Tony Burrows; Patrick Thomas; Adrian Chadha
Subject: RE: A5 surveys Land North East of M42 J10 [Filed 21 Apr 2023 22:42]

Hi Gareth,

Tuesday 4th July for the MCCs and presumably w/c Monday 3rd July for the ATCs is acceptable to SCC.

I was not aware that Monday 26th June was a bank holiday in England, I will take it if it is! Either way seems sensible to go with the date you have suggested in case there is any slippage to the improvement works programme on the A5.

Kind regards,
Amrit

Staffordshire County Council

Miss Amrit Mudhar | Project Engineer
Sustainable Development Team - Highways and Built County
Third Floor, Staffordshire Place 1
Tipping Street, Stafford ST16 2DH
Mobile: **07813396146**
Email: **amrit.mudhar1@staffordshire.gov.uk**
www.staffordshire.gov.uk

From: Wakenshaw, Gareth <Gareth.Wakenshaw@tetratech.com>
Sent: 17 April 2023 17:38
To: Ben Simm <Ben.Simm@nationalhighways.co.uk>; Alan Law <alanlaw@warwickshire.gov.uk>; Mudhar, Amrit (E,I&S) <amrit.mudhar1@staffordshire.gov.uk>
Cc: Moises Muguerza <MoisesMuguerza@warwickshire.gov.uk>; Chris Whatcott <chriswhatcott@warwickshire.gov.uk>; Tony Burrows <tonyburrows@warwickshire.gov.uk>; Patrick Thomas <Patrick.Thomas@nationalhighways.co.uk>; Adrian Chadha <Adrian.Chadha@nationalhighways.co.uk>
Subject: RE: A5 surveys Land North East of M42 J10

Hi Ben,

Thanks for confirming the survey methodology, that has all parties now in agreement.

I have pencilled the surveys in for Tuesday 4th July, it would be great to get everyone to confirm that day is acceptable whilst keeping an eye on potential additional roadworks and/ or delays to the A5 resurfacing works.

Kind Regards

Appendix A7

NH Email 9 October 2023

Wakenshaw, Gareth

From:	Patrick Thomas <Patrick.Thomas@nationalhighways.co.uk>
Sent:	09 October 2023 16:30
To:	Wakenshaw, Gareth; alanlaw; Moises Muguerza; Spencer, Will (E,I&S); Evans, Mark (E,I&S)
Cc:	jane@hodgettsestates.co.uk; dwh@hodgettsestates.co.uk; richard-powell@tamworth.gov.uk; AndrewCollinson@NorthWarks.gov.uk; Tony Burrows; 'Ed'; james.warrington@wsp.com; Piechocki, Amrit (E,I&S); Bunn, Nick
Subject:	RE: PAP/2021/0663 - Land NE of M42 J10 - Vision Led Travel Plan [Filed 09 Oct 2023 19:36]

Hi Gareth,

National Highways has undertaken a review of the Vision Led Travel Plan document forwarded on 18th September. We offer the following comments.

In summary, we welcome the applicant in adopting the baseline modal split (derived from existing Travel to Work 2011 Census data) and the proposed modal shift from single occupancy vehicles to sustainable modes of travel for the development, resulting from the travel plan being implemented. The applicant should note that the traffic impact of the development shall be assessed using the baseline modal split, i.e. without the proposed reduction of vehicle trips by sustainable mode of travel, unless consent has been obtained by National Highways and the relevant Local Planning Authority. The following matters were also noted:

- The "*Good Practice Guidelines: Delivering Travel Plans through the Planning Process (DfT, 2009)*" was archived in October 2010. The relevant content in the Travel Plan should be updated accordingly.
- We note that the trip generation for employment, presented in Table 4.1 of the Travel Plan, is based on the previous submission. We recommend the relevant submission / document to be quoted in the travel plan for ease of reference and checking
- We note that Paragraph 6.18 of the Travel Plan states that the existing A5 eastbound bus stop should be relocated. We recommend the layout for the relocated bus stop / layby to be illustrated fully in Drawing: B033920-TTE- 00-ZZ-PL-H-0003-P02 for ease of checking.

We hope this provides sufficient clarity, please do not hesitate to get in touch should you require anything further.

Kind Regards
Patrick

Patrick Thomas, Spatial Planner
Operations Directorate
National Highways | The Cube | 199 Wharfside Street | Birmingham | B1 1RN
Mobile: + 44 (0) 7500 099649
Web: www.nationalhighways.co.uk

APPENDIX B MASTERPLAN

NOTES:

Please note Title Plans have been scaled using Ordinace Survey features which may have altered over time. Complete accuracy cannot be guaranteed without further on-site survey.
Any dimensions given are to be confirmed with site measure.

Subject to Surveys, constraints & planning.

Red Line indicative only.

Contractors must verify all dimensions on site before commencing any work or shop drawings. This drawing is not to be scaled. Use figured dimensions only.

Subject to statutory approvals and survey.

Building areas are liable to adjustment over the course of the design process due to the ongoing construction detailing developments.

Please note the information contained within this drawing is solely for the benefit of the employer and should not be relied upon by third parties.

The CDM hazard management procedures for the Chetwoods aspects of the design of this project are to be found on the "Chetwoods - Hazard Analysis and Design Risk Assessment" and/or drawings. The full project design teams comprehensive set of hazard management procedures are available from the Principle Designer appointed for the project.

Please note Title Plans have been scaled using Ordinace Survey features which may have altered over time. Complete accuracy cannot be guaranteed without further on-site survey.

North

NB.
- **SUBJECT TO SURVEYS, CONSTRAINTS & PLANNING.**
- **LAYOUT TO BE TRACKED.**
- **RED LINE INDICATIVE ONLY.**

Development Site Boundary (red line indicative only) 79.97 acres / 32.36 Ha

Parameter Boundary

Unit Demise Boundary

Public bridleway (to be diverted where necessary)

Rev	Revision Description	Date	Author/ Reviewer

PRELIMINARY

32 Frederick Street,
Birmingham, B1 3HH

+44 (0)121 234 7500
www.chetwoods.com

Project
LAND NORTH EAST OF J10 M42, DORDON

Client
HODGETTS ESTATES

Drawing Title
INDICATIVE MASTERPLAN
MULTI UNIT OPTION

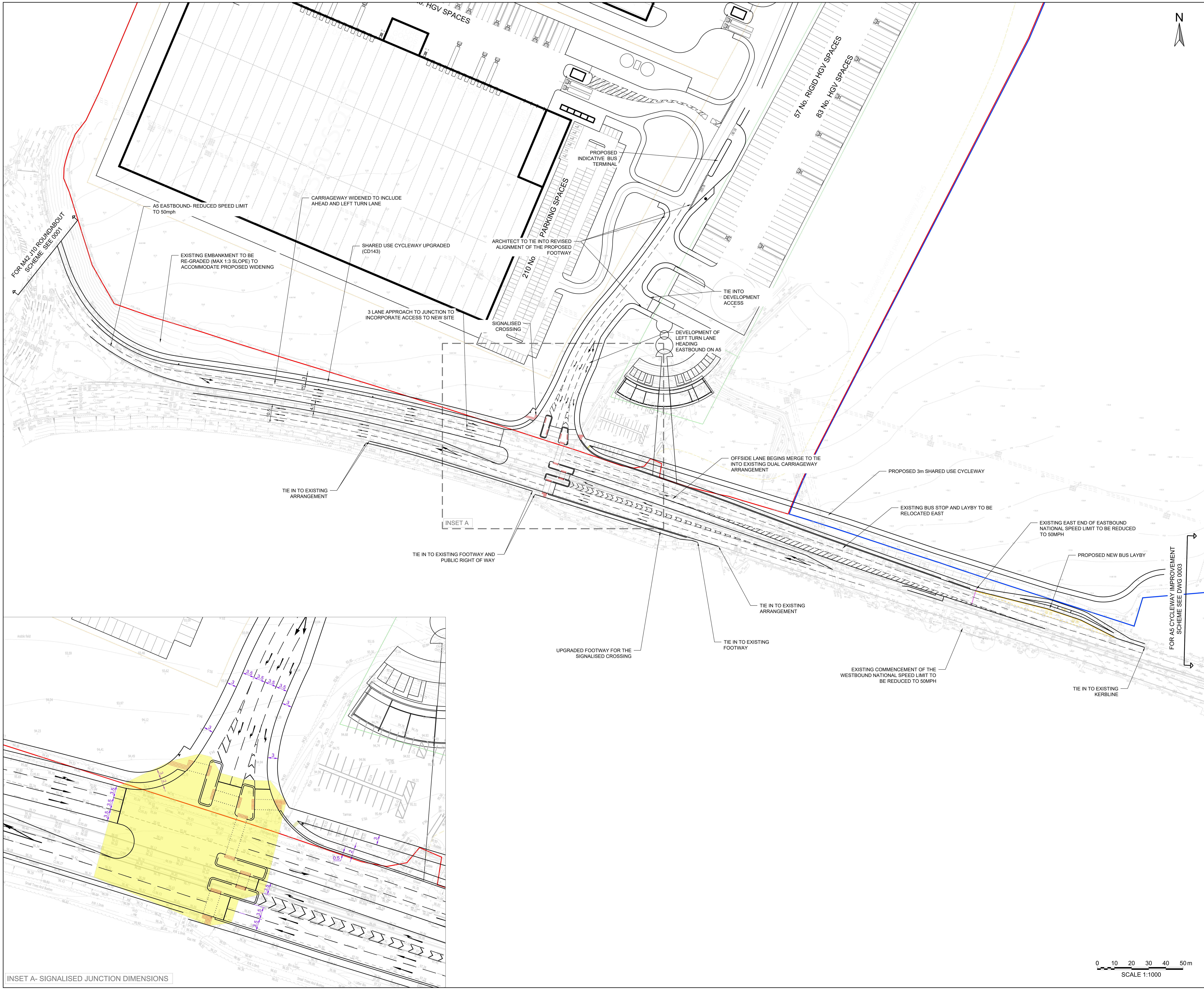
Scale	Size	Drawn	Checked	Date
1:1500	A1	PJB	NH	25/11/2020

Project	Originator	Zone	Level	Type	Role	Number	Rev.
4263	CA	00	00	DR	A	00078	P11

APPENDIX C TT DRAWINGS

Appendix C1 - Site Access

TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0002
TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0012



NOTES -

1. ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
2. THE INFORMATION SHOWN ON THIS DRAWING IS INTENDED TO PROVIDE A GENERAL OUTLINE OF THE HIGHWAY IMPROVEMENT WORKS.

KEY:

- SITE BOUNDARY 1
- SITE BOUNDARY 2
- INTERVISIBILITY ZONE

PRELIMINARY ISSUE

Rev	Description	Date	Drn / Chk / App		
P02	ADJUSTMENT TO SPEED LIMIT SIGNS & INTERVISIBILITY ZONE ADDED	04.12.2023	JG	GW	NB
P01	PRELIMINARY FIRST ISSUE	04.11.2022	LJB	LB	NB

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Client

HODGETTS ESTATES

Project Name

M42 JUNCTION 10
A5 CYCLEWAY IMPROVEMENT

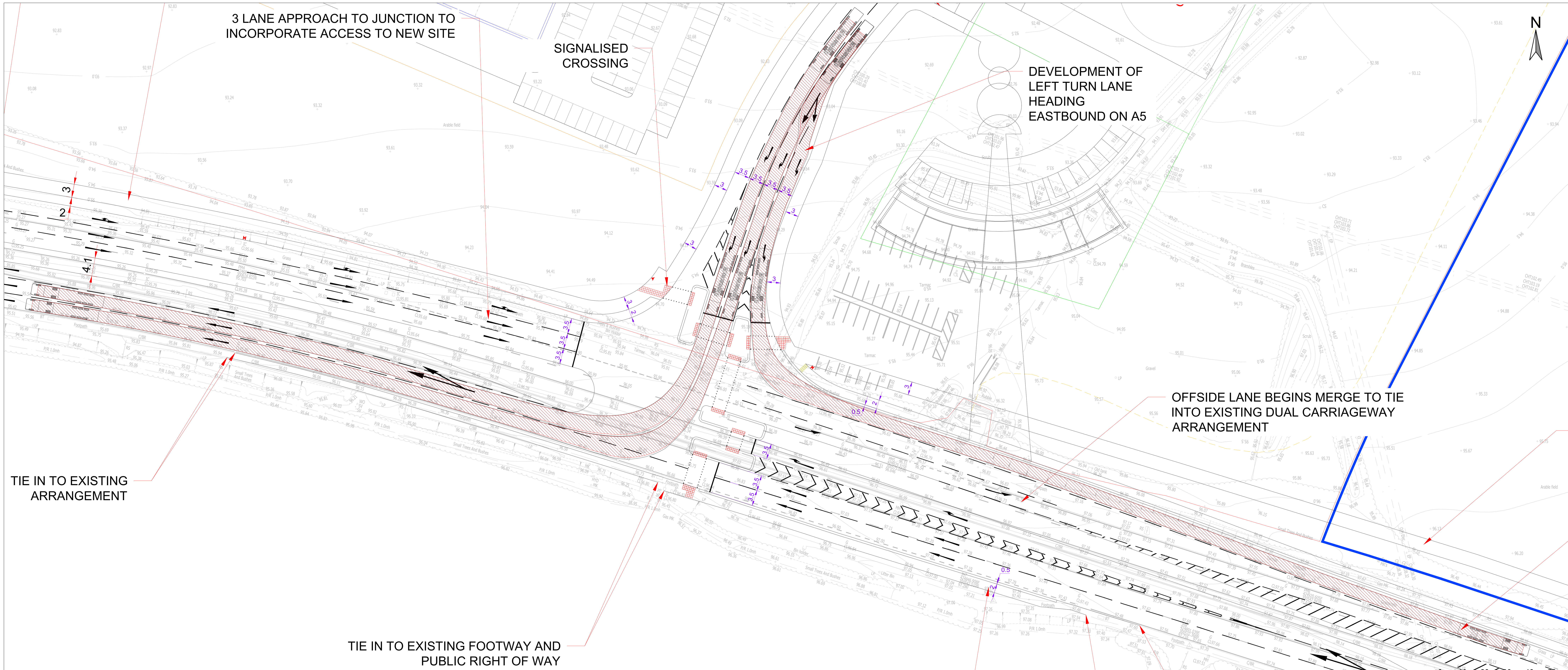
Sheet Title

PROPOSED LAYOUT FOR A5 AND NEW SITE ACCESS

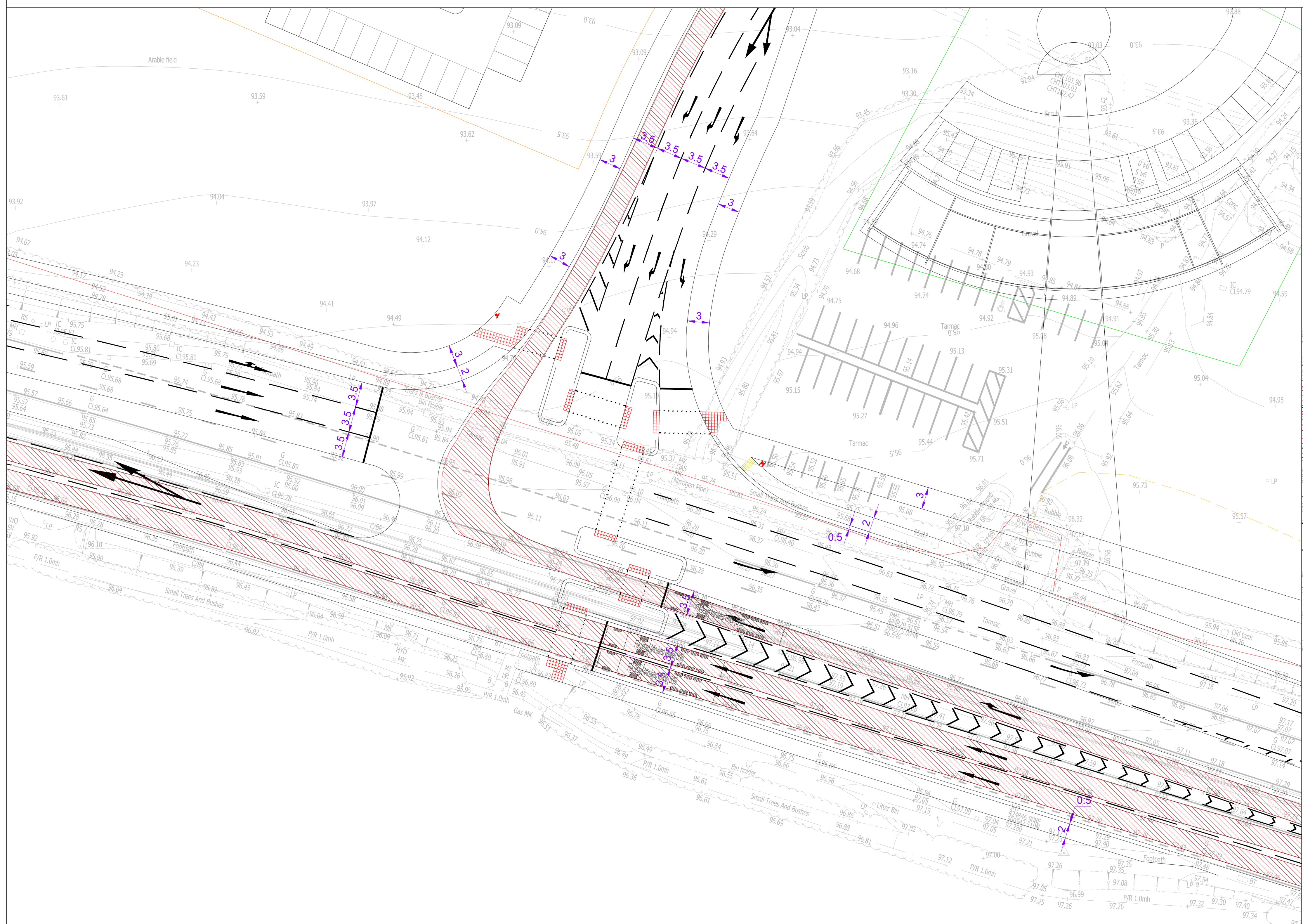
TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A1	Suitability
784-B033920	LJB	Oct'22	LB	Oct '22	NB	Oct '22	1:1000	S3

Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision
B033920	TTE	00	ZZ	PL	H	0002	P02

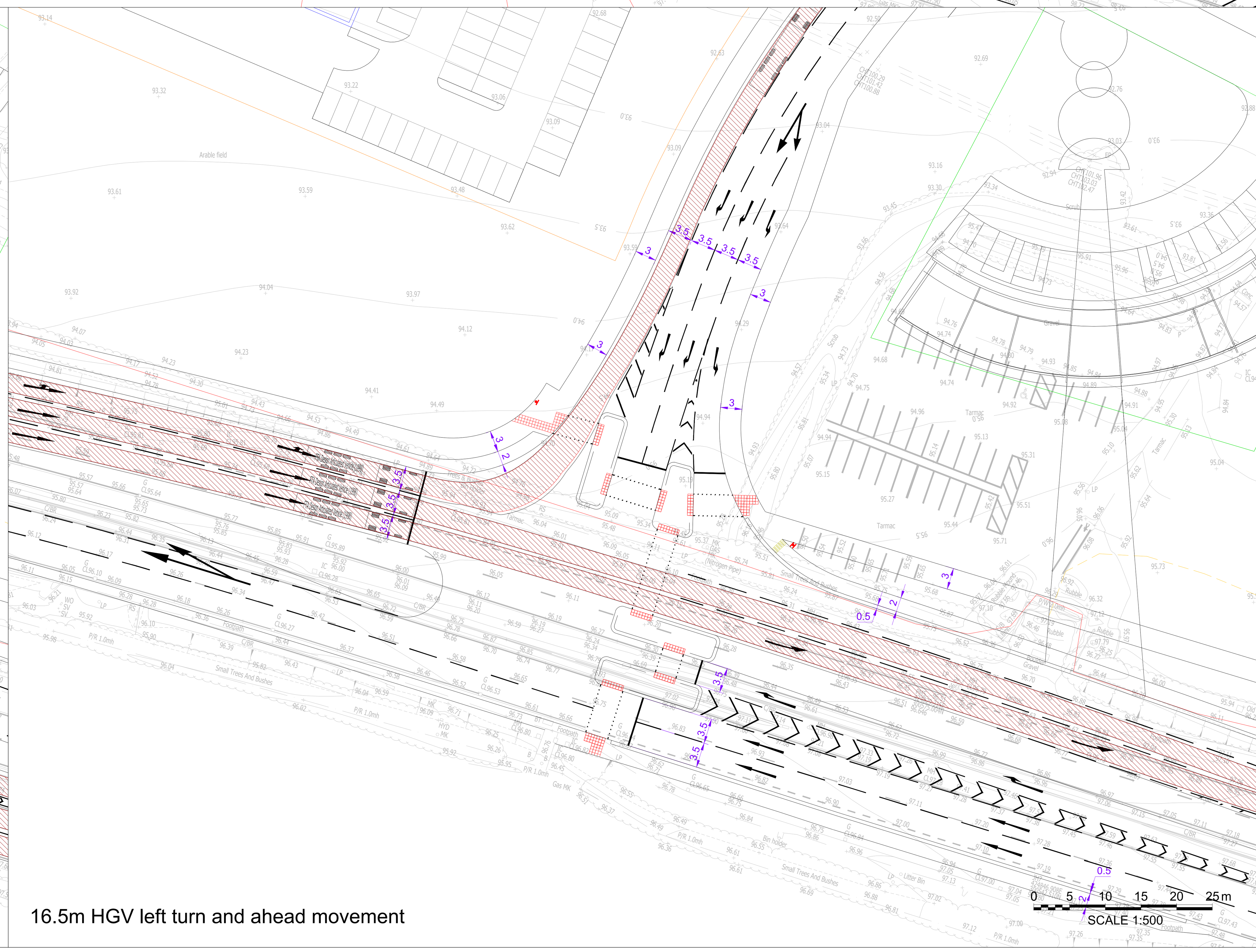
 TTE_MT_v1



16.5m HGV left and right turns from site



16.5m HGV right turn and ahead movement



16.5m HGV left turn and ahead movement

NOTES -

1. ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
2. THE INFORMATION SHOWN ON THIS DRAWING IS INTENDED TO PROVIDE A GENERAL OUTLINE OF THE HIGHWAY IMPROVEMENT WORKS.

KEY:

SITE BOUNDARY 1

SITE BOUNDARY 2

PRELIMINARY ISSUE

Rev	Description	Date	Drn / Chk / App		
P01	PRELIMINARY FIRST ISSUE	04.11.2022	LJB	LB	NB

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TETRA TECH

Client

Project Name

M42 JUNCTION 10
A5 CYCLEWAY IMPROVEMENT

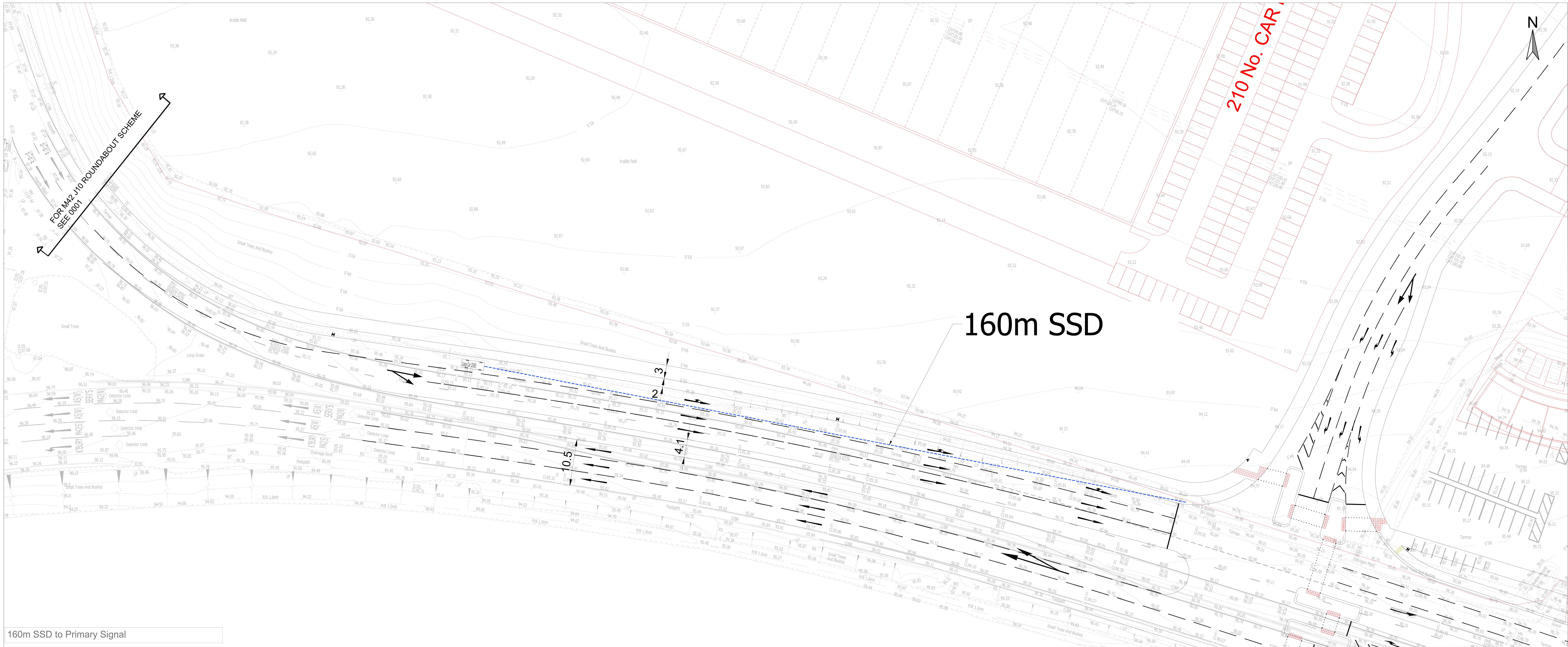
Sheet Title

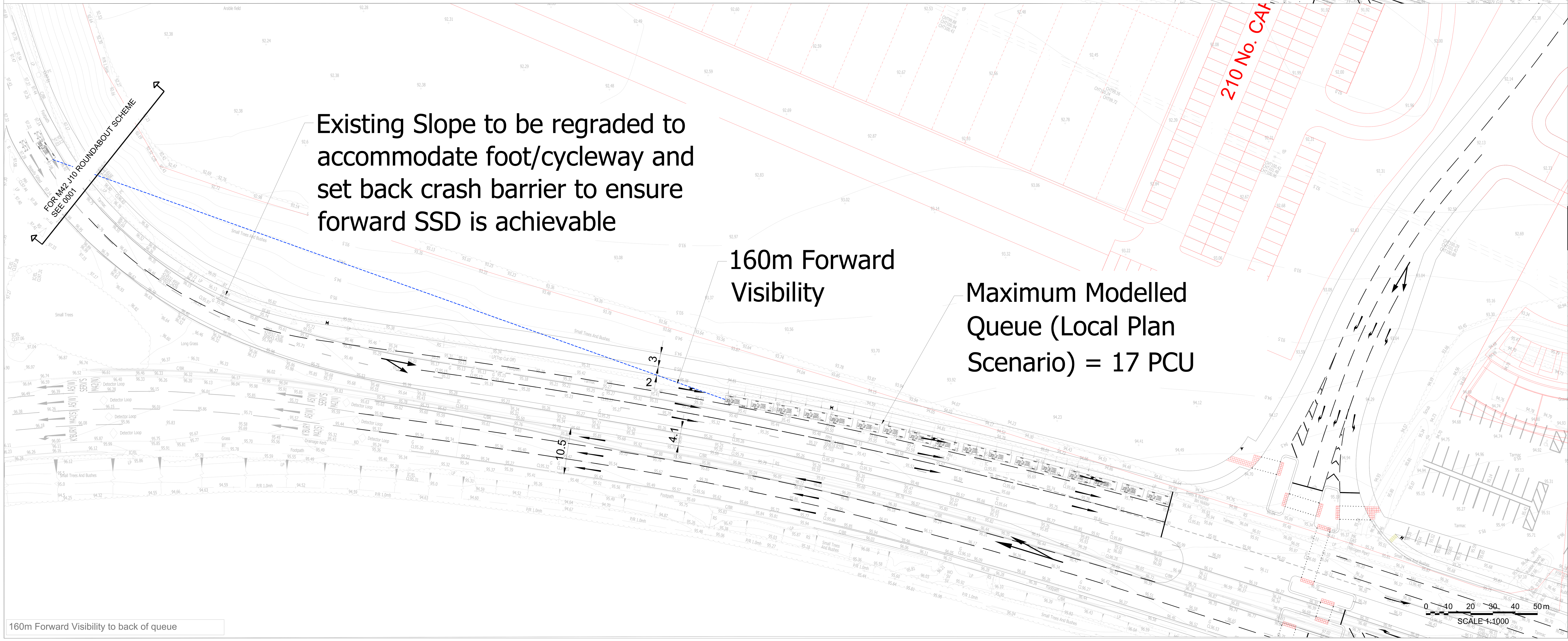
PROPOSED LAYOUT FOR A5 AND NEW SITE ACCESS (Sheet 2)

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A1	Suitability
784-B033920	LJB	Oct'22	LB	Oct '22	NB	Oct '22	1:1000	S3

Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision
B033920	TTE	00	ZZ	PL	H	0002	P01

TTE_MT_v1





NOTES -

1. ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
2. THE INFORMATION SHOWN ON THIS DRAWING IS INTENDED TO PROVIDE A GENERAL OUTLINE OF THE HIGHWAY IMPROVEMENT WORKS.

KEY:

- SITE BOUNDARY 1
- SITE BOUNDARY 2

PRELIMINARY ISSUE

Rev	Description	Date	Drn / Chk / App		
P01	PRELIMINARY FIRST ISSUE	07.12.2023	JG	GW	NB

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TETRA TECH

Client

HODGETTS ESTATES

Project Name

M42 JUNCTION 10
A5 CYCLEWAY IMPROVEMENT

Sheet Title

PROPOSED LAYOUT FOR A5 AND NEW SITE ACCESS
STOPPING DISTANCE (160m)

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A1	Suitability
784-B033920	JG	DEC '23	GW	DEC '23	NB	DEC '23	1:1000	S3

Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision
B033920	TTE	00	ZZ	PL	H	0012	P01

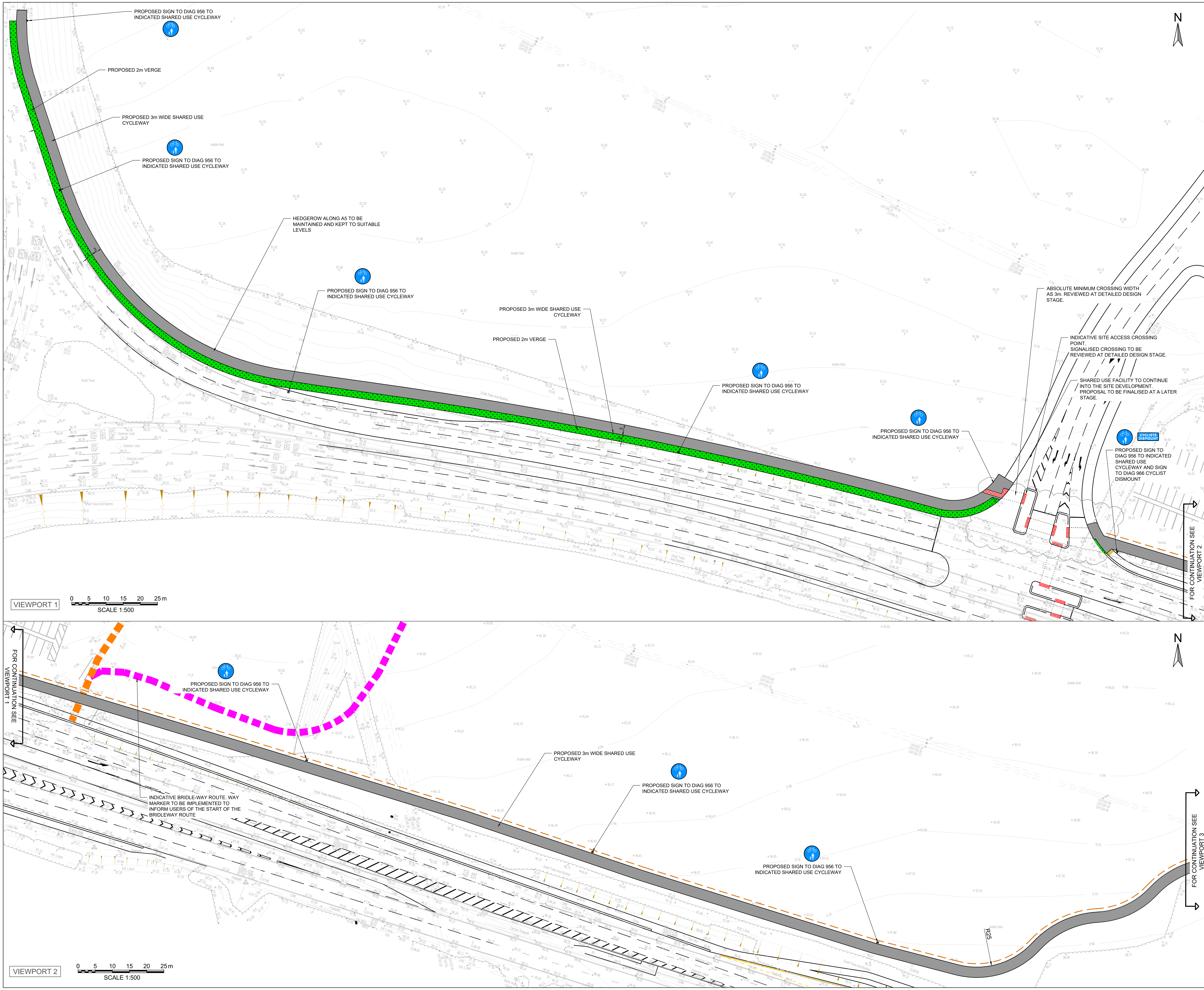
TTE_MT_v1

Appendix C2 – A5 Cycle Improvements

TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0003

TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0004

TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0005



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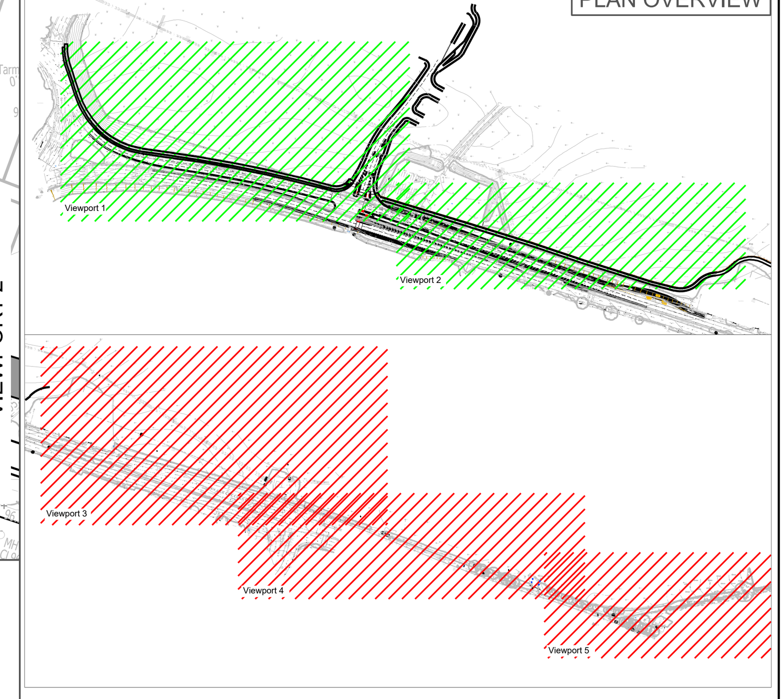
2. ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED OTHERWISE.
3. PROPOSALS FOR THE SHARED USE CYCLEWAY HAVE BEEN DESIGNED IN ACCORDANCE WITH LTN1/20. DUE TO THE LOW VOLUME OF PEDESTRIANS SHARED USE CYCLEWAY HAS BEEN UTILISED COINCIDING WITH POINTS 6.5.2 AND 6.5.6 OF THE LTN 1/20 DESIGN GUIDANCE.

KEY:

- SITE BOUNDARY 1
- SITE BOUNDARY 2
- PROPOSED 5m SHARED USE CYCLEWAY
- INDICATIVE SITE ACCESS LAYOUT
- PROTECTIVE TIMBER FENCE OR SIMILAR APPROVED
- EXISTING BRIDLEWAY ROUTE (166/AE45/1)
- PROPOSED DIVERSION OF BRIDLEWAY ROUTE

PLAN OVERVIEW



PRELIMINARY ISSUE

Rev	Description	Date	Drn	Chk	App
P02	INITIAL COMMENTS INCORPORATED	11.08.2022	LJB	JG	LB
P01	PRELIMINARY FIRST ISSUE	25.05.2022	LJB	JG	LB

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TETRA TECH

Client

HODGETTS ESTATES

Project Name

M42 JUNCTION 10
A5 CYCLEWAY IMPROVEMENT

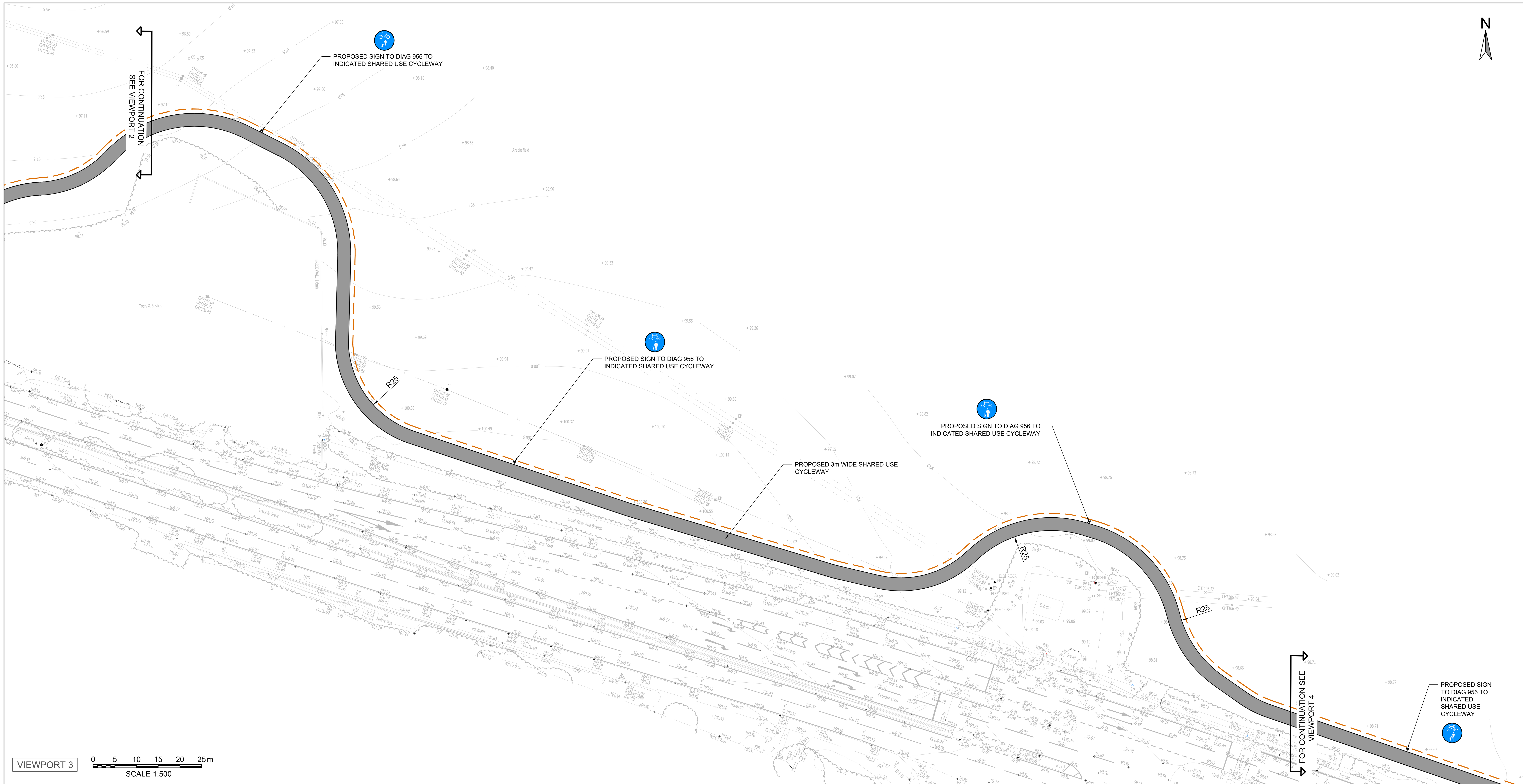
Sheet Title

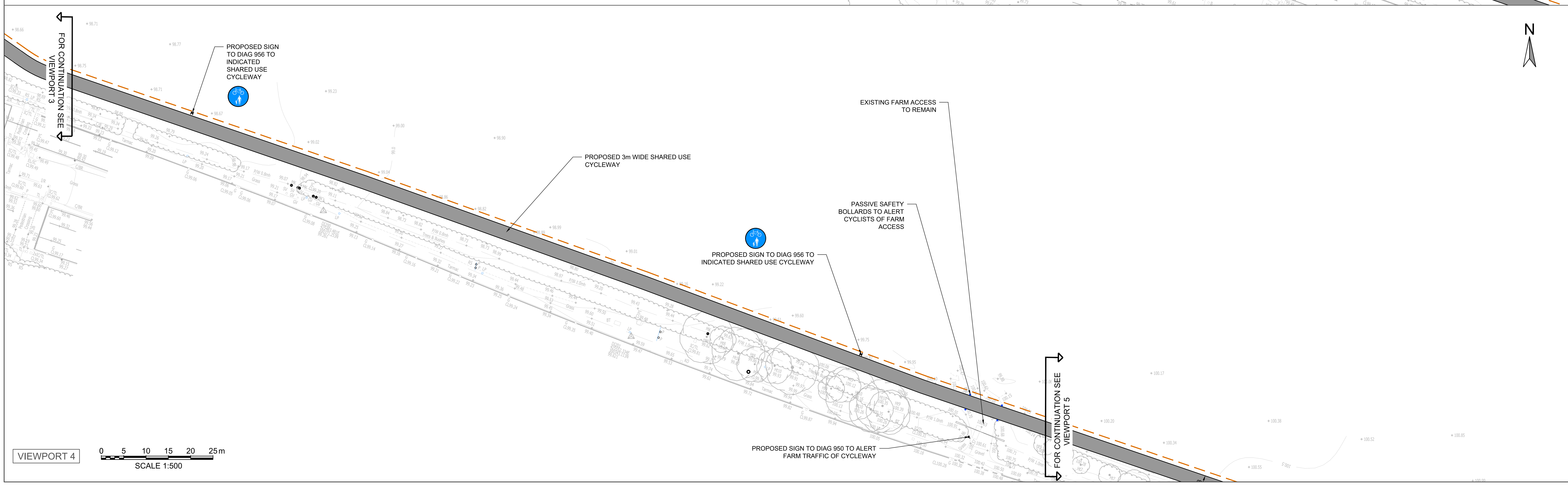
PROPOSED LAYOUT
SHEET 1

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A1	Suitability
784-B033920	LJB	May '22	JG	May '22	LB	May '22	1:500	S3

Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision
B033920	TTE	00	ZZ	PL	H	0003	P02

TTE_MT_v1





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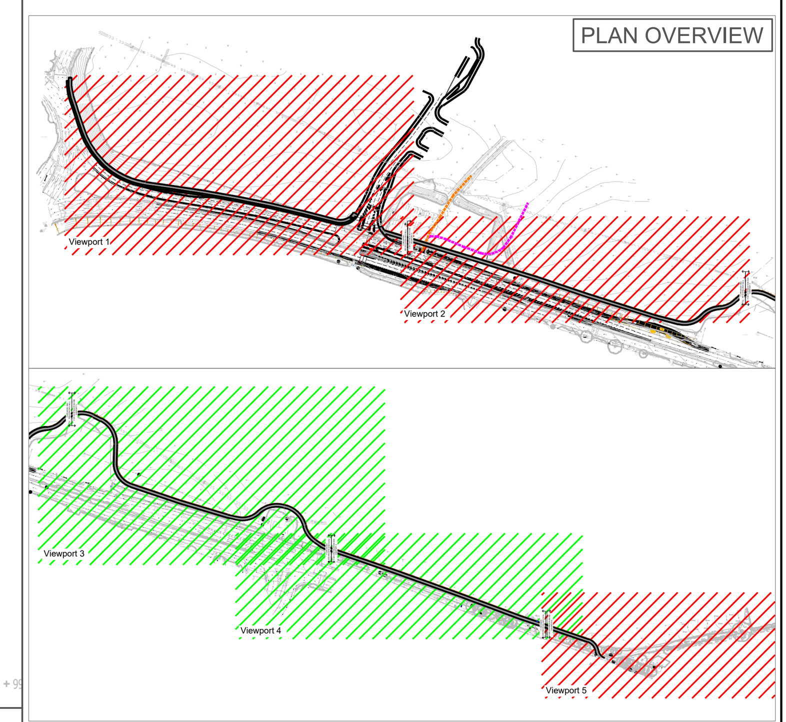
2. ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED OTHERWISE.
3. PROPOSALS FOR THE SHARED USE CYCLEWAY HAVE BEEN DESIGNED IN ACCORDANCE WITH LTN1/20. DUE TO THE LOW VOLUME OF PEDESTRIANS SHARED USE CYCLEWAY HAS BEEN UTILISED COINCIDING WITH POINTS 6.5.2 AND 6.5.6 OF THE LTN 1/20 DESIGN GUIDANCE.

KEY:

- SITE BOUNDARY 2
- PROPOSED 5m SHARED USE CYCLEWAY
- PROTECTIVE TIMBER FENCE OR SIMILAR APPROVED
- PASSIVE SAFETY BOLLARDS



PRELIMINARY ISSUE

Rev	Description	Date	Drn	Chk	App
P02	INITIAL COMMENTS INCORPORATED	11.08.2022	LJB	LB	NB
P01	PRELIMINARY FIRST ISSUE	25.05.2022	LJB	JG	LB

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Client

Project Name

M42 JUNCTION 10
A5 CYCLEWAY IMPROVEMENT

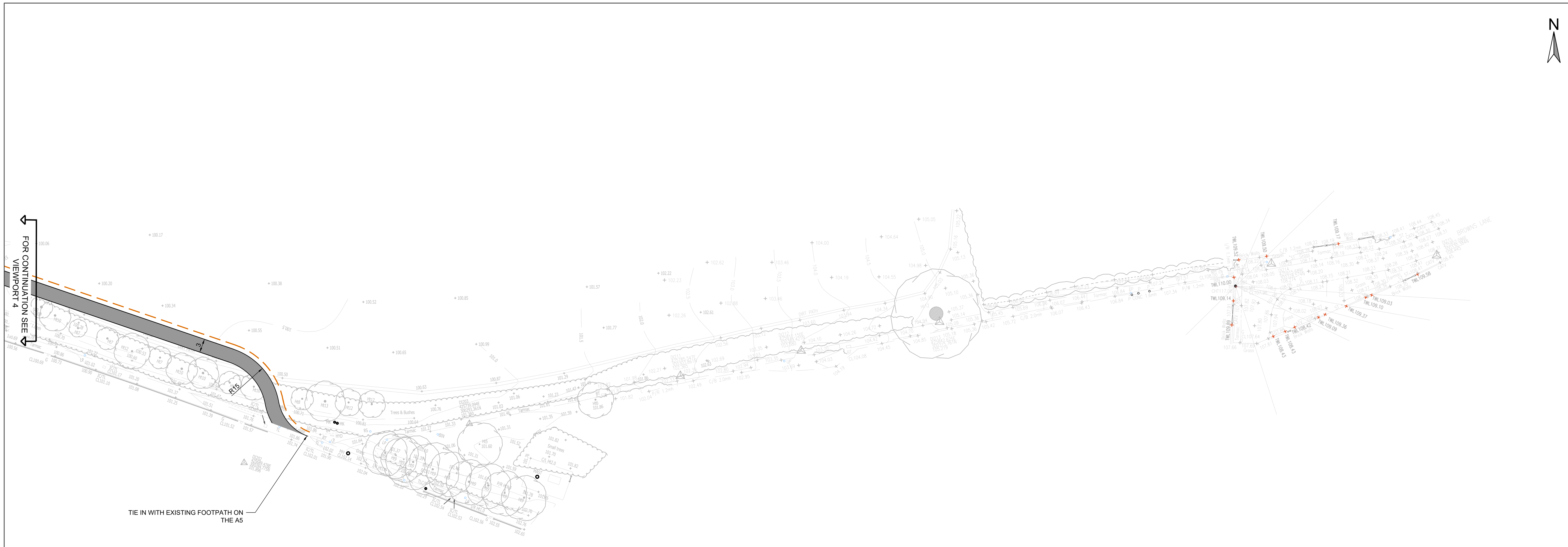
Sheet Title

PROPOSED LAYOUT
SHEET 2

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A1	Suitability
784-B033920	LJB	May '22	JG	May '22	LB	May '22	1:500	S3

Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision
B033920	TTE	00	ZZ	PL	H	0004	P02

 TTE_MT_v1



VIEWPORT 5

0 5 10 15 20 25 m
SCALE 1:500

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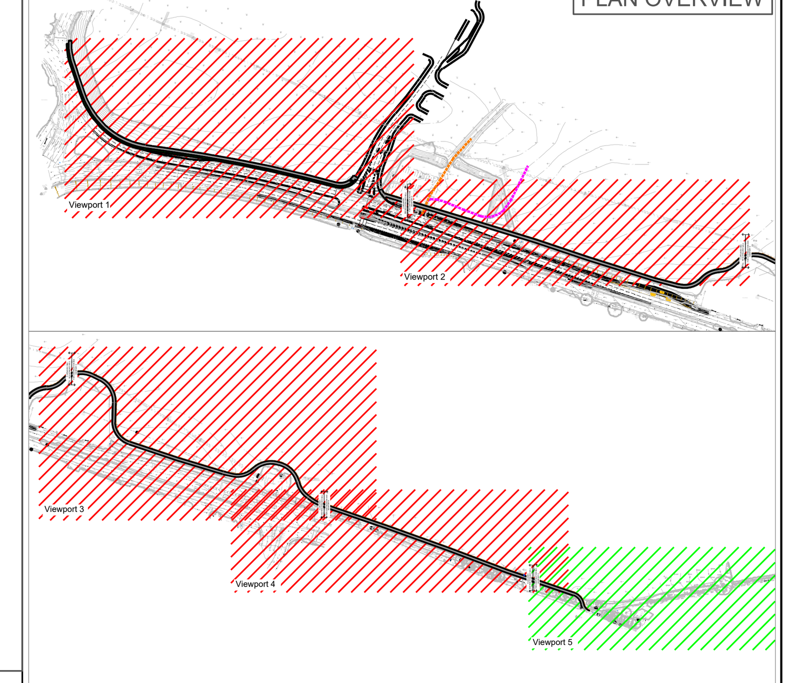
2. ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED OTHERWISE.
3. PROPOSALS FOR THE SHARED USE CYCLEWAY HAVE BEEN DESIGNED IN ACCORDANCE WITH LTN1/20. DUE TO THE LOW VOLUME OF PEDESTRIANS SHARED USE CYCLEWAY HAS BEEN UTILISED COINCIDING WITH POINTS 6.5.2 AND 6.5.6 OF THE LTN 1/20 DESIGN GUIDANCE.

KEY:

- SITE BOUNDARY 2
- PROPOSED 5m SHARED USE CYCLEWAY
- PROTECTIVE TIMBER FENCE OR SIMILAR APPROVED

PLAN OVERVIEW



PRELIMINARY ISSUE

Rev	Description	Date	Drn	Chk	App
P02	INITIAL COMMENTS INCORPORATED	11.08.2022	LJB	LB	NB
P01	PRELIMINARY FIRST ISSUE	25.05.2022	LJB	JG	LB

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Client

HODGETTS ESTATES

Project Name

M42 JUNCTION 10
A5 CYCLEWAY IMPROVEMENT

Sheet Title

PROPOSED LAYOUT
SHEET 3

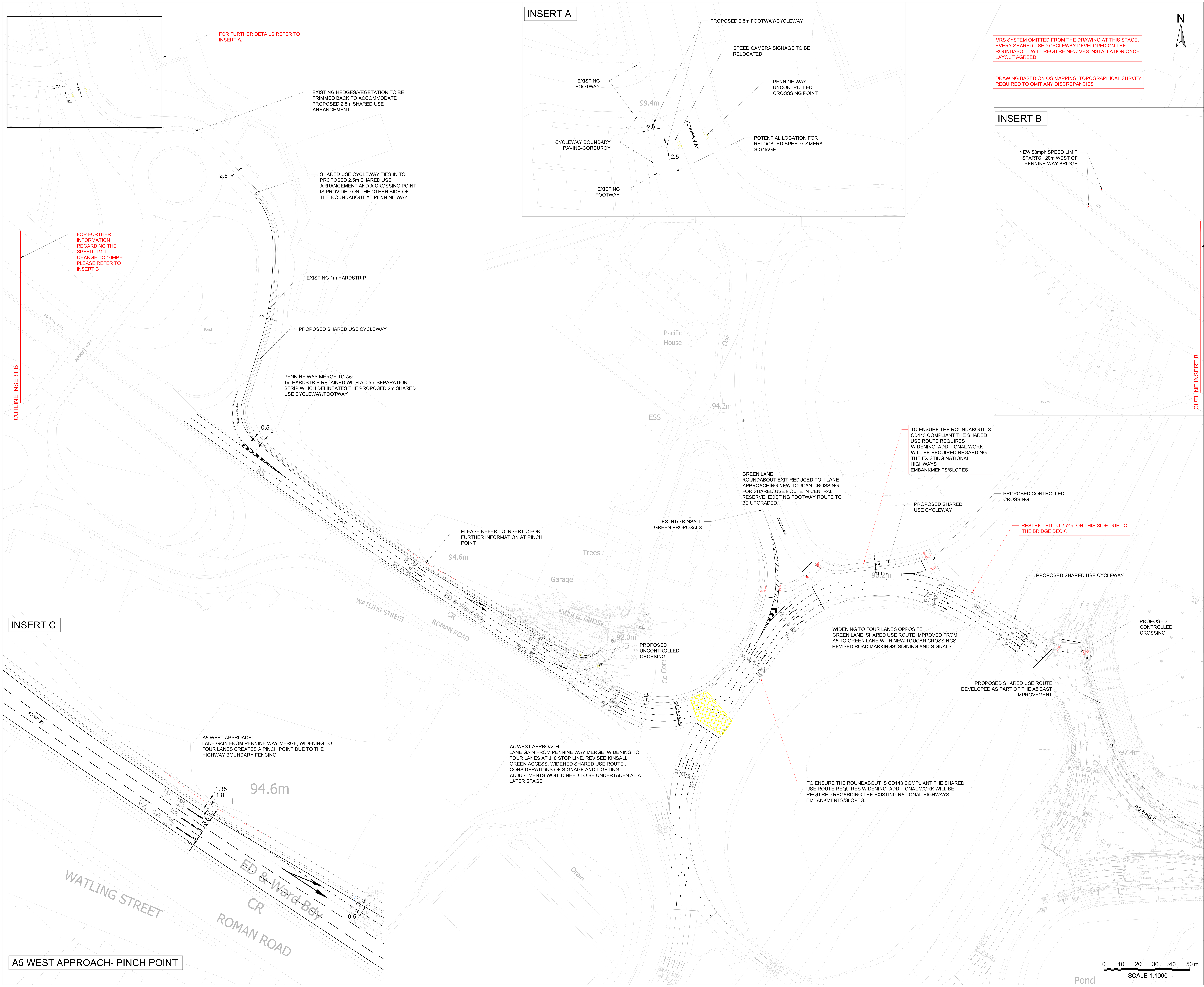
TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A1	Suitability
784-B033920	LJB	May '22	JG	May '22	LB	May '22	1:500	S3

Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision
B033920	TTE	00	ZZ	SK	H	0005	P02

TTE_MT_v1

Appendix C3 – M42 Junction 10 Improvements

TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0001



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2. ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED OTHERWISE.

PRELIMINARY ISSUE

Rev	Description	Date	Drn / Chk / App		
P04	AMENDMENTS TO ROAD MARKINGS	04.12.2023	JG	GW	NB
P03	MINOR AMENDMENTS	25.10.2023	LJB	LB	NB
P02	MINOR AMENDMENTS	14.08.2023	LJB	LB	NB
P01	PRELIMINARY FIRST ISSUE	21.10.2022	LJB	LB	NB

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Client

Project Name

M42 JUNCTION 10
ROUNDABOUT IMPROVEMENT

Sheet Title

PROPOSED LAYOUT

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A1	Suitability
784-B033920	LJB	Sep'22	LB	Sep '22	NB	Sep '22	1:1000	S3

Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision
B033920 -	TTE -	00 -	ZZ -	SK -	H -	0001	P04

TTE_MT_v1

APPENDIX D SPEED SURVEY RESULTS

Tamworth

Report Id 110/23

Site Name Site 1

Description A5 Watling Street, Tamworth

Direction Eastbound

7 Day																														
00:00	925	0	0	0	10	115	250	215	212	72	36	12	1	1	1	0	0	0	0	0	0	49	5%	9	1%	2	0%	37.5	44.5	49.0
01:00	649	0	0	1	6	79	163	159	141	64	28	5	1	0	1	0	1	0	0	0	0	32	5%	5	1%	2	0%	37.9	47.0	49.8
02:00	595	0	0	0	18	80	135	133	129	61	30	6	2	1	0	0	0	0	0	0	0	39	7%	5	1%	1	0%	37.7	47.7	51.1
03:00	1425	0	0	0	25	107	218	364	401	227	66	15	2	0	0	0	0	0	0	0	0	78	5%	5	0%	0	0%	39.5	43.9	49.5
04:00	2471	0	0	2	26	187	381	705	724	314	95	26	6	4	1	0	0	0	0	0	0	124	5%	20	1%	5	0%	39.4	46.1	50.7
05:00	5136	0	0	2	47	299	749	1473	1559	724	213	51	14	5	0	0	0	0	0	0	0	267	5%	32	1%	5	0%	39.8	48.5	53.5
06:00	6837	0	0	5	85	521	1166	1645	1980	1062	276	71	23	2	0	1	0	0	0	0	0	343	5%	55	1%	3	0%	39.5	47.4	52.4
07:00	8476	0	0	4	130	833	1732	2531	2123	837	208	51	19	7	1	0	0	0	0	0	0	273	3%	52	1%	7	0%	38.0	46.1	51.3
08:00	7680	0	0	3	135	874	1680	2266	1850	679	141	35	15	1	1	0	0	0	0	0	0	181	2%	31	0%	2	0%	37.5	45.5	50.7
09:00	6596	0	0	5	130	784	1686	1770	1413	603	154	34	16	0	1	0	0	0	0	0	0	196	3%	31	0%	1	0%	37.2	46.2	51.1
10:00	6064	0	1	4	89	745	1449	1712	1306	548	154	38	11	4	2	0	1	0	0	0	0	196	3%	31	1%	7	0%	37.3	46.6	51.7
11:00	6529	1	0	5	119	768	1613	1801	1388	600	183	34	12	4	0	1	0	0	0	0	0	217	3%	28	0%	5	0%	37.3	46.3	50.6
12:00	7329	0	0	8	154	813	1774	2108	1587	652	168	47	14	4	0	0	0	0	0	0	0	220	3%	37	1%	4	0%	37.3	45.3	49.5
13:00	8144	3	2	5	123	859	1951	2408	1709	812	212	48	9	3	0	0	0	0	0	0	0	246	3%	35	0%	3	0%	37.5	46.2	49.6
14:00	8711	1	1	2	168	871	2081	2579	2029	737	182	42	14	4	0	0	0	0	0	0	0	217	2%	29	0%	4	0%	37.4	45.0	48.7
15:00	7922	1	1	3	117	820	1743	2325	1838	784	228	50	11	1	0	0	0	0	0	0	0	268	3%	31	0%	1	0%	37.8	45.3	50.0
16:00	8259	0	0	3	142	715	1862	2233	2037	936	248	58	17	3	4	1	0	0	0	0	0	305	4%	44	1%	7	0%	38.2	45.9	50.6
17:00	8816	46	45	51	154	762	1916	2360	2083	991	305	70	25	5	2	1	0	0	0	0	0	393	4%	64	1%	8	0%	37.9	46.0	51.1
18:00	7220	0	0	0	50	513	1436	2117	1877	873	254	67	22	7	3	1	0	0	0	0	0	333	5%	63	1%	11	0%	39.0	45.6	49.4
19:00	4782	0	1	0	37	296	986	1275	1223	641	230	65	15	8	4	1	0	0	0	0	0	302	6%	57	1%	13	0%	39.4	46.7	51.1
20:00	3811	0	0	6	17	252	726	1012	1029	529	168	52	15	3	2	0	0	0	0	0	0	222	6%	38	1%	5	0%	39.6	46.1	52.1
21:00	3508	0	0	2	25	180	601	993	987	490	168	41	13	7	0	1	0	0	0	0	0	219	6%	45	1%	8	0%	39.8	46.3	51.3
22:00	2471	0	0	0	16	174	529	733	587	309	96	19	7	1	0	0	0	0	0	0	0	114	5%	20	1%	1	0%	38.8	45.0	49.1
23:00	1538	0	0	0	20	141	348	441	325	185	56	10	9	1	2	0	0	0	0	0	0	70	5%	17	1%	3	0%	38.4	46.1	50.5
07-19	91746	52	50	93	1511	9357	20923	26210	21240	9052	2437	574	185	43	14	4	1	0	0	0	0	3045	3%	476	1%	60	0%	37.7	45.7	50.1
06-22	110684	52	51	106	1675	10606	24402	31135	26459	11774	3279	803	251	63	20	7	1	0	0	0	0	4131	4%	671	1%	89	0%	38.0	46.0	50.5
06-00	114693	52	51	106	1711	10921	25279	32309	27371	12268	3431	832	267	65	22	7	1	0	0	0	0	4315	4%	708	1%	93	0%	38.1	46.0	50.5
00-00	125894	52	51	111	1843	11788	27175	35358	30537	13730	3899	947	293	76	25	7	2	0	0	0	0	4904	4%	784	1%	108	0%	38.2	46.0	50.6

Abbreviations	
PSL	Posted Speed Limit
ACPO	Association of Chief Police Officers (Used to display the speed limit the police will generally enforce, 110% of PSL +2mph)
DFT	Department for Transport (Used to display a speed statistic used by the government looking at vehicles travelling over 15mph above the PSL)

Tamworth

Report Id 110/23

Site Name Site 1

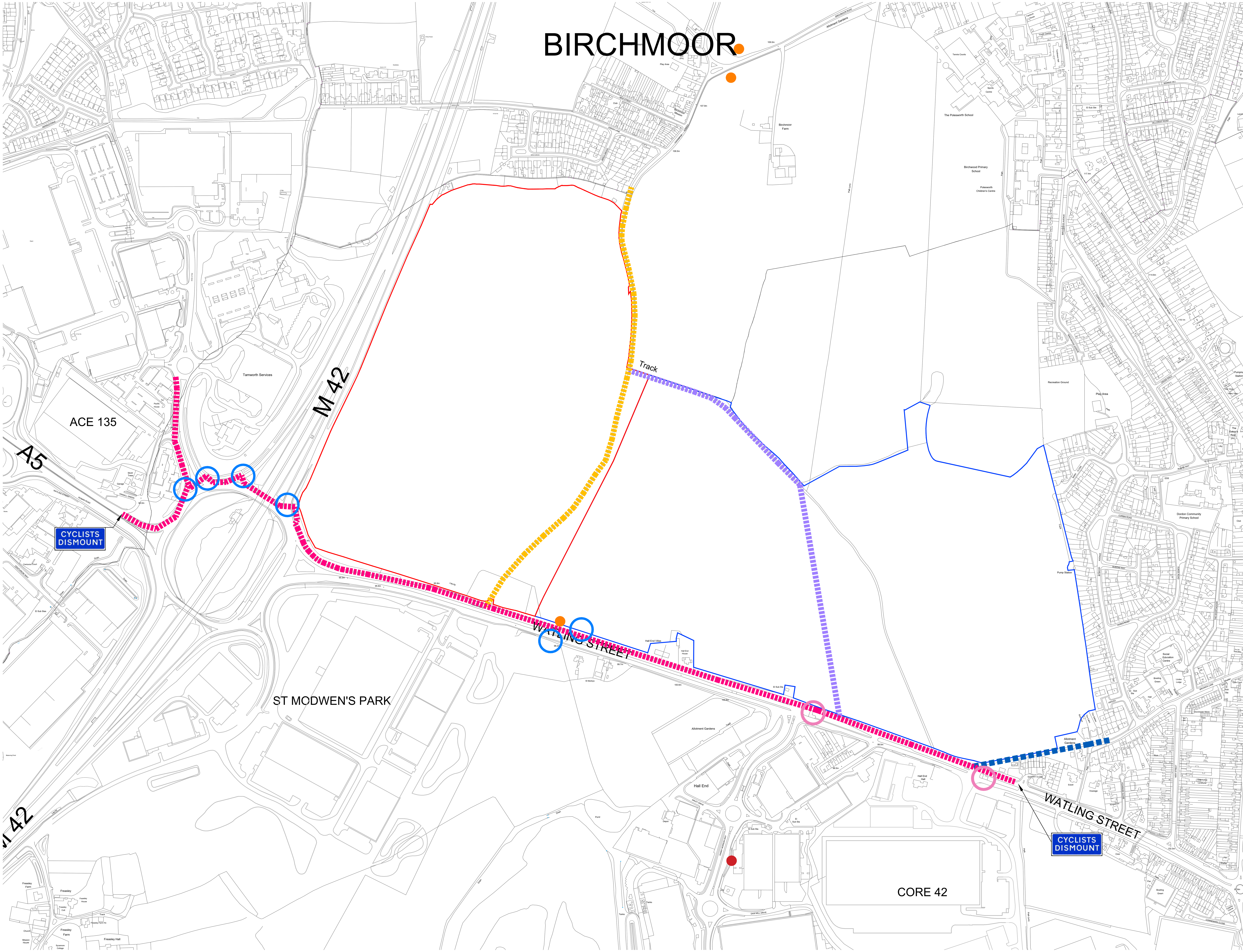
Description A5 Watling Street, Tamworth

Direction Westbound

7 Day																															
00:00	1218	0	0	1	3	44	184	337	325	178	92	31	16	5	1	1	0	0	0	0	0	138	11%	36	3%	7	1%	41.2	50.1	57.2
01:00	944	0	0	1	2	25	159	276	249	147	56	24	4	0	1	0	0	0	0	0	0	79	8%	20	2%	1	0%	40.7	48.2	53.8
02:00	1286	0	3	0	6	41	150	317	371	214	128	38	13	5	0	0	0	0	0	0	0	178	14%	35	3%	5	0%	41.9	49.6	53.5
03:00	1872	0	0	1	4	48	208	450	515	356	155	71	34	14	5	5	3	2	1	0	0	283	15%	97	5%	30	2%	42.8	50.6	56.4
04:00	2250	0	0	1	8	46	228	468	618	451	268	96	42	17	5	1	1	0	0	0	0	413	18%	105	5%	24	1%	43.5	51.2	59.9
05:00	4610	2	7	15	22	128	568	1077	1331	815	422	137	68	13	2	3	0	0	0	0	0	625	14%	151	3%	18	0%	42.0	50.6	56.5
06:00	6569	0	0	15	21	226	848	1648	1831	1171	545	162	55	36	8	2	1	0	0	0	0	772	12%	172	3%	47	1%	41.7	51.8	56.2
07:00	7570	1	10	16	90	422	1328	2186	1994	978	380	122	34	7	0	0	0	0	2	0	0	514	7%	96	1%	9	0%	39.6	52.8	57.7
08:00	7144	16	8	19	102	440	1269	2228	1765	911	286	72	19	6	3	0	0	0	0	0	0	367	5%	58	1%	9	0%	39.0	50.4	54.1
09:00	7261	4	12	39	161	435	1415	2195	1853	807	244	70	17	6	1	0	1	1	0	0	0	318	4%	52	1%	8	0%	38.6	48.3	55.1
10:00	7743	0	16	30	124	456	1574	2336	2110	765	255	57	17	3	0	0	0	0	0	0	0	301	4%	51	1%	3	0%	38.5	46.2	49.8
11:00	7807	9	8	18	121	431	1506	2327	2050	917	301	97	15	5	1	1	0	0	0	0	0	394	5%	56	1%	7	0%	38.9	46.7	51.1
12:00	8580	2	14	41	162	654	1629	2605	2092	966	289	76	40	8	2	0	0	0	0	0	0	399	5%	84	1%	10	0%	38.6	45.7	50.0
13:00	8721	10	17	34	120	636	1647	2587	2188	994	325	117	31	6	4	3	2	0	0	0	0	473	5%	91	1%	15	0%	38.7	46.0	52.6
14:00	10337	48	35	202	338	973	2162	2697	2266	1120	335	103	38	18	2	0	0	0	0	0	0	472	5%	102	1%	20	0%	37.3	48.2	52.2
15:00	9430	60	88	133	329	935	1748	2446	2188	1042	324	102	22	10	2	0	1	0	0	0	0	442	5%	70	1%	12	0%	37.4	47.9	53.8
16:00	9595	20	46	122	345	703	1783	2509	2302	1221	370	120	39	14	0	0	0	0	1	0	0	529	6%	111	1%	15	0%	38.3	50.0	55.1
17:00	8855	51	94	120	394	597	1547	2177	2173	1162	359	135	35	5	5	1	0	0	0	0	0	517	6%	106	1%	11	0%	38.1	48.2	52.7
18:00	7226	9	7	22	99	289	1003	1944	1920	1206	482	164	62	16	1	0	1	1	0	0	0	711	10%	158	2%	19	0%	40.8	49.5	55.1
19:00	5118	1	2	3	18	115	480	1224	1561	1001	454	179	47	25	7	0	1	0	0	0	0	681	13%	147	3%	33	1%	42.6	50.5	55.1
20:00	2865	0	0	0	3	22	210	665	907	591	293	112	54	5	1	2	0	0	0	0	0	454	16%	112	4%	8	0%	43.5	49.5	55.0
21:00	2618	0	0	0	0	28	188	568	815	483	312	136	49	27	10	2	0	0	0	0	0	518	20%	147	6%	38	1%	44.2	52.9	59.6
22:00	2387	0	0	1	5	33	207	531	705	484	256	101	45	12	5	2	0	0	0	0	0	411	17%	103	4%	18	1%	43.6	51.5	60.7
23:00	2147	0	0	0	2	36	226	536	623	340	209	106	53	4	9	2	1	0	0	0	0	373	17%	126	6%	16	1%	43.2	51.5	58.5
07-19	100269	230	355	796	2385	6971	18611	28237	24901	12089	3950	1235	369	104	21	5	5	2	3	0	0	5437	5%	1035	1%	138	0%	38.6	47.9	52.9
06-22	117439	231	357	814	2427	7362	20337	32342	30015	15335	5554	1824	574	197	47	11	7	2	3	0	0	7862	7%	1613	1%	264	0%	39.2	48.3	53.4
06-00	121973	231	357	815	2434	7431	20770	33409	31343	16159	6019	2031	672	213	61	15	8	2	3	0	0	8646	7%	1842	2%	298	0%	39.3	48.3	53.7
00-00	134153	233	367	834	2479	7763	22267	36334	34752	18320	7140	2428	849	267	75	25	12	4	4	0	0	10362	8%	2286	2%	383	0%	39.6	48.5	53.9

Abbreviations	
PSL	Posted Speed Limit
ACPO	Association of Chief Police Officers (Used to display the speed limit the police will generally enforce, 110% of PSL +2mph)

APPENDIX E CHETWOOD CONNECTIVITY PLAN



NOTES:
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Contractors must verify all dimensions on site before commencing any work or shop drawings. This drawing is not to be scaled. Use figured dimensions only.

Subject to statutory approvals and survey.

Building areas are liable to adjustment over the course of the design process due to the ongoing construction detailing developments.

Please note the information contained within this drawing is solely for the benefit of the employer and should not be relied upon by third parties.

The CDM hazard management procedures for the Chetwoods aspects of the design of this project are to be found on the "Chetwoods - Hazard Analysis and Design Risk Assessment" and/or drawings. The full project design teams comprehensive set of hazard management procedures are available from the Principle Designer appointed for the project.

SITE BOUNDARY
79.97 acres / 32.36 Ha

OTHER LAND UNDER THE CONTROL OF THE APPLICANT
102.94 acres / 41.66 Ha

PUBLIC BRIDLEWAY AE45

PAVEMENT / CYCLEWAY ALONG A5

PUBLIC FOOTPATH AE46

PUBLIC FOOTPATH AE48

BUS STOP - ONE WAY

BUS STOP - TWO WAYS

KEY UNCONTROLLED CROSSING POINT

KEY CONTROLLED CROSSING POINT

Rev	Revision Description	Date	Author/ Reviewer
[redacted]			

32 Frederick Street,
Birmingham, B1 3HH

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www.chetwoods.com

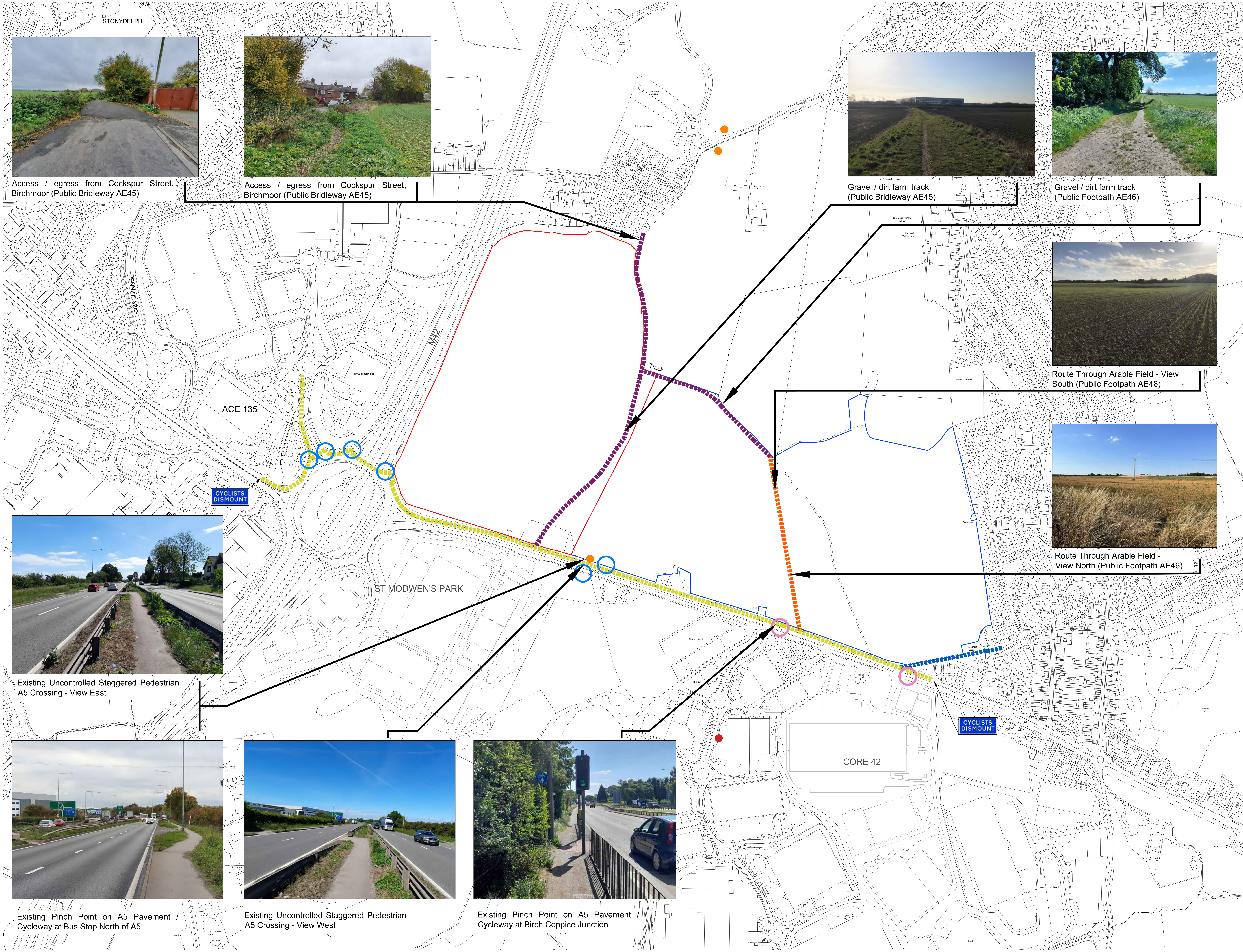
Project
LAND NORTH EAST OF J10 M42, DORDON

Client
HODGETTS ESTATES

Drawing Title
EXISTING CONNECTIVITY PLAN
ROUTE TYPE

Scale	Size	Drawn	Checked	Date
1:3000	A1	mb	NH	27.07.2022

Project	Originator	Zone	Level	Type	Role	Number	Rev.
4263	CA	00	00	DR	A	00801	P3



Contractors must verify all dimensions on site before commencing any work or shop drawings. This drawing is not to be scaled. Use figured dimensions only.

Subject to statutory approvals and survey.

Building areas are liable to adjustment over the course of the design process due to the ongoing construction detailing developments.

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N.B.

- **EXISTING PAVEMENT/CYCLEWAY ALONG THE A5 DOES NOT MEET THE RELEVANT DESIGN STANDARD AND IS THEREFORE DANGEROUS AND UNAPPEALING TO PROSPECTIVE USERS**

SITE BOUNDARY
79.97 acres / 32.36 Ha

OTHER LAND UNDER THE CONTROL OF THE APPLICANT
102.94 acres / 41.66 Ha

GRAVEL / DIRT FARM TRACK

TARMAC PAVEMENT / CYCLEWAY ALONG THE A5 - NOT COMPLIANT WITH DESIGN STANDARDS

ROUTE THROUGH ARABLE FIELD

TARMAC PUBLIC FOOTPATH

BUS STOP - ONE WAY

BUS STOP - TWO WAYS

KEY UNCONTROLLED CROSSING POINT

KEY CONTROLLED CROSSING POINT

Rev	Revision Description	Date	Author/ Reviewer
[redacted]			

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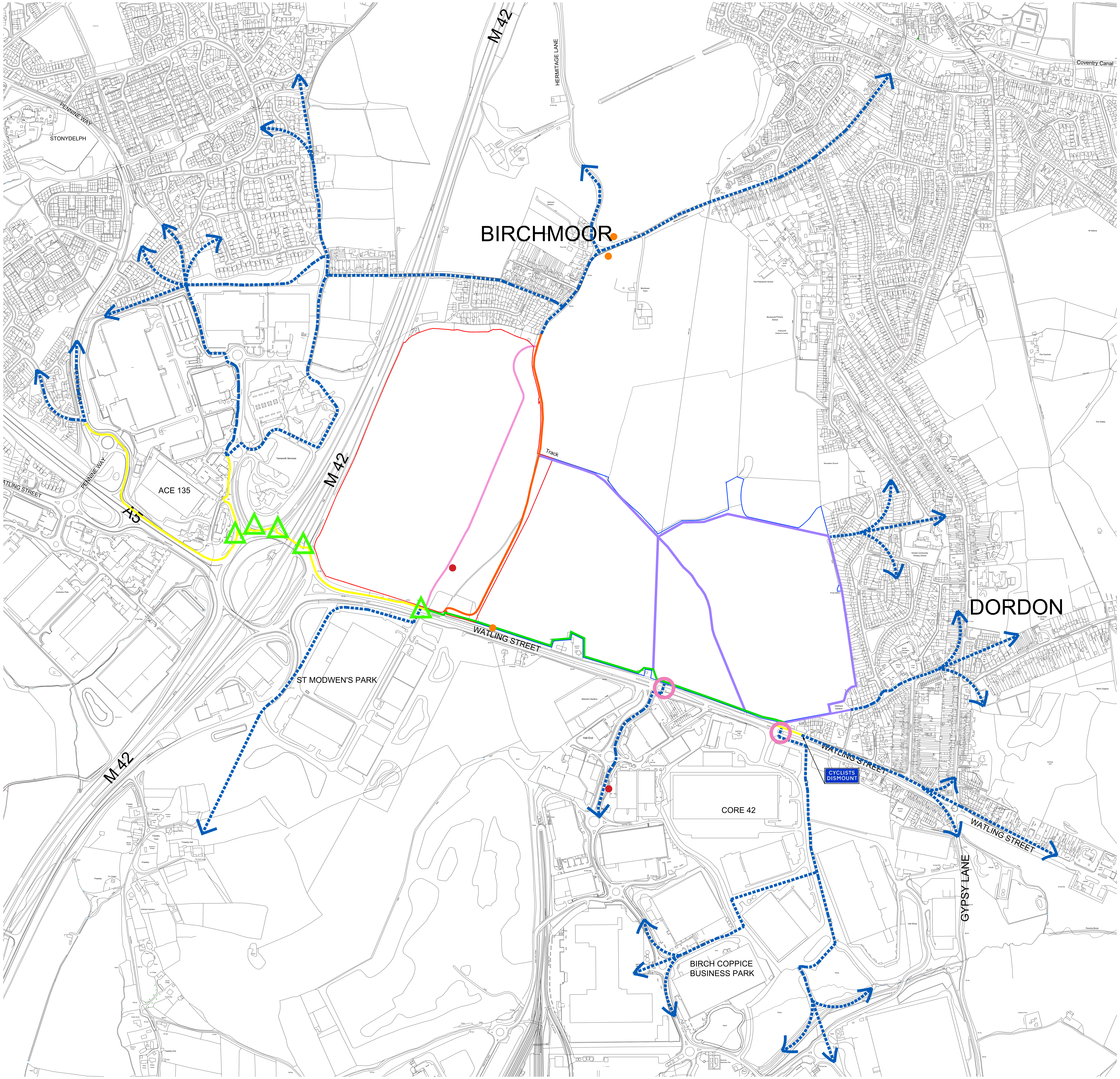
Project
LAND NORTH EAST OF J10 M42, DORDON

Client
HODGETTS ESTATES

Drawing Title
EXISTING CONNECTIVITY PLAN
ROUTE SURFACE

Scale	Size	Drawn	Checked	Date
1:4000	A1	mb	NH	27.07.2022

Project	Originator	Zone	Level	Type	Role	Number	Rev.
4263	CA	00	00	DR	A	00802	P3



Dual 3m wide tarmacked footway/cycleways for the new pedestrian/ cycle routes

Part Tarmac, Part Grass/Sand Public Bridleway

Tarmac Public Footpath

All Routes to Be Lined With Trees / Hedgerows to Enhance Rural Quality, Biodiversity and Wayfinding

Tarmac cycling route

NOTES:

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Please note the information contained within this drawing is solely for the benefit of the employer and should not be relied upon by third parties.

The CDM hazard management procedures for the Chetwoods aspects of the design of this project are to be found on the "Chetwoods - Hazard Analysis and Design Risk Assessment" and/or drawings. The full project design teams comprehensive set of hazard management procedures are available from the Principle Designer appointed for the project.

0m 50m 100m 200m

North

- SITE BOUNDARY 79.97 acres / 32.36 Ha
- OTHER LAND UNDER THE CONTROL OF THE APPLICANT 102.94 acres / 41.66 Ha
- 3M WIDE TARMAC SHARED PAVEMENT / CYCLEWAY ALONG SITE ROAD AND NORTH TO BIRCHMOOR
- PART TARMAC, PART GRASS/SAND PUBLIC BRIDLEWAY (AE45)
- 3M WIDE TARMAC OFFLINE SHARED FOOT / CYCLEWAY
- 3M WIDE TARMAC SHARED FOOT / CYCLEWAY ALONG ROUTE OF EXISITING AND PROPOSED PUBLIC RIGHTS OF WAY NETWORK
- ENHANCED TARMAC PAVEMENT / CYCLEWAY ALONG A5
- POSSIBLE INBOUND / ONWARD JOURNEY ROUTE OPTIONS
- BUS STOP - ONE WAY
- BUS STOP - TWO WAYS
- KEY CROSSING POINT UPGRADED TO SIGNAL CONTROLLED
- KEY CONTROLLED CROSSING POINT

Rev	Revision Description	Date	Author/ Reviewer
[redacted]			

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Project
LAND NORTH EAST OF J10 M42, DORDON

Client
HODGETTS ESTATES

Drawing Title
PROPOSED CONNECTIVITY PLAN - ROUTE TYPE & SURFACE

Scale	Size	Drawn	Checked	Date
1:5000	A1	mb	NH	27.07.2022

Project	Originator	Zone	Level	Type	Role	Number	Rev.
4263	CA	00	00	DR	A	00803	P6

APPENDIX F ACCIDENT DATA

Source: Staffordshire County Council

Lane NE of M42 Junction 10

Staffordshire Accident Data

Figure E1

TETRA TECH

Accidents between dates **01/01/2018 and 29/10/2023** (70) months

Selection: **Notes:**

Selected using Manual Selection

Acc. Ref. No: 18299447 **Road:** A 5 **Grid Reference:** 423916 300819
District Council: Tamworth **Time:** 1530 Saturday 21-April-2018
Lighting: Daylight **Weather:** Fine without high winds **Speed limit:** 70
Severity: SLIGHT **Road surface** Wet/Damp
Location: THOMAS GUY WAY A5 NB EXIT SLIP BY PREMIER INN

The accident occured on the A5, a slip road.

Special conditions and hazards: None

Vehicle 1 Car, travelling from SE to NW was stopping on the main carriageway. The vehicle was not at, or within 20M of a junction and skidded. The male driver aged 18 lived in BH31.

Casualty 1 (Vehicle 1) A male driver aged 18 suffered a slight injury.

Contributory Factors

Vehicle 1 Poor turn or manoevre
Vehicle 1 Sudden braking
Vehicle 1 Loss of control

Acc. Ref. No: 18322469 **Road:** D 66 **Grid Reference:** 423838 300842
District Council: Tamworth **Time:** 1703 Monday 02-July-2018
Lighting: Daylight **Weather:** Fine without high winds **Speed limit:** 30
Severity: SLIGHT **Road surface** Dry
Location: WATLING ST B5404 JN WITH QUARRY HILL

The accident occured at a roundabout on the D66, a single carriageway at its junction with the B5404 controlled by a give way or uncontrolled.

Special conditions and hazards: None

Vehicle 1 Car, travelling from SW to NE was going ahead other on the main carriageway. The vehicle was approaching junction or waiting/parked at junction approach. The female driver aged 24 lived in NG8.
Vehicle 2 Pedal Cycle, travelling from NW to SE was going ahead other on the main carriageway. The vehicle was entering main road. The female d aged 23.

Casualty 1 (Vehicle 2) A female rider aged 23 suffered a slight injury.
Casualty 2 (Vehicle 1) A female driver aged 24 suffered a slight injury.

Contributory Factors

Vehicle 2 Illegal turn or direction of travel
Vehicle 2 Cyclist entering road from pavement

Acc. Ref. No: 18338615 **Road:** B 5404 **Grid Reference:** 423839 300845
District Council: Tamworth **Time:** 1430 Tuesday 25-September-2018
Lighting: Daylight **Weather:** Fine without high winds **Speed limit:** 30
Severity: SLIGHT **Road surface** Dry
Location: QUARRY HILL B5404 AT JN WITH PENINE WAY

The accident occured at a roundabout on the B5404, at its junction with the B5080 controlled by a give way or uncontrolled..

Special conditions and hazards: None

Vehicle 1 Car, travelling from NE to NW was turning right on the main carriageway. The vehicle was mid junction - on roundabout or main road. The male driver of an unknown age .
Vehicle 2 Car, travelling from NE to NW was stopping on the main carriageway. The vehicle was mid junction - on roundabout or main road. The fer driver aged 24 lived in B77.

Casualty 1 (Vehicle 2) A female driver aged 24 suffered a slight injury.

Contributory Factors

Vehicle 1 Failed to look properly

Accidents between dates **01/01/2018** **and** **29/10/2023** (70) months

Selection: **Notes:**

Selected using Manual Selection

Acc. Ref. No: 19400169 **Road:** A 5 **Grid Reference:** 424202 300705
District Council: Tamworth **Time:** 2018 Tuesday 28-May-2019
Lighting: Daylight **Weather:** Fine without high winds **Speed limit:** 70
Severity: SLIGHT **Road surface** Dry
Location: THOMAS GUY WAY (A5) APPROX 60MTS NW M42 ISLAND

The accident occured on the A5, a dual carriageway .

Special conditions and hazards: None

Vehicle 1 Motorcycle over 500cc, travelling from SE to NW was going ahead other on the main carriageway. The vehicle was not at, or within 20M of junction. The male driver aged 68 lived in DA2.

Casualty 1 (Vehicle 1) A male rider aged 68 suffered a slight injury.

Contributory Factors

Vehicle 1 Dazzling sun

Acc. Ref. No: 19868172 **Road:** A 5 **Grid Reference:** 424034 300813
District Council: Tamworth **Time:** 2018 Thursday 18-July-2019
Lighting: Daylight **Weather:** Fine without high winds **Speed limit:** 70
Severity: SLIGHT **Road surface** Dry
Location: A5 NB J/W STONEYDELPH EXIT

The accident occured at a T or staggered junction on the A5, a slip road at its junction with the A5 controlled by a give way or uncontrolled..

Special conditions and hazards: None

Vehicle 1 Motorcycle over 500cc, travelling from SE to W was turning left on the main carriageway. The vehicle cleared junction or waiting/parked at junction exit. The male driver aged 44 lived in CV9.

Casualty 1 (Vehicle 1) A male rider aged 44 suffered a slight injury.

Contributory Factors

Vehicle 1 Dazzling sun
Vehicle 1 Swerved

Acc. Ref. No: 19887971 **Road:** A 5 **Grid Reference:** 424220 300718
District Council: Tamworth **Time:** 1202 Saturday 07-September-2019
Lighting: Daylight **Weather:** Fine without high winds **Speed limit:** 70
Severity: SLIGHT **Road surface** Dry
Location: A5 - APPROX 38MTS SE J/W KINSALL GREEN

The accident occured on the A5, a dual carriageway .

Special conditions and hazards: None

Vehicle 1 Car, travelling from NW to SE was going ahead other on the main carriageway. The vehicle was not at, or within 20M of a junction. The fer driver aged 70 lived in DE13.
Vehicle 2 Car, travelling from NW to SE was going ahead but held up on the main carriageway. The vehicle was not at, or within 20M of a junction. T male driver aged 53 lived in B75.

Casualty 1 (Vehicle 1) A female vehicle or pillion passenger aged 74 suffered a slight injury.

Contributory Factors

Vehicle 1 Following too close
Vehicle 1 Failed to look properly
Vehicle 1 Failed to judge other persons path or speed

Accidents between dates **01/01/2018 and 29/10/2023** (70) months

Selection: **Notes:**

Selected using Manual Selection

Acc. Ref. No: 20936138 **Road:** A 5 **Grid Reference:** 424001 300860
District Council: Tamworth **Time:** 1659 Thursday 09-January-2020
Lighting: Darkness: street lights present and lit **Weather:** Fine without high winds **Speed limit:** 70
Severity: SERIOUS **Road surface** Dry
Location: THOMAS GUY WAY (A5 EB) J/W STONEYDELPH ENTRY SLIP

The accident occured at a slip road on the A5, a dual carriageway at its junction with the A5 controlled by a give way or uncontrolled..

Special conditions and hazards: None

Vehicle 1 Car, travelling from N to SE was changing lane to right on the main carriageway. The vehicle was entering from slip road. The male driver an unknown age .
Vehicle 2 Motor Cycle over 50 cc and up to 125cc, travelling from NW to SE was going ahead other on the main carriageway. The vehicle was mid junction - on roundabout or main road. The male driver aged 19 lived in DE12.
Vehicle 3 Car, travelling from NW to SE was going ahead other on the main carriageway. The vehicle cleared junction or waiting/parked at junction e The male driver aged 62 lived in B77.

Casualty 1 (Vehicle 2) A male rider aged 19 suffered a serious injury.

Contributory Factors

Vehicle 1 Failed to look properly
Vehicle 1 Poor turn or manoevre
Vehicle 1 Careless/Reckless/In a hurry
Vehicle 1 Exceeding speed limit

Acc. Ref. No: 201000821 **Road:** A 5 **Grid Reference:** 423958 300889
District Council: Tamworth **Time:** 1252 Friday 28-August-2020
Lighting: Daylight **Weather:** Raining without high winds **Speed limit:** 70
Severity: SLIGHT **Road surface** Wet/Damp
Location: A5 EB J/W EXIT SLIP STONEYDELPH

The accident occured at a slip road on the A5, a dual carriageway at its junction with the A5 controlled by a give way or uncontrolled..

Special conditions and hazards: None

Vehicle 1 Goods 7.5 tonnes mgw and over, travelling from NW to SE was going ahead other on the main carriageway. The vehicle was approaching junction or waiting/parked at junction approach. The male driver aged 49 lived in DE23.
Vehicle 2 Car, travelling from NW to SE was going ahead but held up on the main carriageway. The vehicle was mid junction - on roundabout or mai road. The male driver aged 20.
Vehicle 3 Car, travelling from NW to SE was going ahead but held up on the main carriageway. The vehicle cleared junction or waiting/parked at jun exit. The male driver aged 35 lived in CV11.

Casualty 2 (Vehicle 2) A male vehicle or pillion passenger aged 61 suffered a slight injury.

Contributory Factors

Vehicle 1 Dazzling sun
Vehicle 1 Slippery road (due to weather)
Vehicle 1 Travelling too fast for conditions

Acc. Ref. No: 221139087 **Road:** B 5080 **Grid Reference:** 423889 301093
District Council: Tamworth **Time:** 1620 Friday 21-January-2022
Lighting: Daylight **Weather:** Fine without high winds **Speed limit:** 40
Severity: SLIGHT **Road surface** Dry
Location: PENNINE WAY (B5080) AT JUNCTION WITH PENNYMOOR ROAD

The accident occured at a T or staggered junction on the B5080, a single carriageway at its junction with the Unclassified52 controlled by a giv way or uncontrolled..

Special conditions and hazards: None

Vehicle 1 Car, travelling from W to SE was turning right on the main carriageway. The vehicle was entering main road. The female driver aged 38 liv B77.
Vehicle 2 Van or Goods 3.5 tonnes mgw and under, travelling from SE to NW was going ahead other on the main carriageway. The vehicle was mid junction - on roundabout or main road. The male driver aged 31 lived in B24.

Casualty 1 (Vehicle 1) A female driver aged 38 suffered a slight injury.

Accidents between dates **01/01/2018** **and** **29/10/2023** (70) months

Selection:

Notes:

Selected using Manual Selection

Acc. Ref. No: 221195045 **Road:** B 5080 **Grid Reference:** 423967 301048

District Council: Tamworth **Time:** 1733 Monday 11-April-2022

Lighting: Daylight **Weather:** Fine without high winds **Speed limit:** 30

Severity: SLIGHT **Road surface** Dry

Location: PENNINE WAY R'BT J/W THOMAS GUY WAY (A5)

The accident occured at a roundabout on the B5080, at its junction with the A5 controlled by a give way or uncontrolled..

Special conditions and hazards: None

Vehicle 1 Car, travelling from N to S was going ahead other on the main carriageway. The vehicle was mid junction - on roundabout or main road. Tł female driver aged 39 lived in B77.

Vehicle 2 Car, travelling from SW to S was stopping on the main carriageway. The vehicle was mid junction - on roundabout or main road. The male driver of an unknown age .

Casualty 1 (Vehicle 1) A female driver aged 39 suffered a slight injury.

Contributory Factors

Vehicle 1 Following too close

Vehicle 2 Sudden braking

Acc. Ref. No: 221241676 **Road:** A 5 **Grid Reference:** 424195 300732

District Council: Tamworth **Time:** 1715 Wednesday 09-November-2022

Lighting: Darkness: street lights present and lit **Weather:** Unknown **Speed limit:** 70

Severity: SLIGHT **Road surface** Dry

Location: A5 EB APPROX 10MTS SE J/W KINSALL GREEN (A5)

The accident occured at a T or staggered junction on the A5, a dual carriageway at its junction with the Unclassified31 controlled by a give wa uncontrolled..

Special conditions and hazards: None

Vehicle 1 Car, travelling from NW to SE was stopping on the main carriageway. The vehicle cleared junction or waiting/parked at junction exit. The n driver aged 22 lived in CV9.

Vehicle 2 Car, travelling from NW to SE was stopping on the main carriageway. The vehicle cleared junction or waiting/parked at junction exit. The female driver aged 63 lived in CV10.

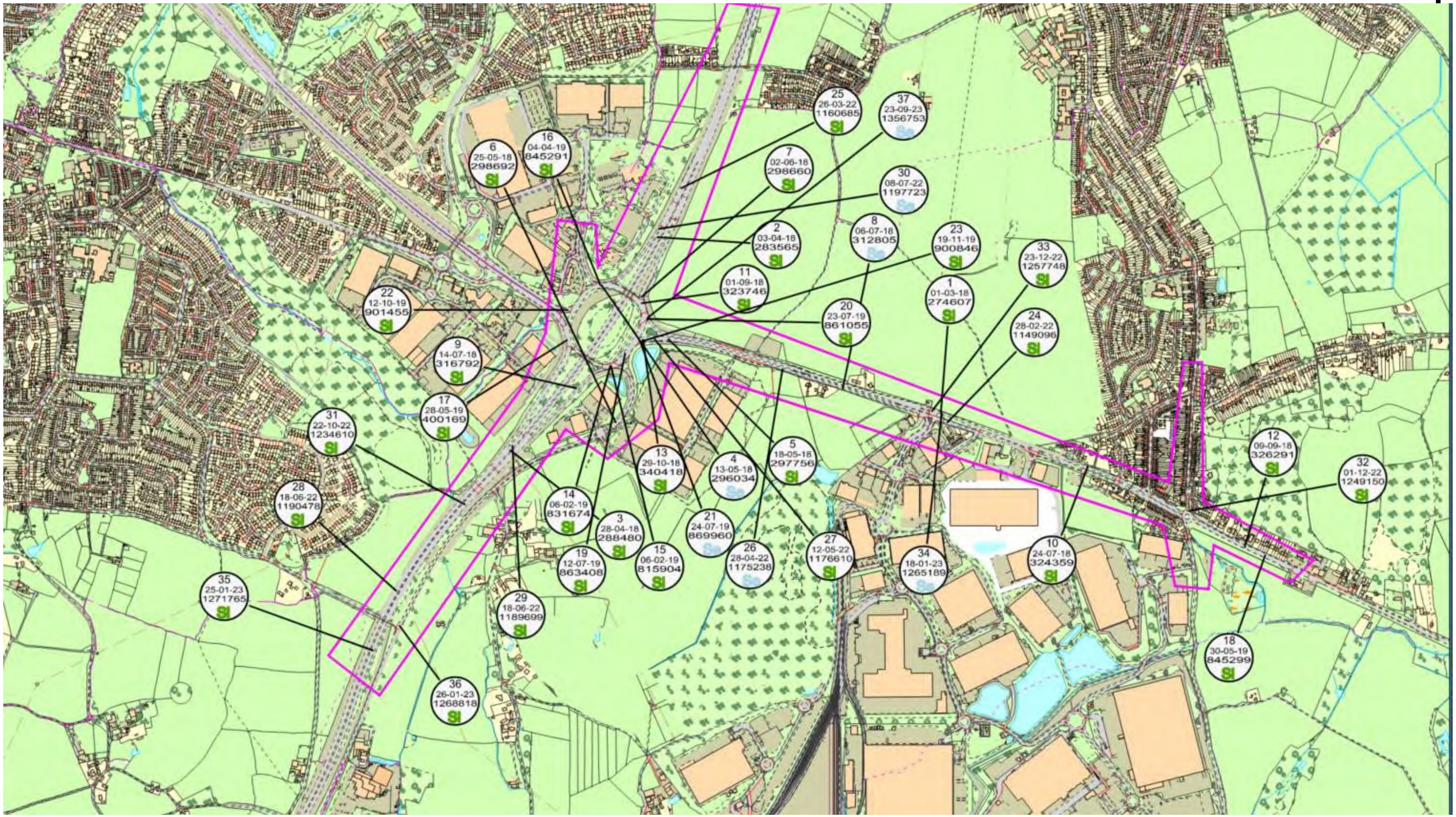
Casualty 1 (Vehicle 2) A female driver aged 63 suffered a slight injury.

01/01/2018 - 31/12/2019 and 01/01/2022 - 18/10/2023
01 Mar 2018 to 23 Sep 2023

Report produced: 16/11/2023

Road Safety Intelligence Team
Tel: 01926 412740
Email: rsinfo@warwickshire.gov.uk

N



Source: Warwickshire County Council

Lane NE of M42 Junction 10

Figure E2

Warwickshire Accident Data

TETRA TECH

ALL ROAD USERS - ACCIDENTS

Year	Fatal	Serious	Slight	Total
2018	0	2	11	13
2019	0	1	9	10
2022	0	2	8	10
2023	0	2	2	4

Month	Fatal	Serious	Slight	Total
January	0	1	2	3
February	0	0	3	3
March	0	0	2	2
April	0	1	3	4
May	0	1	5	6
June	0	0	3	3
July	0	3	4	7
August	0	0	0	0
September	0	1	2	3
October	0	0	3	3
November	0	0	1	1
December	0	0	2	2

Day	Fatal	Serious	Slight	Total
Sunday	0	1	1	2
Monday	0	0	2	2
Tuesday	0	0	5	5
Wednesday	0	2	3	5
Thursday	0	1	6	7
Friday	0	2	4	6
Saturday	0	1	9	10

Ped Crossing	Fatal	Serious	Slight	Total
Not at crossing	0	6	28	34
Zebra	0	0	0	0
Pelican	0	1	1	2
Ped Phase	0	0	1	1
Footbridge	0	0	0	0
Refuge	0	0	0	0
Unknown	0	0	0	0

Bends (Veh Totals)	Fatal	Serious	Slight	Total
Left Hand Bend	0	0	4	4
Right Hand Bend	0	0	1	1

Time	Fatal	Serious	Slight	Total
0000-0059	0	0	1	1
0100-0159	0	0	0	0
0200-0259	0	0	0	0
0300-0359	0	0	1	1
0400-0459	0	0	0	0
0500-0559	0	1	1	2
0600-0659	0	0	1	1
0700-0759	0	0	0	0
0800-0859	0	0	0	0
0900-0959	0	0	3	3
1000-1059	0	1	2	3
1100-1159	0	0	1	1
1200-1259	0	0	1	1
1300-1359	0	1	1	2
1400-1459	0	0	1	1
1500-1559	0	1	1	2
1600-1659	0	2	2	4
1700-1759	0	0	2	2
1800-1859	0	1	5	6
1900-1959	0	0	2	2
2000-2059	0	0	2	2
2100-2159	0	0	2	2
2200-2259	0	0	1	1
2300-2359	0	0	0	0

Lighting	Fatal	Serious	Slight	Total
Daylight	0	6	21	27
Darkness	0	1	9	10

Weather	Fatal	Serious	Slight	Total
Fine without high winds	0	6	22	28
Raining without high winds	0	0	6	6
Snowing without high winds	0	1	0	1
Fine with high winds	0	0	0	0
Raining with high winds	0	0	0	0
Snowing with high winds	0	0	0	0
Fog or mist - if hazard	0	0	1	1
Other	0	0	1	1
Unknown	0	0	0	0

Road Surface	Fatal	Serious	Slight	Total
Dry	0	6	16	22
Wet/Damp	0	1	13	14
Snow	0	0	0	0
Frost/Ice	0	0	1	1
Flood	0	0	0	0
Unknown	0	0	0	0

District	Fatal	Serious	Slight	Total
North Warwickshire	0	7	28	35
Tamworth	0	0	2	2

Road Class	Fatal	Serious	Slight	Total
M	0	1	9	10
A(M)	0	0	0	0
A	0	6	18	24
B	0	0	0	0
Other	0	0	3	3

Speed Limit	Fatal	Serious	Slight	Total
20	0	0	0	0
30	0	0	7	7
40	0	0	2	2
50	0	2	8	10
60	0	1	2	3
70	0	4	11	15

Obstruction (Veh Totals)	Fatal	Serious	Slight	Total
Sign/Signal	0	0	0	0
Lamp Post	0	1	0	1
Pole	0	0	0	0
Tree	0	0	0	0
Bus Stop	0	0	0	0
Barrier	0	0	3	3
Other	0	0	1	1

Junction Type	Fatal	Serious	Slight	Total
Not at Junction	0	2	16	18
Roundabout	0	3	10	13
Mini R'about	0	0	0	0
T or Staggered	0	1	3	4
Slip Road	0	1	1	2
Crossroads	0	0	0	0
Multiple Junct	0	0	0	0
Private Drive	0	0	0	0
Other Junction	0	0	0	0
Unknown	0	0	0	0

ALL ROAD USERS - CASUALTIES

Year	Fatal	Serious	Slight	Total
2018	0	2	20	22
2019	0	1	14	15
2022	0	2	13	15
2023	0	2	2	4

Month	Fatal	Serious	Slight	Total
January	0	1	2	3
February	0	0	3	3
March	0	0	2	2
April	0	1	3	4
May	0	1	10	11
June	0	0	4	4
July	0	3	9	12
August	0	0	0	0
September	0	1	4	5
October	0	0	8	8
November	0	0	1	1
December	0	0	3	3

Day	Fatal	Serious	Slight	Total
Sunday	0	1	3	4
Monday	0	0	2	2
Tuesday	0	0	6	6
Wednesday	0	2	3	5
Thursday	0	1	8	9
Friday	0	2	10	12
Saturday	0	1	17	18

Ped Crossing	Fatal	Serious	Slight	Total
Not at crossing	0	6	47	53
Zebra	0	0	0	0
Pelican	0	1	1	2
Ped Phase	0	0	1	1
Footbridge	0	0	0	0
Refuge	0	0	0	0
Unknown	0	0	0	0

Bends	Fatal	Serious	Slight	Total
Left Hand Bend	0	0	5	5
Right Hand Bend	0	0	1	1

Casualty Age	Fatal	Serious	Slight	Total
0 - 5	0	0	3	3
6 - 10	0	1	0	1
11 - 16	0	1	0	1
17 - 25	0	1	7	8
26 - 35	0	2	13	15
36 - 45	0	0	8	8
46 - 55	0	2	6	8
56 - 64	0	0	7	7
65+	0	0	5	5
Unknown	0	0	0	0

Time	Fatal	Serious	Slight	Total
0000-0059	0	0	2	2
0100-0159	0	0	0	0
0200-0259	0	0	0	0
0300-0359	0	0	2	2
0400-0459	0	0	0	0
0500-0559	0	1	1	2
0600-0659	0	0	3	3
0700-0759	0	0	0	0
0800-0859	0	0	0	0
0900-0959	0	0	4	4
1000-1059	0	1	3	4
1100-1159	0	0	1	1
1200-1259	0	0	2	2
1300-1359	0	1	2	3
1400-1459	0	0	1	1
1500-1559	0	1	2	3
1600-1659	0	2	3	5
1700-1759	0	0	2	2
1800-1859	0	1	10	11
1900-1959	0	0	2	2
2000-2059	0	0	5	5
2100-2159	0	0	2	2
2200-2259	0	0	2	2
2300-2359	0	0	0	0

Lighting	Fatal	Serious	Slight	Total
Daylight	0	6	34	40
Darkness	0	1	15	16

Weather	Fatal	Serious	Slight	Total
Fine without high winds	0	6	38	44
Raining without high winds	0	0	9	9
Snowing without high winds	0	1	0	1
Fine with high winds	0	0	0	0
Raining with high winds	0	0	0	0
Snowing with high winds	0	0	0	0
Fog or mist - if hazard	0	0	1	1
Other	0	0	1	1
Unknown	0	0	0	0

Road Surface	Fatal	Serious	Slight	Total
Dry	0	6	29	35
Wet/Damp	0	1	19	20
Snow	0	0	0	0
Frost/Ice	0	0	1	1
Flood	0	0	0	0
Unknown	0	0	0	0

District	Fatal	Serious	Slight	Total
North Warwickshire	0	7	47	54
Tamworth	0	0	2	2

Road Class	Fatal	Serious	Slight	Total
M	0	1	14	15
A(M)	0	0	0	0
A	0	6	29	35
B	0	0	0	0
Other	0	0	6	6

Speed Limit	Fatal	Serious	Slight	Total
20	0	0	0	0
30	0	0	13	13
40	0	0	3	3
50	0	2	10	12
60	0	1	6	7
70	0	4	17	21

Obstruction	Fatal	Serious	Slight	Total
Sign/Signal	0	0	0	0
Lamp Post	0	1	0	1
Pole	0	0	0	0
Tree	0	0	0	0
Bus Stop	0	0	0	0
Barrier	0	0	3	3
Other	0	0	1	1

ALL ROAD USERS - CASUALTIES

Junction Type	Fatal	Serious	Slight	Total
Not at Junction	0	2	28	30
Roundabout	0	3	16	19
Mini R'about	0	0	0	0
T or Staggered	0	1	3	4
Slip Road	0	1	2	3
Crossroads	0	0	0	0
Multiple Junct	0	0	0	0
Private Drive	0	0	0	0
Other Junction	0	0	0	0
Unknown	0	0	0	0

D-PRINT CRASH REPORT

16 November 2023
10:46:46

No	Location	Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
1	**Road No A5 Section** **Grid Ref 425412E 300392N**	SLIGHT	01/03/2018	5	05:49	Dark: lit	Frost/Ice	Fog Mist			P/C
	A5 AT JN WITH BIRCH COPPICE BUSINESS PARK								North Warwickshire		
	VEHICLE 1 WAS TRAVELLING ALONG THE A5, DORDON AND AS HE WAS APPROACHING TRAFFIC LIGHTS WHICH WERE ON GREEN HE CONTINUED TO TRAVEL. IP HAS THEN CROSSED THE ROAD ON HIS PEDAL CYCLE IN FRONT OF VEHICLE 1 CAUSING THEM BOTH TO COLLIDE.						Veh1, car, W → E Veh2, pedal cycle, N → S				Casualties 1 Vehicles 2
2	**Road No M42 Section** **Grid Ref 424527E 300941N**	SLIGHT	03/04/2018	3	17:20	Daylight	Dry	Fine			
	NB JCT 10 M42								North Warwickshire		
	2 LANES RUNNING. V002 BRAKES AND V001 HITS THE REAR.						Veh1, car, SW → NE Veh2, goods unknown weight, SW → NE				Casualties 1 Vehicles 2
3	**Road No M42 Section** **Grid Ref 424068E 300275N**	SLIGHT	28/04/2018	7	09:20	Daylight	Wet/Damp	Rain		S.VEH	
	52/1 J10 M42 AT JN WITH JCT 10 NB SLIP OFF M42								North Warwickshire		
	Single vehicle RTC whereby V1 appears to have aqua-planed on water causing it to collide with central reserve barrier before rebounding across carriageway and collided with nearside Armco barrier coming to rest on the hard shoulder.						Veh1, car, SW → NE				Casualties 1 Vehicles 1

Key

Involved		*FACTORS*		*Special Conditions*	
PED	*Pedestrian*	*+VE*	*Positive Breath Test*	*ATS OUT*	*Traffic Lights Not Working*
HGV	*Heavy Goods Vehicle*	*R.TURN*	*Right Turn Manoeuvre*	*ATS DEF*	*Traffic Lights Defective*
GV	*Goods Vehicle*	*O/TAKE*	*Overtaking Manoeuvre*	*SIGNS*	*Road Signs Defective or Obscurred*
M/C	*Motor Cycle*	*S.VEH*	*Single Vehicle*	*RD WRKS*	*Road Works*
P/C	*Pedal Cycle*			*Surface*	*Road Surface Defective*
PSV	*Bus/Coach*				

D-PRINT CRASH REPORT

16 November 2023
10:46:46

No	Location		Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
4	**Road No A5** **Section**	**Grid 424353E** **Ref 300791N**	SERIOUS	13/05/2018	1	18:27	Daylight	Dry	Fine			
	WILNECOTE BYPASS ISLAND A5 AT JN WITH GREEN LANE									North Warwickshire		
	VEHICLE 1 AND 2 HAVE TRAVELLED ALONG THE A5 FROM TAMWORTH AND APPROACHED THE M42 ROUNDABOUT. VEHICLE 2 WAS STATIONARY AT THE TRAFFIC LIGHTS WITH SEVERAL CARS BEHIND THEM HOWEVER STALLED WHEN THE LIGHTS TURNED GREEN. VEHICLE 1 HAS CHANGED LANES MOVING TO THE RIGHT HAND SIDE ATTEMPTNG TO GO AROUND THE QUE OF CARS, HOWEVER CUT IN FRONT OF VEHICLE 2 TO TRAVEL DOWN M42 SLIP ROAD CAUSING A COLLISION. VEHICLE 2 WAS TRAVELLING STRAIGHT AHEAD INTENDING TO TAKE THE A5 EXIT.							Veh1, car, NW → NE Veh2, car, NW → SE				Casualties 2 Vehicles 2
5	**Road No A5** **Section**	**Grid 424561E** **Ref 300622N**	SLIGHT	18/05/2018	6	22:40	Dark: lit	Dry	Fine			
	A5 NEAR JN WITH JCT 10 ISLAND M42									North Warwickshire		
	VEHICLE 1 AND VEHICLE 2 WERE TRAVELLING ALONG A5 FROM ATHERSTONE TOWARDS TAMWORTH WHEN VEHICLE 1 HAS DRIVEN INTO THE REAR OF VEHICLE 2 CAUSING MINOR DAMAGE AND SLIGHT INJURY TO THE OCCUPANTS OF VEHICLE 2. VEHICLE 1 LEFT THE SCENE.COLLISION OCCURED ON THE WARWICKSHIRE FORCE AREA. PLEASE SEN TO THEM FOR RECORDING. THERE ARE NO WITNESSES AND NO CCTV. INFORMANT ADVISED THAT THIS MATTER WILL BE FILED.							Veh1, car, E → W Veh2, car, E → W				Casualties 2 Vehicles 2

Key

Involved		*FACTORS*		*Special Conditions*	
PED	*Pedestrian*	*+VE*	*Positive Breath Test*	*ATS OUT*	*Traffic Lights Not Working*
HGV	*Heavy Goods Vehicle*	*R.TURN*	*Right Turn Manoeuvre*	*ATS DEF*	*Traffic Lights Defective*
GV	*Goods Vehicle*	*O/TAKE*	*Overtaking Manoeuvre*	*SIGNS*	*Road Signs Defective or Obscurred*
M/C	*Motor Cycle*	*S.VEH*	*Single Vehicle*	*RD WRKS*	*Road Works*
P/C	*Pedal Cycle*			*Surface*	*Road Surface Defective*
PSV	*Bus/Coach*				

D-PRINT CRASH REPORT

No	Location	Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
6	**Road No U** **Grid 424397E** **Section** **Ref 300363N**	SLIGHT	25/05/2018	6	20:20	Daylight	Dry	Fine			
	TRINITY ROAD NEAR JN WITH JCT 10 M42								North Warwickshire		
	VEHICLE 1 HAS EXITED THE M42 AT JUNCTION 10 AND DRIVEN ON TO TRINITY ROAD. WHILST DRIVING ALONG TRINITY ROAD AROUND A GRADUAL RIGHT HAND BEND VEHICLE 1 HAS CONCIOUSLY CHANGED IN TO THE OPPOSING LANE, DRIVING ALONG THE WRONG SIDE OF THE ROAD FOR AROUND 75 YARDS. VEHICLE 2 THAT WAS TRAVELLING IN THE OPPOSING ROAD, HAS BEEN MET HEAD ON BY VEHICLE 1 AND COULD NOT AVOID THE COLLISION.						Veh1, car, N → SW Veh2, car, SW → N				Casualties 3 Vehicles 2
7	**Road No M42** **Grid 424477E** **Section** **Ref 300754N**	SLIGHT	02/06/2018	7	16:55	Daylight	Dry	Fine			
	JUNCTION 10 OFFSLIP M42 AT JN WITH A5								North Warwickshire		
	V2 WAS STATIONARY AT RED ATS AT END OF OFF SLIP WAITING TO JOIN ROUNDABOUT. V1 HAS FAILED TO SEE V2 STATIONARY AND HAS REACTED TOO LATE COLLIDING WITH REAR OF V2.						Veh1, car, NE → SW Veh2, car, NE → SW				Casualties 2 Vehicles 2
8	**Road No A5** **Grid 425105E** **Section** **Ref 300467N**	SERIOUS	06/07/2018	6	15:37	Daylight	Dry	Fine			
	DORDON A5 NEAR JN WITH JUNCTION 10 M42								North Warwickshire		
	V1 has been in the outside lane of a two lane stretch of the A5. V2 has been in lane 1. V1 has then tried to merge into lane 1 and has not seen V2 and has hit V2 causing extensive damage.						Veh1, goods unknown weight, E → W Veh2, car, E → W				Casualties 2 Vehicles 2

Key

Involved		*FACTORS*		*Special Conditions*	
PED	*Pedestrian*	*+VE*	*Positive Breath Test*	*ATS OUT*	*Traffic Lights Not Working*
HGV	*Heavy Goods Vehicle*	*R.TURN*	*Right Turn Manoeuvre*	*ATS DEF*	*Traffic Lights Defective*
GV	*Goods Vehicle*	*O/TAKE*	*Overtaking Manoeuvre*	*SIGNS*	*Road Signs Defective or Obscurred*
M/C	*Motor Cycle*	*S.VEH*	*Single Vehicle*	*RD WRKS*	*Road Works*
P/C	*Pedal Cycle*			*Surface*	*Road Surface Defective*
PSV	*Bus/Coach*				

D-PRINT CRASH REPORT

No	Location	Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
9	**Road No M42 Section** **Grid Ref 424273E 300469N**	SLIGHT	14/07/2018	7	00:34	Dark: lit	Dry	Fine			
	SOUTHBOUND J10 SLIP ROAD M42 NEAR JN WITH A5								North Warwickshire		
	VEHICLE 1, AN UNKNOWN HGV, HAS TAKEN THE M42 SLIP ROAD, AT JUNCTION 10 SOUTHBOUND, HAS CUT IN FRONT OF VEHICLE 2 HITTING THE OFFSIDE CAUSING VEHICLE 2 TO SPIN AROUND, HITTING THE CENTRAL BARRIER. VEHICLE 1 HAS STOPPED AT TEH BOTTOM OF THE SLIP ROAD BEFORE MOVING OFF.						Veh1, goods unknown weight, NE → SW Veh2, car, NE → SW				Casualties 2 Vehicles 2
10	**Road No A5 Section** **Grid Ref 425871E 300225N**	SLIGHT	24/07/2018	3	16:34	Daylight	Dry	Fine			
	NEAR TO VICARAGE CLOSE A5								North Warwickshire		
	VEHICLE 2 WAS TRAVELLING ALONG THE A5 TOWARDS NUNEATON WHILST VEHICLE 1 WAS TRAVELLING ALONG THE A5 IN THE OPPOSITE DIRECTION ON THE OPPOSITE CARRIAGEWAY. VEHICLE 1 HAS THEN DONE A U TURN THROUGH A GAP IN THE CENTRAL RESERVATION CAUSING VEHICLE 2 TO TAKE EVASIVE ACTION. THE VEHICLES HAVEN'T COLLIDED BUT VEHICLE 2 HAS BUMPED INTO THE KERB ON THE LEFT SIDE CAUSING DAMAGE TO HER NEARSIDE FRONT TYRE AND HER EXHAUST. VEHICLE 1 HAS FAILED TO STOP AT THE SCENE						Veh1, car, SE → SE Veh2, car, NW → SE				Casualties 1 Vehicles 2
11	**Road No A5 Section** **Grid Ref 424478E 300735N**	SLIGHT	01/09/2018	7	09:30	Daylight	Dry	Fine			
	TAMWORTH ISLAND A5 AT JN WITH JCT 10 SLIP OFF M42								North Warwickshire		
	Ambo are travelling around the roundabout on blue with sirens activated. V1 & V2 travelling onto the roundabout from M42 south, V2 has slowed to allow ambo to pass and V1 has bumped into the rear						Veh1, car, NE → NW Veh2, car, NE → NW Veh3, , NW → SE				Casualties 2 Vehicles 3

Key

Involved		*FACTORS*		*Special Conditions*	
PED	*Pedestrian*	*+VE*	*Positive Breath Test*	*ATS OUT*	*Traffic Lights Not Working*
HGV	*Heavy Goods Vehicle*	*R.TURN*	*Right Turn Manoeuvre*	*ATS DEF*	*Traffic Lights Defective*
GV	*Goods Vehicle*	*O/TAKE*	*Overtaking Manoeuvre*	*SIGNS*	*Road Signs Defective or Obscurred*
M/C	*Motor Cycle*	*S.VEH*	*Single Vehicle*	*RD WRKS*	*Road Works*
P/C	*Pedal Cycle*			*Surface*	*Road Surface Defective*
PSV	*Bus/Coach*				

D-PRINT CRASH REPORT

16 November 2023
10:46:46

No	Location	Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
12	**Road No A5 Section** **Grid 426361E Ref 299973N**	SLIGHT	09/09/2018	1	12:11	Daylight	Dry	Fine			
	O/S THE KINGDOM HALL OF JEHOVAS WITNESSES WATLING STREET A5								North Warwickshire		
	VEHICLE 1 HAS BEEN TRAVELLING IN SLOWER MOVING TRAFFIC BEHIND VEHICLE 2. VEHICLE 2 HAS SLOWED AND BRAKED ON THE APPROACH TO A TRAFFIC ISLAND AS THE TRAFFIC IN FRONT HAS DONE THE SAME. VEHICLE 1 HAS FAILED TO SEE THIS AND CRASHED INTO THE REAR OF VEHICLE 2.						Veh1, car, SE → NW Veh2, car, SE → NW				Casualties 2 Vehicles 2
13	**Road No A5 Section** **Grid 424482E Ref 300620N**	SLIGHT	29/10/2018	2	15:30	Daylight	Wet/Damp	Fine			
									North Warwickshire		
	VEHICLE 2 STATIONARY IN TRAFFIC QUEUE. VEHICLE 1 APPROACHED FROM BEHIND AND HIT VEHICLE 2. DRIVER OF VEHICLE 1 REFUSED TO EXCHANGE DETAILS.						Veh1, goods unknown weight, E → W Veh2, car, E → W				Casualties 1 Vehicles 2
14	**Road No A5 Section** **Grid 424380E Ref 300539N**	SLIGHT	06/02/2019	4	17:50	Drk: SL u/k	Dry	Other			GV P/C
	WATLING STREET (A5) NEAR JUNCTION WITH TRINITY ROAD								North Warwickshire		
	IP ON PUSH BIKE TRAVELLING ON A5 WATLING STREET TOWARES JUNCTION 10 M42 SOUTH. IP HAS GONE ACROSS JUCNTION AND HAS BEEN STRUCK BEFORE SLIP ROAD TO M42 BY A WHITE RECOVERY VEHICLE. INJURY TO RIGHT ARM AND LEG, DRIVER STOPPED BY IP DID NOT TAKE ANY DETAIL AS WAS IN SHOCK. NO VRM OR MAKE OR MODEL OR DRIVER DETAILS AVAILABLE.						Veh1, goods < 3.5t, NE → W Veh2, pedal cycle, NE → W				Casualties 1 Vehicles 2

Key

Involved		*FACTORS*		*Special Conditions*	
PED	*Pedestrian*	*+VE*	*Positive Breath Test*	*ATS OUT*	*Traffic Lights Not Working*
HGV	*Heavy Goods Vehicle*	*R.TURN*	*Right Turn Manoeuvre*	*ATS DEF*	*Traffic Lights Defective*
GV	*Goods Vehicle*	*O/TAKE*	*Overtaking Manoeuvre*	*SIGNS*	*Road Signs Defective or Obscurred*
M/C	*Motor Cycle*	*S.VEH*	*Single Vehicle*	*RD WRKS*	*Road Works*
P/C	*Pedal Cycle*			*Surface*	*Road Surface Defective*
PSV	*Bus/Coach*				

D-PRINT CRASH REPORT

16 November 2023
10:46:46

No	Location	Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
15	**Road No A5 Section** **Grid Ref 424382E 300539N**	SLIGHT	06/02/2019	4	18:00	Dark: lit	Wet/Damp	Fine			P/C
	WATLING STREET (A5) AT JUNCTION WITH TRINITY ROAD								North Warwickshire		
	VEHICLE 2 WAS CYCLING AROUND THE ROUNDABOUT WHEN VEHICLE 1 HAS CUT HIM UP AND BUMPED HIS ARM.						Veh1, goods unknown weight, SE → SW Veh2, pedal cycle, E → W				Casualties 1 Vehicles 2
16	**Road No A5 Section** **Grid Ref 424349E 300791N**	SLIGHT	04/04/2019	5	18:40	Daylight	Wet/Damp	Rain			M/C
	WATLING STREET (A5) NEAR JUNCTION WITH RELAY DRIVE								Tamworth		
	A car changed lanes quickly to avoid traffic which in turned caused the Ford Mondeo [redacted] to brake sharply. This subsequently caused a Honda moped [redacted] to brake sharply and collide with the rear of the mondeo. Direction of travel was towards the M42 Southbound junction. 3rd vehicle is unknown.						Veh1, car, S → NE Veh2, m/cycle 50 - 125cc, S → NE				Casualties 1 Vehicles 2
17	**Road No A5 Section** **Grid Ref 424245E 300619N**	SLIGHT	28/05/2019	3	21:20	Daylight	Dry	Fine		S.VEH	M/C
	A5 NEAR JUNCTION WITH M42								Tamworth		
	Rider of V1 has exited the island from the M42 onto the A5 West bound and the low sun has taken his visibility and has caused him to lose control of the bike, hitting a junction maker sign and this has dislodged him from the bike causing him to slide down the carriageway.						Veh1, m/cycle > 500cc, S → NW				Casualties 1 Vehicles 1

Key

Involved		*FACTORS*		*Special Conditions*	
PED	*Pedestrian*	*+VE*	*Positive Breath Test*	*ATS OUT*	*Traffic Lights Not Working*
HGV	*Heavy Goods Vehicle*	*R.TURN*	*Right Turn Manoeuvre*	*ATS DEF*	*Traffic Lights Defective*
GV	*Goods Vehicle*	*O/TAKE*	*Overtaking Manoeuvre*	*SIGNS*	*Road Signs Defective or Obscurred*
M/C	*Motor Cycle*	*S.VEH*	*Single Vehicle*	*RD WRKS*	*Road Works*
P/C	*Pedal Cycle*			*Surface*	*Road Surface Defective*
PSV	*Bus/Coach*				

D-PRINT CRASH REPORT

16 November 2023
10:46:46

No	Location	Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
18	**Road No A5 Section** **Grid Ref 426425E 299947N**	SLIGHT	30/05/2019	5	18:58	Daylight	Dry	Fine			
	WATLING STREET (A5) DORDON O/S 'SILVER BIRCHES'								North Warwickshire		
	VEHICLE 01 WAS STATIONARY ON THE SLIP ROAD ON THE A5 FACING TOWARDS GRENDON WANTING TO CHANGE DIRECTION AND TRAVEL TOWARDS DORDON. DRIVER OF VEHICLE 01 HAS THEN VISUALLY CHECKED BY LOOKING IN HIS MIRRORS AT ONCOMING TRAFFIC HAS WAITED FOR TRAFFIC TO PASS THEN PULLED OUT OF THE SLIP ROAD AND CLIPPED VEHICLE 02 CAUSING IT TO FLIP ONTO ITS SIDE AND ONTO A DRIVEWAY OFF THE MAIN CARRIAGEWAY.						Veh1, car, NW → NW Veh2, car, NW → SE				Casualties 1 Vehicles 2
19	**Road No A5 Section** **Grid Ref 424426E 300577N**	SLIGHT	12/07/2019	6	03:29	Dark: lit	Wet/Damp	Rain			HGV
	A5 WATLING ST ISLAND DORDON J/W M42 JCT 10								North Warwickshire		
	It appears that vehicle02 has been driving in lane 1 of the M42 Junction 10 Island towards M42 (SW) slip when Vehicle01 has merged into lane 1 from lane 2 without noticing Vehicle02 and has collided into the o/s of Vehicle02 with its n/s. Vehicle01 has then only noticed it has been in a collision when stopped, suggesting the drive drove without due care and attention.						Veh1, goods 3.5 - 7.5t, NE → SW Veh2, car, NE → SW				Casualties 2 Vehicles 2
20	**Road No A5 Section** **Grid Ref 424495E 300685N**	SLIGHT	23/07/2019	3	20:15	Daylight	Dry	Fine			M/C
	A5 NEAR JUNCTION WITH UNCLASSIFIED ROAD								North Warwickshire		
	THIS IS A 2 VEHICLE SLIGHT INJURY RTC WHERE BOTH VEHICLES ARE MOTORCYCLES. TRAVELLING IN THE SAME LANE, TAKING THE SAME EXIT. AS THEY HAVE TAKEN THE EXIT OFF OF THE TRAFFIC ISLAND, THEY HAVE HAD CONTACT CAUSING BOTH RIDERS TO FALL FROM THEIR MACHINES.						Veh1, m/cycle > 500cc, NW → E Veh2, m/cycle > 500cc, NW → E				Casualties 2 Vehicles 2

Key

Involved		*FACTORS*		*Special Conditions*	
PED	*Pedestrian*	*+VE*	*Positive Breath Test*	*ATS OUT*	*Traffic Lights Not Working*
HGV	*Heavy Goods Vehicle*	*R.TURN*	*Right Turn Manoeuvre*	*ATS DEF*	*Traffic Lights Defective*
GV	*Goods Vehicle*	*O/TAKE*	*Overtaking Manoeuvre*	*SIGNS*	*Road Signs Defective or Obscurred*
M/C	*Motor Cycle*	*S.VEH*	*Single Vehicle*	*RD WRKS*	*Road Works*
P/C	*Pedal Cycle*			*Surface*	*Road Surface Defective*
PSV	*Bus/Coach*				

No	Location		Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
21	**Road No A5 Section**	**Grid Ref 424473E 300616N**	SERIOUS	24/07/2019	4	16:45	Daylight	Dry	Fine			M/C
	WATLING STREET (A5) J/W M42 JCT 10 ISLAND									North Warwickshire		
	AT APPROXIMATELY 16:45 HRS ON 24.07.2019 RIDER OF VEH 002 HAS BEEN TRAVELLING ON THE A5, M42 ISLAND HEADING WEST, COMING FROM THE DIRECTION OF HINCKLEY, GOING TOWARDS TAMWORTH. RIDER OF VEH 002 HAS BEEN FILTERING BETWEEN LANES 3 AND 4 AT THE ISLAND ON THE APPROACH TO THE JUNCTION. THE RAFFIC LIGHTS WERE NOT WORKING WITH SIGNS DISPLAYING THIS - RIDER OF VEH 002 WAS AWARE OF THE BORKEN LIGHTS. WHILST WAITING TO PULL OUT OF THE JUNCTION, VEH 002 HAS BEEN HIT FROM BEHIND, CAUSING HIM TO FALL OFF HIS BIKE ON TO THIS LEFT SHOULDER CAUSING INJURY - HUMERAL FRACTURE.							Veh1, car, E → W Veh2, m/cycle > 500cc, E → W				Casualties 1 Vehicles 2
22	**Road No A5 Section**	**Grid Ref 424247E 300714N**	SLIGHT	12/10/2019	7	18:40	Daylight	Wet/Damp	Fine			
	A5 - 27 METRES FROM JUNCTION WITH WATLING STREET (A5)									North Warwickshire		
	Vehicle 2 was stationary at traffic lights at the M42 island when Vehicle 1 has collided with the rear of Vehicle 2.							Veh1, car, E → W Veh2, car, E → W				Casualties 4 Vehicles 2
23	**Road No A5 Section**	**Grid Ref 424475E 300615N**	SLIGHT	19/11/2019	3	11:47	Daylight	Wet/Damp	Fine			GV
	WATLING STREET (A5) JW A5 M42 JCT 10 TRAFFIC ISLAND									North Warwickshire		
	Veh 2 struck veh 1 from behind whilst stationary at traffic lights on A5 dordon tamworth.							Veh1, car, E → W Veh2, goods < 3.5t, E → W				Casualties 1 Vehicles 2

Key

Involved		*FACTORS*		*Special Conditions*	
PED	*Pedestrian*	*+VE*	*Positive Breath Test*	*ATS OUT*	*Traffic Lights Not Working*
HGV	*Heavy Goods Vehicle*	*R.TURN*	*Right Turn Manoeuvre*	*ATS DEF*	*Traffic Lights Defective*
GV	*Goods Vehicle*	*O/TAKE*	*Overtaking Manoeuvre*	*SIGNS*	*Road Signs Defective or Obscurred*
M/C	*Motor Cycle*	*S.VEH*	*Single Vehicle*	*RD WRKS*	*Road Works*
P/C	*Pedal Cycle*			*Surface*	*Road Surface Defective*
PSV	*Bus/Coach*				

D-PRINT CRASH REPORT

No	Location	Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
24	**Road No A5 Section Grid Ref 425433E 300363N**	SLIGHT	28/02/2022	2	09:19	Daylight	Wet/Damp	Fine			M/C
	WATLING STREET (A5), NEAR J/W DANNY MORSON WAY, DORDON								North Warwickshire		
	BOTH VEHICLES TRAVELLING NORTHBOUND ON THE A5 TOWARDS M42 J10 FROM DORDON. VEH 002 IN LANE 2 SLOWING FOR THE RED TRAFFIC LIGHT WHEN VEH 001 COLLIDES WITH THE REAR OF VEH 002.						Veh1, m/cycle 50 - 125cc, SE → NW Veh2, car, SE → NW				Casualties 1 Vehicles 2
25	**Road No M42 Section Grid Ref 424602E 301094N**	SLIGHT	26/03/2022	7	10:27	Daylight	Dry	Fine			
	M42 J10 NORTHBOUND, BIRCHMOOR, WARWICKSHIRE								North Warwickshire		
	BOTH VEHICLES 1 & 2 TRAVELLING ALONG THE M42 NORTHBOUND JUST AFTER JUNCTION 10 IN LANE 2 OF THE LANE 2 SECTION OF THE MOTORWAY. LOOSE DOG IN THE ROAD WITH TRAFFIC MOVING SLOW. VEH 002 HAS STARTED TO PICK UP A LITTLE SPEED AND THEN APPLIED THE BRAKES. VEH 001 HAS REAR ENDED INTO VEH 002 CAUSING DAMAGE TO BOTH VEHICLES.						Veh1, car, SW → NE Veh2, car, SW → NE				Casualties 1 Vehicles 2
26	**Road No A5 Section Grid Ref 424918E 300529N**	SERIOUS	28/04/2022	5	16:25	Daylight	Dry	Fine			
	WATLING STREET (A5), DORDON, WARWICKSHIRE								North Warwickshire		
	VEHICLES TRAVELLING ALONG A5 FROM DORDON TOWARDS M42 (J10) BOTH IN LANE 1 OF 2. VEH 002 HAS SLOWED AND LOOKED TO MOVE OUT INTO LANE 2, BEFORE IT HAS DONE SO, VEH 001 HAS CRASHED INTO THE BACK OF VEH 002.						Veh1, car, SE → NW Veh2, car, SE → NW				Casualties 1 Vehicles 2

Key

Involved		*FACTORS*		*Special Conditions*	
PED	*Pedestrian*	*+VE*	*Positive Breath Test*	*ATS OUT*	*Traffic Lights Not Working*
HGV	*Heavy Goods Vehicle*	*R.TURN*	*Right Turn Manoeuvre*	*ATS DEF*	*Traffic Lights Defective*
GV	*Goods Vehicle*	*O/TAKE*	*Overtaking Manoeuvre*	*SIGNS*	*Road Signs Defective or Obscurred*
M/C	*Motor Cycle*	*S.VEH*	*Single Vehicle*	*RD WRKS*	*Road Works*
P/C	*Pedal Cycle*			*Surface*	*Road Surface Defective*
PSV	*Bus/Coach*				

D-PRINT CRASH REPORT

16 November 2023
10:46:46

No	Location	Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
27	**Road No A5 Section** **Grid Ref 424518E 300622N**	SLIGHT	12/05/2022	5	10:30	Daylight	Dry	Fine			
	WATLING STREET (A5), DORDON, WARWICKSHIRE								North Warwickshire		
	VEH 002 TRAVELLING TOWARDS TAMWORTH ON A5 IN MIDDLE LANE WHEN A LORRY VERED OVER THE LANE FROM THE LEFT COLLIDING WITH VEH 002, LORRY DID NOT STOP. PHOTO TAKEN OF LORRY - NO VRM VISIBLE.						Veh1, goods unknown weight, SE → NW Veh2, car, SE → NW				Casualties 2 Vehicles 2
28	**Road No M42 Section** **Grid Ref 423711E 299837N**	SLIGHT	18/06/2022	7	19:10	Daylight	Wet/Damp	Rain		S.VEH	
	M42 NB J9-10 M/P 83/1A, TAMWORTH, WARWICKSHIRE								North Warwickshire		
	IT WOULD APPEAR THAT VEH 001 WAS TRAVELLING IN LANE 2 OF 2 @ APPROXIMATELY 60 MPH DRIVER HAS HIT SURFACE WATER AND AQUA PLANED, LOST CONTROL AND COLLIDED INTO THE CENTRAL BARRIER BEFOR COMING TO REST IN LANE 2 OF 2.						Veh1, car, SW → NE				Casualties 1 Vehicles 1
29	**Road No M42 Section** **Grid Ref 424074E 300290N**	SLIGHT	18/06/2022	7	19:25	Daylight	Wet/Damp	Rain			
	M42 NB J10 M/P 83/01A TAMWORTH, WARWICKSHIRE								North Warwickshire		
	DUE TO AN UNRELATED RTC, VEH 002 HAS HAD TO STOP IN LANE 2 OF 2 AT J10 M42 NORTH ADJACENT TO THE OFF SLIP. VEH 001 HAS FAILED TO STOP IN TIME AND COLLIDED WITH THE REAR OF VEH 002.						Veh1, car, SW → NE Veh2, car, SW → NE				Casualties 1 Vehicles 2
30	**Road No M42 Section** **Grid Ref 424531E 300966N**	SERIOUS	08/07/2022	6	13:50	Daylight	Dry	Fine			HGV
	M42 J10 NB SLIP ON, DORDON, WARWICKSHIRE								North Warwickshire		
	VEH 001 AND VEH 002 TRAVELLING ONTO THE M42 NORTH ENTRY SLIP. ON ENTRY SLIP RIOR TO ENTERING MAIN CARRIAGE WAY FRONT VEH 001 COLLIDES WITH THE REAR OF NEARSIDE VEH 002.						Veh1, goods > 7.5t, SW → NE Veh2, car, SW → NE				Casualties 2 Vehicles 2

Key

Involved		*FACTORS*		*Special Conditions*	
PED	*Pedestrian*	*+VE*	*Positive Breath Test*	*ATS OUT*	*Traffic Lights Not Working*
HGV	*Heavy Goods Vehicle*	*R.TURN*	*Right Turn Manoeuvre*	*ATS DEF*	*Traffic Lights Defective*
GV	*Goods Vehicle*	*O/TAKE*	*Overtaking Manoeuvre*	*SIGNS*	*Road Signs Defective or Obscurred*
M/C	*Motor Cycle*	*S.VEH*	*Single Vehicle*	*RD WRKS*	*Road Works*
P/C	*Pedal Cycle*			*Surface*	*Road Surface Defective*
PSV	*Bus/Coach*				

No	Location	Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
31	**Road No M42 Section** **Grid Ref 423925E 300106N**	SLIGHT	22/10/2022	7	06:11	Drk: no SL	Wet/Damp	Rain			
	M42 SB J10-9 M/P 52/3B, DORDON, WARWICKSHIRE								North Warwickshire		
	IT WOULD APPEAR THAT VEH 001 HAS LOST CONTROL POTENTIALLY DUE TO AQUA PLANNING CAUSING IT TO COLLIED WITH VEH 002, VEH 001 HAS CONTINUED DOWN THE MOTORWAY FLIPPING ONTO ITS ROOF COLLIDING WITH VEH 003. MINOR INJURIES SUSTAINED OCCUPANTS OF VEH 001 AND 3. MINOR DAMAGE TO CRASH BARRIER.						Veh1, car, NE → SW Veh2, car, NE → SW Veh3, car, NE → SW				Casualties 3 Vehicles 3
32	**Road No U Section** **Grid Ref 426187E 300085N**	SLIGHT	01/12/2022	5	18:45	Dark: lit	Dry	Fine			
	LONG STREET NEAR JUNCTION WITH WATLING STREET (A5), DORDON, WARWICKSHIRE								North Warwickshire		
	I was in my car at end of Long Street Dordon at the island on the A5 at Dordon. I was waiting to pull out onto the island and the car behind me went into the back of my car. I was pushed into the road so drove around the island and pulled over to inspect the car. The other car involved followed me and pulled over. The driver was a lady in her late 50's/60's. Her reg number is [redacted] The lady got out of her car and asked if there was any damage. I said I couldn't see any but it was dark so I said we should exchange details. She refused and said I would just be claiming for any other damage or whiplash. I asked again for her details but she refused again.						Veh1, car, N → S Veh2, car, N → S				Casualties 2 Vehicles 2
33	**Road No A5 Section** **Grid Ref 425385E 300398N**	SLIGHT	23/12/2022	6	21:31	Dark: lit	Wet/Damp	Fine			
	WATLING STREET (A5) NEAR JUNCTION WITH DANNY MORSON WAY, NORTH WARWICKSHIRE, WARWICKSHIRE								North Warwickshire		
	BOTH VEHICLES HAVE BEEN TRAVELLING IN OPPOSITE DIRECTIONS ON THE A5. ONE OF THE VEHICLES SEEMS TO HAVE CROSSED THROUGH A RED LIGHT AT THE JUNCTION OF DANNY MORSON WAY CAUSING THE COLLISION.						Veh1, car, N → S Veh2, car, S → N				Casualties 1 Vehicles 2

Key

Involved		*FACTORS*		*Special Conditions*	
PED	*Pedestrian*	*+VE*	*Positive Breath Test*	*ATS OUT*	*Traffic Lights Not Working*
HGV	*Heavy Goods Vehicle*	*R.TURN*	*Right Turn Manoeuvre*	*ATS DEF*	*Traffic Lights Defective*
GV	*Goods Vehicle*	*O/TAKE*	*Overtaking Manoeuvre*	*SIGNS*	*Road Signs Defective or Obscurred*
M/C	*Motor Cycle*	*S.VEH*	*Single Vehicle*	*RD WRKS*	*Road Works*
P/C	*Pedal Cycle*			*Surface*	*Road Surface Defective*
PSV	*Bus/Coach*				

D-PRINT CRASH REPORT

16 November 2023
10:46:46

No	Location	Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
34	**Road No A5** **Section** **Grid 425415E** **Ref 300390N**	SERIOUS	18/01/2023	4	05:44	Dark: lit	Wet/Damp	Snow			P/C
	WATLING STREET (A5) NEAR JUNCTION WITH DANNY MORSON WAY, NORTH WARWICKSHIRE, WARWICKSHIRE								North Warwickshire		
	AT MATERIAL TIME AND PLACE A SERIOUS INJURY ROAD TRAFFIC COLLISION HAS OCCURRED. V1 -- PEDAL CYCLIST -- TRAVELLING EASTBOUND FROM J10 M42 TOWARDS DORDON. V2 HAS BEEN TRAVELLING IN THE SAME DIRECTION SLIGHTLY BEHIND V1. ON APPROACH TO BIRCH COPPICE INDUSTRIAL ESTATE JUNCTION THE TRAFFIC LIGHTS ARE SHOWING GREEN FOR EASTBOUND TRAFFIC. V2 AND WITNESS HAVE CONTINUED THEIR JOURNEY THROUGH THE LIGHTS. AT THE SAME TIME V1 HAS DIVERTED ACROSS THE CARRIAGEWAY AT THE PEDESTRIAN CROSSING INTO THE PATH OF V2 IN LANE 2. WITNESS IN LANE 1 SLIGHTLY BEHIND V2 HAS MANAGED TO AVOID ANY COLLISION. V1 HAS BEEN SERIOUSLY INJURED AND TAKEN TO QE HOSPITAL IN BIRMINGHAM.						Veh1, pedal cycle, SW → NE Veh2, car, NW → SE				Casualties 1 Vehicles 2
35	**Road No M42** **Section** **Grid 423638E** **Ref 299650N**	SLIGHT	25/01/2023	4	14:40	Daylight	Dry	Fine			HGV GV
	M42 SB J10-9 M/P 46.6B, TAMWORTH, WARWICKSHIRE								North Warwickshire		
	V001 IS AN U/K VAN. THIS HAS COLLIDED INTO THE REAR OF V002 THAT WAS IN LANE 2 OF 2 SLOWING FOR TRAFFIC AHEAD. THIS HAS CAUSED V002 TO COLLIDE WITH THE REAR OF V003 THAT WAS TRAVELLING INFRONT OF V002. V001 HAS NOT STOPPED AND LEFT THE SCENE. AS A RESULT V004 HAS COLLIDED WITH V005 IN THE TAILBACK.						Veh1, goods < 3.5t, NE → SW Veh2, car, NE → SW Veh3, car, NE → SW Veh4, car, NE → SW Veh5, goods > 7.5t, NE → SW				Casualties 1 Vehicles 5

Key

Involved		*FACTORS*		*Special Conditions*	
PED	*Pedestrian*	*+VE*	*Positive Breath Test*	*ATS OUT*	*Traffic Lights Not Working*
HGV	*Heavy Goods Vehicle*	*R.TURN*	*Right Turn Manoeuvre*	*ATS DEF*	*Traffic Lights Defective*
GV	*Goods Vehicle*	*O/TAKE*	*Overtaking Manoeuvre*	*SIGNS*	*Road Signs Defective or Obscurred*
M/C	*Motor Cycle*	*S.VEH*	*Single Vehicle*	*RD WRKS*	*Road Works*
P/C	*Pedal Cycle*			*Surface*	*Road Surface Defective*
PSV	*Bus/Coach*				

D-PRINT CRASH REPORT

No	Location		Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
36	**Road No U** **Section**	**Grid 423722E** **Ref 299727N**	SLIGHT	26/01/2023	5	13:09	Daylight	Wet/Damp	Fine		R.TURN	
	OVERWOODS ROAD AT JUNCTION WITH TRINITY ROAD, KINGSBURY, WARWICKSHIRE									North Warwickshire		
	VEH002 IS STATIONARY ON PICADILY WAY WAITING TO TURN RIGHT INTO OVERSWOOD ROAD WITH ONCOMING TRAFFIC. VEH001 FAILS TO SEE VEH002 BEING STATIONARY UNTIL IT IS TOO LATE. SKIDS AND COLLIDES WITH THE REAR OF VEH001 REAR SEAT PASSENGER IN VEH001 IS NOT WEARING A SEATBELT AND FACE PLANTS THE REAR OF THE FRONT SEAT CAUSING A BLOODED NOSE.							Veh1, car, NE → SW Veh2, car, NE → NW				Casualties 1 Vehicles 2
37	**Road No A5** **Section**	**Grid 424496E** **Ref 300689N**	SERIOUS	23/09/2023	7	10:26	Daylight	Dry	Fine			M/C
	A5 NEAR JUNCTION WITH M42 J10, DORDON, WARWICKSHIRE									North Warwickshire		
	On the above time, date and location Rider has been riding V001 on Junction 10 Dordon Roundabout. Rider has seen V002 heading closely next to him. The vehicle has moved towards V001 and has hit him. Rider of V001 has felt severe pain in his arm and has continued on the road with his clutch in riding slowly as the vehicle did not stop and made off. We have since had a call from the driver of the V002 stating that he did clip the rider who has then asked him to pull over but become irate and started punching his window and broke his wing mirror. So he has then driven away and taken his dog to the vets to avoid the conflict.							Veh1, m/cycle > 500cc, NW → SE Veh2, car, NW → SE				Casualties 1 Vehicles 2

Key

Involved		*FACTORS*		*Special Conditions*	
PED	*Pedestrian*	*+VE*	*Positive Breath Test*	*ATS OUT*	*Traffic Lights Not Working*
HGV	*Heavy Goods Vehicle*	*R.TURN*	*Right Turn Manoeuvre*	*ATS DEF*	*Traffic Lights Defective*
GV	*Goods Vehicle*	*O/TAKE*	*Overtaking Manoeuvre*	*SIGNS*	*Road Signs Defective or Obscurred*
M/C	*Motor Cycle*	*S.VEH*	*Single Vehicle*	*RD WRKS*	*Road Works*
P/C	*Pedal Cycle*			*Surface*	*Road Surface Defective*
PSV	*Bus/Coach*				

APPENDIX G CONSOLIDATED MODELLING NOTE V2

1 INTRODUCTION

1.1 Tetra Tech (TT) have been appointed by Hodgetts Estates to support their outline planning application for a proposed development of up to 100,000sqm of employment uses and a 150-space overnight lorry park (including an associated 400sqm amenity block) on land to the northeast of M42 Junction 10. The application is supported by a Transport Assessment (TA) prepared by TT, dated February 2023.

1.2 This Consolidated Modelling Strategy Note v2 expands on the previously approved Modelling Strategy Note, dated 18th March 2022 and Consolidated Modelling Strategy Note, dated 7th June 2023. It also follows the recent meetings held between representative of National Highways (NH), Warwickshire County Council (WCC), Staffordshire County Council (SSC), North Warwickshire Borough Council (NWBC), Hodgetts Estates and TT on 15th March 2023 and 23rd May 2023. Minutes of both meetings are attached at Appendix A.

1.3 WCC confirmed acceptance of the Consolidated Modelling Note on 25th July 2023. SCC provided comments on the 7th June Note and NH provided comments on 21st September. This v2 Modelling Strategy Note seeks to address the comments raised by SCC and NH and update the document where applicable due to timing of events, i.e. 4th July traffic surveys now complete.

1.4 The key changes agreed to the previous modelling strategy note include;

i) Additional junctions requiring assessment.

ii) Use of 2023 survey data in the baseline model.

iii) Extraction of committed and Local Plan traffic flows from the current WCC A5 Atherstone A5 PARAMICS model and adding them to the 2023 surveyed flows.

iv) Use of TEMPRO growth factors.

2 AGREED SCOPE OF ROAD NETWORK

2.1 At the 15th March 2023 meeting it was agreed that further detailed modelling work to test the traffic impacts of the proposed development are required for the following seven junctions;

1. M42 Junction 10 Interchange (6-arm grade separated signalised roundabout)
2. A5 Watling Street/ Site Access junction (proposed 3-arm signalised junction)
3. A5 Watling Street/ Danny Morson Way (4-arm signalised junction, known locally as Birch Coppice)
4. A5 Watling Street/ Meridian Drive (3-arm signalised junction, known locally as Core 42)
5. B5080 Pennine Way North/ A5 Eastbound on/ off slip road (3-arm roundabout junction)
6. B5080 Pennine Way South/ A5 Westbound on/ off slip road/ Centurion Way/ Quarry Hill (4-arm roundabout junction)
7. A5 Watling Street/ Long Street/ Gypsy Lane (4-arm roundabout junction)

3 CURRENT TRAFFIC MODELS

3.1 A validated TRANSYT model of junctions 1 to 4 (excluding the site access) was developed using March 2022 traffic flows and agreed with NH and WCC. The model has since been extended to include junctions 5 and 6 but at the time of writing the validation of the model has not been approved. Notwithstanding that, based on the latest discussions, the extent of the model requires further extending to include an additional junction (junction 7), discussed in more detail at Chapter 4 below.

3.2 The current WCC Atherstone A5 PARAMICS model operated by Vectos requires an update using 2023 surveyed traffic flows. At the 15th March 2023 it was confirmed the updated model would not be available for use until September 2023 at the earliest.

3.3 The WCC Atherstone A5 PARAMICS model includes the junctions listed at Chapter 2 above. It was agreed that the current model could be used to extract the committed and Local Plan traffic, which in turn would then be added to the new 2023 flows to establish “No Development” scenarios (discussed in more detail at Chapter 5 below) together with background growth factors applied to the surveys. A licence has been obtained by Hodgetts Estates to use the WCC Atherstone A5 PARAMICS model.

4 VALIDATED 2023 BASELINE MODEL

4.1 TT will model the network of 6 junctions (excluding the site access at this stage) by extending the previously approved 2022 TRANSYT model which will provide a sound basis for assessing the performance of the road network in future years both with and without the proposed development. TRANSYT 16 has been used as it models the interaction of queuing, lane starvation, and blocking back effects. The software also can model the effects of uncoordinated traffic signals and intermittent stages. In addition, a simulation mode is available within which individual vehicles are simulated so the queuing effects and lane starvation can be readily tracked.

4.2 Full manual classified traffic counts of the six junctions took place on Tuesday 4th July 2023 between the hours 07:00 to 09:30 and 16:00 to 18:30, Appendix B refers. The flows were converted to Passenger Car Units (PCU) and the peak hours derived. Figure 11 attached in Appendix D shows the AM peak hour flows and Figure 12 shows the PM peak equivalent. Traffic flow link counts were collected for a full week of data, to verify the 4th July surveys are typical of weekday conditions, from Monday 3rd July to Sunday 9th July inclusive of both, Appendix B also refers. SCC, WCC and NH have all confirmed the 4th July surveys were typical weekday surveys and are acceptable to use in the baseline model.

4.3 The green signal timings at each stop line were recorded so that the average green splits, cycle times and offsets can be obtained and then used in the TRANSYT model.

4.4 The stop line saturation flows calculated using the 2022 traffic surveys, identified in TT’s 2022 TRANSYT Baseline Validation Model Report, dated 13th May 2022, will be retained.

4.5 Maximum queue lengths on each signalised approach were recorded in 5-minute intervals. The observed queues provide a useful tool to verify the queuing results in the TRANSYT model.

4.6 At the priority controlled roundabout junctions the queue in each lane on each approach were recorded at 1-minute intervals.

4.7 A TRANSYT 2023 Model Validation Report was be issued to NH, WCC & SCC on 21st August 2023 for approval prior to running the opening and future year assessments discussed in more detail at Chapters 5 and 6 below. NH prepared a response to this report, dated 21st September 2023 and TT subsequently submitted a "TRANSYT 2023 Baseline Validation Report, Response to NH Comments of 21st September 2023", dated 9th October 2023. At the time of writing NH submitted a response, dated 26th October 2023 which confirmed all matters are now agreed apart from one relating to signal timings at the A5/ Core 42 junction.

5 OPENING AND FUTURE YEAR ASSESSMENTS – REFERENCE CASE

Committed Developments

5.1 As discussed in the 15th March 2023 meeting, an opening year assessment and a future year assessment are required for the reference case, i.e., without the Local Plan generated traffic and associated highway infrastructure. An opening year of 2026 and a future year of 2033 have been agreed and will be the years used in the forthcoming TRANSYT modelling.

WCC Atherstone A5 PARAMICS Committed Developments

5.2 As agreed, the committed development generated traffic flows to be used within the TRANSYT model have been taken from the current WCC Atherstone A5 PARAMICS model. A thorough review of the committed traffic flows has been undertaken and adjustments made for those development partially built and occupied at the time of the traffic surveys to avoid double counting. The agreed adjustments to the committed development traffic flows are shown in Tables 1 and 2 attached at Appendix C.

5.3 It should be noted that SCC did raise a concern that the existing base year flows in the PARAMICS model may have an influence on the routeing of committed development traffic flows. Vectos provided the following response, *"I would suggest that the com dev assignment will not be particularly sensitive to the baseline flows as (1) the model has limited route choice, (2) the A5 is classed as a Major road so is more attractive in Paramics (in the cost calcs Major* *roads are valued at half the cost of Minor roads) making route choice switching less sensitive, but most importantly (3) the Demand flows are taken out of a model run with no congestion (i.e. we run the model with 50% of demands and double the answers), which ensures traffic (including Com Dev demands) uses their preferred route despite any congestion that may be seen in a 100% run."* This response satisfied SCC concerns.

5.4 The majority of the committed development flows have been extracted from the WCC Atherstone A5 PARAMICS model. Figure 1 attached at Appendix D shows the numbered turning movements TT have derived to assign the committed traffic from the WCC Atherstone A5 PARAMICS model. Table A also at Appendix D shows all of the committed development AM peak hour traffic flows (PCU) by movement number, assuming all are unoccupied. Table B shows the PM peak hour equivalent.

5.5 The agreed build out and occupations in 2026 (see Appendix C) have been applied to the committed developments and Table C attached at Appendix D shows the AM peak adjusted traffic flows that need to be added onto the baseline flows, also shown diagrammatically in Figure 2 at Appendix D. Table D attached at Appendix D shows the PM peak adjusted traffic flows that need to be added onto the baseline flows, also shown diagrammatically in Figure 3 at Appendix D.

5.6 The agreed build out and occupations in 2033 (see Appendix C) have been applied to the committed developments and Table E attached at Appendix D shows the AM peak adjusted traffic flows that need to be added onto the baseline flows, also shown diagrammatically in Figure 4 at Appendix D. Table F attached at Appendix D shows the PM peak adjusted traffic flows that need to be added onto the baseline flows, also shown diagrammatically in Figure 5 at Appendix D.

Arkall Farm Committed Development

5.7 In addition, the traffic flows from the Arkall Farm development of 1,100 dwellings have had to be calculated manually as agreed with NH, WCC and SCC. Figure 6 attached at Appendix D shows the traffic assignment routing on the road network. In 2026 it is assumed 315 homes will be occupied at the site after the July 2023 traffic surveys and Figure 7 at Appendix D shows the 2026 AM Peak associated flows. Figure 8 also at Appendix D shows the PM peak equivalent. In 2033 it is assumed 884 homes will be occupied at the site after the July 2023 traffic surveys and Figure 9 at Appendix D shows the 2033 AM Peak associated flows. Figure 10 also at Appendix D shows the PM peak equivalent.

Core 42 Committed Development

5.8 Another development that needs to be considered is the remaining 0.34ha at Core 42. The total development is for 17.47ha, of which 17.13ha is built and occupied. The July 2023 traffic surveys have been used to derive the volume of additional traffic which is 2% (0.34ha/ 17.13ha).

5.9 Figure 11 attached at Appendix D shows the 2023 AM Peak surveyed traffic and Figure 12 also at Appendix D shows the PM peak for which the Core 42 committed development flows have been derived. The committed development flows from Core 42 have been distributed around the road network based on the proposed development's traffic assignment, discussed later (see Figure 21 for the AM peak and Figure 22 for the PM peak both at Appendix E). Figure 13 attached at Appendix D shows the AM peak traffic flows associated with the remaining 0.34ha at Core 42 and will be applied to the 2026 and 2033 assessment years. Figure 14 also at Appendix D shows the PM peak equivalent.

Dunstall Lane Committed Development

5.10 The final committed development that needs to be considered is the ongoing Dunstall Lane development of 800 units. At the time of the July 2023 surveys, Tamworth Borough Council advised that approx. 550 homes will be built and occupied, with the remaining 250 to be fully occupied by 2026. The supporting TA, prepared by WYG, dated 2016, provides the traffic flows associated with all 800 homes at the Pennine Way roundabout junctions and M42 Junction 10 in their Appendix J. The flows have factored down to 31.2% (250/ 800) for those remaining to be built and occupied in July 2023. To the east of Junction 10, the flows have been assigned in a similar manner to the Arkall Farm residential development. Figure 15 attached at Appendix D shows the AM peak traffic flows associated with the remaining 250 homes and will be applied to the 2026 and 2033 assessment years. Figure 16 also at Appendix D shows the PM peak equivalent.

2026 Total Committed Development Flows

5.11 The committed development flows from the WCC Atherstone A5 PARAMICS model (2026), Arkall Farm (2026), Dunstall Lane (2026) and Core 42 developments have all been added together to generate the 2026 total committed traffic flows. Figure 17 attached at Appendix D shows the 2026 AM Peak and Figure 18 also at Appendix D shows the PM Peak equivalent.

2033 Total Committed Development Flows

5.12 Similarly, the committed development flows from the WCC Atherstone A5 PARAMICS model (2033), Arkall Farm (2033), Dunstall Lane (2033) and Core 42 developments have all been added together to generate the 2033 total committed traffic flows. Figure 19 attached at Appendix D shows the 2033 AM Peak and Figure 20 also at Appendix D shows the PM Peak equivalent.

Traffic Growth

5.13 For the remainder of the committed developments neither included in the WCC Atherstone A5 PARAMICS model nor added manually based on extracts from the approved TAs, it is necessary to capture their traffic flows within a background growth factor.

5.14 DfT have released TEMPro v8, which replaces v7.2c, however the 2022 update to the National Trip End Model (NTEM) using National Road Traffic Projections 22 (NRTP 22) is not fully functioning with alternative planning assumptions until the release of TEMPro v8.1, due later in 2023.

5.15 It has been agreed with NH, WCC and SCC, in the first instance, to compare the traffic growth factors using those from the TEMPro v7.2c utilising Road Traffic Forecasts 18 (RTF 18) and later do so with TEMPro v8.1 and NRTP 22 when available.

5.16 For the purpose of agreeing the TEMPro 7.2c growth factors, the methodology and planning assumptions are discussed below.

2023 to 2026 Growth Factors

5.17 Traffic flows surveyed in 2023 will be projected to 2026 by applying factors extracted from DfT's TEMPRO v7.2c program using the definitive NTEM v7.2c database and the current RTF

2018 dataset in line with TAG Unit M4 Forecasting and Uncertainty. As all committed developments within the North Warwickshire and Tamworth regions are being considered, the growth factors for both areas have been derived. Following discussions with DfT there is no function to combine cross boundary authorities together, it is up to the user and local authorities to agree a suitable local approach. It is considered that taking the average of the growth factors for North Warwickshire and Tamworth then applying it to the 2023 surveyed flows is appropriate.

5.18 TEMPro includes growth for committed and Local Plan allocation sites, therefore in the Reference Case scenario it is important to exclude projections for Local Plan sites which do not benefit from planning permission, this is discussed in more detail below.

5.19 Table 5.1 below shows the planning assumptions for households and jobs in North Warwickshire and Tamworth from 2023 to 2026.

Table 5.1: TEMPro 2023 to 2026 Household and Employment Projections

	Households			Employment (jobs)		
	2023	2026	Increase	2023	2026	Increase
Tamworth	34103	34725	+622	33286	33581	+295
North Warwickshire	27849	28202	+353	43199	43580	+381

5.20 In Tamworth TEMPro assumes 622 new homes will be constructed from 2023 to 2026. Following a review of Table 1 from Table v7 at Appendix C, it can be seen that traffic generated from 796 new homes with planning permission has been manually added onto the road network. The traffic flows are discussed earlier in this Chapter. Therefore the 622 new homes projected in TEMPro have been accounted for already within committed developments and so they can removed from the growth factor to avoid double counting. However, there is one site (Coton House Farm) for 141 dwellings which has not been manually added within committed developments, therefore those new homes have been added back into the TEMPro growth.

5.21 In North Warwickshire TEMPro assumes 353 new homes will be constructed from 2023 to 2026. Following a review of Table 1 from Table v7 at Appendix C, it can be seen that traffic generated from 217 new homes with planning permission has been manually added onto the road network, thus leaving a residual of 136 new homes. These are Local Plan sites which do not yet benefit from planning permission, not to be considered in the Reference Case, so the residual 136 new homes can be removed. However, there is one site (Land off Spon Lane) for 4 dwellings which has not been manually added within committed developments, therefore those new homes have been added back into the TEMPro growth.

5.22 For the employment in Tamworth, TEMPro assumes an increase of 295 jobs. Following a review of Table 2 from Table v7 at Appendix C, there is only 1 committed employment site in Tamworth and that is fully built and occupied hence its traffic flows will be included in the July 2023 surveys. Therefore, it is reasonable to assume the extra 295 jobs in TEMPro are associated with the Local Plan sites and can be removed from the projections.

5.23 For the employment in North Warwickshire, TEMPro assumes an increase of 381 jobs. Following a review of Table 2 from Table v7 at Appendix C, there are several committed employment sites in North Warwickshire which are either fully built and occupied or their traffic generations have been included in the Vectos WCC Atherstone A5 PARAMICS model, one being the Land at Rowland Way generating an extra 425 jobs. Therefore, TEMPro will be adjusted, removing the extra 381 jobs to avoid double counting. However, there is one site (Land off Carlyon Road Industrial Estate) which is fully built but not yet occupied that will create an extra 170 jobs, therefore they have been added back into the TEMPro growth.

5.24 Table 5.2 below summarises the 2023 to 2026 TEMPro adjustments for the Reference Case.

Table 5.2: TEMPro Adjusted 2023 to 2026 Household and Employment Projections (Reference Case)

	Households			Employment (jobs)		
	2023	2026	Increase	2023	2026	Increase
Tamworth	34,103	34,244	+141	33,286	33,286	+0
North Warwickshire	27,849	27,853	+4	43,199	43,369	+170

5.25

5.26 The RTF 2018 NTM dataset was used and “Trunk” was selected as the road type. Table 5.3 below summarises the growth factors for Tamworth and North Warwickshire along with the average rates that will be applied to the July 2023 surveyed PCU flows.

Table 5.3: TEMPro 2023 to 2026 Growth Factors (Reference Case)

	Period	
	AM Peak	PM Peak
Tamworth	1.0088	1.0082
North Warwickshire	1.0072	1.0076
Average	1.008	1.0079

2023 to 2033 Growth Factors

5.27 The methodology discussed above for the 2023 to 2026 growth factors has been followed for the those from 2023 to 2033.

5.28 Table 5.4 below shows the planning assumptions in households and jobs in North Warwickshire and Tamworth from 2023 to 2033.

Table 5.4: TEMPro 2023 to 2033 Household and Employment Projections

	Households			Employment (jobs)		
	2023	2033	Increase	2023	2033	Increase
Tamworth	34,103	36,209	+2,106	33,286	34,202	+916
North Warwickshire	27,849	29,336	+1,487	43,199	44,387	+1,188

5.29 In Tamworth TEMPro assumes 2,106 new homes will be constructed from 2023 to 2033. Following a review of Table 1 from Table v7 at Appendix C, it can be seen that traffic generated from 894 new homes with planning permission has been manually added onto the road network, thus leaving a residual of 1,212 new homes. These are Local Plan sites which do not yet benefit from planning permission, not to be considered in the Reference Case, so the residual 1,212 new homes can be removed. However, there is one site (Coton House Farm) for 141 dwellings which has not been manually added within committed developments, therefore those new homes have been added back into the TEMPro growth.

5.30 In North Warwickshire TEMPro assumes 1,487 new homes will be constructed from 2023 to 2033. Following a review of Table 1 from Table v7 at Appendix C, it can be seen that traffic generated from 1,319 new homes has been manually added onto the road network, thus leaving a residual of 168 new homes. These are Local Plan sites which do not yet benefit from planning permission, not to be considered in the Reference Case, so the residual 1,212 new homes can be removed. However, there is one site (Land off Spoon Lane) for 4 dwellings which has not been manually added within committed developments, therefore those new homes have been added back into the TEMPro growth.

5.31 For the employment in Tamworth, TEMPro assumes an increase of 916 jobs. Following a review of Table 2 from Table v7 at Appendix C, there is only 1 committed employment site in Tamworth and that is fully built and occupied hence its traffic flows will be included in the July 2023 surveys. Therefore, it is reasonable to assume the extra 916 jobs in TEMPro are associated with the Local Plan sites and can be removed from the projections.

5.32 For the employment in North Warwickshire, TEMPro assumes an increase of 1,188 jobs. Following a review of Table 2 from Table v7 at Appendix C, there are several committed employment sites which are either fully built and occupied or their traffic generations have been included in the Vectos WCC Atherstone A5 PARAMICS model, one being the Land at Rowland Way generating an extra 425 jobs. Therefore, TEMPro will be adjusted, removing the extra 1,188 jobs to avoid double counting. However, there is one site (Land off Carlyon Road Industrial Estate) which is fully built but not yet occupied that will create an extra 170 jobs, therefore they have been added back into the TEMPro growth.

5.33 Table 5.5 below summarises the 2023 to 2033 TEMPro adjustments for the Reference Case.

Table 5.5: TEMPro Adjusted 2023 to 2033 Household and Employment Projections (Reference Case)

	Households			Employment (jobs)		
	2023	2033	Increase	2023	2033	Increase
Tamworth	34,103	34,244	+141	33,286	33,286	+0
North Warwickshire	27,849	27,853	+4	43,199	43,369	+170

5.34 The RTF 2018 NTM dataset was used and "Trunk" was selected as the road type. Table 5.6 below summarises the growth factors for Tamworth and North Warwickshire along with the average rates that will be applied to the July 2023 surveyed PCU flows.

Table 5.6: TEMPro 2023 to 2033 Growth Factors (Reference Case)

	Period	
	AM Peak	PM Peak
Tamworth	1.0278	1.0251
North Warwickshire	1.0228	1.0241
Average	1.0253	1.0246

<u>No Development Flows</u>

5.35 The relevant committed development flows will be added to the 2023 baseline traffic to generate the 2026 and 2033 Reference Case No Development flows.

5.36 The following scenarios will be modelled in the AM peak (08:00 to 09:00) and PM peak (17:00 to 18:00) periods;

a) 2026 Reference Case - No Development
b) 2031 Reference Case - No Development

Development Generated Traffic Flows

5.37 The development generated flows (PCU) have been extracted from the WCC Atherstone A5 PARAMICS model. Figure 21 attached at Appendix E shows the AM Peak traffic and Figure 22 also at Appendix E shows the PM Peak equivalent.

With Development Flows

5.38 The development generated flows will be added to the 2026 and 2033 Reference Case No Development traffic to generate the 2026 and 2033 Reference Case With Development flows.

5.39 Once the 2023 TRANSYT baseline model is approved, the proposed site access junction as shown at TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0002 Rev P01 attached at Appendix G will be coded into the model. Based on previous future year modelling work it has been identified that a mitigation scheme is required at Junction 10, whilst also providing foot/ cycle enhancements. It is considered this scheme will again be required, therefore the Junction 10 improvement drawings as shown at TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0001 Rev P03 attached at Appendix F will also be coded into the model.

5.40 Following the modelling work, if further mitigation is required over and above that identified already at Junction 10, a scheme will be developed and the model adjusted to incorporate the necessary improvements.

5.41 The following scenarios will be modelled in the AM peak (08:00 to 09:00) and PM peak (17:00 to 18:00) periods;

c) 2026 Reference Case – With Development
d) 2033 Reference Case – With Development

5.42 The A5/ Long Street/ Gypsy Lane (Dordon) roundabout junction will be upgraded as part of the Dordon to Atherstone project. A scheme has been developed by WCC through the Housing Infrastructure Grant (HIG) in 2019, provided by the Department for Levelling Up, Housing and Communities. The application is supported by NH. It was confirmed at the 23rd May 2023 meeting that the Dordon roundabout scheme is only to be included in the Local Plan assessment (see next chapter) therefore the existing arrangement will be retained in the 2026 and 2033 Reference Case assessments.

6 FUTURE YEAR ASSESSMENT – LOCAL PLAN CASE

Local Plan Allocations

6.1 As discussed in the 15th March 2023 meeting a future year assessment (2033) is required for the Local Plan case, i.e., with the traffic generated from the committed developments identified above, plus that from the Local Plan sites and their associated highway infrastructure schemes.

WCC Atherstone A5 PARAMICS Local Plan Allocations

6.2 As agreed, the Local Plan Allocation generated traffic flows to be used within the TRANSYT model have been taken from the current WCC Atherstone A5 PARAMICS model. A thorough review of the Local Plan traffic flows have been undertaken and adjustments made for those developments partially built and occupied at the time of the traffic surveys to avoid double counting. The agreed adjustments are shown at Tables 3 and 4 attached at Appendix C.

6.3 The majority of the Local Plan traffic flows have been extracted from the WCC Atherstone A5 PARAMICS model. Figure 1 attached at Appendix D shows the numbered turning movements TT have derived to assign the Local Plan traffic from the WCC Atherstone A5 PARAMICS model. Table G attached at Appendix F shows all of the Local Plan flows by movement number, assuming all are unoccupied. Table H shows the PM peak equivalent.

6.4 In 2033 the agreed build out and occupations (see Appendix C) have been applied to the Local Plan developments and Table I attached at Appendix F shows the AM peak adjusted traffic that need to be added onto the baseline flows, also shown diagrammatically in Figure 23 also at Appendix F. Table J attached at Appendix F shows the PM peak adjusted traffic that need to be added onto the baseline flows, also shown diagrammatically in Figure 24 also at Appendix F.

Birch Coppice and Core 42 Local Plan Flows

6.5 As identified in Table 4 at Appendix C, there is a 5.1ha site at Birch Coppice and a 3.45ha site at Core 42 forming part of the Local Plan. In order to estimate the vehicle trips from these sites the July 2023 surveyed flows have been used on a pro rata basis. At Birch Coppice, 5.1ha of the currently built 145ha equates to 3.5%, and so 3.5% of the surveyed traffic flow in/ out of

Birch Coppice will represent the Local Plan site. At Core 42, 3.45ha of the currently built 17.13ha equates to 20.1%, and so 20.1% of the surveyed traffic flow in/ out of Core 42 will represent the Local Plan site.

6.6 Figure 11 attached at Appendix D shows the 2023 AM Peak surveyed flows and Figure 12 also at Appendix D shows the PM peak from which the Birch Coppice and Core 42 Local Plan sites have been derived. The Local Plan flows from Birch Coppice and Core 42 have been distributed around the road network based on the proposed development's traffic assignment, discussed later (see Figure 21 for the AM peak and Figure 22 for the PM peak both at Appendix E). Figure 25 attached at Appendix F shows the AM peak traffic flows associated with the Birch Coppice and Core 42 Local Plan sites and will be applied to the 2033 Local Plan assessment years. Figure 26 also at Appendix F shows the PM peak equivalent.

2033 Total Local Plan Allocation Flows

6.7 The Local Plan Allocation flows from the WCC Atherstone A5 PARAMICS model (2033) and the additional Local Plan Allocations at Birch Coppice and Core 42 have all been added together to generate the 2033 total Local Plan traffic flows. Figure 27 attached at Appendix F shows the 2033 AM Peak and Figure 28 also at Appendix F shows the PM Peak equivalent.

Traffic Growth

2023 to 2033 Growth Factors

6.8 The methodology discussed in Chapter 5 for the 2023 to 2033 growth factors has been followed for the Local Plan assessment.

6.9 Table 6.1 below shows the planning assumptions in households and jobs in North Warwickshire and Tamworth from 2023 to 2033.

Table 6.1: TEMPro 2023 to 2033 Household and Employment Projections

	Households			Employment (jobs)		
	2023	2033	Increase	2023	2033	Increase
Tamworth	34,103	36,209	+2,106	33,286	34,202	+916
North Warwickshire	27,849	29,336	+1,487	43,199	44,387	+1,188

6.10 In Tamworth TEMPro assumes 2,106 new homes will be constructed from 2023 to 2033. Following a review of Table 1 from Table v7 at Appendix C, it can be seen that traffic generated from 894 new homes with planning permission has been manually added onto the road network, thus leaving a residual of 1,212 new homes. The residual 1,212 new homes have been retained in TEMPro for the Local Plan growth. It has been assumed the 1,212 new homes includes the Coton House Farm committed site for 141 new dwellings.

6.11 In North Warwickshire TEMPro assumes 1,487 new homes will be constructed from 2023 to 2033. Following a review of Table 1 from Table v7 at Appendix C, it can be seen that traffic generated from 1,319 new homes with planning permission has been manually added onto the road network, thus leaving a residual of 168 new homes. However, following a further review of Table 3 from Table v7, there are another 1,135 homes among the Local Plan sites that have not been added manually, therefore the residual of 168 new homes in TEMPro has been replaced with an allowance of 1,135 new homes.

6.12 For the employment in Tamworth, TEMPro assumes an increase of 916 jobs. Following a review of Table 2 from Table v7 at Appendix C, there is only 1 committed employment site in Tamworth and that is fully built and occupied hence its traffic flows will be included in the July 2023 surveys. Following a review of Table 4 from Table v7 at Appendix C, there are 4 Local Plan employment sites in Tamworth, totalling 13.14ha. Of the 13.14ha, 0.75ha is built and occupied at the time of the July 2023 surveys therefore, the extra 916 jobs has been factored down by 5.7% (0.75/ 13.14) which is a reduction of 52 jobs, leaving a total of extra 864 jobs to be retained in the TEMPro assumptions.

6.13 For the employment in North Warwickshire, TEMPro assumes an increase of 1,188 jobs. Following a review of Table 2 from Table v7 at Appendix C, there are several committed employment sites which are either fully built and occupied or their traffic generations have been included in the Vectos WCC Atherstone A5 PARAMICS model, one being the Land at Rowland Way generating an extra 425 jobs, leaving a residual of extra 763 jobs. There is one site (Land off Carlyon Road Industrial Estate) which is fully built but not yet occupied that will create an extra 170 jobs and as they have not been added manually the extra 170 jobs need to be included in TEMPro growth. It is reasonable to assume the remaining extra 593 jobs (763 – 170) are associated with the 3 Local Plan employment sites yet to be built and totalling 50.55ha as listed in Table 4 from Table v7 at Appendix C. The traffic flows associated with these 3 sites have been accounted for in the Vectos WCC Atherstone A5 PARAMICS model or uplifting surveyed flow data, therefore they can be removed from the TEMPro growth.

6.14 Table 6.2 below summarises the 2023 to 2033 TEMPro adjustments for the Local Plan Case.

Table 6.2: TEMPro Adjusted 2023 to 2033 Household and Employment Projections (Local Plan Case)

	Households			Employment (jobs)		
	2023	2033	Increase	2023	2033	Increase
Tamworth	34,103	35,315	+1,212	33,286	34,150	+864
North Warwickshire	27,849	28,984	+1,135	43,199	43,369	+170

6.15 The RTF 2018 NTM dataset was used and “Trunk” was selected as the road type. Table 6.3 below summarises the growth factors for Tamworth and North Warwickshire along with the average rates that will be applied to the July 2023 surveyed PCU flows.

Table 6.3: TEMPro 2023 to 2033 Growth Factors (Local Plan Case)

	Period	
	AM Peak	PM Peak
Tamworth	1.0570	1.0544
North Warwickshire	1.0399	1.0417
Average	1.0485	1.0481

Local Plan Allocation Infrastructure

6.16 As discussed and agreed previously, a future year assessment is required for the Local Plan case, which includes all the Local Plan allocations and their associated highway infrastructure.

6.17 The Local Plan includes a mitigation scheme at Junction 10 shown at Phil Jones Associates Drawing 02853-01 Rev A attached at Appendix H. It was agreed at the 15th March 2023 meeting with NH and WCC that when assessing the road network including the traffic associated with the Local Plan allocations, the scheme at Junction 10 also must be included.

6.18 The A5/ Long Street/ Gypsy Lane roundabout junction will be upgraded as part of the Dordon to Atherstone project and identified as ID6 in the North Warwickshire Infrastructure Delivery Plan, dated March 2018. A scheme has been developed by WCC through the Housing

Infrastructure Grant (HIG) in 2019, provided by the Department for Levelling Up, Housing and Communities. The application is supported by NH.

6.19 A Public Consultation Event ran for 7 weeks up to 27th October 2022 which presented 3 options, all of which involve a bypass carriageway to the South of the current A5 between Dordon roundabout to a point 500m west of Grendon roundabout, the results of which are attached at Appendix I. Option B is the preferred scheme to be taken forwards. However, the initial funding was allocated for a signalised junction as shown at Option A.

6.20 Given the uncertainty of the scheme to be progressed, NH advised (at the 23rd May 2023 meeting) the No Development model should be tested with the current proposal in the Local Plan (ID 6), that is Option A (signalised junction).

6.21 In addition there will be a new link road between the B5000 and the A5, with a 40mph speed limit and will connect to a new A5 roundabout junction to the east of Green Lane which will serve the new Grendon bypass. In order to appreciate how it might affect the baseline traffic in 2033, Vectos ran their model with and without the link road and provided traffic turning matrices for both scenarios as well as the percentage changes in baseline traffic flow at each of the junctions to be assessed. To consider applying a change the baseline traffic flows in 2033, the following criteria have been set;

- the absolute change in vehicle flow on any movement is +/- 50pcu and
- the percentage change in vehicle flow on any movement is +/- 10%

6.22 The results at the junctions to be included in the TRANSYT model are attached at Appendix J and it shows that in only two instances (on the A5/ Gypsy Lane/ Long Lane junction) is the absolute change in flow +/- 50 and on those relatively lightly trafficked movements the % change is greater than 10%. However in both the AM and PM peak hours the traffic impacts of the link road at the junction overall are minor, i.e. less than 1% in the AM and 2% in the PM. So on balance it is considered the A5 to B5000 link road has minor effects to the baseline flows across the Transyt network so no adjustment will be made to the 2033 Local Plan scenario.

No Development Flows

6.23 The 2033 total committed development flows (Figure 19 and 20 at Appendix D) and the 2033 total Local Plan flows (Figures 27 and 28 at Appendix F) will be added to the 2023 baseline traffic to generate the 2033 Local Plan Case No Development flows.

6.24 The following scenario will be modelled in the AM peak (08:00 to 09:00) and PM peak (17:00 to 18:00) periods;

e) 2033 Local Plan Case - No Development

Development Generated Traffic Flows

6.25 The development generated flows (PCU) have been extracted from the WCC Atherstone A5 Paramics model. Figure 21 attached at Appendix E shows the AM Peak traffic and Figure 22 also at Appendix E shows the PM Peak equivalent.

With Development Flows

6.26 The development generated flows will be added to the 2033 Local Plan Case No Development traffic to generate the 2033 Local Plan Case With Development flows.

6.27 The following scenario will be modelled in the AM peak (08:00 to 09:00) and PM peak (17:00 to 18:00) periods;

f) 2033 Local Plan Case - With Development

7 TECHNICAL NOTE

7.1 A Technical Note will be produced detailing the modelling results for all scenarios discussed above. The Note will be issued to WCC, SCC and NH for review.

APPENDIX A

Meeting Notes

Minutes Of Meeting

Project Number:	784-B033920
Project Title:	PAP/2021/0663 - Land NE of M42 J10 Atherstone/ A5 model
Meeting:	A5 Atherstone Model, TT TRANSYT Model
Held At:	Teams
Date and Time:	15th March 2023
Minutes Taken By:	Gareth Wakenshaw
Attendees:	Andrew Collinson (AC); NWBC Ben Simm (BS); National Highways (NH) Alan Law (AL), Tony Burrows (TB), Moises Muguerza (MM); WCC Amrit Mudhar (AM), Will Spencer (WS); SCC Nick Bunn (NB), Gareth Wakenshaw (GW); Tetra Tech (TT) David Hodgetts (DH), Edward Hodgetts (EH), Jane Hodgetts (JH); Hodgetts Estates (HE)
Apologies:	

1. Introductions

- As requested by AM, it was agreed that identified monthly meetings would be useful to keep track on the application. **Action: AC to set up monthly meetings**

2. Transyt Model

i) AECOM technical comments

- BS identified that NH will issue AECOM comments to TT's TRANSYT response by the end of the week. **Action: BS to issue comments**

ii) Flows to use & growth

- It was agreed that Option 3 in TT email 23 Feb was an acceptable means of assessing the highway impacts of the proposed development and avoided the need to wait until the WCC A5 Corridor model is ready. The junctions are to be resurveyed in March/ April 2023 survey counts. NB asked that the highways authorities advise of any committed works which might interfere with the survey timeframe. **Action: TT to appoint surveys and get survey permissions/ permits. NH/SCC/WCC to advise of committed works.**
- AM requested a week long ATC surveys to validate the turning counts, and AL suggested that there should ideally be 1 west of the Jn 10, 1 set east of Jn10 and 1 set E of Core 42. **Action TT to arrange additional surveys.** **Post meet note:** survey firm advised of safety issues placing ATC on the A5 west of Jn10. Suggested ATC locations attached.

- It was also agreed that committed development and local plan allocation traffic flows can be extracted from the A5/ Atherstone model. **Action: TT to request flows from Vectos.**
- Assessment years were agreed to be 2026 and 2033 (End of local Plan). **Action: TT to provide growth factors for approval**
- AC/ AM requires Staffordshire committed developments to be reviewed to see if any more recent additions. **Action: TT to contact Richard Powell – please pass on contact details.** **Post meet note:** GW emailed Richard Powell.
- It was agreed that the committed developments would be reviewed with AC and Richard Powell of Tamworth so that completed development can be removed and the flows for part completed development can be adjusted accordingly. **Action TT to review Committed Developments with NWBC and TBC.** **Post meet note:** TT are reviewing the current applications and taking an initial estimate of their build out completions (and occupations) and forecast for 2026 and 2033 to be issued for review this week.

iii) Extent of model

- It was agreed that the extent of TRANSYT model include A5/ Pennine Way roundabout junctions in the west, M42 Jn10, A5/ Birch Coppice, A5/ Core 42 and A5/ Dordon roundabout. **Action TT to extend proposed surveys to include A5/ Dordon roundabout.**
- It was noted that the A5/ Dordon roundabout affected by the Dordon to Atherstone improvement scheme which was out to public consultation last October. The exact scheme to assess in 2033 is not confirmed. At present the A5/ Atherstone model includes Option A (Traffic Signals) but latest consultation shows that Option B (roundabout) is the preferred option. BS stated that NH does not have a preferred scheme at the present time and this will not be confirmed until PCF Stage 3. AL advised that agreement with Homes England is for the scheme to be delivered in start in 2028. AL further confirmed that the scheme was independent of RIS3. AL advised that WCC preference was Option 2. BS noted that NH had not yet announced the preferred scheme. NB suggested that for completeness, TT could assess both the Option A and Options B schemes. AL noted that WCC has a recovery and recycling strategy agreed with Homes England and that any impacts of the proposals on the junction could be subject to contributions therefore. **Action: AL and BS to speak to colleagues and advise which option(s) to assess in the future year.**
- BS discussed the impacts at Longshoot/Dodwells remote from the site further to the east, which has capacity constraints. In particular the potential volume of HGV traffic generated by the site. The Land at Padge Hall Farm application (employment uses) (Rugby Borough Council ref. R21/0985) was approved nearby and will deepen the c/w under the Watling Street Bridge and thus make the A5 corridor to the M69 more attractive for HGVs. BS would like to see traffic flow predictions along this route to rule out the need for any assessment. NB noted the Jn10 development site's proximity to Birch Coppice and that some 10% of goods lifted could be by rail-freight based on a study attached to the TA. Although no reductions has yet been applied to the development generated flows, this would be a consideration under Circular 01/2022 and the potential impact at Longshoot/Dodwells. **Action: TT to request development traffic flows (cars and HGVs) from Vectos to establish the volume of traffic (particularly for HGVs) to/ from Longshoot/Dodwells.**

iv) Use of Transyt

- AL queried the use of Transyt. NB offered to liaise with TRL to provide advice direct to WCC on Transyt. It was agreed by all parties that Transyt is appropriate to assess the agreed model area (which includes both the signal controlled junctions and priority controlled roundabouts).

3. WCC Licence

- AL agreed to the use of the existing A5/ Atherstone model and for HE to enter into the WCC licence agreement. As HE already paid for the licence, AL/ MM will advise of a reduced rate. **Action: TT/ HE to submit licence application doc and discuss fees with AL. Post meet note:** TT submitted licence application and await WCC response for payment to be made.

4. Site Access Design

- NB discussed the SSD to back of predicted queue and embankment can be amended to suit. BS confirms asset team will not review the layout until the modelling work is completed and agreed. It was agreed that the SSD to the junction should be based on the observed speeds. BS had concerns with the radar speed meter method and requested a verification from an ATC. **Action: TT to arrange ATC. Post meet note:** Suggested ATC locations attached.
- BS noted that the segregated left turn lane (from the Local Plan scheme) has been removed from TT proposal. NB confirmed that the Transyt modelling showed that the left turn slip was not necessary to cater for the Local Plan scenario. TT has identified the modelling works shows that the segregated left turn slip is not required even in the Local Plan scenario with Development. BS stated that as the proposals differ from the from the Local Plan scheme, the applicant will therefore be required to provide drawings showing the proposed improvements at M42 Jn10. **Action: TT to provide note and modelling results covering this point.**

5. Proposed Improvements

- BS not consulted on foot/ cycleway on north side of M42 Jn10 / A5 proposals. Asset teams needs to review but appreciates they may need modelling work complete first. **Action: BS to ask Technical team to review the foot/ cycleway proposals.** Please see attached Appendix L from the Revised TA which includes the Site access, Jn10 and offline foot/ cycleway proposals.
- AM would like to see swept path drawings at the site access and at the A5 eastbound slip road from Pennine Way to J10. **Action: TT to provide swept path drawings.**
- AM would like confirmation on bus times and frequency into the site (i.e., bus schedule for both routes), PTS doesn't mention. **Action: TT to advise.**
- AL queried if there are ped/ cycle counts on northern bridge of J10. TT confirmed counts undertaken in 2022 at a number of locations. **Action: AL to speak to cycling officer to see if counts undertaken in in 2022 are acceptable. Post meet note:** For ease of refence please see attached Figure 2 from the Revised TA which shows the two-way 12 hour ped/ cycle counts in the area.
- BS recognises the new DfT Circular 01/2022 has active travel at its heart and sustainable transport options and promotion is critical in all new developments. NB acknowledged this and reiterated the excellent sustainable options the site is proposing, not only for the development itself but for the wider community by upgrading and providing new connections, effectively making routes both more attractive and shorter distances. The new Circular states measures to improve community connectivity and public transport accessibility, will be weighed against any negative safety, traffic flow, environmental and deliverability considerations. BS noted the site must have a robust Travel Plan with ambitious targets.

6. WCHAR, RSA1, GG104

- WCHAR will be revised. **Action: TT to submit.**
- BS no comments on the S1RSA brief until the junction modelling is complete and agreed.
- BS very important to get any Departures logged onto DAS and get approved before undertaking the S1RSA. **Action: TT to log Departures on DAS and put Ben down as the sponsor.**
- BS requires GG104 in accordance with new Circular. **Action: TT to provide a GG104 brief to Ben for review.**

7. Circular 01/2022 issues

- BS confirmed that a Vision document and Vision-led Travel Plan are required. BS confirmed no protocol yet set on these requirements but will be in a better position to advise next week. **Action: BS to advise on requirements for a Vision-Led Travel Plan, etc.**
- BS advised that the Coventry Gigafactory is a useful example to consider in the form of a Sustainable Transport Statement linked to the S106. NB confirmed that NH in North Tyneside have accepted one of our Vision Documents. BS offered to find and circulate the Sustainable Transport Statement for the Coventry Gigafactory. **Action: BS to find and circulate the Sustainable Transport Statement for the Coventry Gigafactory.**

8. WCC Update on A5 Corridor Model

- AL says the surveys are a month behind schedule but should be all complete end of April and data available in May. Confident that as the A5 corridor model to the M69 has limited route choice it should be possible to make up the time with the aim for future year models to be available in September.

9. Next Steps

- Arrange Monthly meetings. **AC to arrange monthly meetings moving forwards.**
- Review NH/ AECOM Transyt comments. **BS to issue and TT to review AECOM comments on Transyt model.**
- Arrange Traffic surveys. **TT to arrange traffic surveys. Please confirm the proposed surveys (see attached PDF) are acceptable to be undertaken on Wednesday 19th April**
- Extend Transyt model to include Pennine Way rbts and A5/ Dordon roundabout. **TT to action.**
- Renew Licence Agreement. **TT/HE have applied for new licence, WCC to take payment from HE**
- Extract committed development & local plan allocations traffic flows from A5/ Atherstone Model. **TT to action.**
- Review % complete on Committed Developments / allocations with TBC and NWBC. **TT and AC to action.**
- Confirm whether there are additional committed developments to be included. **TT to emailed Richard Prowell, await response.**
- Confirm future year junction(s) layouts to be assessed at A5/ Dordon roundabout. **BS and AL to advise on appropriate scheme(s) to assess.**
- TT to prepare a Consolidated Methodology Strategy Note to bring together all of the above items. **TT to action.**

Minutes Of Meeting

10. AOB

- AM noted an article which stated that in order to meet net zero, there should be 35% electric car charging should be provided for fleets on site. AM accepted that this was only one source and confirmed that SCC would not object on this issue but stated a preference for an increase on the current offer of 10% EV charging and rapid charging points, as well as ducting for a further 15% of spaces to future proof the development (25% in total). **Post Meet**: it should be noted that ducting is being provided to 100% of commercial vehicle parking spaces (for both light vehicles and HGVs).
- AM, in future report submissions, please do not append previous submitted document. **TT to action.**
- AM, please provide TRANSYT outputs in reports. **TT to action.**
- AM explanation to why accident data is only provided pre Covid. NB explained Covid that lockdowns resulted in less traffic and therefore accident patterns and frequencies not typical of normal conditions. AM requested accident data for last three years regardless. **TT to action.**
- AM welcomed the bus service into the site (between Tamworth and Nuneaton) but would like to see offer of free bus taster tickets. **TT to review Travel Plan.**
- AM would like to see emergency lifts home extended to all employees and not just cyclists. **TT to review Travel Plan.**
- AM requested clarity on the extent of the 50mph zone. **Post Meet:** Please see attached drawings from TA Appendix L which show the indicative location proposals subject to agreement.
- AM offer to provide comprehensive list setting out the above points to TT. **AM to provide AOB points to TT.**

Date of Next Meeting:	TBC by AC
Date of Issue:	28th March 2023
File Reference:	\\lds-dc-vm-101\Data\Projects\784-B033920 Land NE of M42 Jn10\40 Communications\42 Meetings

Minutes Of Meeting

Project Number:	784-B033920
Project Title:	PAP/2021/0663 - Land NE of M42 J10 Atherstone/ A5 model
Meeting:	Highways
Held At:	Teams
Date and Time:	23rd May 2023
Minutes Taken By:	Gareth Wakenshaw
Attendees:	Andrew Collinson (AC); NWBC Ben Simm (BS), Patrick Thomas (PT); National Highways (NH) Alan Law (AL), Tony Burrows (TB); WCC Amrit Mudhar (AM); SCC Nick Bunn (NB), Gareth Wakenshaw (GW); Tetra Tech (TT) David Hodgetts (DH); Hodgetts Estates (HE)
Apologies:	

1. Introductions

- PT to take over from BS on behalf of NH as BS is moving to work on a DCO scheme. All communications to go through PT, and BS to no longer be cc's on emails.

2. Update on 15th March 2023 Meeting

- NB gave a brief overview and noted that matters arising were covered in the main agenda.

3. Progress on A5 roadworks

- BS commented that Fiona McKenzie (NH route manager) confirmed 2 weeks ago that the A5 resurfacing works progressing well and on schedule. **Action: PT and BS to check with Fiona again and revert back.**

4. Circular 01/2022

- BS confirmed that as the modelling work is not complete, the application is subject to the new 01/2022 Circular.
- NB discussed the required process, i.e. vision document, vision-led Travel Plan and resultant trip reductions to be agreed.
- NB outlined the likely reductions in employee movements and HGV movements arising from use of the Birch Coppice rail freight terminal.
- BS happy with this approach but does require two scenarios to be assessed, i.e. "worst-case" with no trip reductions and "Sustainable Transport Case" with trip reductions for sustainable mode offerings.

- AL requires clear evidence for trip reductions and don't just apply a blanket reduction of all trips. For example, if a new foot/ cycleway crosses Junction 10, then trips on that particular OD movement within the model needs to be reduced for the transfer of a car trip to a walk/ cycle trip.
  Action: TT to prepare and issue Vision document and vison led travel plan.

5. Transyt Model

i) TT response to AECOM comments

- GW discussed the main responses and those that require NH to agree – Phase G at junctions 3 and 4 and saturation flows at the site access junction. Agreement is sought facilitate model preparation when the traffic data is received.
- **Action: BS & PT to review with AECOM and respond.**

ii) General Update

- GW talked through the progress table and thanked all for contributions to date, noted that a lot of progress has been made.
- Coton House Farm and Dunstall Lane developments not in Vectos paramics model flows, GW suggested to use Tempro growth. AM requires the TA's to be reviewed to see if the predicted trips can be extracted. AM said it is for NH to take a view. **Action: TT to review TA's**
- GW talked about the use of Tempro v8.1 upon release and will issue factors to apply to 2023 survey counts. AM wary of new growth factors and would like to see a comparison against Tempro v7.2c. **Action GW: to issue both sets of growth factors for discussion (after v8.1 released). This will be included in the Consolidated Methodology Note.**
- Dordon roundabout. All agreed 2026 and 2033 Reference case to model Dordon roundabout in its current arrangement. In the 2033 Local Plan scenario model Dordon roundabout as Option A Traffic Signals as in the current Local Plan scenario.
- NB discussed the potential effect of the A5 to B5000 link road on baseline traffic flows (Local Plan scenario only) and this is not accounted for from Vectos committed and local plan flow data . AL confirmed WCC don't have any baseline flow reductions etc that can be applied to the network but considers the link road will take traffic away from Dordon/ Long Street and not necessarily from the A5.
- NB advised that Vectos can do additional Local Plan +/- the link road to evaluate the traffic change. All agreed worthwhile exercise. **Action: TT to instruct Vectos, analyse the data and revert back with findings and any proposed adjustments. This will be included in the Consolidated Methodology Note.**
- AL sought confirmation from BS that WCC can review the Transyt model assessments/ review carried out by AECOM on behalf of NH.. BS explained that AECOM review all the TRANSYT inputs and the models are thoroughly checked over BS confirmed that the AECOM reviews can be shared with WCC and SCC. GW reiterated TRANSYT far better tool than LINSIG for complex and linked junctions where queuing back is an issue.

iii) 4th July Surveys

- All agreed 4th July surveys acceptable subject to A5 roadworks completed on time.
- AM requires confirmation of dates for ATC surveys. **Post meet note:** GW confirmed ATCs will cover Monday 3rd July to Sunday 9th July inclusive.

6. Site Access Design & Improvements

- NB discussed that we need early view back from NH on access junction and cycle proposals. BS & PT explained that ideally the modelling needs to be agreed first but appreciate early views are sought. PT explained they will seek high level views from asset team but will be caveated that it is subject to the modelling results. **Action: PT to instruct Asset team for review of proposals (GW sent at meeting) and revert back with comments.**

- AM has no comments on the design as not affecting Staffordshire network. **Post Meet Note:** see image on last page, proposal is to convert the 2m footway into a shared/ cycleway (yellow highlight) and provide tactile paving at the uncontrolled crossing point. The shared foot/ cycleway route will terminate on Pennymoor Road and cyclists drop onto the carriageway. Amrit it would be useful for your comments as this is on part of Staffordshire network.
- BS requires Departure from Standards in design to be logged onto DAS and PT as sponsor. **Action: TT preparing and will log onto DAS system.**

7. Extent of highway maintainable at public expense by SoS on A5.

- BS acknowledges that this is with him to action. **Action: BS to send through plans.**
- NB queried whether the adoption of the slip road from the A5 to Kinsall Green had been adopted. The Sc106 Agreement for ACE135 (planning application reference 0646/2018) include a sum for its adoption.. **Action: PT to review and revert back.**

8. WCHAR, S1RSA and GG104

- WCHAR will be revised after modelling work agreed. **Action: TT to instruct Drummond Black after modelling approved.**
- S1RSA Brief, BS cant find CV's to the brief. BS agrees it will be good to get brief agreed in advance of modelling work. **Action: TT to send CV's to PT. Action: PT to review Brief.**
- GG104. PT confirms there is no formal brief to follow, NB proposed doing an informal GG104 brief, agreed this is appropriate. **Action: TT to send informal GG104 brief to PT.**

9. Next Steps

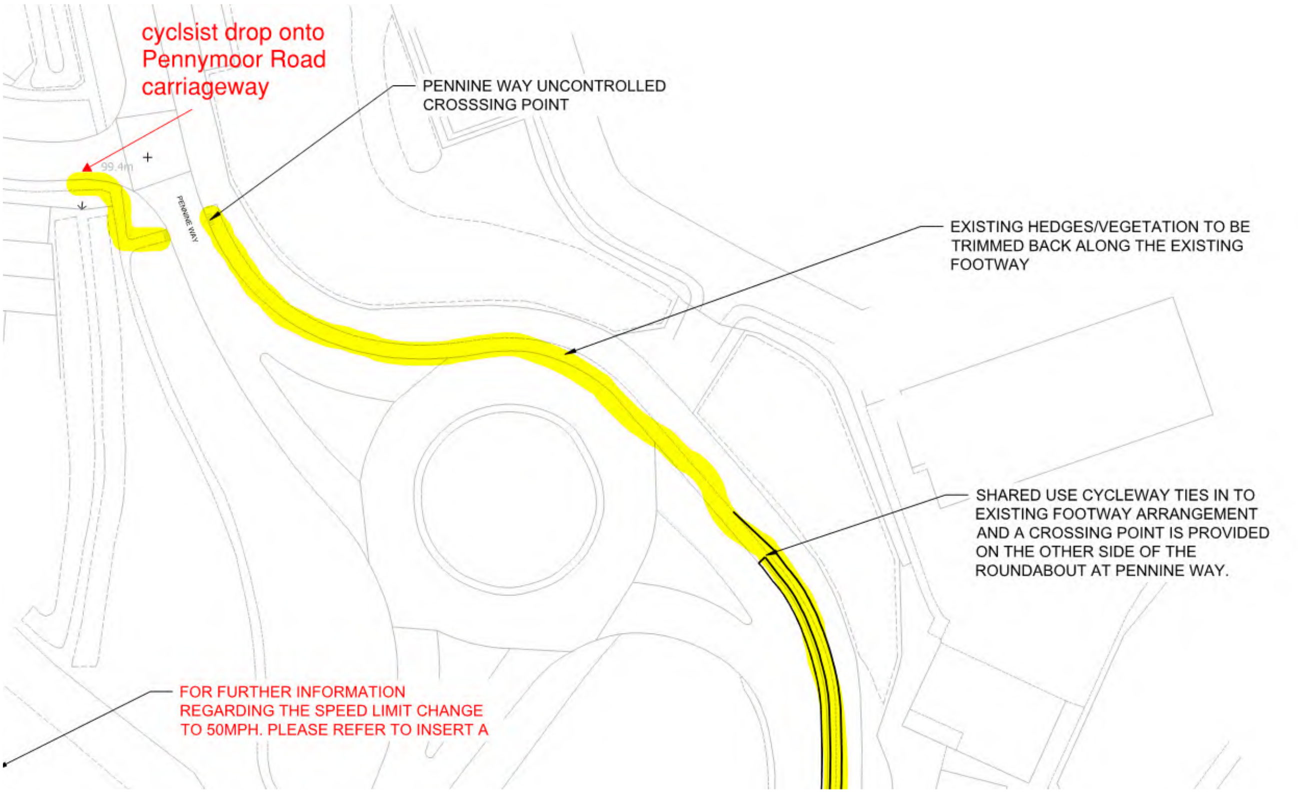
- TT to prepare and issue meeting notes.

10. AOB

- Discussion around July meeting. All agreed to a meeting on July 26th. **Post meet note:** AC issued meeting invite for 2pm on Wednesday 26th July.

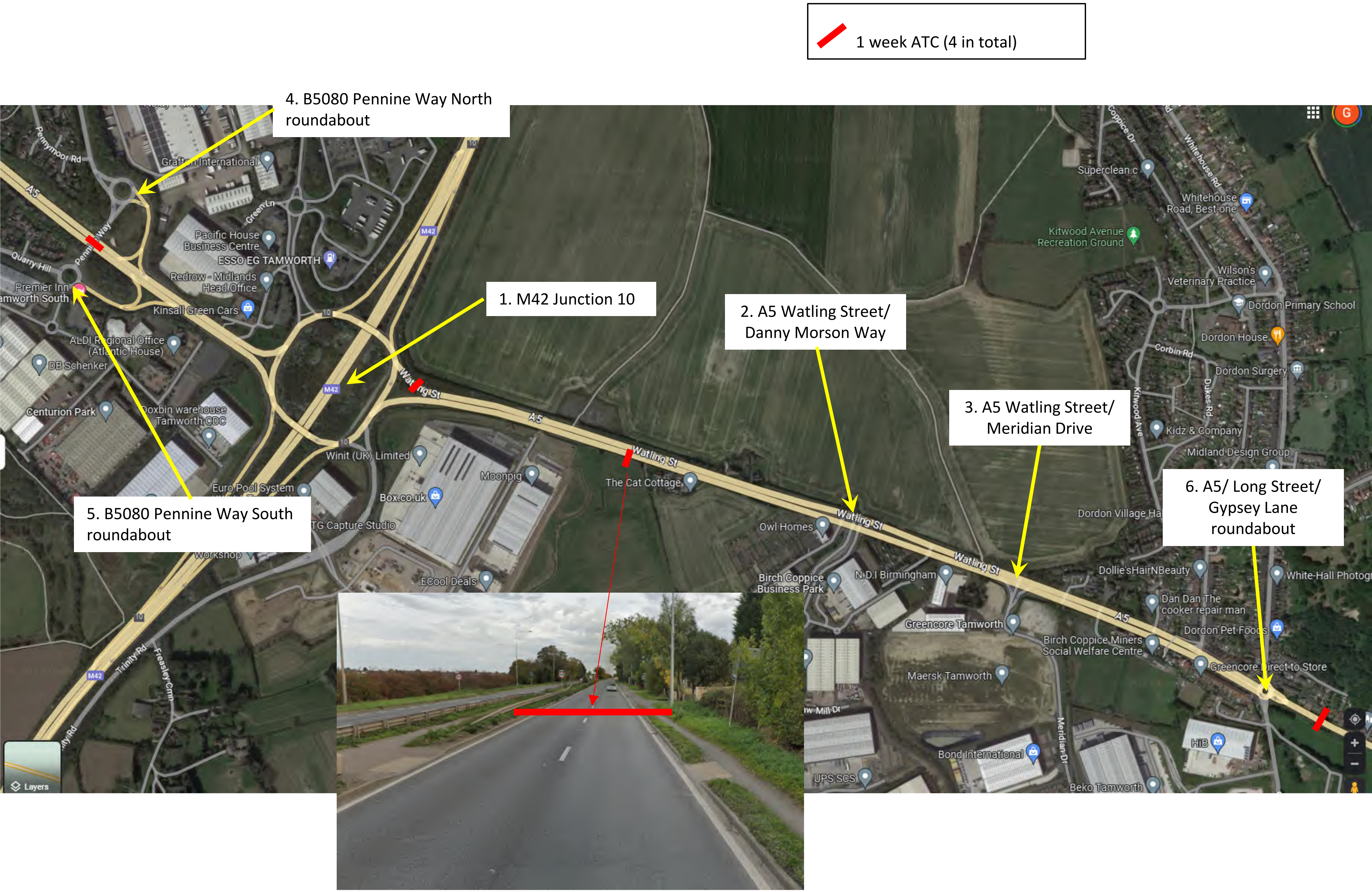
Date of Next Meeting:	28th June 2023
Date of Issue:	24th May 2023
File Reference:	\\lds-dc-vm-101\Data\Projects\784-B033920 Land NE of M42 Jn10\40 Communications\42 Meetings

Minutes Of Meeting

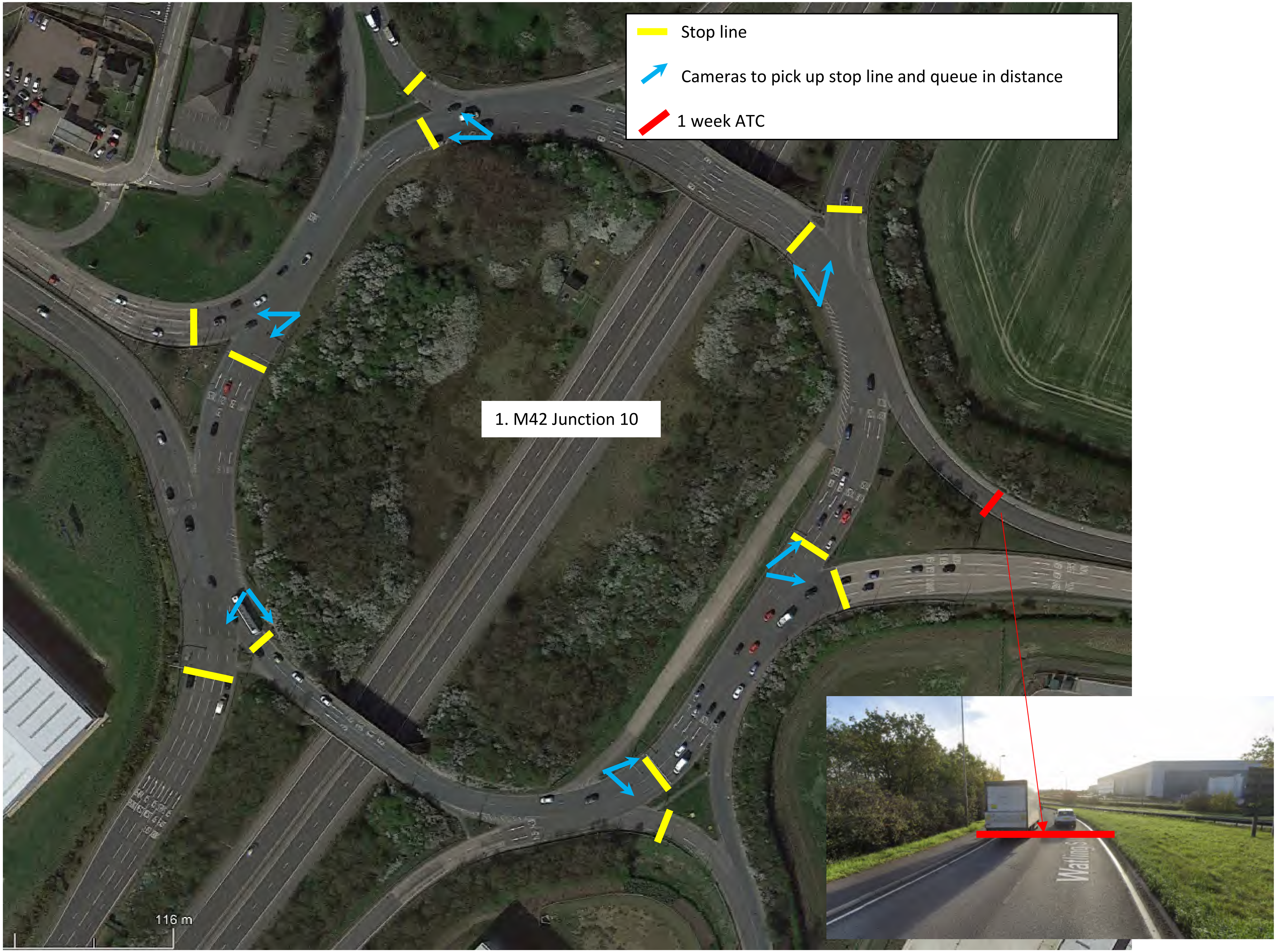


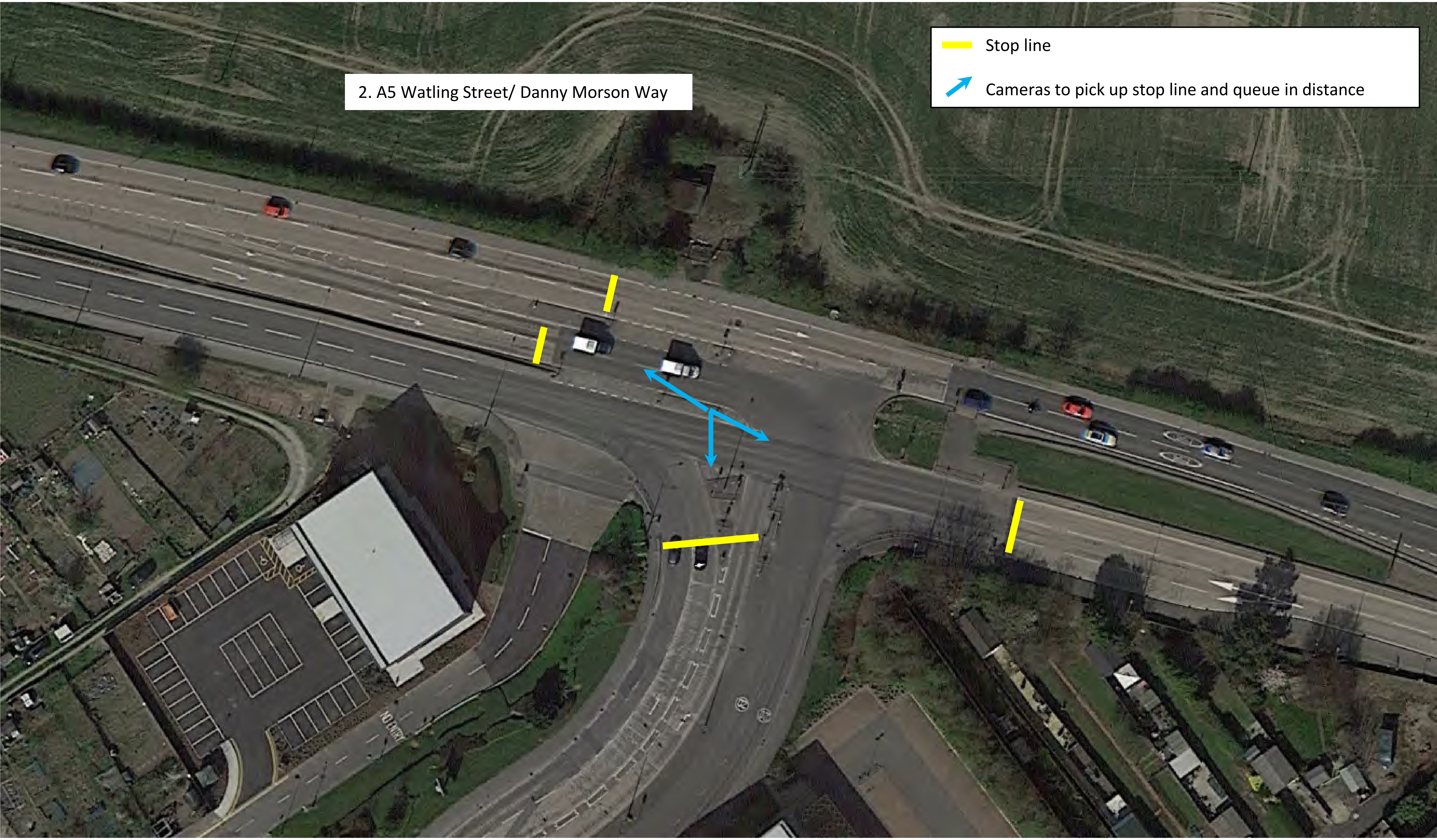
APPENDIX B

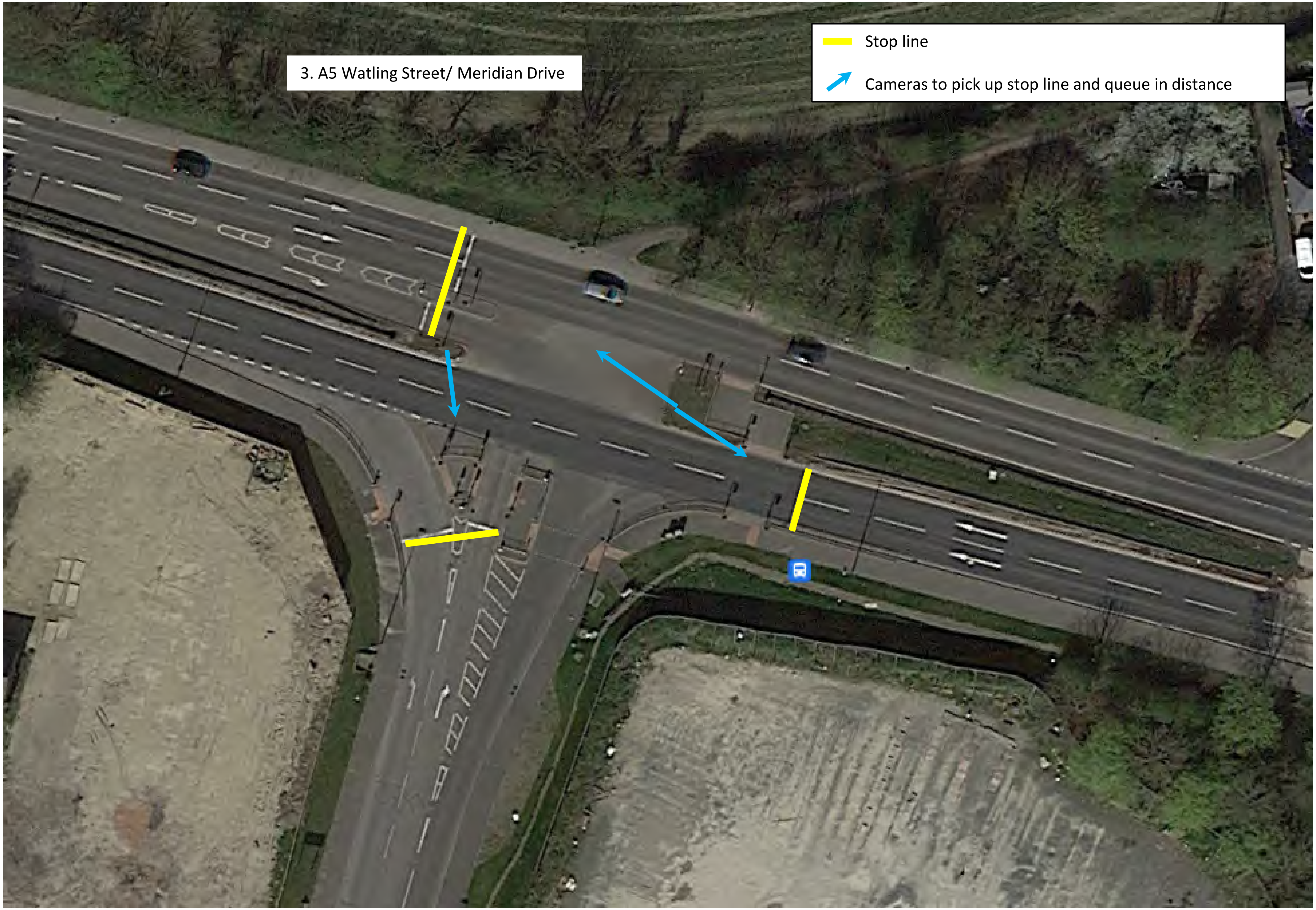
Traffic Survey Specification



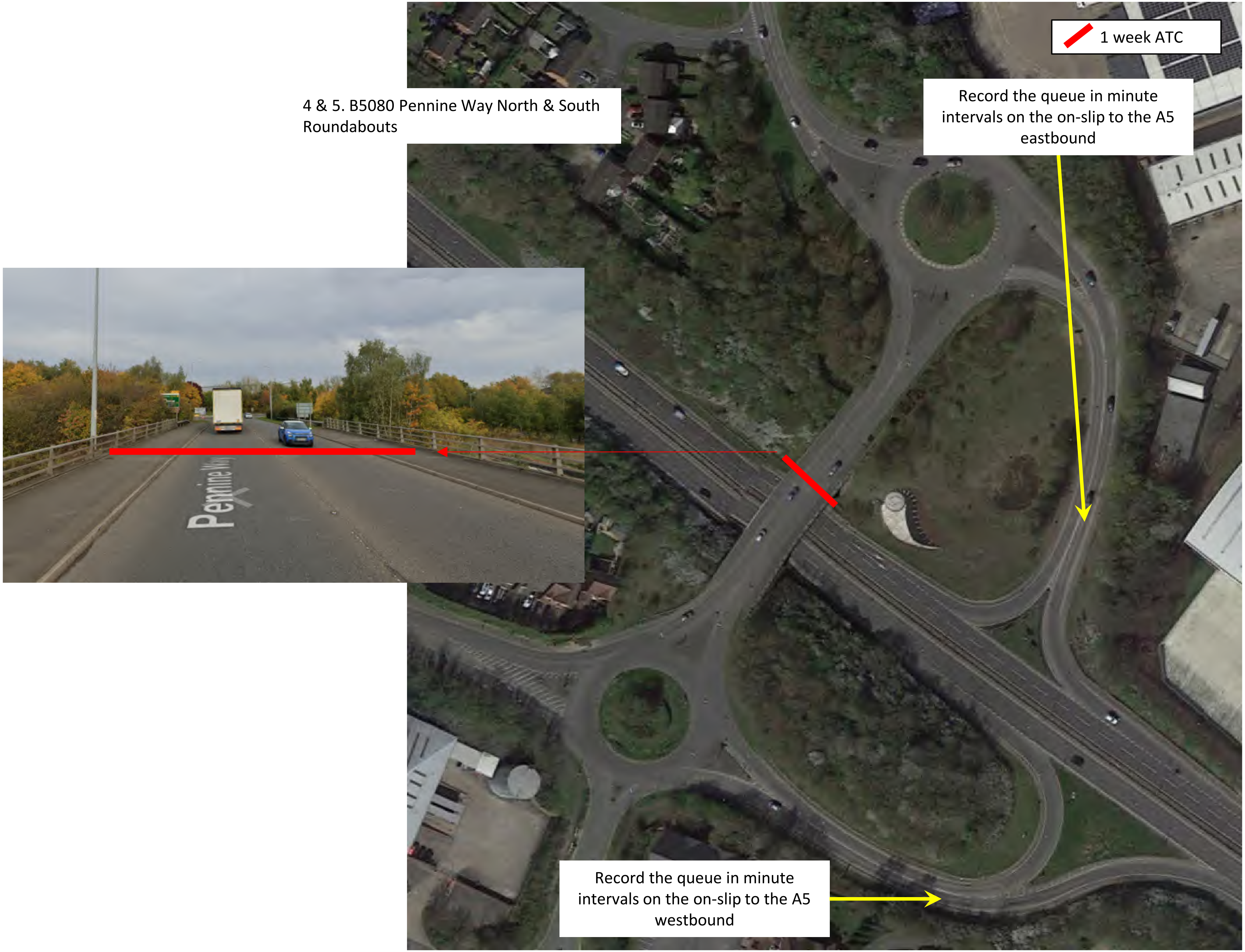
1 week ATC (4 in total)
4. B5080 Pennine Way North roundabout
1. M42 Junction 10
2. A5 Watling Street/ Danny Morson Way
3. A5 Watling Street/ Meridian Drive
6. A5/ Long Street/ Gypsey Lane roundabout
5. B5080 Pennine Way South roundabout
A5
Watling St
M42
Pennine Way
Pennymoor Rd
Quarry Hill
Green Ln
Grafton International
Pacific House Business Centre
ESSO EG TAMWORTH
Redrow - Midlands Head Office
Kinsall Green Cars
Premier Inn
ALDI Regional Office (Atlantic House)
DB Schenker
Centurion Park
Oxbin warehouse Tamworth CDC
Euro Pool System
Winit (UK) Limited
Moonpig
Box.co.uk
TG Capture Studio
ECool Deals
The Cat Cottage
Owl Homes
Birch Coppice Business Park
N.D.I Birmingham
Greencore Tamworth
Maersk Tamworth
Birch Coppice Miners Social Welfare Centre
Bond International
UPS SCS
Meridian Dr
Beko Tamworth
HiB
Greencore Direct to Store
Dordon Pet Foods
Dan Dan The cooker repair man
Dollie'sHairNBeauty
White-Hall Photog
Dordon Village Ha
Midland Design Group
Kidz & Company
Dordon Surgery
Dordon House
Dordon Primary School
Wilson's Veterinary Practice
Kitwood Avenue Recreation Ground
Whitehouse Road, Best-one
Superclean.c
Whitehouse Rd
Coppice Dr
Corbin Rd
Dukes Rd
Kitwood Ave
Trinity Rd
Freasley Cmn
Layers


Stop line
Cameras to pick up stop line and queue in distance
1 week ATC
1. M42 Junction 10
116 m


2. A5 Watling Street/ Danny Morson Way
Stop line
Cameras to pick up stop line and queue in distance


3. A5 Watling Street/ Meridian Drive
Stop line
Cameras to pick up stop line and queue in distance

4 & 5. B5080 Pennine Way North & South Roundabouts




Lane counts to identify proportion using offside lane to go going ahead
1 week ATC
6. A5/ Long Street/ Gypsey Lane roundabout
Watling S

APPENDIX C

Committed & Local Plan Sites & Build Out Rates

North Warwickshire Borough Council & Tamworth Borough Council - Committed & Local Plan Allocations (Residential & Employment) v7

Prepared by TetraTech (TT) for the purpose of establising committed and Local Plan allocation traffic flows to be included in the A5 TRANSYT model to support Hodgett Estates Planning Apploication PAP/2021/0663 Land North East of M42 Jn10

Oct-23

Table 1: Committted Residential Sites

Map Ref	Commited Development Residential Sites (Dwellings)	Policy Number	Reference Number	Notes	Approved Units	Estimated Occupied in July 2023	Estimated Occupied in 2026		Estimated Occupied in 2033		Method for including traffic flows in TT's Transyt Model
1	Tamworth Golf Club		0088/2015 (Outline)	Partially built in April 2023	1100	597	1002		1100		Flows from Vectos, A5 Atherstone Model
2	Land South of Grendon			Andrew Collinson to Assist	143	0	0		143		Flows from Vectos, A5 Atherstone Model
3	Land South of Dairy House Farm (Phase 1 and Phase 2)		PAP/2013/0224 & PAP/2017/0156	Fully built & occupied in April 2023	205	205	205		205		Flows included in July 2023 surveys
4	Land at Rowlands Way Resi		PAP/2012/0297	Fully built & occupied in April 2023	88	88	88		88		Flows included in July 2023 surveys
5(H1)	Land at Holly Lane	H1	PAP/2014/0542 (Outline)	Not Started	743	0	100		743		Flows from Vectos, A5 Atherstone Model
6	Former Polesworth High School			Fully built & occupied in April 2023	12	12	12		12		Flows included in July 2023 surveys
7	Land RO 5/7 Fairfields Hill		PAP/2019/0689	Not Started	9	0	9		9		Flows from Vectos, A5 Atherstone Model
8	Former Britannia Mill		PAP/2019/0180	Not Started	59	0	0		59		Flows from Vectos, A5 Atherstone Model
9	Former Sparrowdale School Site/ Recycling Centre		PAP/2019/0396	Fully built & occupied in April 2023	61	61	61		61		Flows included in July 2023 surveys
10	Land at former Chapel House		PAP/2015/0215	Fully built & occupied in April 2023	8	8	8		8		Flows included in July 2023 surveys
11	Robey's Lane Phase 1		PAP/2017/0257	Not Started	500	0	100		500		Flows from Vectos, A5 Atherstone Model
12	Land at Windy Ridge		PAP/2017/0229	Not Started	8	0	8		8		Flows from Vectos, A5 Atherstone Model
13	Land West of Woodpack Farm			Fully built & occupied in April 2023	32	32	32		32		Flows included in July 2023 surveys
24	Anker Valley		0105/2014 - 555 dwellings 0331/2018	Fully built & occupied in April 2023	535	535	535		535		Flows included in July 2023 surveys
25	Dunstall Lane		0308/2016	Partially built in April 2023	800	550	800		800		Flows derived taken from WYG TA, dated 2016
26	Coton House Farm	387	0020/2019	Not Started	141	0	141		141		Traffic generations to be included in TEMPRO background Growth
27	Land north of Coton Lane			Fully built & occupied in April 2023	170	170	170		170		Flows included in July 2023 surveys
14	Land off Spon Lane		PAP/2020/0082	Started	6	2	6		6		Traffic generations to be included in TEMPRO background Growth
29	Arkall Farm, Land north of Ashby Road		14/00516/OUTMEI	Started	1000	116	431		1000		Flows derived from PBA assignment at M42 Jn 10. Await WCC acceptance
				Total	5477	2376	3708		5477		

Table 2: Committted Employment Sites

Map Ref	Commited Development Employment Sites	Policy Number	Reference Number		Approved Ha	Estimated Occupied in July 2023	Estimated Occupied in 2026	Estimated Occupied in 2026 (Staff)	Estimated Occupied in 2033	Estimated Occupied in 2033 (Staff)	Method for including traffic flows in TT's Transyt Model
	Plot 7, Birch Coppice			Fully built & occupied in April 2023	2.2	2.2	2.2		2.2		Flows included in July 2023 surveys
15	Danny Morson Way (Phase 1)		PAP/2013/0504	Fully built & occupied in April 2023	1.15	1.15	1.15		1.15		Flows included in July 2023 surveys
16	Land At Hall End Farm		PAP/2013/0269	0.34ha left to develop	17.47	17.13	17.47		17.47		Uplift surveyed flows in/out of Core 42 by 2% (0.34ha/17.13ha)
17	Land at the Beanstalk (Phase 3)		PAP/2012/0347	Fully built & occupied in April 2023	13.06	13.06	13.06		13.06		Flows included in July 2023 surveys
18	Aldi Foodstores LTD		PAP/2012/0103	Fully built & occupied in April 2023	1.08	1.08	1.08		1.08		Flows included in July 2023 surveys
19	Land to southeast of M42 J10 Trinity Road			Fully built & occupied in April 2023	8	8	8		8		Flows included in July 2023 surveys
20(E1)	Land at Rowland Way Employ	E1	PAP/2018/0159	Not Started	6.5	0	6.5	425	6.5	425	Flows from Vectos, A5 Atherstone Model
21	Darwell Park		Andrew Collinson to Assist	Fully built & occupied in April 2023	0.7	0.7	0.7		0.7		Flows included in July 2023 surveys
22	Site at Relay Park	TBC EMP8	0464/2018	Fully built & occupied in April 2023	2.84	2.84	2.84	300	2.84	300	Flows included in July 2023 surveys
23	Land East of Centurion Park		PAP/2014/0014	Fully built & occupied in April 2023	8.5	8.5	8.5		8.5		Flows included in July 2023 surveys
30	Land off Carlyon Road Industrial Estate, Atherstone		PAP/2019/0228	Fully built but not occupied	1.3	0	1.3	170	1.3	170	Traffic generations to be included in TEMPRO background Growth
				Total	62.8	54.66	62.8		62.8		

Table 3: Local Plan Allocation Residential Sites

Map Ref	Local Plan Allocation Residential Sites (Dwellings)	Policy Number	Comments		Allocated Units	Estimated Occupied in July 2023	Estimated Occupied in 2026		Estimated Occupied in 2033		Method for including traffic flows in TT's Transyt Model
H2	Land at Whittingham Farm	H2	Adopted 2021 Local Plan	Not Started	1282	0	0		1282		Flows from Vectos, A5 Atherstone Model
H3	Allotments adjacent to Memorial Park, Coleshill	H3	Adopted 2021 Local Plan	Not Started	30	0	0		30		Traffic generations to be included in TEMPRO background Growth
H4	Land East of Dordon & Polesworth	H4	Adopted 2021 Local Plan, changed from H7	Not Started	1675	0	50		1675		Flows from Vectos, A5 Atherstone Model
H5	Robey's Lane Phase 2	H5	Adopted 2021 Local Plan, changed from H13	Not Started	1270	0	150		1040		Flows from Vectos, A5 Atherstone Model
RH3	Atherstone Football Ground	RH3	Adopted 2021 Local Plan, now a Reserved site	Discount reserved housing sites	46	0	0		0		Do not include
H7	Land at Church Farm, Baddesley	H7	Adopted 2021 Local Plan	Not Started	47	0	25		47		Traffic generations to be included in TEMPRO background Growth
H8	Land north of Grendon Community Hall	H8	Adopted 2021 Local Plan	Not Started	7	0	0		7		Traffic generations to be included in TEMPRO background Growth
H9	Land between Church Road and Nuneaton Road, Hartshill	H9	Adopted 2021 Local Plan	Not Started	400	0	0		400		Traffic generations to be included in TEMPRO background Growth
H10	Land south of Coleshill Road, Ansley Common	H10	Adopted 2021 Local Plan	Not Started	450	0	0		450		Traffic generations to be included in TEMPRO background Growth
H14	Manor Farm	H14	Adopted 2021 Local Plan	Ground works started	21	0	21		21		Traffic generations to be included in TEMPRO background Growth
H15	Land south of Shuttington Village Hall	H15	Adopted 2021 Local Plan	Not Started	24	0	24		24		Traffic generations to be included in TEMPRO background Growth
H16	Land north of Orton Road	H16	Adopted 2021 Local Plan	Ground works started	128	0	80		128		Traffic generations to be included in TEMPRO background Growth
H17	Land south of Islington Farm	H17	Adopted 2021 Local Plan	Ground works started	28	0	28		28		Traffic generations to be included in TEMPRO background Growth
				Total	5408	0	378		5132		

Table 4: Local Plan Allocation Employment sites

Map Ref	Local Plan Allocation Employment Sites	Policy Number	Comments		Allocated Ha	Estimated Occupied in July 2023	Estimated Occupied in 2026	Estimated Occupied in 2026 (Staff)	Estimated Occupied in 2033	Estimated Occupied in 2033 (Staff)	Method for including traffic flows in TT's Transyt Model
28	Land North of Aldi Whittington Lane			Fully built & occupied in April 2023	1.5	1.5	1.5		1.5		Flows included in July 2023 surveys
	Sites at Centurian Park			Fully built & occupied in April 2023	0.75	0.75	0.75		0.75		Flows included in July 2023 surveys
E2	Land to the West of Birch Coppice	E2	Adopted 2021 Local Plan, changed from 8.55ha to 5.1ha	Not Started	5.1	0	0		5.1		Uplift surveyed flows in/out of Birch Coppice by 3.5% (5.1ha/145ha)
E3	Land including site of playing fields south of A5 Dordon, adjacent to Hall End Farm	E3		Not Started	3.45	0	0		3.45		Uplift surveyed flows in/out of Core 42 by 20.1% (3.45ha/17.13ha)
E4	Mira Technology Park	E4	PAP/2022/0423	Not Started	42	0	0		42		Flows from Vectos, A5 Atherstone Model
EMP 1	Land south of the A5, Bitterscote South	EMP 1	0055/2018 - expired	Not Started	9.8	0	0		9.8		Traffic generations to be included in TEMPRO background Growth
EMP 10	Vacant land and car oark off Sandy Way, Amington	EMP 10, 30, 34		Not Started	1.64	0	0		1.64		Traffic generations to be included in TEMPRO background Growth
EMP 26	Land adjacent to Sandy Hill Business Park	EMP 26	0337/2020	Not Started	0.95	0	0		0.95		Traffic generations to be included in TEMPRO background Growth
				Total	65.19	2.25	2.25		65.19		

Note Planning application for Robey's Lane Phases 1 & 2 (PAP/2018/0755) is for 1540 homes, thus a reduction from 1,770 homes assumed in the Vectos A5 Atherstone model - flows will be adjusted accordingly

sites in North Warwickshire

sites in Tamworth

APPENDIX D

Committed Development Traffic Flows

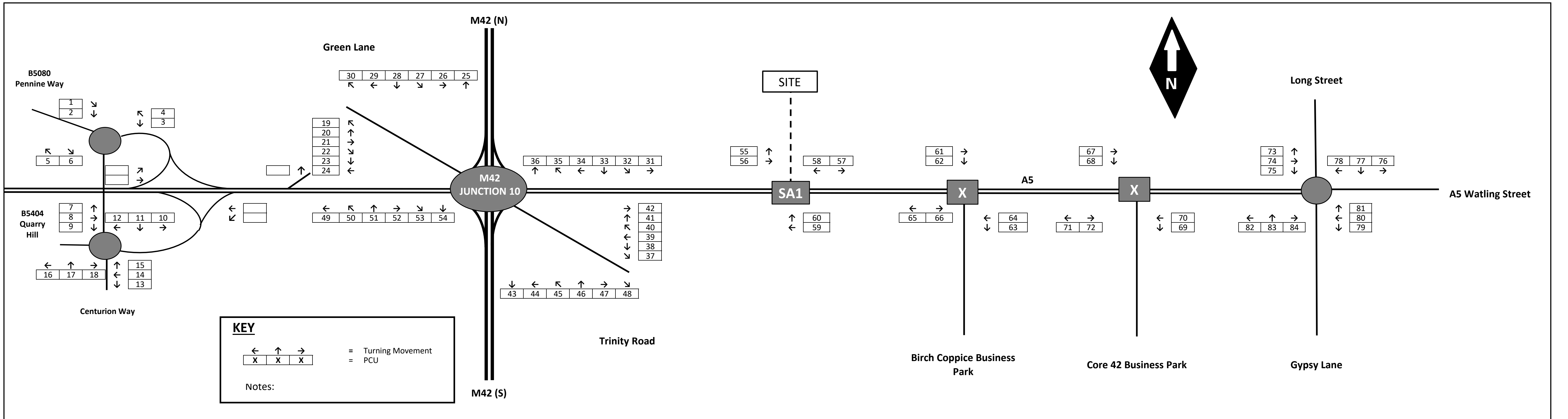


FIGURE 1

Turning Movements for Committed & Local Plan Developments - VECTOS Data

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

Table A - AM Peak Committed Developments 0% complete - VECTOS (PCU)

Committed Development	Tamworth Golf Club	Land South of Grendon	Land South of Dairy House Farm (Phase 1 and Phase 2)	Land at Rowlands Way	Land at Holly Lane	Former Polesworth HighSchool	Land RO 5/7 Fairfields Hill	Former Brittania Mill	Former Sparrowdale School Site/Recycling	Land at Former Chapel House	Robey's Lane Ph1	Land at Windy Ridge	Land West of Woodpack Farm	Aldi Foodstores Ltd	Land to Southeast M42 J10 Trinity Road	Land at Rowland Way (employment)	Darwell Park	Site at Relay Park	Land East of Centurion Road	Birch Coppice Business Park	Total	
Total Dwellings	1100	143	205	88	743	12	9	59	61	8	500	8	32	1.08	8	6.5	0.7	2.84	8.5	34		
No. Dwellings Occupied	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Percentage Complete	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
HGV %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17.9%	0.0%	0.0%	4.2%	0.0%	0.7%		
Movement Number																						
1	140	18	2	0	0	0	0	0	2	0	60	0	2	10	52	0	0	25	0	81	**391**	**1**
2	18	12	0	0	0	2	0	0	0	0	10	0	2	0	0	0	2	0	0	0	**46**	**2**
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**3**
4	6	2	0	0	0	2	0	0	0	0	4	0	2	0	0	0	0	0	0	0	**16**	**4**
5	54	2	4	0	0	0	0	0	2	0	20	0	2	0	21	2	6	8	0	18	**140**	**5**
6	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	0	0	8	**17**	**6**
7	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	0	4	0	0	8	**21**	**7**
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**8**
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**9**
10	18	12	0	0	0	2	0	0	0	0	10	0	2	0	0	0	0	0	0	0	**44**	**10**
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**11**
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	**2**	**12**
13	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5	0	0	2	82	18	**109**	**13**
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**14**
15	54	2	4	0	0	0	0	0	2	0	20	0	2	0	21	2	2	6	0	18	**134**	**15**
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**16**
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**17**
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	**30**	**18**
19	6	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	23	0	0	**33**	**19**
20	4	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**8**	**20**
21	52	0	8	0	0	0	0	0	4	0	18	0	0	24	0	0	0	0	0	222	**328**	**21**
22	26	2	0	0	0	0	0	0	0	0	10	0	0	0	113	0	0	0	0	0	**151**	**22**
23	50	8	0	0	0	0	0	0	0	0	26	0	2	0	0	0	0	0	0	0	**86**	**23**
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**24**
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	**2**	**25**
26	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	**6**	**26**
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	**4**	**27**
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	**4**	**28**
29	4	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	10	2	0	**18**	**29**
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**30**
31	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	10	**14**	**31**
32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0	0	0	0	**24**	**32**
33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**33**
34	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	**10**	**34**
35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	**10**	**35**
36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**36**
37	0	0	4	0	0	0	0	0	0	0	0	0	0	0	73	0	0	0	0	10	**87**	**37**
38	0	2	16	2	0	0	0	0	4	2	0	0	0	2	0	0	0	0	0	20	**48**	**38**
39	14	0	16	2	0	0	0	2	4	2	4	0	0	2	0	2	2	0	50	87	**187**	**39**
40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	2	**15**	**40**
41	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	22	**24**	**41**
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**42**
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	**5**	**43**
44	10	0	0	0	0	0	0	0	0	0	4	0	2	0	47	0	0	0	4	0	**67**	**44**
45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**45**
46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	**9**	**46**
47	0	0	0	0	0	0	0	0	0	0	0	0	0	2	42	0	0	0	0	22	**67**	**47**
48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**48**
49	22	2	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	18	0	**52**	**49**
50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	0	0	**27**	**50**
51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**51**
52	0	0	6	0	0	0	0	0	2	0	0	0	0	8	0	2	0	0	0	56	**74**	**52**
53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	0	0	0	0	0	**28**	**53**
54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**54**
55	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	**4**	**55**
56	48	0	16	0	0	0	0	0	6	0	18	2	0	38	40	0	0	0	0	0	**168**	**56**
57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**57**
58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**58**
59	14	2	38	4	0	0	0	2	10	4	4	2	0	4	73	0	0	0	0	0	**157**	**59**
60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**60**
61	30	0	16	0	0	0	0	0	6	0	10	2	0	38	14	0	0	0	0	0	**116**	**61**
62	18	0	0	0	0	0	0	0	0	0	8	0	0	0	26	0	0	0	0	0	**52**	**62**
63	0	4	6	2	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	**16**	**63**
64	6	2	38	4	0	0	0	2	10	4	2	2	0	4	61	0	0	0	0	0	**135**	**64**
65	8	0	0	0	0	0	0	0	0	0	2	0	0	0	12	0	0	0	0	0	**22**	**65**
66	0	0	2	0	0	0	2	0	2	0	0	0	0	2	0	0	0	0	0	0	**8**	**66**
67	28	0	16	0	0	0	2	0	6	0	10	2	0	40	14	0	0	0	0	0	**118**	**67**
68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**68**
69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**69**
70	6	6	46	6	0	0	0	4	10	4	2	2	2	4	61	0	0	0	0	0	**153**	**70**
71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**71**
72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**72**
73	2	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	**6**	**73**
74	24	0	12	0	0	0	0	0	4	0	10	0	0	24	9	0	0	0	0	0	**83**	**74**
75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**75**
76	0	0	2	0	0	0	0	0	0	0	0	4	0	4	0	0	0	0	0	0	**10**	**76**
77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**77**
78	0	0	0	0	0	0	0	0	0	4	0	2	0	0	14	0	0	0	0	0	**20**	**78**
79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**79**
80	6	6	42	6	0	0	0	6	12	0	2	0	2	4	42	0	0	0	0	0	**128**	**80**
81	0	0	2	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	**6**	**81**
82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	**5**	**82**
83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**83**
84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**84**

Table B - PM Peak Committed Developments 0% complete - VECTOS (PCU)

Committed Development	Tamworth Golf Club	Land South of Grendon	Land South of Dairy House Farm (Phase 1 and Phase 2)	Land at Rowlands Way	Land at Holly Lane	Former Polesworth HighSchool	Land RO 5/7 Fairfields Hill	Former Brittania Mill	Former Sparrowdale School Site/Recycling	Land at Former Chapel House	Robey's Lane Ph1	Land at Windy Ridge	Land West of Woodpack Farm	Aldi Foodstores Ltd	Land to Southeast M42 J10 Trinity Road	Land at Rowland Way (employment)	Darwell Park	Site at Relay Park	Land East of Centurion Road	Birch Coppice Business Park	Total	
Total Dwellings	1100	143	205	88	743	12	9	59	61	8	500	8	32	1.08	8	6.5	0.7	2.84	8.5	34		
No. Dwellings Occupied	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Percentage Complete	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		
HGV %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17.9%	0.0%	0.0%	4.2%	0.0%	0.7%		
Movement Number																						
1	66	2	2	0	0	0	0	0	4	0	32	0	0	2	24	2	2	2	0	18	**156**	**1**
2	12	2	0	0	0	0	0	0	0	0	6	0	0	0	0	0	4	0	0	0	**24**	**2**
3	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**4**	**3**
4	18	10	0	0	0	2	2	0	0	0	6	0	2	0	0	0	0	0	0	0	**40**	**4**
5	128	20	4	0	0	2	0	0	2	0	52	0	2	10	59	2	0	10	0	26	**318**	**5**
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	**2**	**6**
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	**2**	**7**
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**8**
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**9**
10	12	2	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	**20**	**10**
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**11**
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	**4**	**12**
13	0	0	0	0	0	0	0	0	0	0	0	0	0	8	12	0	0	2	100	58	**180**	**13**
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**14**
15	128	18	4	0	0	2	0	0	2	0	50	0	2	8	59	2	0	10	0	26	**312**	**15**
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**16**
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**17**
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	0	**30**	**18**
19	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	0	0	**4**	**19**
20	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**4**	**20**
21	20	0	14	2	0	0	0	2	8	0	6	0	0	2	0	2	0	0	0	36	**92**	**21**
22	16	0	0	0	0	0	0	0	0	0	6	0	0	0	40	0	0	0	0	0	**62**	**22**
23	28	2	0	0	0	0	0	0	0	0	14	0	0	0	0	0	2	0	0	0	**46**	**23**
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**24**
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	**13**	**25**
26	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	8	0	0	**10**	**26**
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	**4**	**27**
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	**10**	**28**
29	4	2	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	25	2	0	**37**	**29**
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**30**
31	0	2	0	0	0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	2	**10**	**31**
32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	**7**	**32**
33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**33**
34	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	**6**	**34**
35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**35**
36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**36**
37	0	0	2	0	0	0	0	0	0	0	0	0	0	0	47	0	0	0	0	26	**75**	**37**
38	0	0	6	2	0	0	0	2	2	2	0	0	0	2	0	0	0	0	0	42	**58**	**38**
39	42	0	12	2	0	0	0	0	4	0	12	0	0	26	0	2	0	0	76	205	**381**	**39**
40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**40**
41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	**16**	**41**
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**42**
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	**14**	**43**
44	24	4	0	0	0	0	0	0	0	0	10	0	0	0	144	0	0	0	10	0	**192**	**44**
45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	**4**	**45**
46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	**21**	**46**
47	0	0	4	0	0	0	0	0	0	0	0	0	0	0	59	0	0	0	0	2	**65**	**47**
48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**48**
49	54	8	0	0	0	2	0	0	0	0	24	0	2	0	0	0	0	0	8	0	**98**	**49**
50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	**2**	**50**
51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**51**
52	0	2	12	0	0	0	0	2	2	2	0	0	0	0	0	0	0	0	0	10	**30**	**52**
53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	**9**	**53**
54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**54**
55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	**5**	**55**
56	22	4	30	2	0	0	0	4	14	2	6	0	2	4	54	0	0	0	0	0	**144**	**56**
57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**57**
58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	**7**	**58**
59	42	0	20	6	0	0	0	2	6	2	12	0	0	28	40	0	0	0	0	0	**158**	**59**
60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**60**
61	14	4	30	2	0	0	0	4	14	2	4	0	2	4	52	0	0	0	0	0	**132**	**61**
62	10	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	**14**	**62**
63	0	0	2	2	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	**8**	**63**
64	26	0	20	6	0	0	0	2	6	2	8	0	0	28	9	0	0	0	0	0	**107**	**64**
65	14	0	0	0	0	0	0	0	0	0	4	0	0	0	31	0	0	0	0	0	**49**	**65**
66	0	2	2	2	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	**10**	**66**
67	14	6	32	4	0	0	0	4	14	4	4	2	2	6	52	0	0	0	0	0	**144**	**67**
68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**68**
69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**69**
70	26	0	22	8	0	0	0	4	6	2	8	0	0	30	9	0	0	0	0	0	**115**	**70**
71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**71**
72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**72**
73	6	2	0	0	0	0	0	0	0	4	0	2	2	0	7	0	0	0	0	0	**23**	**73**
74	6	4	26	4	0	0	0	2	14	0	2	0	0	4	35	0	0	0	0	0	**97**	**74**
75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**75**
76	0	0	6	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	**10**	**76**
77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**77**
78	8	0	0	0	0	0	0	0	0	2	4	0	0	0	0	0	0	0	0	0	**14**	**78**
79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**79**
80	18	0	22	8	0	0	0	4	6	0	4	0	0	34	7	0	0	0	0	0	**103**	**80**
81	0	0	2	0	0	0	0	0	0	2	2	0	0	2	0	0	0	0	0	0	**8**	**81**
82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**82**
83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**83**
84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**84**

Tbale C - AM Peak Committed Developments in 2026 (PCU)

Committed Development	Tamworth Golf Club	Land South of Grendon	Land South of Dairy House Farm (Phase 1 and Phase 2)	Land at Rowlands Way	Land at Holly Lane	Former Polesworth HighSchool	Land RO 5/7 Fairfields Hill	Former Brittania Mill	Former Sparrowdale School Site/Recycling	Land at Former Chapel House	Robey's Lane Ph1	Land at Windy Ridge	Land West of Woodpack Farm	Aldi Foodstores Ltd	Land to Southeast M42 J10 Trinity Road	Land at Rowland Way (employment)	Darwell Park	Site at Relay Park	Land East of Centurion Road	Birch Coppice Business Park	Total	
Total Dwellings/ Employment	1100	143	205	88	743	12	9	59	61	8	500	8	32	1.08	8	6.5	0.7	2.84	8.5	34		
No. Dwellings Occupied at time of 2023 Surveys	597	0	205	88	0	12	0	0	61	8	0	0	32	1.08	8	0	0.7	2.84	8.5	33.5		
Percentage Complete in 2023	54%	0%	100%	100%	0%	100%	0%	0%	100%	100%	0%	0%	100%	100%	100%	0%	100%	100%	100%	98.5%		
No. Dwellings Occupied in 2026	1002	0	205	88	100	12	9	0	61	8	100	8	32	1.08	8	6.5	0.7	2.84	8.5	34		
Percentage Occupied in 2026	91%	0%	100%	100%	13%	100%	100%	0%	100%	100%	20%	100%	100%	100%	100%	100%	100%	100%	100%	100%		
Percentage Occupied between 2023 and 2026	37%	0%	0%	0%	13%	0%	100%	0%	0%	0%	20%	100%	0%	0%	0%	100%	0%	0%	0%	1.5%		
HGV %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17.9%	0.0%	0.0%	4.2%	0.0%	0.7%		
1	52	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	1	**65**	**1**
2	7	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**9**	**2**
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**3**
4	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**3**	**4**
5	20	0	0	0	0	0	0	0	0	0	4	0	0	0	0	2	0	0	0	0	**26**	**5**
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**6**
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**7**
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**8**
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**9**
10	7	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**9**	**10**
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**11**
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**12**
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**13**
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**14**
15	20	0	0	0	0	0	0	0	0	0	4	0	0	0	0	2	0	0	0	0	**26**	**15**
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**16**
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**17**
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**18**
19	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	**19**
20	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**20**
21	19	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	3	**26**	**21**
22	10	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**12**	**22**
23	18	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	**24**	**23**
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**24**
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**25**
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**26**
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**27**
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**28**
29	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**29**
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**30**
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**31**
32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**32**
33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**33**
34	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**34**
35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**35**
36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**36**
37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**37**
38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**38**
39	5	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	1	**9**	**39**
40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**40**
41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**41**
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**42**
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**43**
44	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**4**	**44**
45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**45**
46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**46**
47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**47**
48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**48**
49	8	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**10**	**49**
50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**50**
51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**51**
52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	**3**	**52**
53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**53**
54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**54**
55	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**55**
56	18	0	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	0	0	0	**23**	**56**
57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**57**
58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**58**
59	5	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	**8**	**59**
60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**60**
61	11	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	**15**	**61**
62	7	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**8**	**62**
63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**63**
64	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	**5**	**64**
65	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	**65**
66	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**66**
67	10	0	0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0	**16**	**67**
68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**68**
69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**69**
70	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	**5**	**70**
71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**71**
72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**72**
73	1	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	**5**	**73**
74	9	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**11**	**74**
75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**75**
76	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	**4**	**76**
77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**77**
78	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	**2**	**78**
79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**79**
80	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	**80**
81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**81**
82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**82**
83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**83**
84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**84**

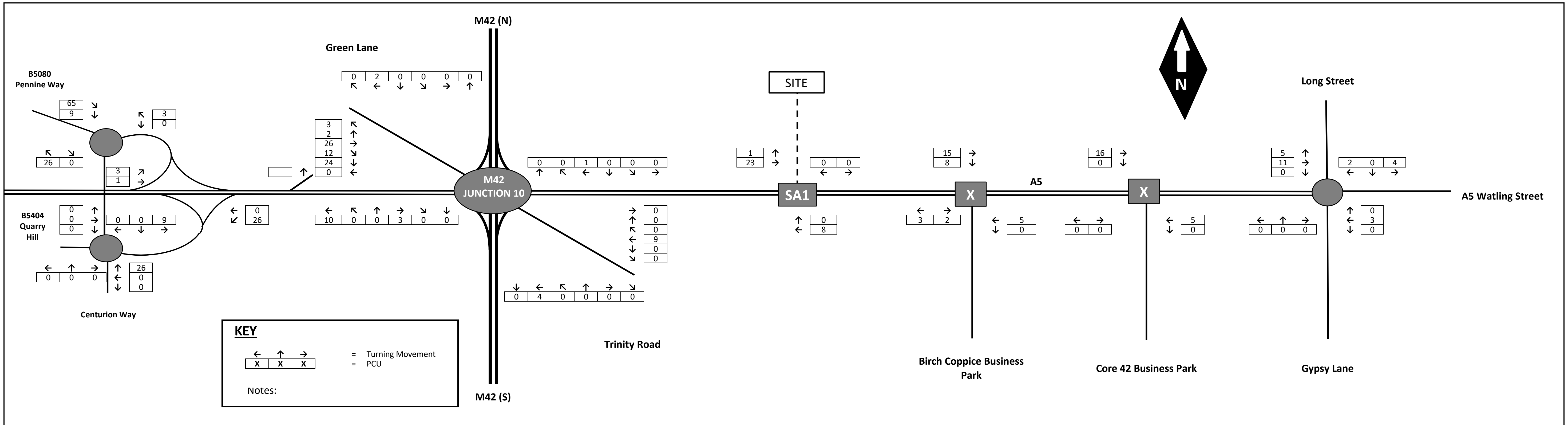


FIGURE 2

2026 AM Peak Committed Developments PCU (from Vectos)

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

Table D - PM Peak Committed Developments in 2026 (PCU)

Committed Development	Tamworth Golf Club	Land South of Grendon	Land South of Dairy House Farm (Phase 1 and Phase 2)	Land at Rowlands Way	Land at Holly Lane	Former Polesworth HighSchool	Land RO 5/7 Fairfields Hill	Former Brittania Mill	Former Sparrowdale School Site/Recycling	Land at Former Chapel House	Robey's Lane Ph1	Land at Windy Ridge	Land West of Woodpack Farm	Aldi Foodstores Ltd	Land to Southeast M42 J10 Trinity Road	Land at Rowland Way (employment)	Darwell Park	Site at Relay Park	Land East of Centurion Road	Birch Coppice Business Park	Total	
Total Dwellings/ Employment	1100	143	205	88	743	12	9	59	61	8	500	8	32	1.08	8	6.5	0.7	2.84	8.5	34		
No. Dwellings Occupied at time of 2023 Surveys	597	0	205	88	0	12	0	0	61	8	0	0	32	1.08	8	0	0.7	2.84	8.5	33.5		
Percentage Complete in 2023	54%	0%	100%	100%	0%	100%	0%	0%	100%	100%	0%	0%	100%	100%	100%	0%	100%	100%	100%	98.5%		
No. Dwellings Occupied in 2026	1002	0	205	88	100	12	9	0	61	8	100	8	32	1.08	8	6.5	0.7	2.84	8.5	34		
Percentage Occupied in 2026	91%	0%	100%	100%	13%	100%	100%	0%	100%	100%	20%	100%	100%	100%	100%	100%	100%	100%	100%	100%		
Percentage Occupied between 2023 and 2026	37%	0%	0%	0%	13%	0%	100%	0%	0%	0%	20%	100%	0%	0%	0%	100%	0%	0%	0%	1%		
HGV %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17.9%	0.0%	0.0%	4.2%	0.0%	0.7%		
1	24	0	0	0	0	0	0	0	0	0	6	0	0	0	0	2	0	0	0	0	**33**	**1**
2	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**6**	**2**
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**3**
4	7	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	**10**	**4**
5	47	0	0	0	0	0	0	0	0	0	10	0	0	0	0	2	0	0	0	0	**60**	**5**
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**6**
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**7**
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**8**
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**9**
10	4	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**6**	**10**
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**11**
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**12**
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	**1**	**13**
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**14**
15	47	0	0	0	0	0	0	0	0	0	10	0	0	0	0	2	0	0	0	0	**60**	**15**
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**16**
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**17**
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**18**
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**19**
20	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**20**
21	7	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	1	**11**	**21**
22	6	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**7**	**22**
23	10	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	**13**	**23**
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**24**
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**25**
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**26**
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**27**
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**28**
29	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**2**	**29**
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**30**
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**31**
32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**32**
33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**33**
34	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**34**
35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**35**
36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**36**
37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**37**
38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	**1**	**38**
39	15	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	3	**23**	**39**
40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**40**
41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**41**
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**42**
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**43**
44	9	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**11**	**44**
45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**45**
46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**46**
47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**47**
48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**48**
49	20	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	**25**	**49**
50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**50**
51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**51**
52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**52**
53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**53**
54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**54**
55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**55**
56	8	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**9**	**56**
57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**57**
58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**58**
59	15	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**18**	**59**
60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**60**
61	5	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**6**	**61**
62	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**	**62**
63	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**63**
64	10	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**11**	**64**
65	5	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**6**	**65**
66	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	**2**	**66**
67	5	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	**8**	**67**
68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**68**
69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**69**
70	10	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**11**	**70**
71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**71**
72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**72**
73	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	**4**	**73**
74	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	**74**
75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**75**
76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**76**
77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**77**
78	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**4**	**78**
79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**79**
80	7	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	**7**	**80**
81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**81**
82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**82**
83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**83**
84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**84**

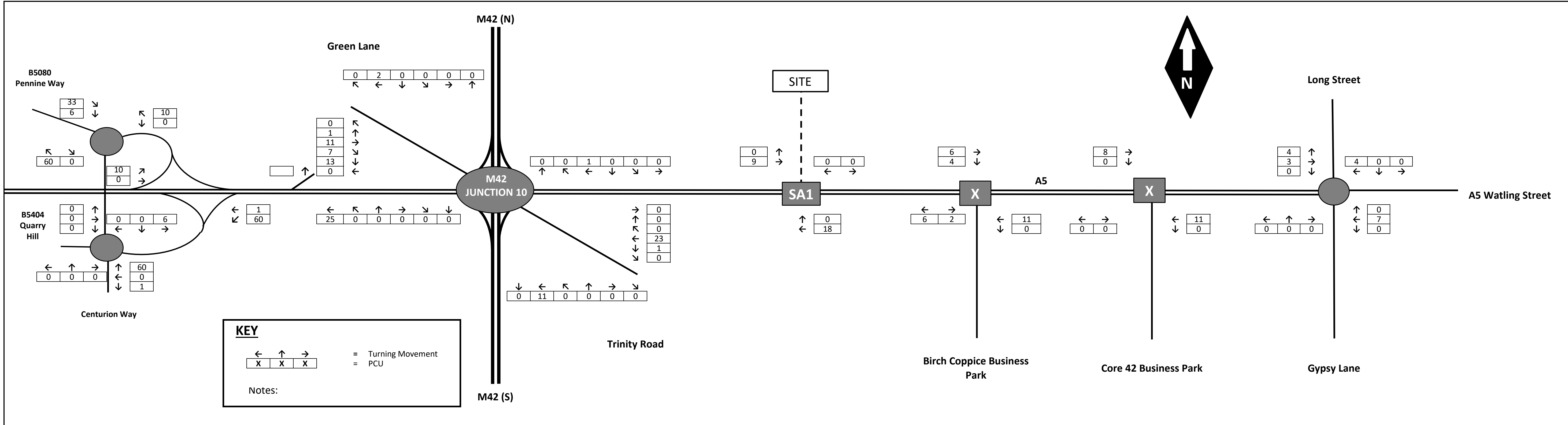


FIGURE 3

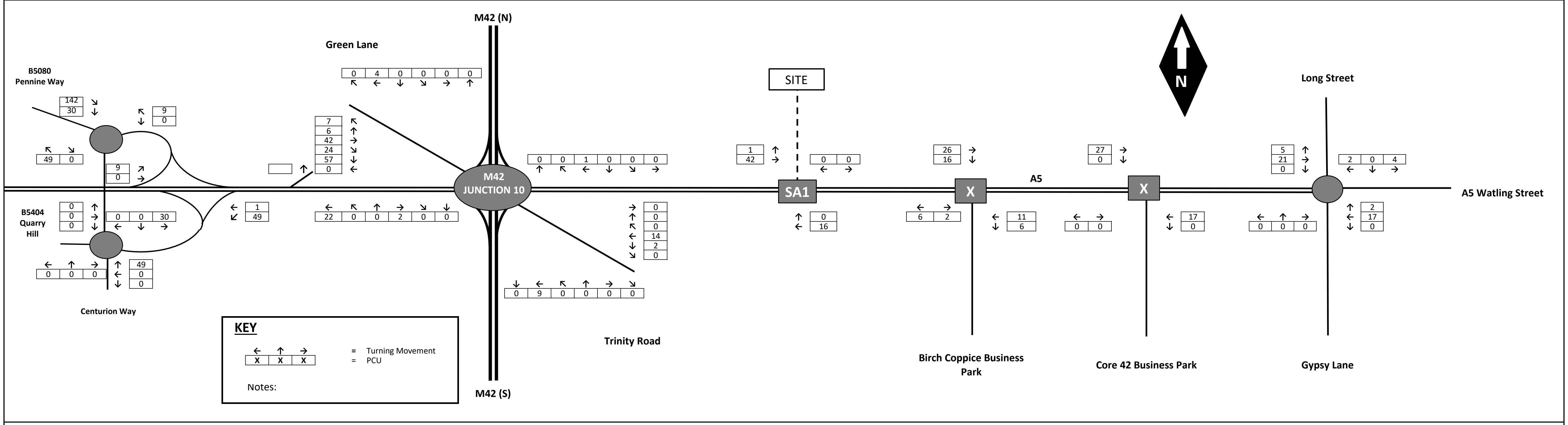
2026 PM Peak Committed Developments PCU (from Vectos)

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

Table E - AM Peak Committed Developments in 2033 (PCU)

Committed Development	Tamworth Golf Club	Land South of Grendon	Land South of Dairy House Farm (Phase 1 and Phase 2)	Land at Rowlands Way	Land at Holly Lane	Former Polesworth HighSchool	Land RO 5/7 Fairfields Hill	Former Brittania Mill	Former Sparrowdale School Site/Recycling	Land at Former Chapel House	Robey's Lane Ph1	Land at Windy Ridge	Land West of Woodpack Farm	Aldi Foodstores Ltd	Land to Southeast M42 J10 Trinity Road	Land at Rowland Way (employment)	Darwell Park	Site at Relay Park	Land East of Centurion Road	Birch Coppice Business Park	Total	
Total Dwellings/ Employment	1100	143	205	88	743	12	9	59	61	8	500	8	32	1.08	8	6.5	0.7	2.84	8.5	34		
No. Dwellings Occupied at time of 2023 Surveys	597	0	205	88	0	12	0	0	61	8	0	0	32	1.08	8	0	0.7	2.84	8.5	34		
Percentage Complete in 2023	54%	0%	100%	100%	0%	100%	0%	0%	100%	100%	0%	0%	100%	100%	100%	0%	100%	100%	100%	100%		
No. Dwellings Occupied in 2033	1100	143	205	88	743	12	9	59	61	8	500	8	32	1.08	8	6.5	0.7	2.84	8.5	34		
Percentage Occupied in 2033	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%		
Percentage Occupied between 2023 and 2033	46%	100%	0%	0%	100%	0%	100%	100%	0%	0%	100%	100%	0%	0%	0%	100%	0%	0%	0%	0%		
HGV %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17.9%	0.0%	0.0%	4.2%	0.0%	0.7%		
1	64	18	0	0	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	**142**	**1**
2	8	12	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	**30**	**2**
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**3**
4	3	2	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	**9**	**4**
5	25	2	0	0	0	0	0	0	0	0	20	0	0	0	0	2	0	0	0	0	**49**	**5**
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**6**
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**7**
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**8**
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**9**
10	8	12	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	**30**	**10**
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**11**
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**12**
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**13**
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**14**
15	25	2	0	0	0	0	0	0	0	0	20	0	0	0	0	2	0	0	0	0	**49**	**15**
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**16**
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**17**
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**18**
19	3	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**7**	**19**
20	2	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**6**	**20**
21	24	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0	0	**42**	**21**
22	12	2	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	**24**	**22**
23	23	8	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	**57**	**23**
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**24**
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**25**
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**26**
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**27**
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**28**
29	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**4**	**29**
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**30**
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**31**
32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**32**
33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**33**
34	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**34**
35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**35**
36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**36**
37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**37**
38	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**38**
39	6	0	0	0	0	0	0	2	0	0	4	0	0	0	0	2	0	0	0	0	**14**	**39**
40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**40**
41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**41**
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**42**
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**43**
44	5	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	**9**	**44**
45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**45**
46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**46**
47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**47**
48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**48**
49	10	2	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	**22**	**49**
50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**50**
51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**51**
52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	**2**	**52**
53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**53**
54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**54**
55	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**	**55**
56	22	0	0	0	0	0	0	0	0	0	18	2	0	0	0	0	0	0	0	0	**42**	**56**
57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**57**
58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**58**
59	6	2	0	0	0	0	0	2	0	0	4	2	0	0	0	0	0	0	0	0	**16**	**59**
60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**60**
61	14	0	0	0	0	0	0	0	0	0	10	2	0	0	0	0	0	0	0	0	**26**	**61**
62	8	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	**16**	**62**
63	0	4	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	**6**	**63**
64	3	2	0	0	0	0	0	2	0	0	2	2	0	0	0	0	0	0	0	0	**11**	**64**
65	4	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**6**	**65**
66	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**66**
67	13	0	0	0	0	0	2	0	0	0	10	2	0	0	0	0	0	0	0	0	**27**	**67**
68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**68**
69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**69**
70	3	6	0	0	0	0	0	4	0	0	2	2	0	0	0	0	0	0	0	0	**17**	**70**
71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**71**
72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**72**
73	1	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	**5**	**73**
74	11	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	**21**	**74**
75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**75**
76	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	**4**	**76**
77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**77**
78	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	**2**	**78**
79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**79**
80	3	6	0	0	0	0	0	6	0	0	2	0	0	0	0	0	0	0	0	0	**17**	**80**
81	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**81**
82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**82**
83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**83**
84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**84**



TETRA TECH

FIGURE 4

2033 AM Peak Committed Developments PCU (from Vectos)

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

Table F - PM Peak Committed Developments in 2033 (PCU)

Committed Development	Tamworth Golf Club	Land South of Grendon	Land South of Dairy House Farm (Phase 1 and Phase 2)	Land at Rowlands Way	Land at Holly Lane	Former Polesworth HighSchool	Land RO 5/7 Fairfields Hill	Former Brittania Mill	Former Sparrowdale School Site/Recycling	Land at Former Chapel House	Robey's Lane Ph1	Land at Windy Ridge	Land West of Woodpack Farm	Aldi Foodstores Ltd	Land to Southeast M42 J10 Trinity Road	Land at Rowland Way (employment)	Darwell Park	Site at Relay Park	Land East of Centurion Road	Birch Coppice Business Park	Total	
Total Dwellings/ Employment	1100	143	205	88	743	12	9	59	61	8	500	8	32	1.08	8	6.5	0.7	2.84	8.5	34		
No. Dwellings Occupied at time of 2023 Surveys	597	0	205	88	0	12	0	0	61	8	0	0	32	1.08	8	0	0.7	2.84	8.5	34		
Percentage Complete in 2023	54%	0%	100%	100%	0%	100%	0%	0%	100%	100%	0%	0%	100%	100%	100%	0%	100%	100%	100%	100%		
No. Dwellings Occupied in 2033	1100	143	205	88	743	12	9	59	61	8	500	8	32	1.08	8	6.5	0.7	2.84	8.5	34		
Percentage Occupied in 2033	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%		
Percentage Occupied between 2023 and 2033	46%	100%	0%	0%	100%	0%	100%	100%	0%	0%	100%	100%	0%	0%	0%	100%	0%	0%	0%	0%		
HGV %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	17.9%	0.0%	0.0%	4.2%	0.0%	0.7%		
1	30	2	0	0	0	0	0	0	0	0	32	0	0	0	0	2	0	0	0	0	**66**	**1**
2	5	2	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	**13**	**2**
3	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**4**	**3**
4	8	10	0	0	0	0	2	0	0	0	6	0	0	0	0	0	0	0	0	0	**26**	**4**
5	59	20	0	0	0	0	0	0	0	0	52	0	0	0	0	2	0	0	0	0	**133**	**5**
6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**6**
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**7**
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**8**
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**9**
10	5	2	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	**13**	**10**
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**11**
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**12**
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**13**
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**14**
15	59	18	0	0	0	0	0	0	0	0	50	0	0	0	0	2	0	0	0	0	**129**	**15**
16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**16**
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**17**
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**18**
19	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**2**	**19**
20	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**3**	**20**
21	9	0	0	0	0	0	0	2	0	0	6	0	0	0	0	2	0	0	0	0	**19**	**21**
22	7	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	**13**	**22**
23	13	2	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	**29**	**23**
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**24**
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**25**
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**26**
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**27**
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**28**
29	2	2	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	**8**	**29**
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**30**
31	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**31**
32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**32**
33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**33**
34	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	**34**
35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**35**
36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**36**
37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**37**
38	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**38**
39	19	0	0	0	0	0	0	0	0	0	12	0	0	0	0	2	0	0	0	0	**33**	**39**
40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**40**
41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**41**
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**42**
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**43**
44	11	4	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	**25**	**44**
45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**45**
46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**46**
47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**47**
48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**48**
49	25	8	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	**57**	**49**
50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**50**
51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**51**
52	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	**4**	**52**
53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**53**
54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**54**
55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**55**
56	10	4	0	0	0	0	0	4	0	0	6	0	0	0	0	0	0	0	0	0	**24**	**56**
57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**57**
58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**58**
59	19	0	0	0	0	0	0	2	0	0	12	0	0	0	0	0	0	0	0	0	**33**	**59**
60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**60**
61	6	4	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	**18**	**61**
62	5	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**7**	**62**
63	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**63**
64	12	0	0	0	0	0	0	2	0	0	8	0	0	0	0	0	0	0	0	0	**22**	**64**
65	6	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	**10**	**65**
66	0	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	**4**	**66**
67	6	6	0	0	0	0	0	4	0	0	4	2	0	0	0	0	0	0	0	0	**22**	**67**
68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**68**
69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**69**
70	12	0	0	0	0	0	0	4	0	0	8	0	0	0	0	0	0	0	0	0	**24**	**70**
71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**71**
72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**72**
73	3	2	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	**7**	**73**
74	3	4	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	**11**	**74**
75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**75**
76	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**76**
77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**77**
78	4	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	**8**	**78**
79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**79**
80	8	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	**16**	**80**
81	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	**2**	**81**
82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**82**
83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**83**
84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**84**

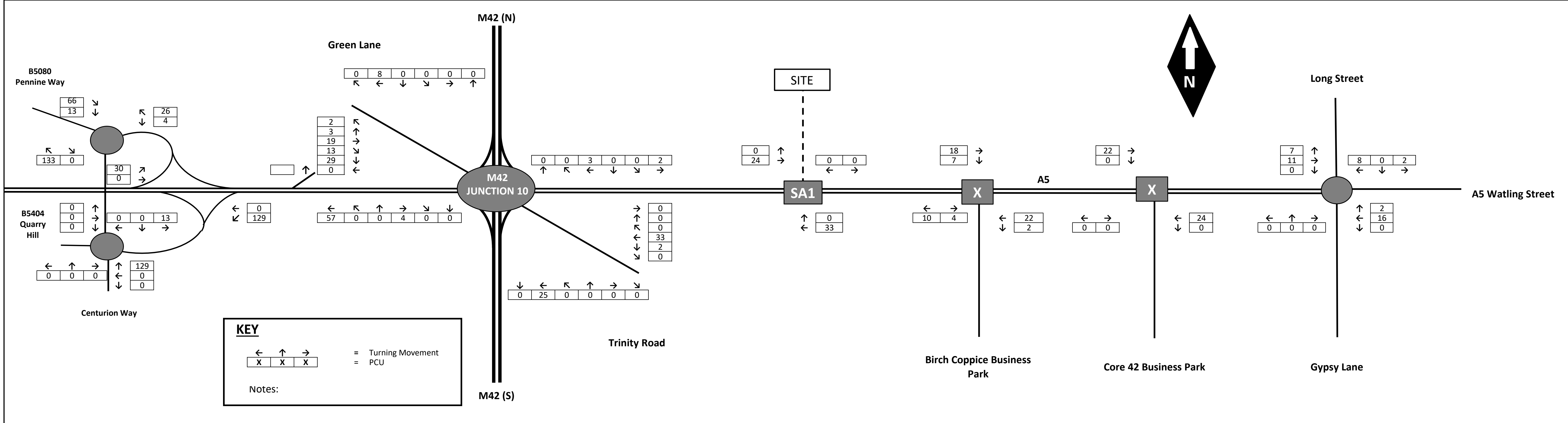


FIGURE 5

2033 PM Peak Committed Developments PCU (from Vectos)

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

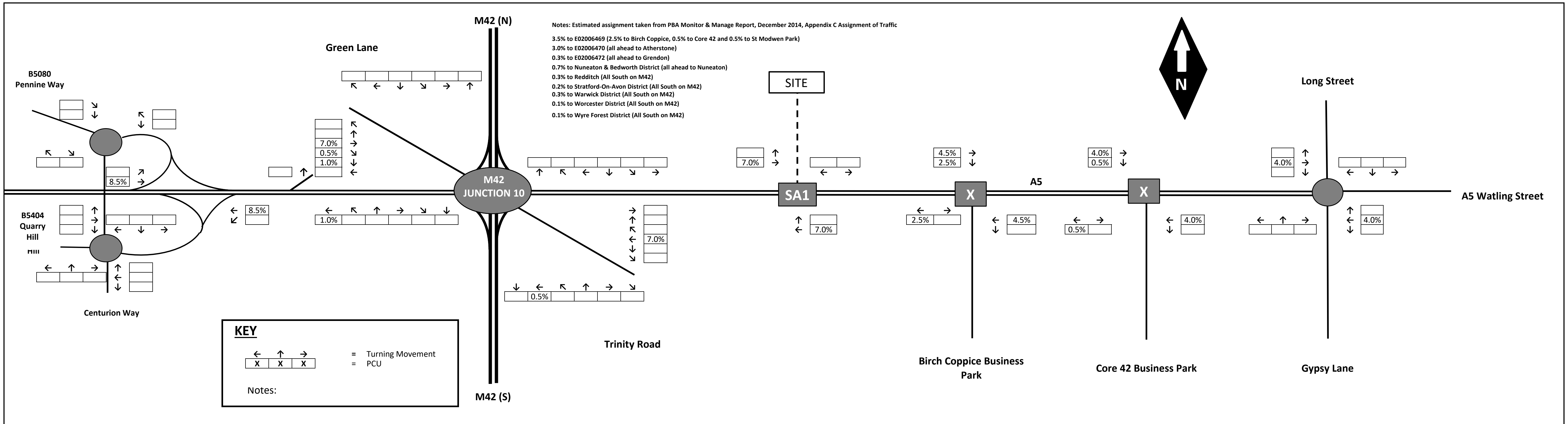


FIGURE 6

Arkall Farm - Traffic Assignment

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

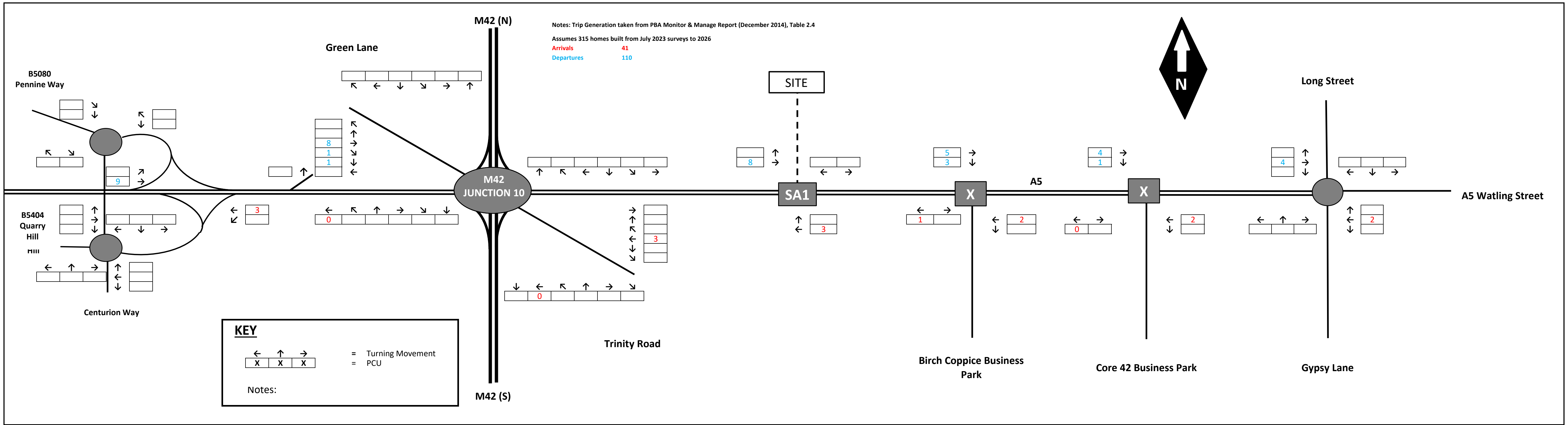


FIGURE 7

Arkall Farm - AM Peak Development Flows in 2026

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

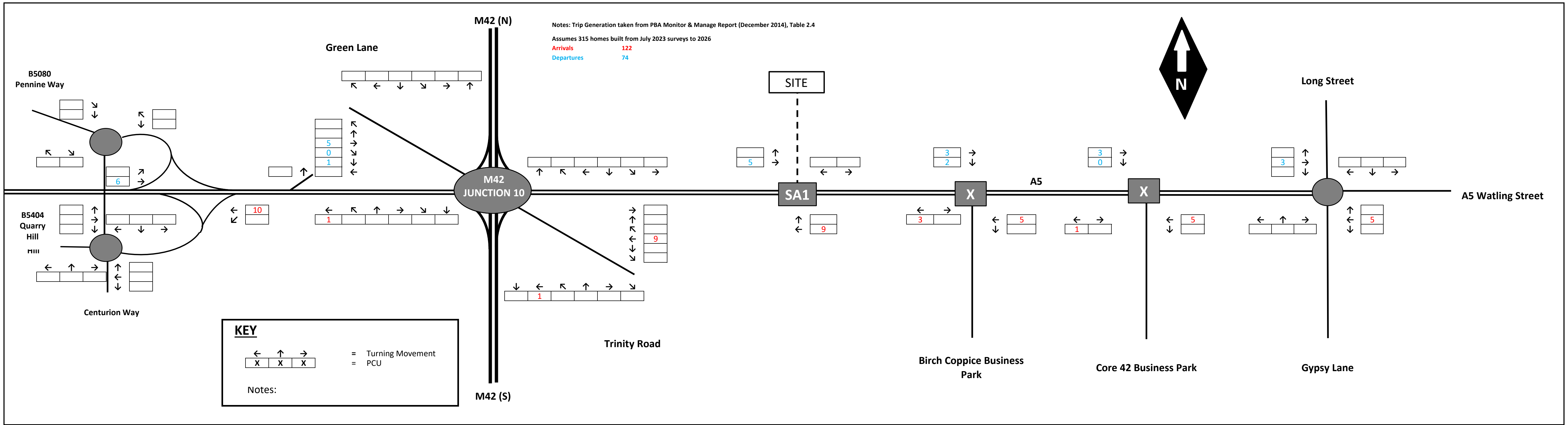


FIGURE 8

Arkall Farm - PM Peak Development Flows in 2026

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

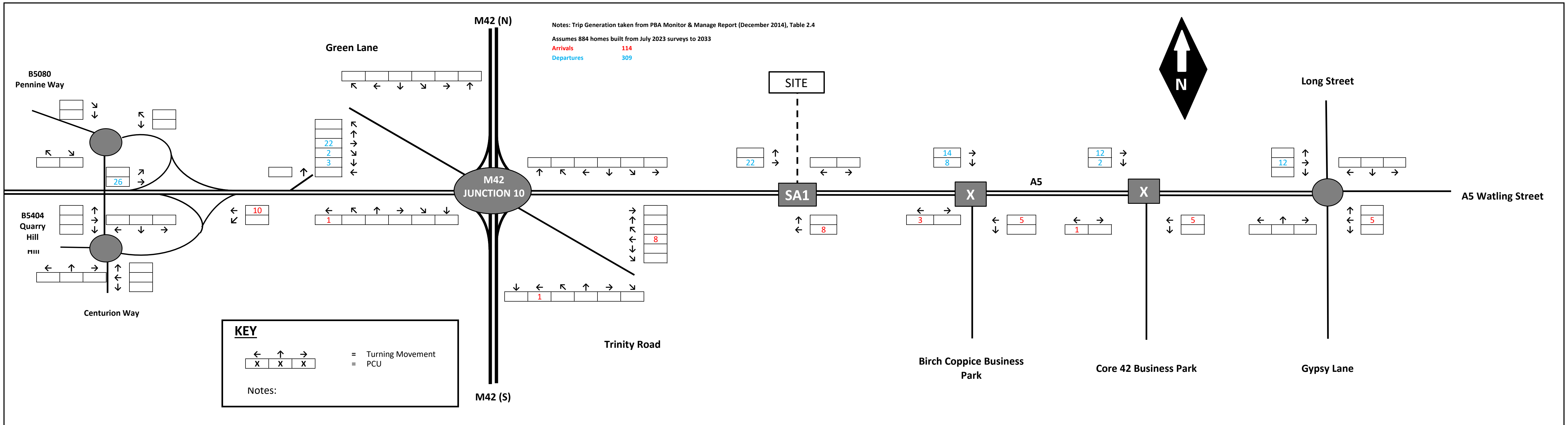


FIGURE 9

Arkall Farm - AM Peak Development Flows in 2033

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

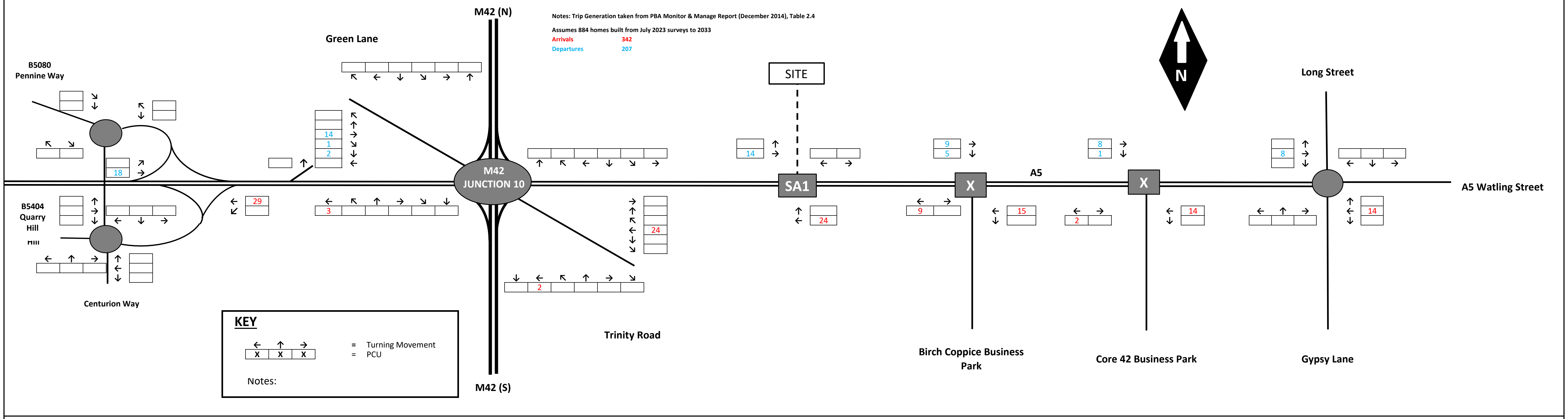


FIGURE 10

Arkall Farm - PM Peak Development Flows in 2033

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

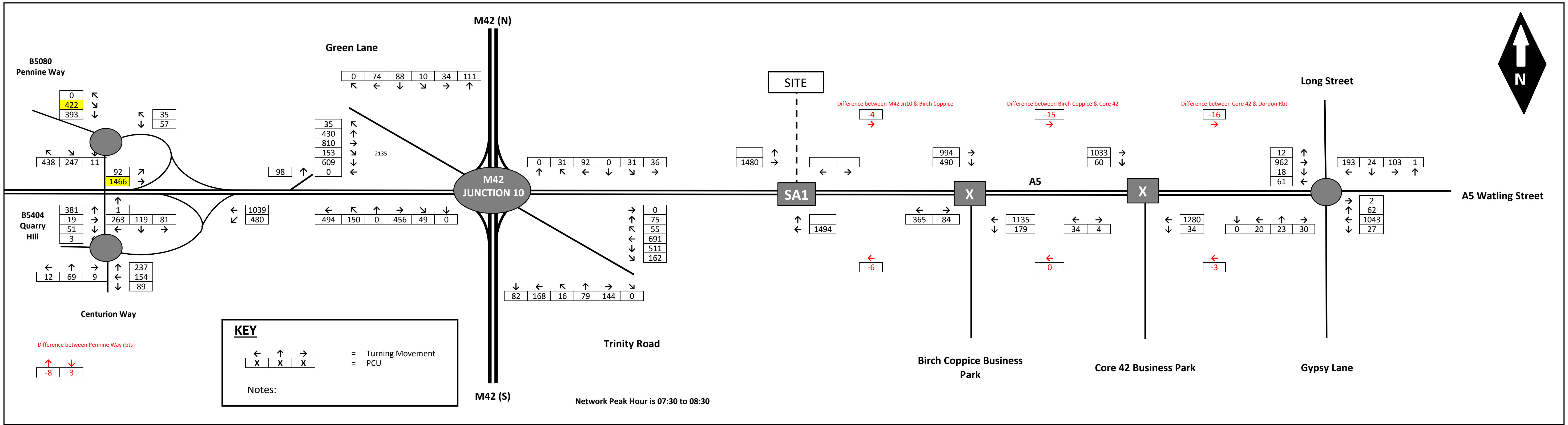


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FIGURE 11

2023 AM PEAK (0730 TO 0830) - DEMAND FLOWS

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

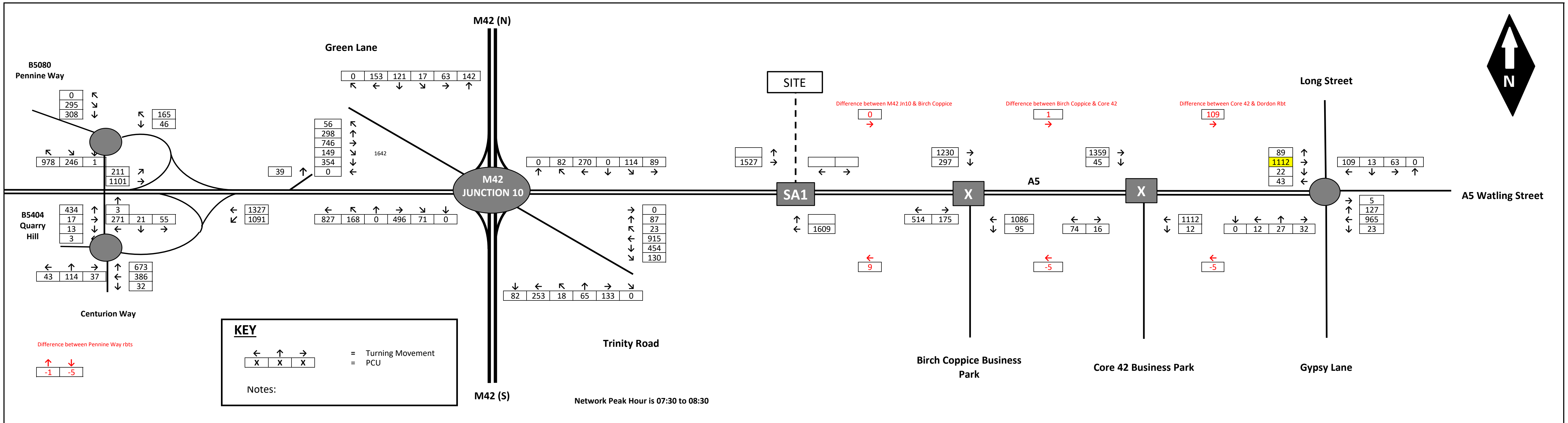

FIGURE 12

2023 PM PEAK (1645 TO 1745) - DEMAND FLOWS CORRECTED

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

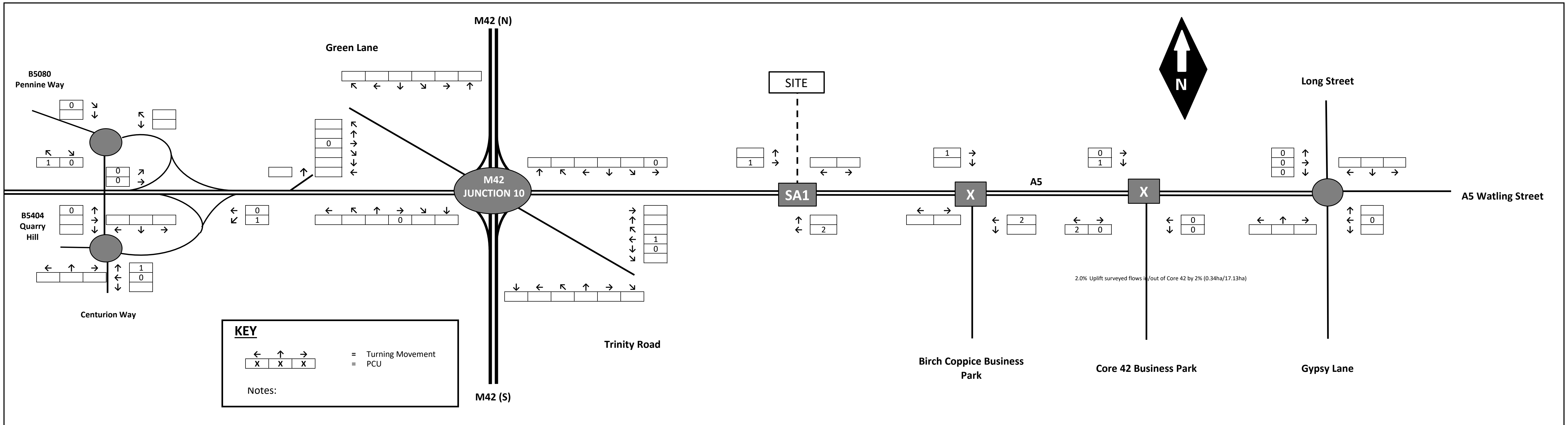

FIGURE 13

AM Core 42 Committed Development Flows

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

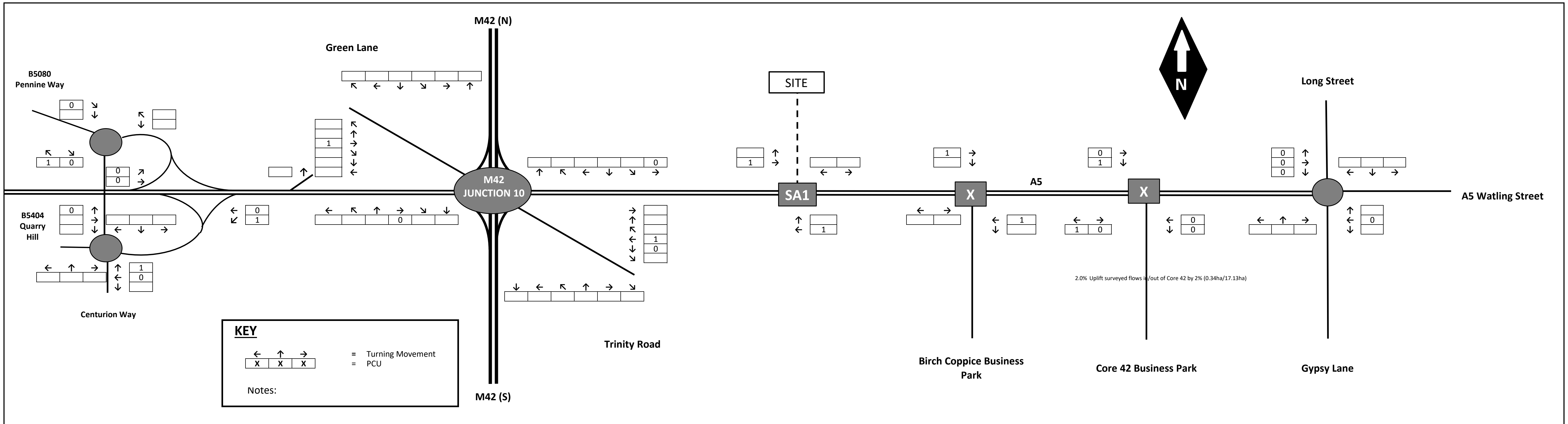

FIGURE 14

PM Core 42 Committed Development Flows

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

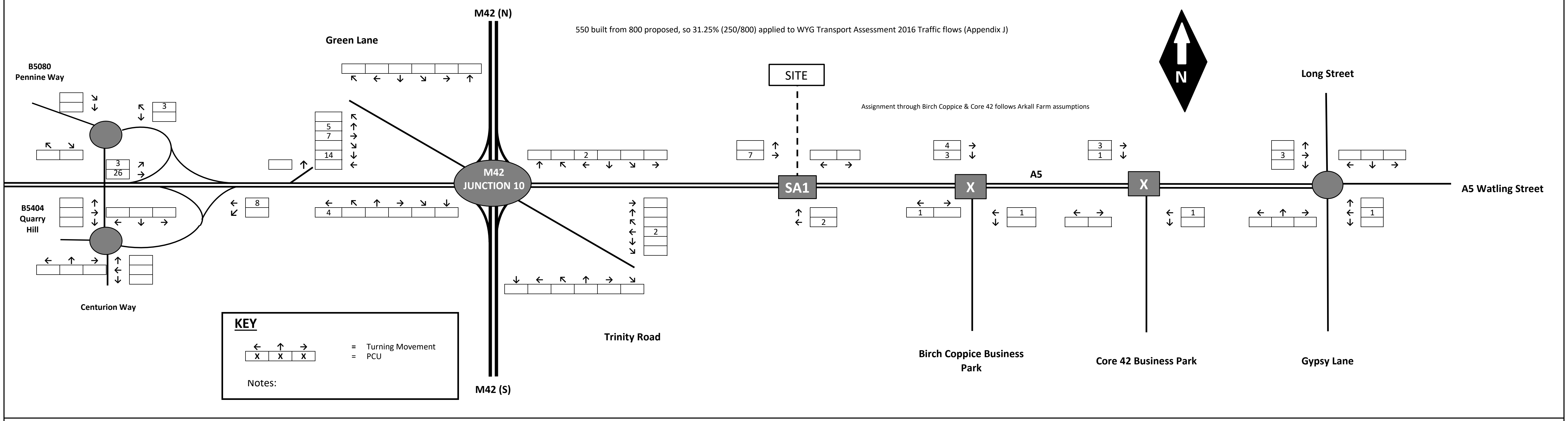

FIGURE 15

AM Dunstall Lane Development Flows

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

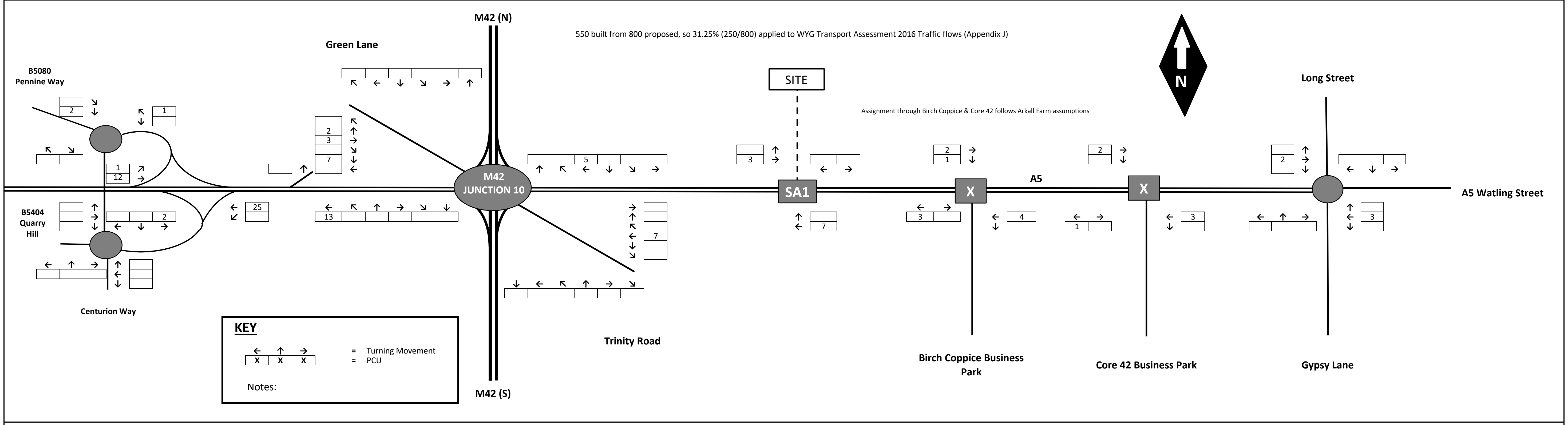

FIGURE 16

PM Dunstall Lane Development Flows

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

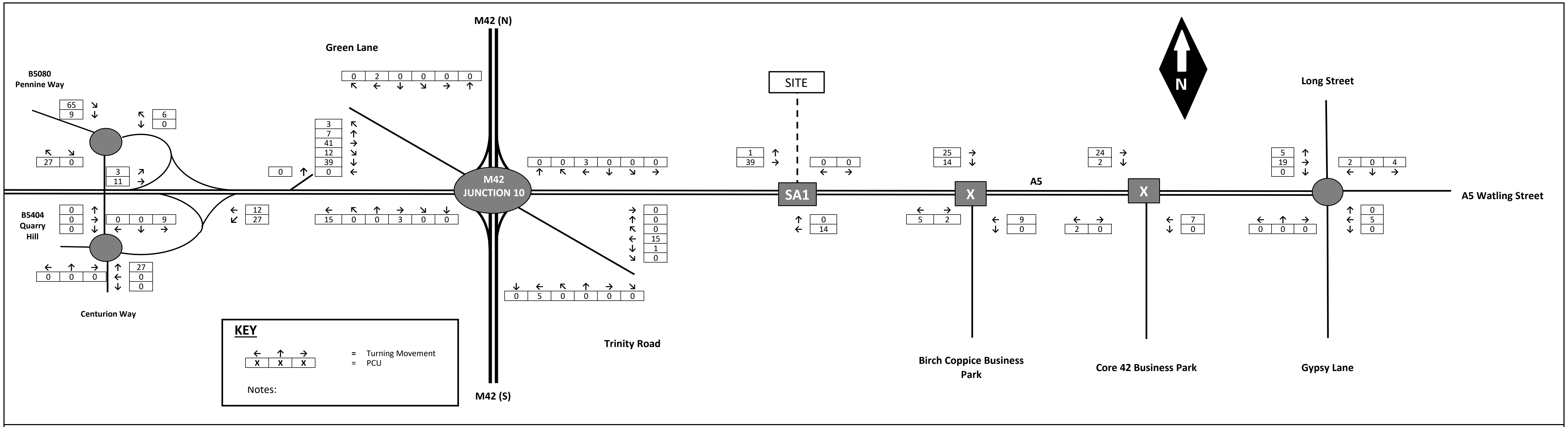

FIGURE 17

2026 AM Peak Total Committed Development Flows

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

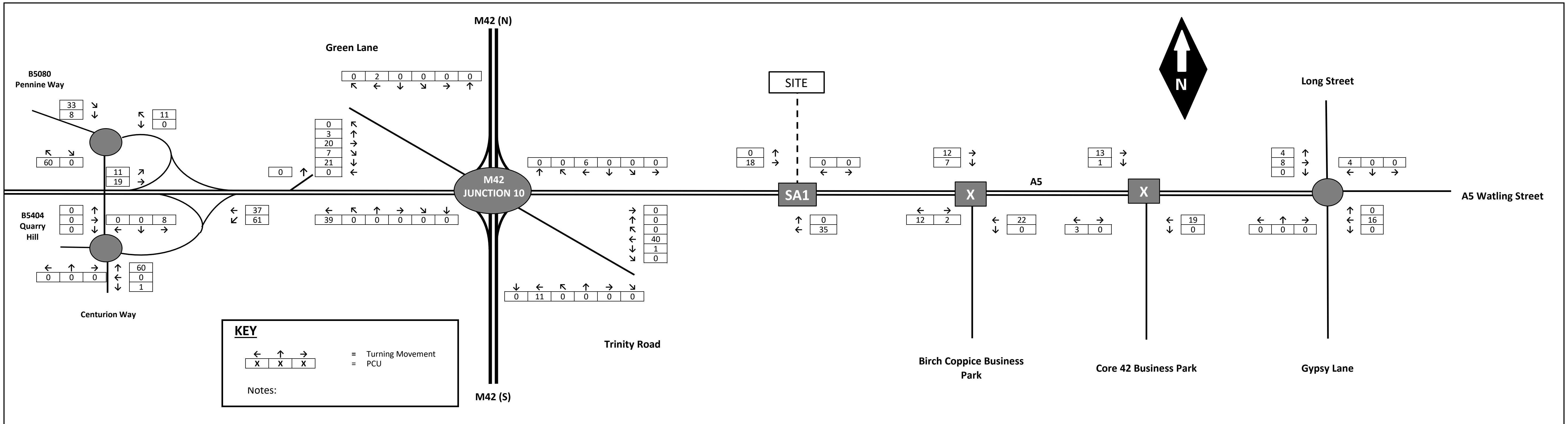

FIGURE 18

2026 PM Peak Total Committed Development Flows

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

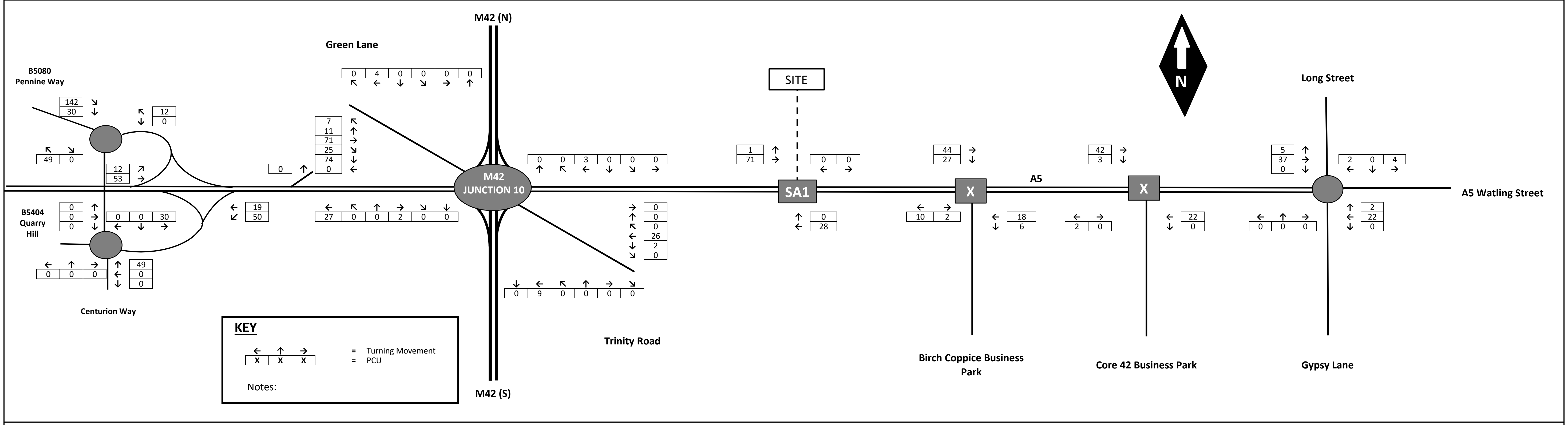

FIGURE 19

2033 AM Peak Total Committed Development Flows

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

TETRA TECH

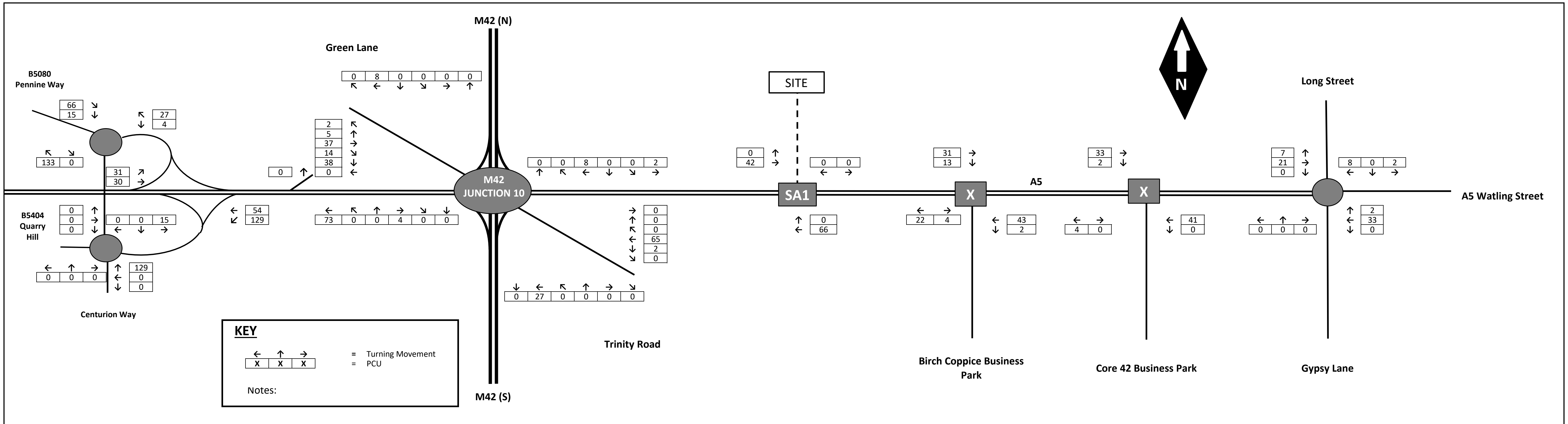

FIGURE 20

2033 PM Peak Total Committed Development Flows

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

TETRA TECH

APPENDIX E

Development Generated Traffic Flows

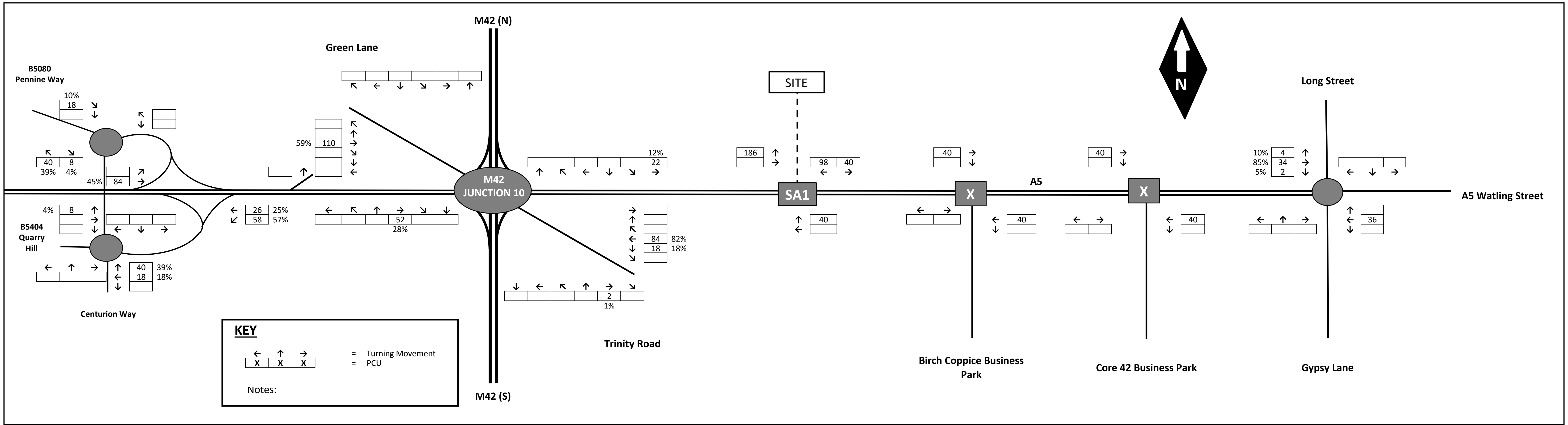

FIGURE 21

AM Peak Development Generated Traffic Flows (PCU)

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

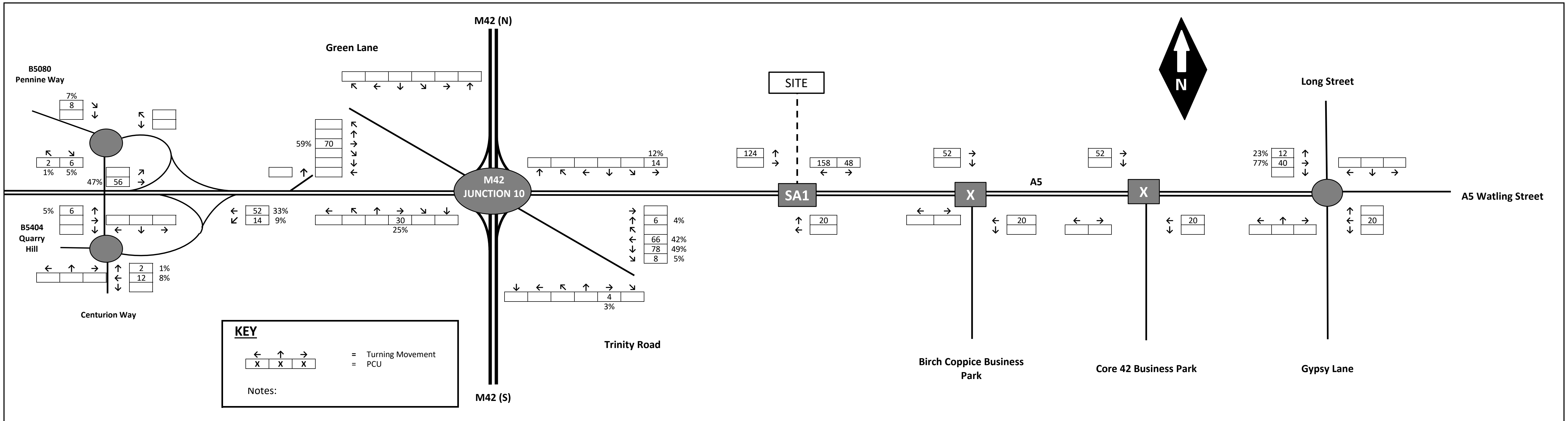

FIGURE 22

PM Peak Development Generated Traffic Flows (PCU)

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

APPENDIX F

Local Plan Allocation Traffic Flows

Table G - AM Peak Local Plan Allocations 0% complete - VECTOS

Local Plan Allocation	Robey's Lane Ph1	Land East of Dordon and Polesworth	Land at Whittington Farm	Atherstone Football Ground	Birch Coppice (All sites)	Sites at Centurion Park	Land North of Aldi Whittington Lane	MIRA	Total	
Total Dwellings	1270	2000	1282	46	8.55	0.77	1.5	42		
No. Dwellings Occupied	0	0	0	0	0	0	0	0		
Percentage Complete	0%	0%	0%	0%	0%	0%	0%	0%		
HGV %	0%	0%	0%	0%	0%	0%	0%	0%		
Movement Number										
1	134	2	0	0	26	0	2	2	**166**	**1**
2	24	0	0	0	0	0	0	0	**24**	**2**
3	0	0	0	0	0	0	0	0	**0**	**3**
4	8	0	0	0	0	0	0	0	**8**	**4**
5	50	6	2	0	8	0	0	0	**66**	**5**
6	0	0	0	0	0	2	0	12	**14**	**6**
7	0	0	0	0	0	0	0	10	**10**	**7**
8	0	0	0	0	0	0	0	0	**0**	**8**
9	0	0	0	0	0	0	0	0	**0**	**9**
10	22	0	0	0	0	0	0	0	**22**	**10**
11	0	0	0	0	0	0	0	0	**0**	**11**
12	0	0	0	0	0	0	0	0	**0**	**12**
13	0	0	0	0	4	14	0	0	**18**	**13**
14	0	0	0	0	0	0	0	2	**2**	**14**
15	50	6	2	0	8	0	0	0	**66**	**15**
16	0	0	0	0	0	0	0	0	**0**	**16**
17	0	0	0	0	0	2	0	2	**4**	**17**
18	0	0	0	0	0	2	0	0	**2**	**18**
19	6	0	0	0	0	0	0	0	**6**	**19**
20	4	0	0	0	0	0	0	0	**4**	**20**
21	30	60	16	0	48	2	12	34	**202**	**21**
22	26	0	0	0	0	0	0	0	**26**	**22**
23	60	0	0	0	0	0	0	0	**60**	**23**
24	0	0	0	0	0	0	0	0	**0**	**24**
25	0	0	0	0	0	0	0	0	**0**	**25**
26	0	2	2	0	0	0	2	2	**8**	**26**
27	0	0	0	0	0	0	0	0	**0**	**27**
28	0	0	0	0	0	0	0	0	**0**	**28**
29	2	0	0	0	0	0	0	0	**2**	**29**
30	0	0	0	0	0	0	0	0	**0**	**30**
31	0	0	0	0	2	0	0	0	**2**	**31**
32	0	0	0	0	0	0	0	0	**0**	**32**
33	0	0	0	0	0	0	0	0	**0**	**33**
34	2	0	0	0	0	2	0	0	**4**	**34**
35	0	0	0	0	0	0	0	0	**0**	**35**
36	0	0	0	0	0	0	0	0	**0**	**36**
37	0	4	0	0	0	0	0	0	**4**	**37**
38	0	248	24	0	4	0	0	0	**276**	**38**
39	12	228	52	2	22	8	0	4	**328**	**39**
40	0	10	4	0	0	0	0	0	**14**	**40**
41	0	4	2	2	4	0	0	0	**12**	**41**
42	0	10	2	0	0	0	0	0	**12**	**42**
43	0	0	0	0	0	0	0	0	**0**	**43**
44	12	0	0	0	0	2	0	0	**14**	**44**
45	0	0	0	0	0	0	0	0	**0**	**45**
46	0	0	0	0	0	0	0	0	**0**	**46**
47	0	0	0	0	2	0	0	0	**2**	**47**
48	0	0	0	0	0	0	0	0	**0**	**48**
49	20	0	0	0	0	2	0	0	**22**	**49**
50	0	0	0	0	0	0	0	0	**0**	**50**
51	0	0	0	0	0	0	0	0	**0**	**51**
52	0	64	6	0	10	0	4	0	**84**	**52**
53	0	0	0	0	0	0	0	0	**0**	**53**
54	0	0	0	0	0	0	0	0	**0**	**54**
55	0	0	0	0	0	0	0	0	**0**	**55**
56	30	134	26	0	62	2	18	36	**308**	**56**
57	0	0	0	0	0	0	0	0	**0**	**57**
58	0	0	0	0	0	0	0	0	**0**	**58**
59	12	502	88	4	30	8	0	4	**648**	**59**
60	0	0	0	0	0	0	0	0	**0**	**60**
61	8	134	26	0	6	2	18	36	**230**	**61**
62	22	0	0	0	56	0	0	0	**78**	**62**
63	0	76	16	0	114	0	0	0	**206**	**63**
64	4	500	88	4	4	4	0	4	**608**	**64**
65	8	0	0	0	26	4	0	0	**38**	**65**
66	0	20	4	0	34	0	0	0	**58**	**66**
67	8	152	30	0	34	2	18	36	**280**	**67**
68	0	0	0	0	6	0	0	0	**6**	**68**
69	0	6	6	0	16	0	0	0	**28**	**69**
70	4	584	104	4	114	4	0	4	**818**	**70**
71	0	0	0	0	4	0	0	0	**4**	**71**
72	0	2	2	0	4	0	0	0	**8**	**72**
73	2	0	0	0	0	0	0	0	**2**	**73**
74	8	142	30	0	38	2	16	36	**272**	**74**
75	0	0	0	0	0	0	0	0	**0**	**75**
76	0	0	2	0	0	0	0	2	**4**	**76**
77	0	0	0	0	0	0	0	0	**0**	**77**
78	0	0	0	0	4	0	0	0	**4**	**78**
79	0	0	0	0	0	0	0	0	**0**	**79**
80	4	592	112	4	128	4	0	4	**848**	**80**
81	0	0	10	0	0	0	0	0	**10**	**81**
82	0	0	0	0	0	0	0	0	**0**	**82**
83	0	0	0	0	0	0	0	0	**0**	**83**
84	0	0	0	0	0	0	2	2	**4**	**84**

Table H - PM Peak Local Plan Allocations 0% complete - VECTOS

Local Plan Allocation	Robey's Lane Ph1	Land East of Dordon and Polesworth	Land at Whittington Farm	Atherstone Football Ground	Birch Coppice (All sites)	Sites at Centurion Park	Land North of Aldi Whittington Lane	MIRA	Total	
Total Dwellings	1270	2000	1282	46	8.55	0.77	1.5	42		
No. Dwellings Occupied	0	0	0	0	0	0	0	0		
Percentage Complete	0%	0%	0%	0%	0%	0%	0%	0%		
HGV %	0%	0%	0%	0%	0%	0%	0%	0%		
Movement Number										
1	72	0	4	0	14	0	0	4	**94**	**1**
2	12	0	0	0	0	0	0	0	**12**	**2**
3	0	0	0	0	0	0	0	0	**0**	**3**
4	22	0	0	0	0	0	0	0	**22**	**4**
5	128	0	0	0	22	0	0	2	**152**	**5**
6	0	0	0	0	0	2	0	8	**10**	**6**
7	0	0	0	0	0	0	0	6	**6**	**7**
8	0	0	0	0	0	0	0	0	**0**	**8**
9	0	0	0	0	0	0	0	0	**0**	**9**
10	12	0	0	0	0	0	0	0	**12**	**10**
11	0	0	0	0	0	0	0	0	**0**	**11**
12	0	0	0	0	0	0	0	0	**0**	**12**
13	0	0	0	0	2	2	0	0	**4**	**13**
14	0	0	0	0	0	0	0	6	**6**	**14**
15	128	0	0	0	22	0	0	2	**152**	**15**
16	0	0	0	0	0	0	0	0	**0**	**16**
17	0	0	0	0	0	2	0	2	**4**	**17**
18	0	0	0	0	0	2	0	0	**2**	**18**
19	0	0	0	0	0	0	0	0	**0**	**19**
20	2	0	0	0	0	0	0	0	**2**	**20**
21	14	224	54	2	22	2	2	20	**340**	**21**
22	18	0	0	0	0	0	0	0	**18**	**22**
23	34	0	0	0	0	0	0	0	**34**	**23**
24	0	0	0	0	0	0	0	0	**0**	**24**
25	0	0	0	0	0	0	0	0	**0**	**25**
26	0	10	4	0	0	0	0	2	**16**	**26**
27	0	0	0	0	0	0	0	0	**0**	**27**
28	0	0	0	0	0	0	0	0	**0**	**28**
29	8	0	0	0	0	0	0	0	**8**	**29**
30	0	0	0	0	0	0	0	0	**0**	**30**
31	0	4	2	2	0	0	0	0	**8**	**31**
32	0	0	0	0	0	0	0	0	**0**	**32**
33	0	0	0	0	0	0	0	0	**0**	**33**
34	4	0	0	0	0	0	0	0	**4**	**34**
35	0	0	0	0	0	0	0	0	**0**	**35**
36	0	0	0	0	0	0	0	0	**0**	**36**
37	0	2	0	0	2	0	0	0	**4**	**37**
38	0	66	6	0	2	0	4	0	**78**	**38**
39	28	54	12	0	34	2	10	16	**156**	**39**
40	0	4	0	0	0	0	0	0	**4**	**40**
41	0	0	0	0	0	0	0	0	**0**	**41**
42	0	0	0	0	0	0	0	0	**0**	**42**
43	0	0	0	0	0	0	0	0	**0**	**43**
44	30	0	0	0	0	0	0	0	**30**	**44**
45	0	0	0	0	0	0	0	0	**0**	**45**
46	0	0	0	0	0	0	0	0	**0**	**46**
47	0	14	0	0	0	0	0	0	**14**	**47**
48	0	0	0	0	0	0	0	0	**0**	**48**
49	60	0	0	0	0	0	0	0	**60**	**49**
50	0	0	0	0	0	0	0	0	**0**	**50**
51	0	0	0	0	0	0	0	0	**0**	**51**
52	0	246	28	0	6	0	0	0	**280**	**52**
53	0	0	0	0	0	0	0	0	**0**	**53**
54	0	0	0	0	0	0	0	0	**0**	**54**
55	0	0	0	0	0	0	0	0	**0**	**55**
56	14	494	86	4	28	2	2	22	**652**	**56**
57	0	0	0	0	0	0	0	0	**0**	**57**
58	0	0	0	0	0	0	0	0	**0**	**58**
59	28	126	18	0	40	2	14	16	**244**	**59**
60	0	0	0	0	0	0	0	0	**0**	**60**
61	4	494	86	4	2	2	2	22	**616**	**61**
62	10	0	0	0	26	0	0	0	**36**	**62**
63	0	18	4	0	32	0	0	2	**56**	**63**
64	12	128	20	0	6	0	16	16	**198**	**64**
65	16	0	0	0	34	2	0	0	**52**	**65**
66	0	76	20	0	112	0	0	2	**210**	**66**
67	2	576	108	4	118	2	2	24	**836**	**67**
68	2	0	0	0	2	0	0	0	**4**	**68**
69	0	2	2	0	4	0	0	0	**8**	**69**
70	6	146	24	0	32	0	16	18	**242**	**70**
71	6	0	0	0	8	2	0	0	**16**	**71**
72	0	8	4	0	12	0	0	0	**24**	**72**
73	6	0	0	0	0	0	0	0	**6**	**73**
74	0	586	114	4	130	2	2	22	**860**	**74**
75	0	0	0	0	0	0	0	0	**0**	**75**
76	0	0	2	2	0	0	0	2	**6**	**76**
77	0	0	0	0	0	0	0	0	**0**	**77**
78	0	0	0	0	0	0	0	0	**0**	**78**
79	0	0	0	0	0	0	2	2	**4**	**79**
80	6	148	26	0	36	0	16	18	**250**	**80**
81	0	0	4	0	0	0	0	0	**4**	**81**
82	0	0	0	0	0	0	0	0	**0**	**82**
83	0	0	0	0	0	0	0	0	**0**	**83**
84	0	0	0	0	0	0	0	0	**0**	**84**

Table I - 2033 AM Peak Local Plan Allocations

Local Plan Allocation	Robey's Lane Ph1	Land East of Dordon and Polesworth	Land at Whittington Farm	Atherstone Football Ground	Birch Coppice (All sites)	Sites at Centurion Park	Land North of Aldi Whittington Lane	MIRA	Total	
Total Dwellings/ Employment	1270	2000	1282	46	8.55	0.77	1.5	42		
No. Dwellings Occupied at time of 2023 Surveys	0	0	0	0	0	0.77	1.5	0		
Percentage Complete in 2023	0%	0%	0%	0%	0%	100%	100%	0%		
No. Dwellings Occupied in 2033	1040	1675	1282	0	0	0.77	1.5	42		
Percentage Occupied in 2033	82%	84%	100%	0%	0%	100%	100%	100%		
Percentage Occupied between 2023 and 2033	82%	84%	100%	0%	0%	0%	0%	100%		
HGV %	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
1	110	2	0	0	0	0	0	2	**113**	**1**
2	20	0	0	0	0	0	0	0	**20**	**2**
3	0	0	0	0	0	0	0	0	**0**	**3**
4	7	0	0	0	0	0	0	0	**7**	**4**
5	41	5	2	0	0	0	0	0	**48**	**5**
6	0	0	0	0	0	0	0	12	**12**	**6**
7	0	0	0	0	0	0	0	10	**10**	**7**
8	0	0	0	0	0	0	0	0	**0**	**8**
9	0	0	0	0	0	0	0	0	**0**	**9**
10	18	0	0	0	0	0	0	0	**18**	**10**
11	0	0	0	0	0	0	0	0	**0**	**11**
12	0	0	0	0	0	0	0	0	**0**	**12**
13	0	0	0	0	0	0	0	0	**0**	**13**
14	0	0	0	0	0	0	0	2	**2**	**14**
15	41	5	2	0	0	0	0	0	**48**	**15**
16	0	0	0	0	0	0	0	0	**0**	**16**
17	0	0	0	0	0	0	0	2	**2**	**17**
18	0	0	0	0	0	0	0	0	**0**	**18**
19	5	0	0	0	0	0	0	0	**5**	**19**
20	3	0	0	0	0	0	0	0	**3**	**20**
21	25	50	16	0	0	0	0	34	**125**	**21**
22	21	0	0	0	0	0	0	0	**21**	**22**
23	49	0	0	0	0	0	0	0	**49**	**23**
24	0	0	0	0	0	0	0	0	**0**	**24**
25	0	0	0	0	0	0	0	0	**0**	**25**
26	0	2	2	0	0	0	0	2	**6**	**26**
27	0	0	0	0	0	0	0	0	**0**	**27**
28	0	0	0	0	0	0	0	0	**0**	**28**
29	2	0	0	0	0	0	0	0	**2**	**29**
30	0	0	0	0	0	0	0	0	**0**	**30**
31	0	0	0	0	0	0	0	0	**0**	**31**
32	0	0	0	0	0	0	0	0	**0**	**32**
33	0	0	0	0	0	0	0	0	**0**	**33**
34	2	0	0	0	0	0	0	0	**2**	**34**
35	0	0	0	0	0	0	0	0	**0**	**35**
36	0	0	0	0	0	0	0	0	**0**	**36**
37	0	3	0	0	0	0	0	0	**3**	**37**
38	0	208	24	0	0	0	0	0	**232**	**38**
39	10	191	52	0	0	0	0	4	**257**	**39**
40	0	8	4	0	0	0	0	0	**12**	**40**
41	0	3	2	0	0	0	0	0	**5**	**41**
42	0	8	2	0	0	0	0	0	**10**	**42**
43	0	0	0	0	0	0	0	0	**0**	**43**
44	10	0	0	0	0	0	0	0	**10**	**44**
45	0	0	0	0	0	0	0	0	**0**	**45**
46	0	0	0	0	0	0	0	0	**0**	**46**
47	0	0	0	0	0	0	0	0	**0**	**47**
48	0	0	0	0	0	0	0	0	**0**	**48**
49	16	0	0	0	0	0	0	0	**16**	**49**
50	0	0	0	0	0	0	0	0	**0**	**50**
51	0	0	0	0	0	0	0	0	**0**	**51**
52	0	54	6	0	0	0	0	0	**60**	**52**
53	0	0	0	0	0	0	0	0	**0**	**53**
54	0	0	0	0	0	0	0	0	**0**	**54**
55	0	0	0	0	0	0	0	0	**0**	**55**
56	25	112	26	0	0	0	0	36	**199**	**56**
57	0	0	0	0	0	0	0	0	**0**	**57**
58	0	0	0	0	0	0	0	0	**0**	**58**
59	10	420	88	0	0	0	0	4	**522**	**59**
60	0	0	0	0	0	0	0	0	**0**	**60**
61	7	112	26	0	0	0	0	36	**181**	**61**
62	18	0	0	0	0	0	0	0	**18**	**62**
63	0	64	16	0	0	0	0	0	**80**	**63**
64	3	419	88	0	0	0	0	4	**514**	**64**
65	7	0	0	0	0	0	0	0	**7**	**65**
66	0	17	4	0	0	0	0	0	**21**	**66**
67	7	127	30	0	0	0	0	36	**200**	**67**
68	0	0	0	0	0	0	0	0	**0**	**68**
69	0	5	6	0	0	0	0	0	**11**	**69**
70	3	489	104	0	0	0	0	4	**600**	**70**
71	0	0	0	0	0	0	0	0	**0**	**71**
72	0	2	2	0	0	0	0	0	**4**	**72**
73	2	0	0	0	0	0	0	0	**2**	**73**
74	7	119	30	0	0	0	0	36	**191**	**74**
75	0	0	0	0	0	0	0	0	**0**	**75**
76	0	0	2	0	0	0	0	2	**4**	**76**
77	0	0	0	0	0	0	0	0	**0**	**77**
78	0	0	0	0	0	0	0	0	**0**	**78**
79	0	0	0	0	0	0	0	0	**0**	**79**
80	3	496	112	0	0	0	0	4	**615**	**80**
81	0	0	10	0	0	0	0	0	**10**	**81**
82	0	0	0	0	0	0	0	0	**0**	**82**
83	0	0	0	0	0	0	0	0	**0**	**83**
84	0	0	0	0	0	0	0	2	**2**	**84**

- (yellow) surveyed flows in/out of Birch Coppice to be uplifted by surveyed flows (disregard Vectos flows)
- (blue) to be discounted as agreed with North Warwickshire
- (green) Revised housing numbers as advised by North Warwickshire
- (orange) Sites built and occupied at time of 2033 surveys (disregard Vectos flows)

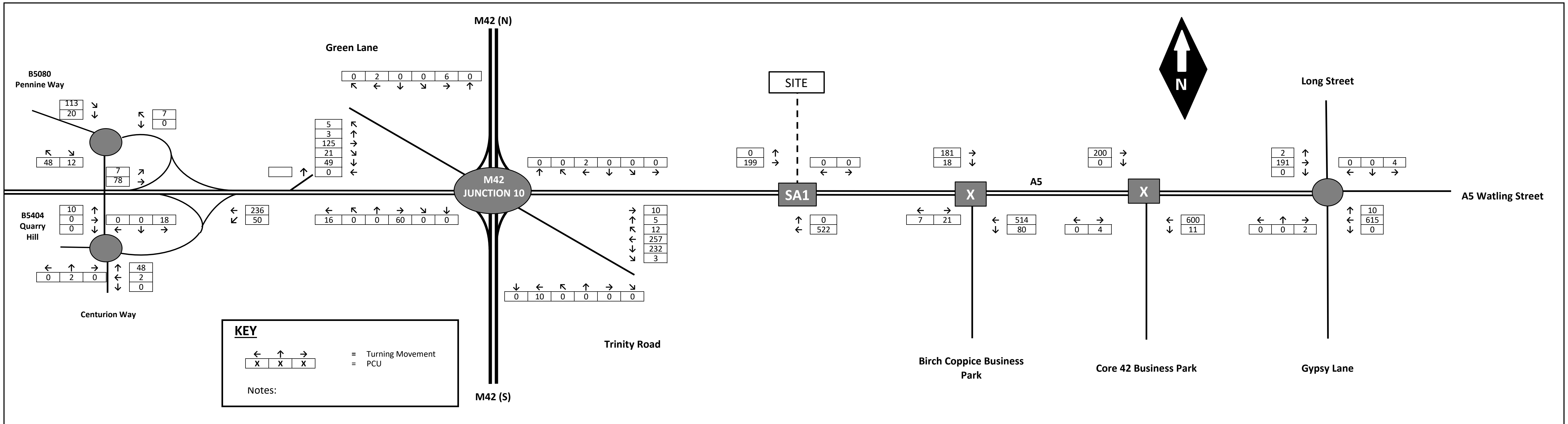

FIGURE 23

2033 AM Peak Local Plan PCU Traffic Flows (from Vectos)

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

Table J - 2033 PM Peak Local Plan Allocations

Local Plan Allocation	Robey's Lane Ph1	Land East of Dordon and Polesworth	Land at Whittington Farm	Atherstone Football Ground	Birch Coppice (All sites)	Sites at Centurion Park	Land North of Aldi Whittington Lane	MIRA	Total	
Total Dwellings/ Employment	1270	2000	1282	46	8.55	0.77	1.5	42		
No. Dwellings Occupied at time of 2023 Surveys	0	0	0	0	0	0.77	1.5	0		
Percentage Complete in 2023	0%	0%	0%	0%	0%	100%	100%	0%		
No. Dwellings Occupied in 2033	1040	1675	1282	0	0	0.77	1.5	42		
Percentage Occupied in 2033	82%	84%	100%	0%	0%	100%	100%	100%		
Percentage Occupied between 2023 and 2033	82%	84%	100%	0%	0%	0%	0%	100%		
HGV %	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
1	59	0	4	0	0	0	0	4	**67**	**1**
2	10	0	0	0	0	0	0	0	**10**	**2**
3	0	0	0	0	0	0	0	0	**0**	**3**
4	18	0	0	0	0	0	0	0	**18**	**4**
5	105	0	0	0	0	0	0	2	**107**	**5**
6	0	0	0	0	0	0	0	8	**8**	**6**
7	0	0	0	0	0	0	0	6	**6**	**7**
8	0	0	0	0	0	0	0	0	**0**	**8**
9	0	0	0	0	0	0	0	0	**0**	**9**
10	10	0	0	0	0	0	0	0	**10**	**10**
11	0	0	0	0	0	0	0	0	**0**	**11**
12	0	0	0	0	0	0	0	0	**0**	**12**
13	0	0	0	0	0	0	0	0	**0**	**13**
14	0	0	0	0	0	0	0	6	**6**	**14**
15	105	0	0	0	0	0	0	2	**107**	**15**
16	0	0	0	0	0	0	0	0	**0**	**16**
17	0	0	0	0	0	0	0	2	**2**	**17**
18	0	0	0	0	0	0	0	0	**0**	**18**
19	0	0	0	0	0	0	0	0	**0**	**19**
20	2	0	0	0	0	0	0	0	**2**	**20**
21	11	188	54	0	0	0	0	20	**273**	**21**
22	15	0	0	0	0	0	0	0	**15**	**22**
23	28	0	0	0	0	0	0	0	**28**	**23**
24	0	0	0	0	0	0	0	0	**0**	**24**
25	0	0	0	0	0	0	0	0	**0**	**25**
26	0	8	4	0	0	0	0	2	**14**	**26**
27	0	0	0	0	0	0	0	0	**0**	**27**
28	0	0	0	0	0	0	0	0	**0**	**28**
29	7	0	0	0	0	0	0	0	**7**	**29**
30	0	0	0	0	0	0	0	0	**0**	**30**
31	0	3	2	0	0	0	0	0	**5**	**31**
32	0	0	0	0	0	0	0	0	**0**	**32**
33	0	0	0	0	0	0	0	0	**0**	**33**
34	3	0	0	0	0	0	0	0	**3**	**34**
35	0	0	0	0	0	0	0	0	**0**	**35**
36	0	0	0	0	0	0	0	0	**0**	**36**
37	0	2	0	0	0	0	0	0	**2**	**37**
38	0	55	6	0	0	0	0	0	**61**	**38**
39	23	45	12	0	0	0	0	16	**96**	**39**
40	0	3	0	0	0	0	0	0	**3**	**40**
41	0	0	0	0	0	0	0	0	**0**	**41**
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48	0	0	0	0	0	0	0	0	**0**	**48**
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50	0	0	0	0	0	0	0	0	**0**	**50**
51	0	0	0	0	0	0	0	0	**0**	**51**
52	0	206	28	0	0	0	0	0	**234**	**52**
53	0	0	0	0	0	0	0	0	**0**	**53**
54	0	0	0	0	0	0	0	0	**0**	**54**
55	0	0	0	0	0	0	0	0	**0**	**55**
56	11	414	86	0	0	0	0	22	**533**	**56**
57	0	0	0	0	0	0	0	0	**0**	**57**
58	0	0	0	0	0	0	0	0	**0**	**58**
59	23	106	18	0	0	0	0	16	**162**	**59**
60	0	0	0	0	0	0	0	0	**0**	**60**
61	3	414	86	0	0	0	0	22	**525**	**61**
62	8	0	0	0	0	0	0	0	**8**	**62**
63	0	15	4	0	0	0	0	2	**21**	**63**
64	10	107	20	0	0	0	0	16	**153**	**64**
65	13	0	0	0	0	0	0	0	**13**	**65**
66	0	64	20	0	0	0	0	2	**86**	**66**
67	2	482	108	0	0	0	0	24	**616**	**67**
68	2	0	0	0	0	0	0	0	**2**	**68**
69	0	2	2	0	0	0	0	0	**4**	**69**
70	5	122	24	0	0	0	0	18	**169**	**70**
71	5	0	0	0	0	0	0	0	**5**	**71**
72	0	7	4	0	0	0	0	0	**11**	**72**
73	5	0	0	0	0	0	0	0	**5**	**73**
74	0	491	114	0	0	0	0	22	**627**	**74**
75	0	0	0	0	0	0	0	0	**0**	**75**
76	0	0	2	0	0	0	0	2	**4**	**76**
77	0	0	0	0	0	0	0	0	**0**	**77**
78	0	0	0	0	0	0	0	0	**0**	**78**
79	0	0	0	0	0	0	0	2	**2**	**79**
80	5	124	26	0	0	0	0	18	**173**	**80**
81	0	0	4	0	0	0	0	0	**4**	**81**
82	0	0	0	0	0	0	0	0	**0**	**82**
83	0	0	0	0	0	0	0	0	**0**	**83**
84	0	0	0	0	0	0	0	0	**0**	**84**

(yellow)	surveyed flows in/out of Birch Coppice to be uplifted by surveyed flows (disregard Vectos flows)
(blue)	to be discounted as agreed with North Warwickshire
(green)	Revised housing numbers as advised by North Warwickshire
(orange)	Sites built and occupied at time of 2033 surveys (disregard Vectos flows)

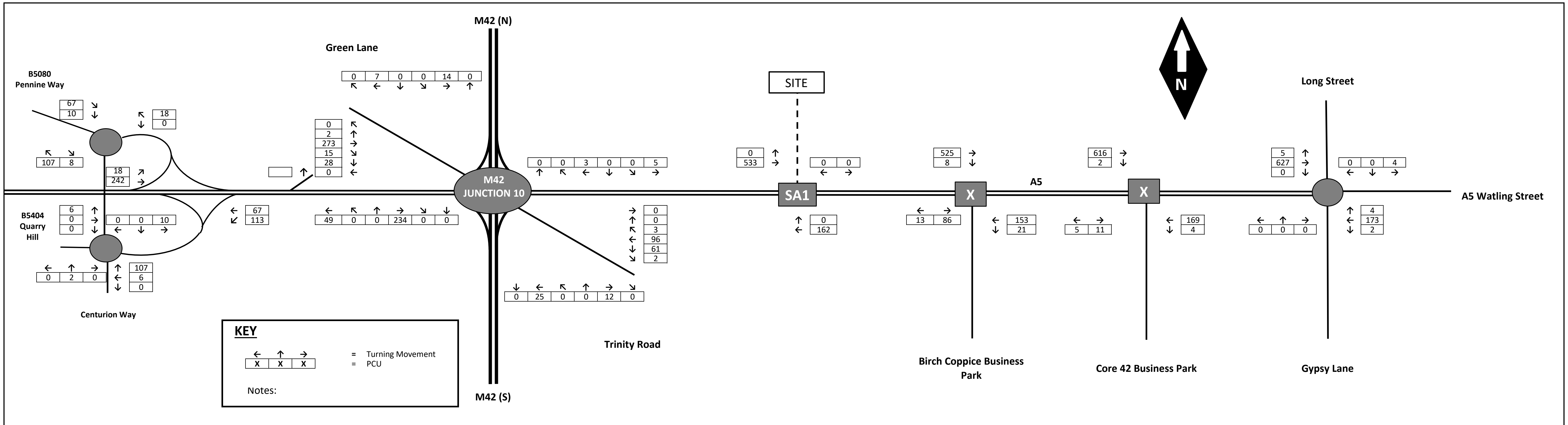


FIGURE 24

2033 PM Peak Local Plan PCU Traffic Flows (from Vectos)

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

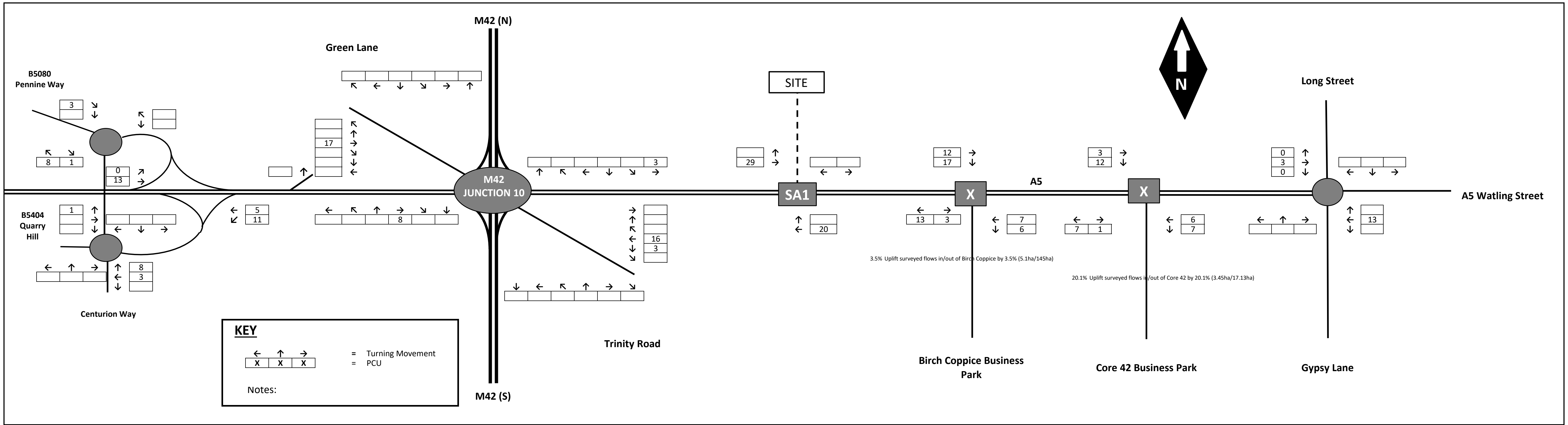


FIGURE 25

2033 AM Peak Birch Coppice & Core 42 Local Plan Flows

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

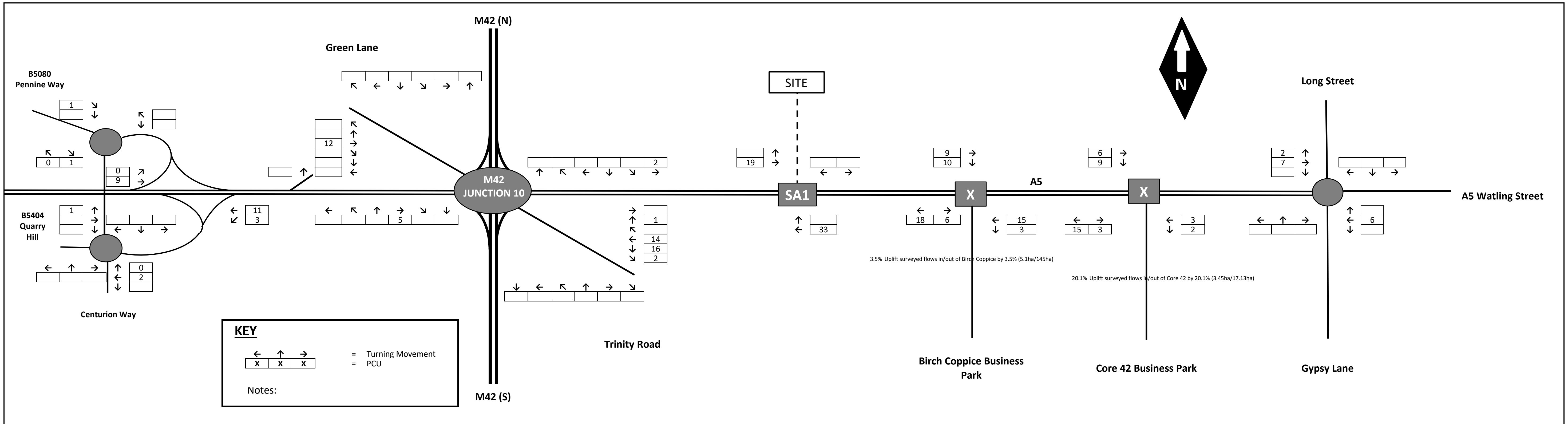


FIGURE 26

2033 PM Peak Birch Coppice & Core 42 Local Plan Flows

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

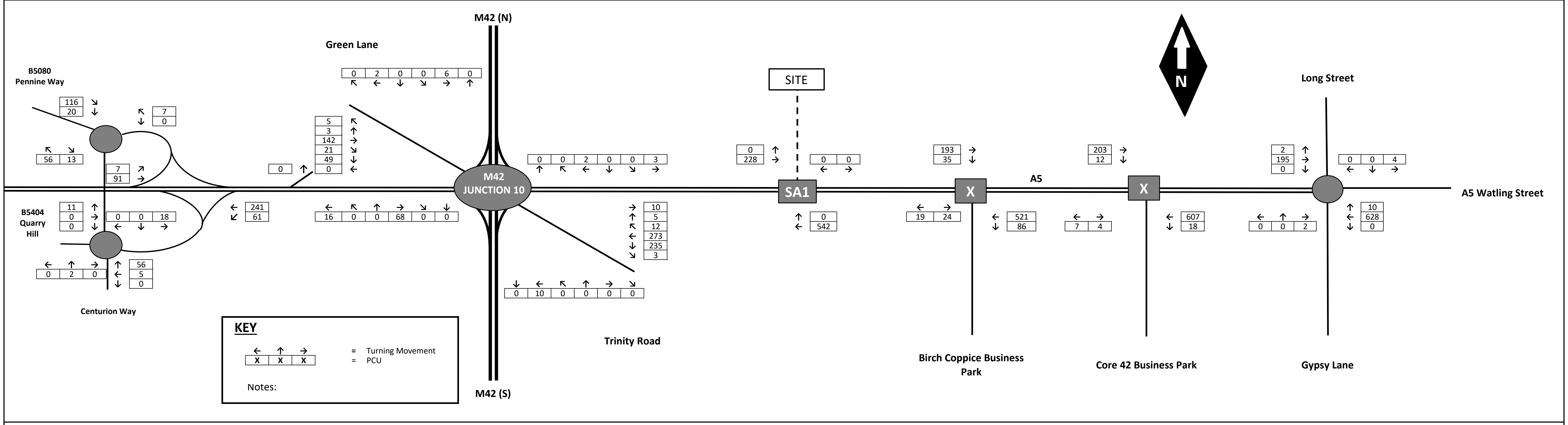
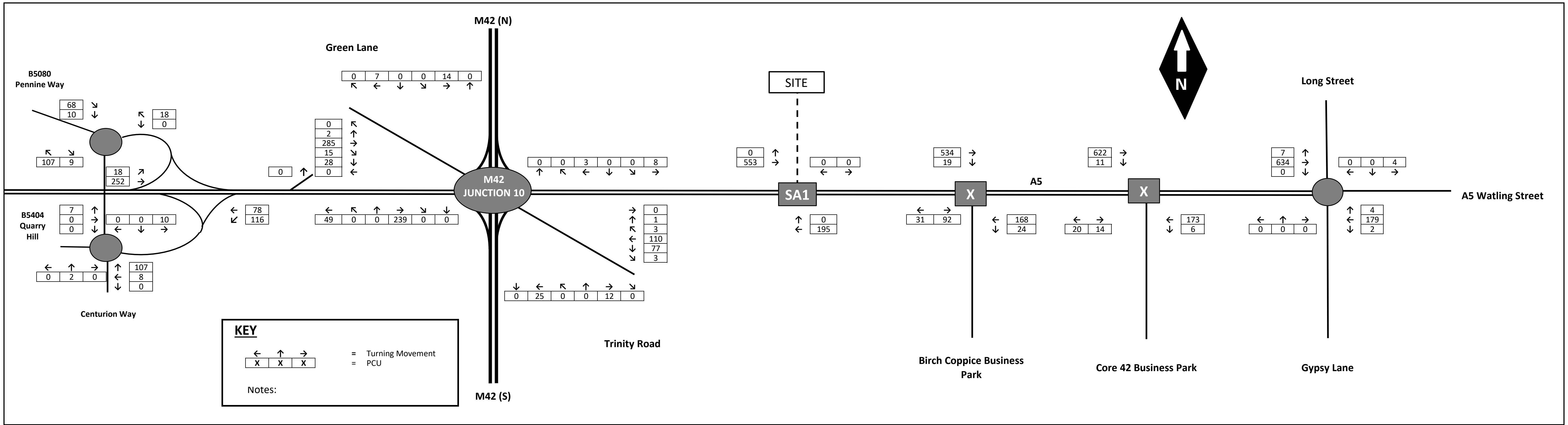


FIGURE 27

2033 AM Peak Total Local Plan Traffic Flows (PCU)

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920



TETRA TECH

FIGURE 28

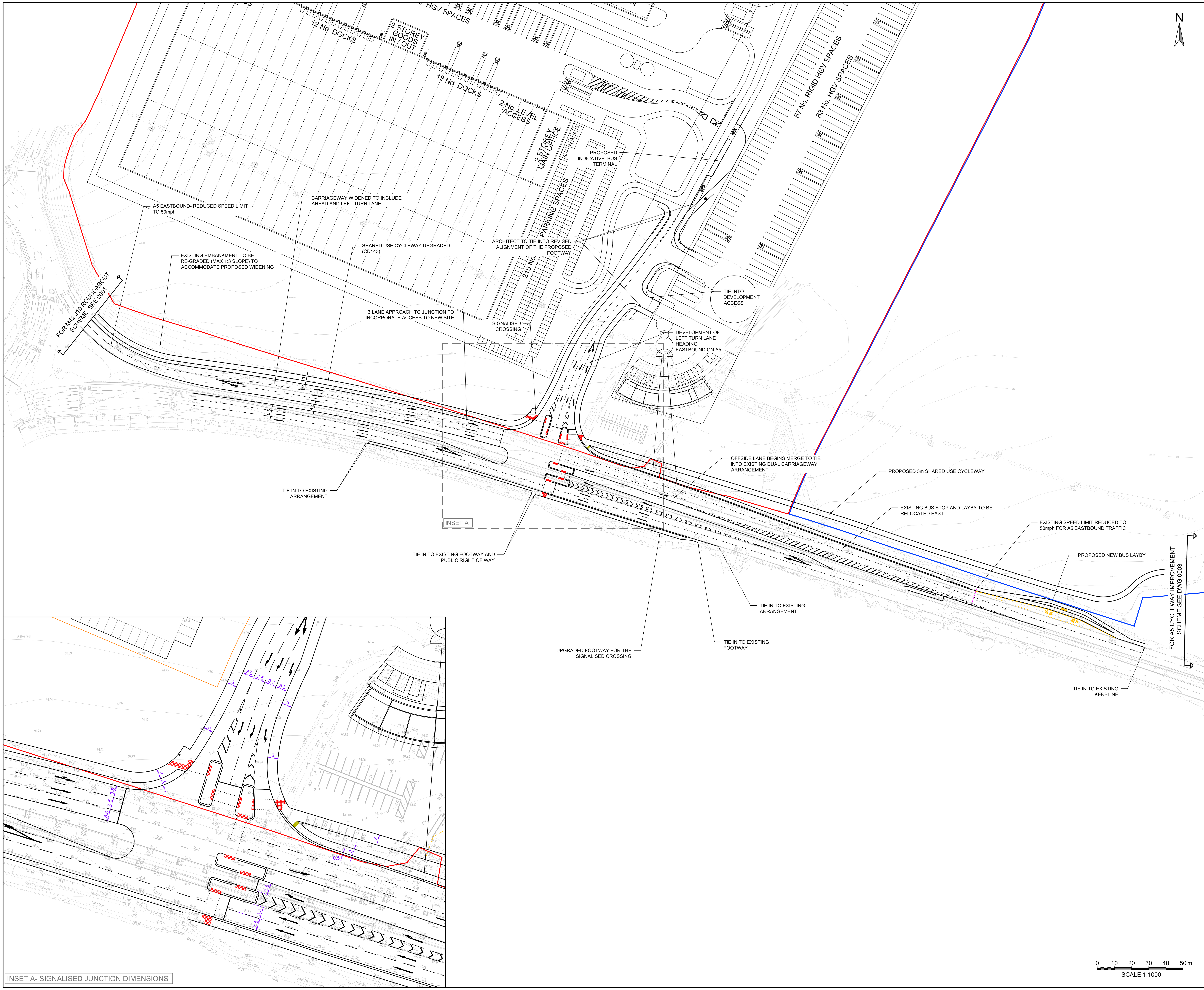
2033 PM Peak Total Local Plan Traffic Flows (PCU)

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

APPENDIX G

TT Drawings



NOTES -

1. ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
2. THE INFORMATION SHOWN ON THIS DRAWING IS INTENDED TO PROVIDE A GENERAL OUTLINE OF THE HIGHWAY IMPROVEMENT WORKS.

KEY:

SITE BOUNDARY 1

SITE BOUNDARY 2

PRELIMINARY ISSUE

Rev	Description	Date	Drn / Chk / App		
P01	PRELIMINARY FIRST ISSUE	04.11.2022	LJB	LB	NB

Document Control

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TETRA TECH

Client

HODGETTS ESTATES

Project Name

M42 JUNCTION 10
A5 CYCLEWAY IMPROVEMENT

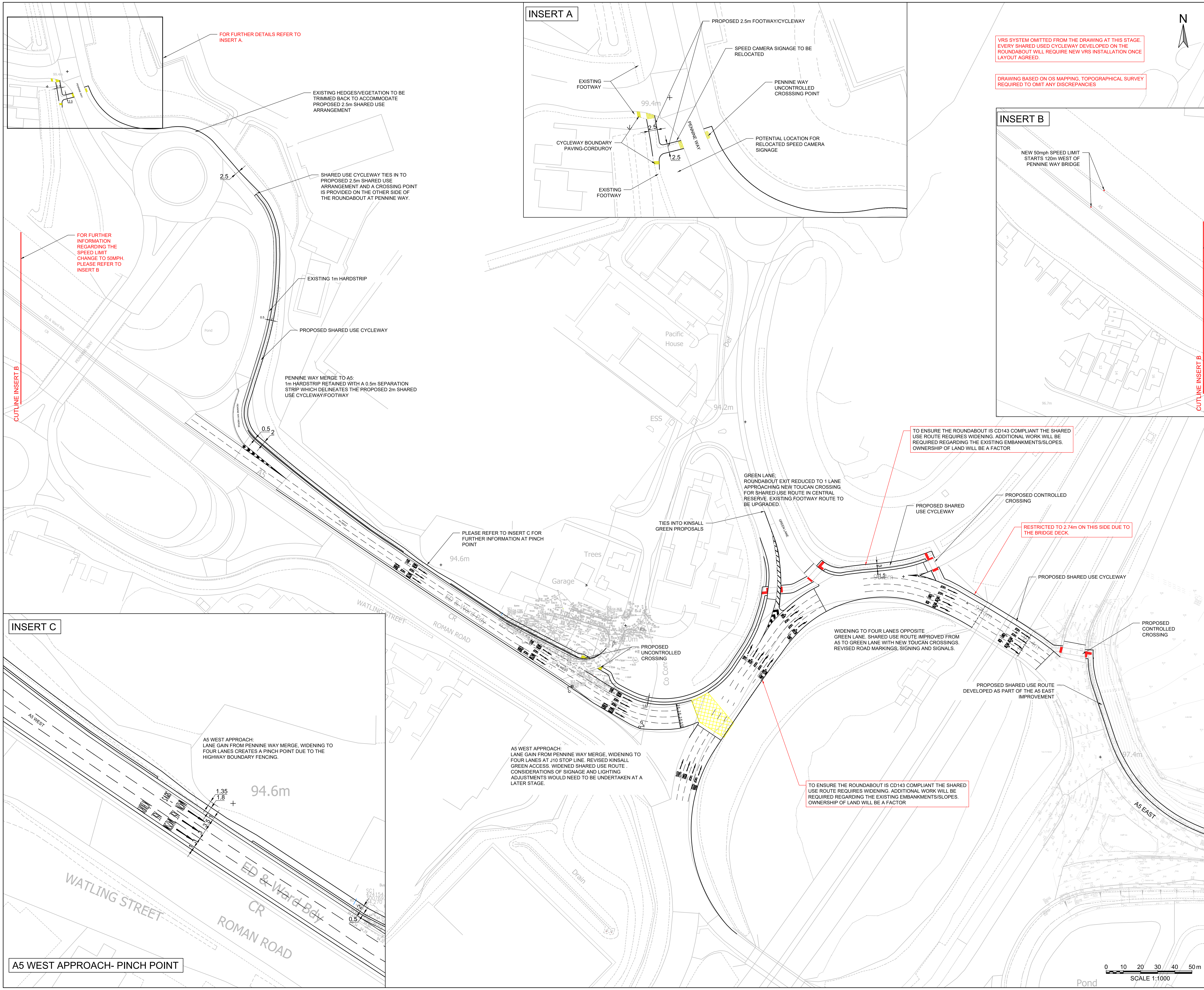
Sheet Title

PROPOSED LAYOUT FOR A5 AND NEW SITE ACCESS

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A1	Suitability
784-B033920	LJB	Oct'22	LB	Oct '22	NB	Oct '22	1:1000	S3

Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision
B033920	TTE	00	ZZ	PL	H	0002	P01

TTE_MT_v1



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2. ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED OTHERWISE.

PRELIMINARY ISSUE

Rev	Description	Date	Drn	Chk	App
P03	MINOR AMENDMENTS	25.10.2023	LJB	LB	NB
P02	MINOR AMENDMENTS	14.08.2023	LJB	LB	NB
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HODGETTS ESTATES

Project Name

M42 JUNCTION 10
ROUNDABOUT IMPROVEMENT

Sheet Title

PROPOSED LAYOUT

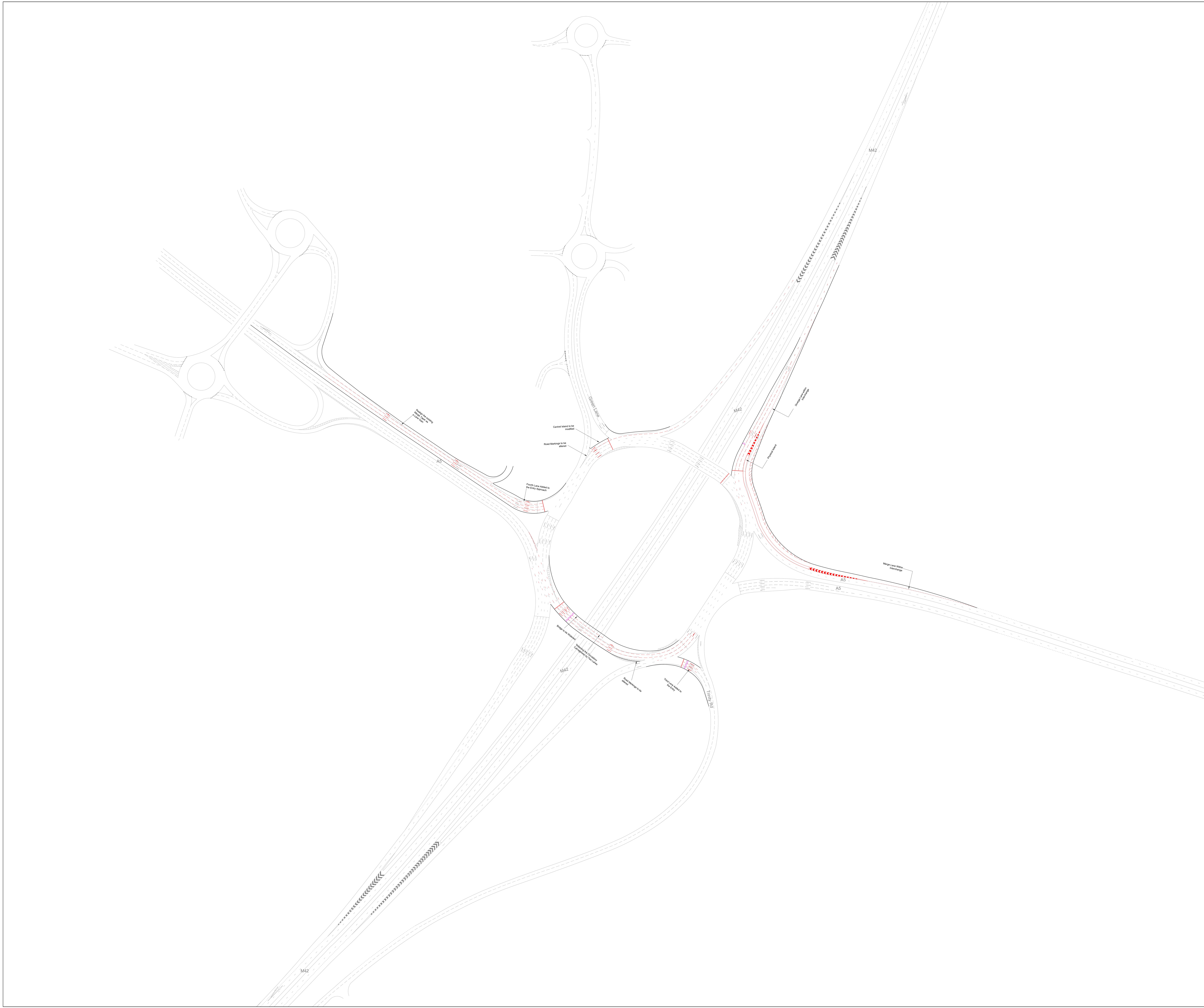
TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A1	Suitability
784-B033920	LJB	Sep'22	LB	Sep '22	NB	Sep '22	1:1000	S3

Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision
B033920	TTE	00	ZZ	SK	H	0001	P03

 TTE_MT_v1

APPENDIX H

Drawings by Others



Drawing Status:
These drawings have been produced with reference to the CDM Regulations 2015; Regulation 9.

These Drawings are for planning approvals and are not to be used for construction purposes. It is the responsibility of the contractor and client to identify risks associated with the construction stage and to design appropriate measures to mitigate. The risks identified on the PJA Scheme Design Risk Assessment are based on the information available at the time of the design (drawing date) Where shown on PJA Design Drawings, the position of services is based on information provided by other parties at the time of the design and is for guidance only. It is the responsibility of the Client and Contractor to verify the exact position of any services before commencing works on site.

Client Duties:
The client is directed to Regulation 4 of the CDM 2015 Regulations: Client duties in relation to managing projects

Rev / Date	Description	Drn	Chck'd

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Client
Warwickshire County Council (WCC)

Project
02853 M42 Junction 10

Drawing
Indicative Solution.
Level Intervention
2 B+C+D+E+F

Drawn by: AH 24/08/2017
Checked by: MN 24/08/2017
Scale: 1:2000 @ A1

Drawing No. 02853 - 01
Revision A

File: T:\Projects Current\#2800\02853 M42 J10 HS2 Impact\2. Drawings\Design\Preliminary Design\Level Intervention 2B&C&D&E&F\Level Intervention 2B+C+D+E+F.dwg

APPENDIX I

A5/ Dordon Roundabout Consultation

A5 Dordon to Atherstone project

Public consultation report

21 February 2023

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1. Executive Summary

The A5 Dordon to Atherstone project proposes improvements to sections of the A5 between Dordon and Atherstone to increase capacity and provide opportunities for housing and employment growth, to support North Warwickshire Borough Council and the wider West Midlands region.

The purpose of the Public Consultation was to seek feedback from the public and stakeholders on which of the three options presented (Option A, Option B and Option C), would best improve current conditions and facilitate increased growth in the region.

The three options presented all involve a bypass carriageway to the south of the current A5 between the Dordon roundabout to a point 500m west of the Grendon (Spon Lane / Boot Hill / Watling Street) roundabout. The bypass options only differ in their road layout, connections to local roads and overall scale of works.

Option A – signalised junction to replace the Dordon roundabout.

Option B – new larger roundabout to serve Watling Street and Gypsy Lane, no direct access from Long Street to the A5.

Option C – "left in – left out" arrangement for traffic using Gypsy Lane, no direct access from Long Street to the A5.

All three scheme options also include improvements to the Spon Lane / Boot Hill / Watling Street roundabout and the Holly Lane / Merevale Lane / Watling Street roundabout to the western side of the Atherstone bypass.

The consultation ran for seven and a half weeks from 5 September to 27 October 2022, including an extension to acknowledge the National Mourning Period following the death of Queen Elizabeth II. Over the consultation period, **179** responses were received via the following channels:

- CitizenSpace – **108 responses**
- Freeform responses (project inbox, letters and phone calls) – **36 responses**
- Hard copy returns (received via freepost, email and at consultation events) – **35 responses**

Responses were predominantly received from local residents (84%) with 94% travelling by car along the A5 between Dordon and Atherstone as their main means of transport. The majority of consultees use the A5 on a daily basis, and at a combination of 'peak' and 'off-peak' periods throughout the week and on weekends.

Key findings

Overall, 63% of consultees 'agree' or 'strongly agree' that improvements to the route are needed. This is reflected in the feedback received relating to the existing A5 conditions, which show high levels of dissatisfaction in relation to road layout, road safety, congestion, journey times, and access for walking, cycling and horse riding.

The feedback received relating to the proposed A5 improvements show limited support, with 48% of consultees indicating they ‘oppose’ or ‘strongly oppose’ the proposed improvements, while 45% indicated they ‘support’ or ‘strongly support’.

When asked about their preferred route overall, Option B was the clear preference, with a 34% majority via the consultation survey and 42% via the freeform responses.

While Option B is shown to be the preferred route, many consultees chose not to answer or to select ‘No preference’ when asked which option they support (37% of survey responses and 52% in freeform responses).

When asked about route preference in relation to specific considerations, results varied, with the majority of consultees selecting Option A when considering land take and impact to biodiversity; Option B when considering the longer-term benefits relating to journey times, safety and congestion; and, ‘No preference’ when considering environmental impacts.

The open-format sections of the survey and email submissions, enable a deeper analysis of key issues, concerns and further considerations. This was completed through an analysis of common themes and sentiment.

In these sections, many consultees cite concerns relating to a perceived increase in congestion, slowing of journey times and the potential for a negative impact on air quality as a result of the proposals.

The rationale for these concerns include: congestion arising from double to single lane transitions; increased traffic using the route once upgrades are complete; and, the use of signals at junctions causing traffic to slow and vehicles to idle.

Another key theme to emerge in this part of the analysis is a request to include further walking and cycling provisions.

Whilst outside of the scope of the project, the previously publicised bypass of Grendon was the most common theme to arise. In many cases, respondents either expressed a preference for this bypass road over the current proposals or suggested a scheme of that nature be completed prior to dualling of the A5 between Dordon and Atherstone.

2. Introduction

2.1 Introduction to the scheme

The A5 is part of a key strategic route between London and Holyhead. It forms a significant east-west link across the South Midlands connecting the East and West Midlands and acts as a local distributor connecting a number of urban areas to the national motorway network (M1, M42, M69 and M6/M6 (Toll)).

The A5 Dordon to Atherstone project is located in North Warwickshire between the Dordon roundabout (A5 Watling Street / Long Street / Gypsy Lane), Spon Lane roundabout at Grendon and Holly Lane roundabout (A5 / Holly Lane / B1143 Merevale Lane).

The A5 Dordon to Atherstone project proposes improvements to this section of the A5 to increase capacity and provide opportunities for housing and employment to support North Warwickshire Borough Council and the wider West Midlands region. Three options have been developed and presented for public consultation, as part of the 'Options Selection' stage (Stage 2) in the project's development.

2.2 Background

2.2.1 Initial development of the scheme

The project was developed by Warwickshire County Council (WCC) through the application for a Housing Infrastructure Grant (HIG) in 2019 provided by the Department for Levelling Up, Housing and Communities.

The application was supported by National Highways, who were then asked to take the scheme forward to develop viable options.

2.2.2 Early engagement

Early engagement on the development of this project started in July 2021 with local MPs, North Warwickshire Borough Council, Warwickshire County Council, Homes England, and the A5 Partnership, together with county, borough and local parish councils.

These stakeholders provided valuable insights that have helped us understand the concerns affecting road users, business and residents. The learnings taken from this early engagement directly influenced the options developed and presented for public consultation.

2.3 Scheme aims and objectives

The scheme has been developed based on the following objectives:

Improve connectivity and support economic growth

- Enable the delivery of housing development at strategic sites along the A5 that are linked to the scheme's funding.
- Consider wider economic growth.

Provide faster and more reliable journeys

- Reduce queuing on the A5 Dordon, Spon Lane and Holly Lane roundabouts.
- Improve journey time reliability along this section of the A5.

Improve safety for all

- Maintain and improve road safety on the A5 between Dordon and Atherstone.
- Improve road worker safety.

Environment

- Minimise adverse impacts on the environment.
- Seek opportunities to protect and enhance the environment.

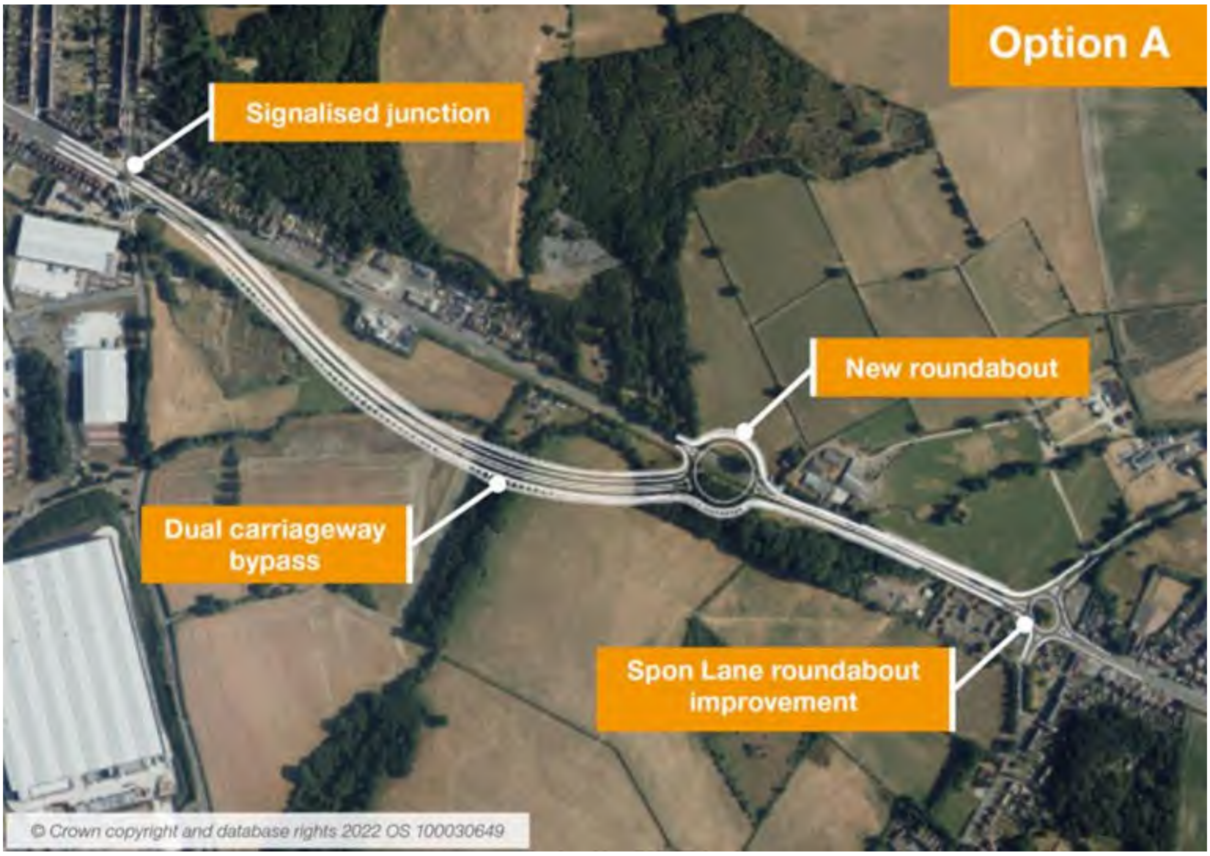
Meeting the needs of all users

- Improve accessibility and safety for local road users, cyclists, walkers, horse riders and other vulnerable users of the network.

2.4 Summary of options

The following three options were developed for public consultation, with varying levels of improvements against the scheme objectives.

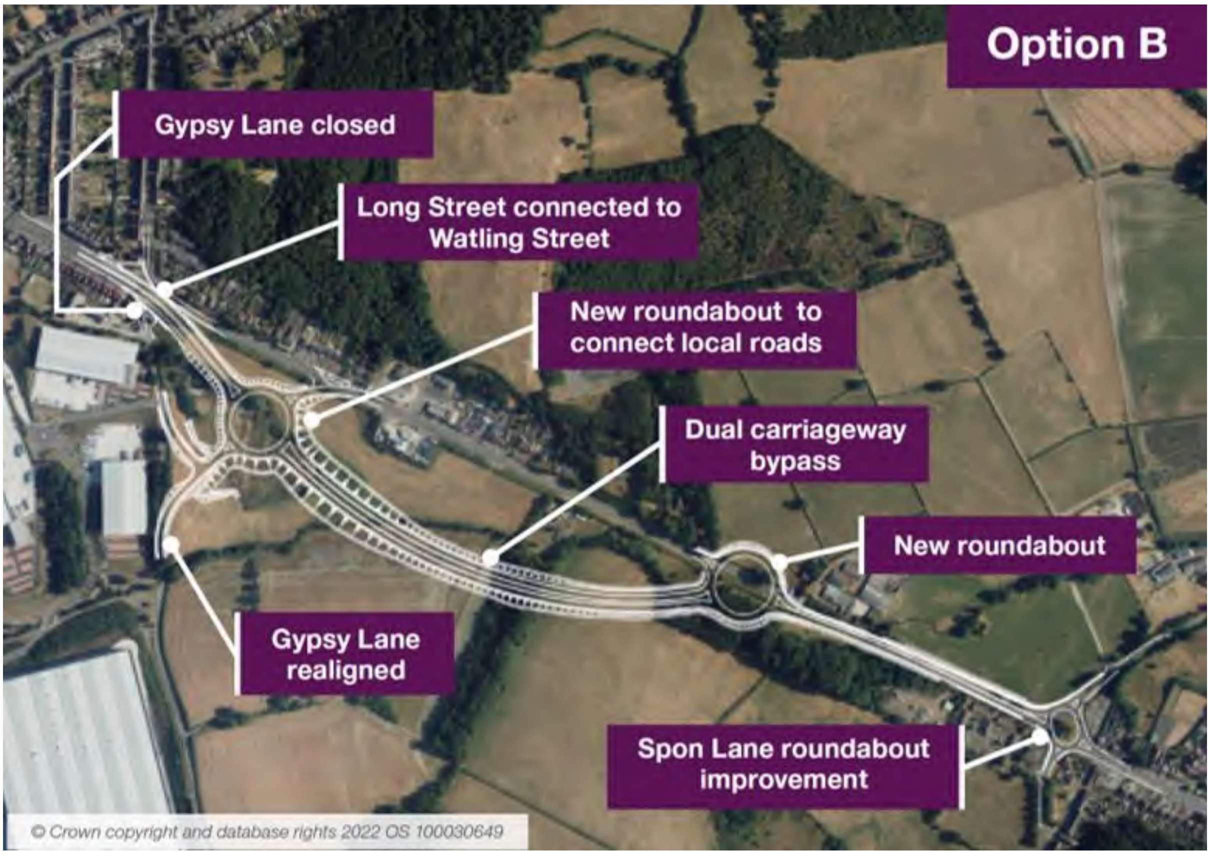
Option A – Dual carriageway, signalised junction and new roundabout



Summary:

Option A introduces a dual carriageway bypass to the south of the existing A5 corridor and ties into the A5 at the Dordon roundabout. The Dordon roundabout will be upgraded to a four-way signalised junction, maintaining access to Long Street and Gypsy Lane direct from the A5 mainline. A new roundabout is proposed at the eastern end of the bypass to tie back into the existing A5. The existing bypassed section of the A5 is proposed to be de-trunked and will be accessed via the new roundabout.

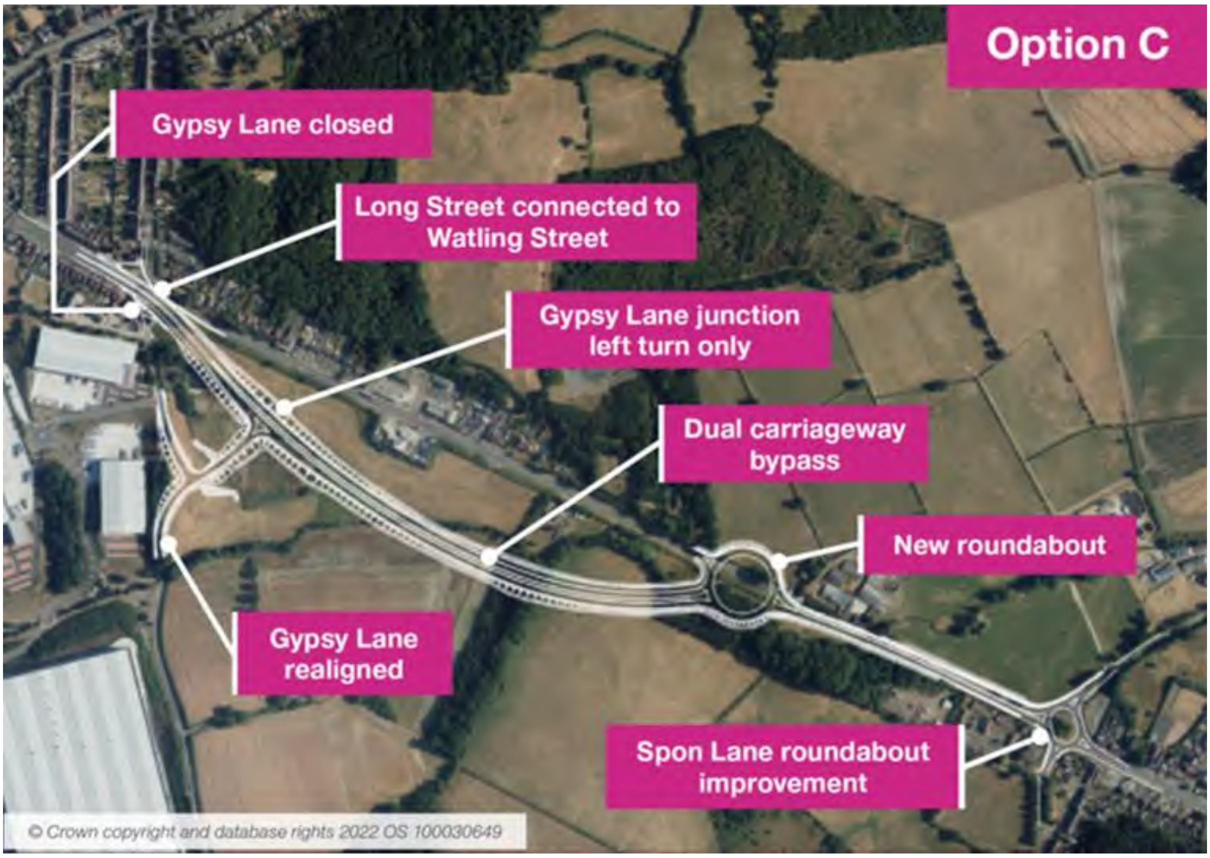
Option B – Dual carriageway and two new roundabouts



Summary:

Option B introduces a dual carriageway bypass to the south of the existing A5 corridor and ties into the existing alignment of the A5 at the Dordon roundabout, with the dual carriageway replacing the existing roundabout. The existing Gypsy Lane junction with the A5 will be closed, a new roundabout will be provided to the east, along the new bypass, providing links back to Gypsy Lane, Long Street and the bypassed section of the A5. A second new roundabout is proposed at the eastern end of the bypass to tie back into the existing A5. The existing bypassed section of the A5 is proposed to be de-trunked and will also be accessible via the new eastern roundabout.

Option C – Dual carriageway, new roundabout and new junction

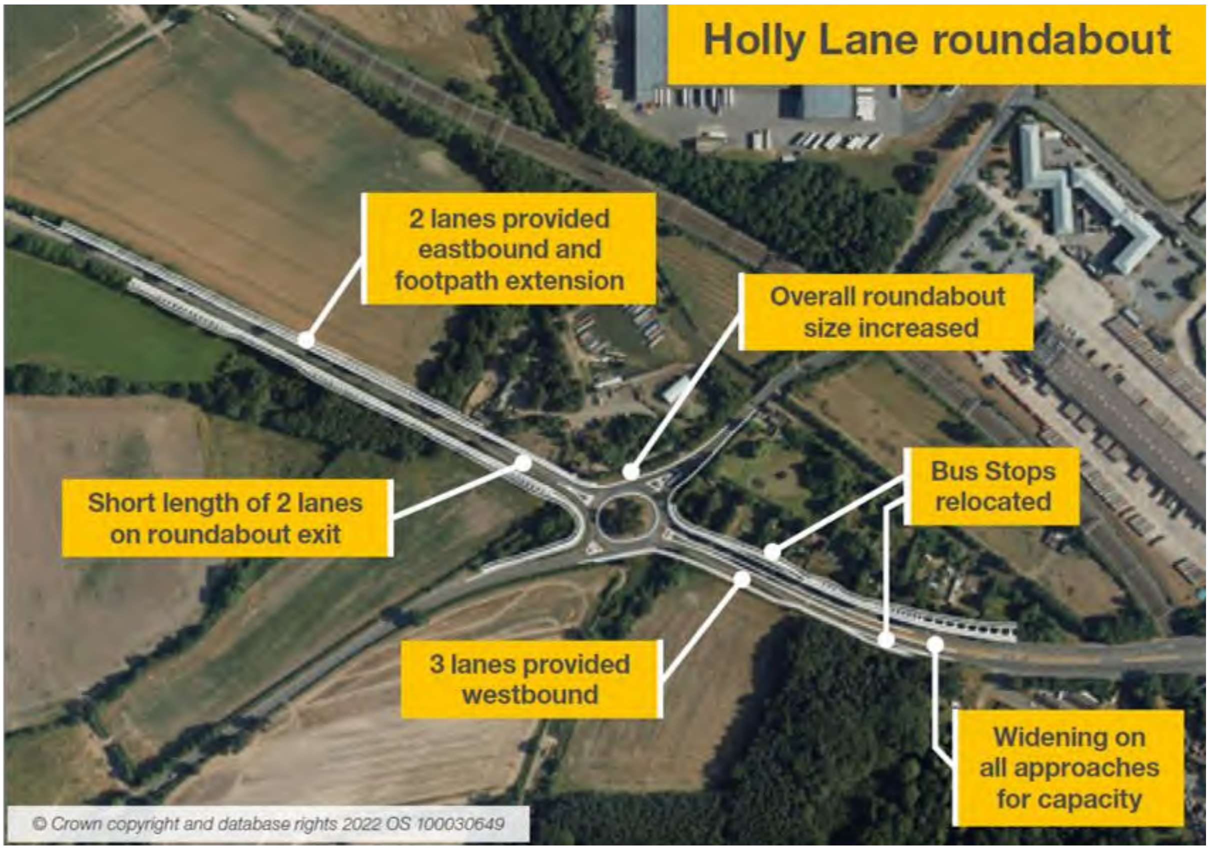


Summary:

Option C introduces a dual carriageway bypass to the south of the existing A5 corridor and ties into the existing A5 at the existing Dordon roundabout, with the dual carriageway replacing the existing roundabout. The existing Gypsy Lane junction with the A5 will be closed, a new left off/left on at grade junction will be provided to the east, along the new bypass, providing a link to/from Gypsy Lane. No right turns will be permitted into or out of Gypsy Lane, resulting in vehicles having to travel to the next roundabout to perform a U-turn.

A new roundabout is proposed at the eastern end of the bypass to tie back into the existing A5. The existing bypassed section of the A5 is proposed to be de-trunked and will be accessible via the new eastern roundabout. Access to Dordon/Long Street will be via the newly de-trunked section of A5 carriageway.

Holly Lane roundabout – Improvements



Summary:

Improvements to Holly Lane will increase the size of the roundabout to provide additional capacity together with footpath and bus stop provision.

3. Consultation

3.1 What we did

The public consultation ran for seven and a half weeks from 5 September to 27 October 2022. The consultation period was initially planned for six weeks, which was extended to acknowledge the National Mourning Period following the death of Queen Elizabeth II.

The consultation sought to obtain the views of residents, businesses, key stakeholders, interested groups and the range of people who use the roads at and near the A5 between Dordon and Atherstone. The consultation was accessible through a range of in-person, virtual and remote forums to encourage as many people as possible to participate.

The consultation materials presented the project objectives and intended outcomes with detailed information provided on each of the three options. It also included comparative information on the impacts for each option across a range of areas, including transport, economy, and the environment.

The consultation materials contained as much information as possible in an easy-to-understand format to ensure participants were fully informed on all aspects of the proposals and well-equipped to provide their views. In the case that more information was needed, a range of contact methods were available to speak to the project team.

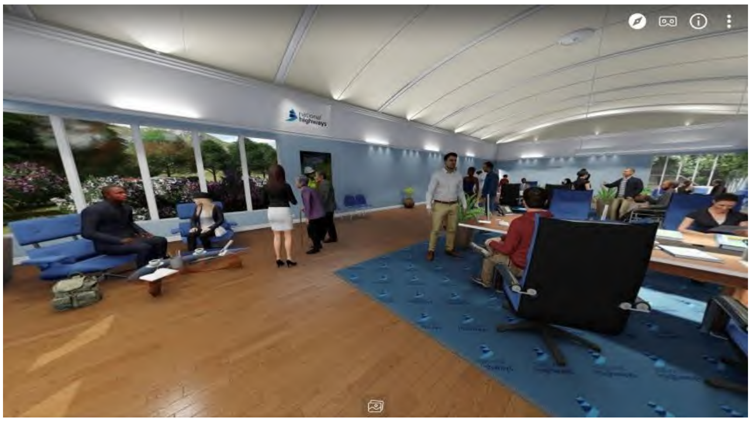
3.1.1 Events, forums and publicity

National Highways recognise how important it is that local people are given the opportunity to provide their views and comments for consideration and undertook a series of events and promotional activities to engage as many people as possible throughout the consultation period.

Citizen Space

A dedicated Citizen Space webpage was developed to hold information about the proposed options and consultation. Details of consultation events, project contact details and the consultation submission portal were available throughout the consultation period.

Virtual exhibition



A virtual event space was hosted for the duration of the consultation which recreated the in-person experience of the consultation events, with 24-hour access for consultees to view at their convenience.

Public exhibitions

During the consultation period, four exhibition events were held at community hubs where local people were invited to view and discuss the proposals, meet different technical leads from the project team and ask questions about the options. More than 250 people attended across the four events.

The dates, venues and times for the events are as follows:

Date	Time	Location
Thursday 8 September 2022	2pm – 8pm	Dordon Village Hall
Wednesday 28 September 2022	11.30am – 5pm	Owen Street Community Arts Centre
Thursday 6 October 2022	2pm – 8pm	Dordon Village Hall
Thursday 20 October 2022	3pm – 8pm	Grendon Community Centre

Online events

Two online events were held where the project team presented the project and provided detail relating to the proposed options and key considerations. The forum enabled attendees to engage directly with key technical experts to have their questions answered and raise any concerns. Approximately 10 people attended the two events.

The dates and times for these online events were as follows:

- **Tuesday 20 September 2022 from 6pm**
- **Thursday 13 October 2022 from 6pm**

Engagement van

The National Highways Engagement Van was positioned at the Tamworth Services located at Junction 10 of the M42 and on the A5 at the Grendon Working Mens Club at various times throughout the consultation period.

Members of the project team were on-hand during set periods to answer any questions, listen to the public's views on the scheme and distribute consultation materials. Over 40 people visited the team at the engagement van throughout the consultation period.

Print and digital media

To generate awareness and reach as many people as possible, the consultation was advertised in local press publications, including:

- **Coventry Telegraph**
- **Tamworth Herald**
- **Coventry Observer**

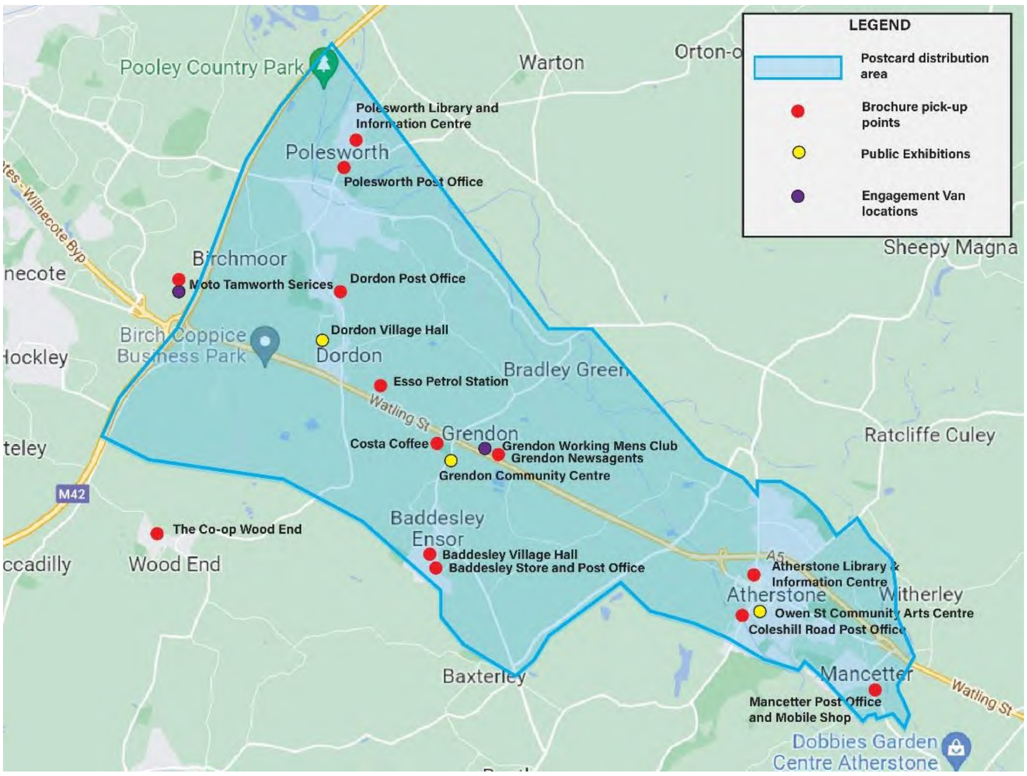
The consultation was also advertised on National Highways social media channels and stakeholder groups were encouraged to promote the consultation through their communications channels. These stakeholders included; Craig Tracey MP, North Warwickshire Borough Council, Warwickshire County Council, Midlands Connect, Coventry & Warwickshire Local Enterprise Partnership and, Dordon and Grendon parish councils.

Brochures and postcards

Consultation postcards were distributed to approximately 12,000 addresses along the scheme corridor. The postcards held information on where to access the consultation, along with times, locations, and dates for the in-person exhibitions.

Brochures were placed at 13 locations across the area, such as motorway service stations, community centres, libraries and local shops/post offices. Posters were also placed in shop-front windows to further promote the consultation and engage the passing public.

Map of consultation and promotional activities



Phone and email

Emails were received containing questions, comments and long-form responses to the consultation. A dedicated project phone line was live throughout the consultation period and staffed by the Project Team who were available to answer any questions and receive feedback.

3.1.2 Stakeholder engagement

Key project stakeholders were provided scheme briefings and meetings with the project team in the lead-up to, and during the consultation. During the briefings, the project team presented information on the consultation and were able to answer any questions relating to the proposed options.

In some cases, stakeholders were provided publicity materials to share through their channels and with members of the community. Feedback received at this stage helped shape consultation activities to reach as many people in the community as possible.

These stakeholders include:

- Local MPs
- North Warwickshire Borough Council
- Warwickshire County Council
- Homes England
- Midlands Connect
- Coventry & Warwickshire Local Enterprise Partnership
- A5 Partnership
- Grendon Parish Council
- Dordon Parish Council

4. Consultation Findings

4.1 Overview

Consultees were asked to share their views on the proposals through a questionnaire which could be submitted online, at in-person events or by Freepost. Freeform responses could be submitted by email, phone or by post.

The questionnaire asked consultees their views on the existing road layout and conditions; their sentiment relating to the proposed options; and any additional comments, concerns or issues they would like to have considered.

A total of **179 consultation** responses were submitted throughout the public consultation period.

The responses have been received via the following channels:

- CitizenSpace – **108 responses**
- Project inbox, letters and phone calls – **36 responses**
- Hard copy surveys (received via freepost, email and at consultation events) – **35 responses**

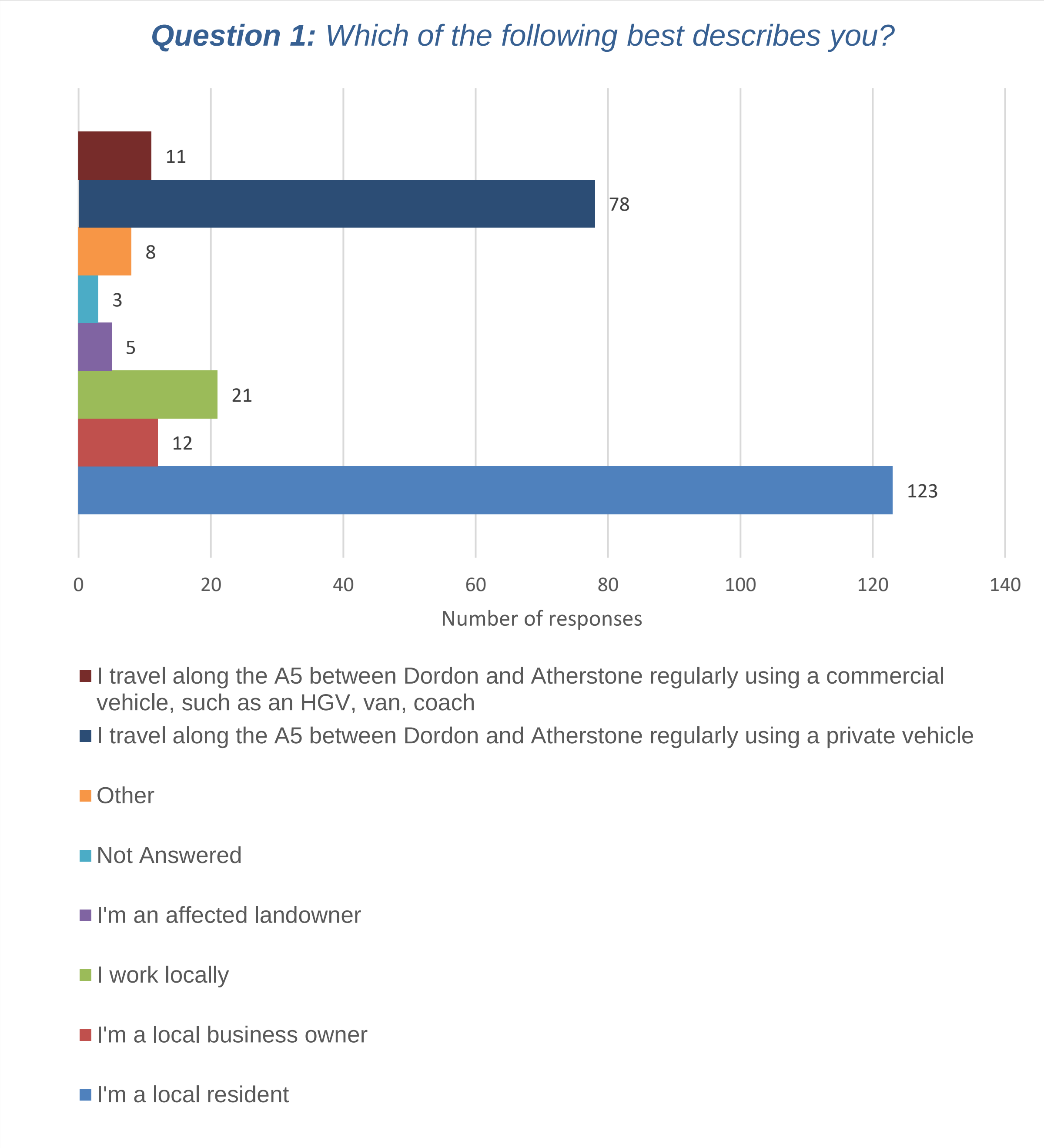
Feedback was obtained through a range of closed and open-answer question formats, resulting in a clear display of sentiment relating to key aspects of the proposals, whilst allowing for comments and suggestions for consideration.

The closed-answer responses have been quantified and displayed through graphs and percentages. The open-answer responses have been analysed according to theme and sentiment, and represented in numeric, summary, and graphical format.

4.2 Who we heard from

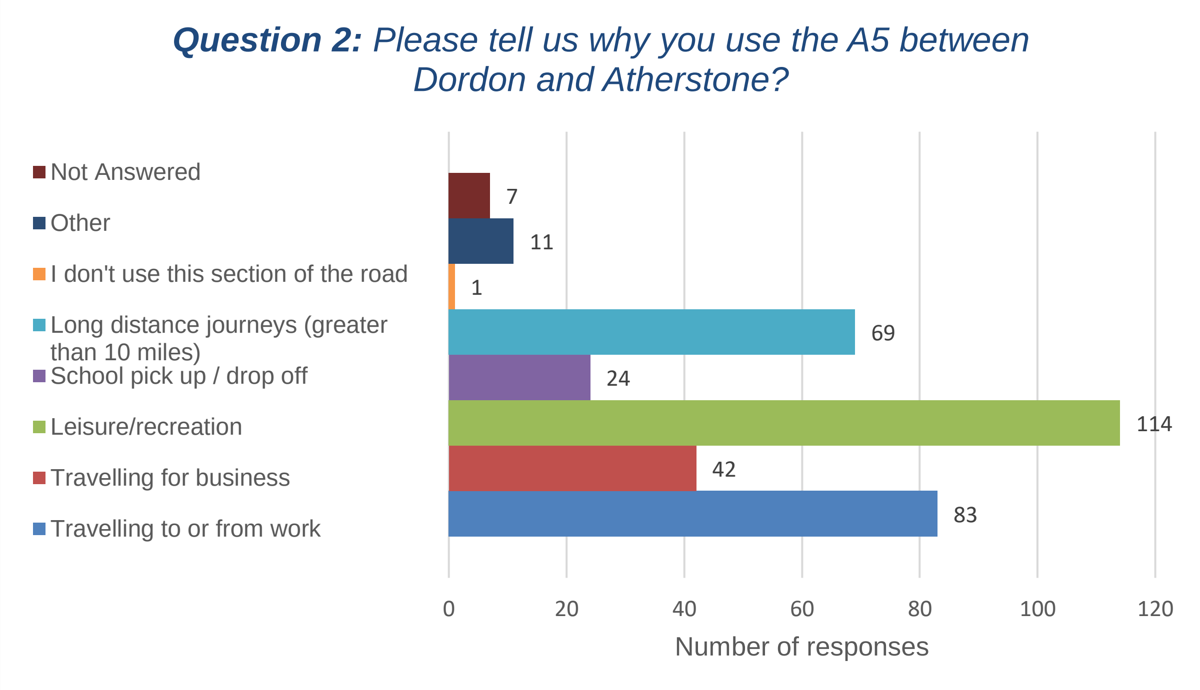
4.2.1 What describes you

Of those who responded to the questionnaire, **84% are local residents** and **14% told us they work locally.** Other responses to the multiple-choice question can be seen through the graph below.



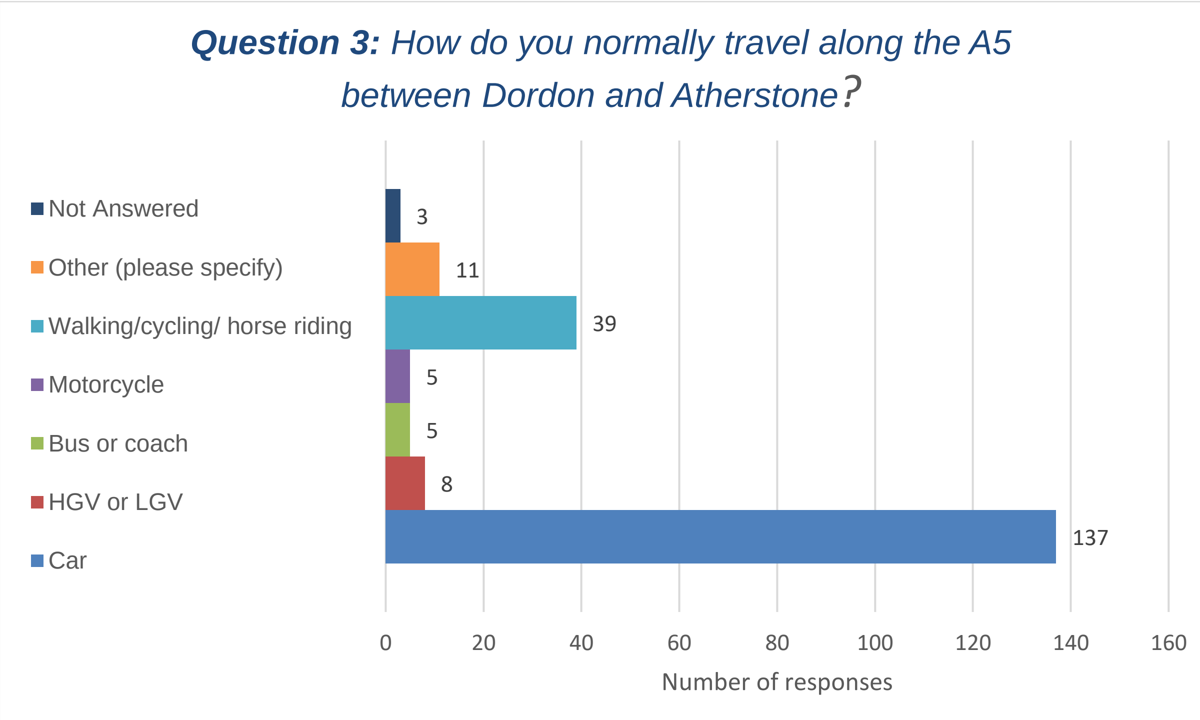
4.2.2 Why you use the A5

When asked why they use the A5, results varied, with many respondents ticking several applicable responses. Overall, **leisure/recreation was the most common reason (79%), closely followed by travel to or from work (57%).**



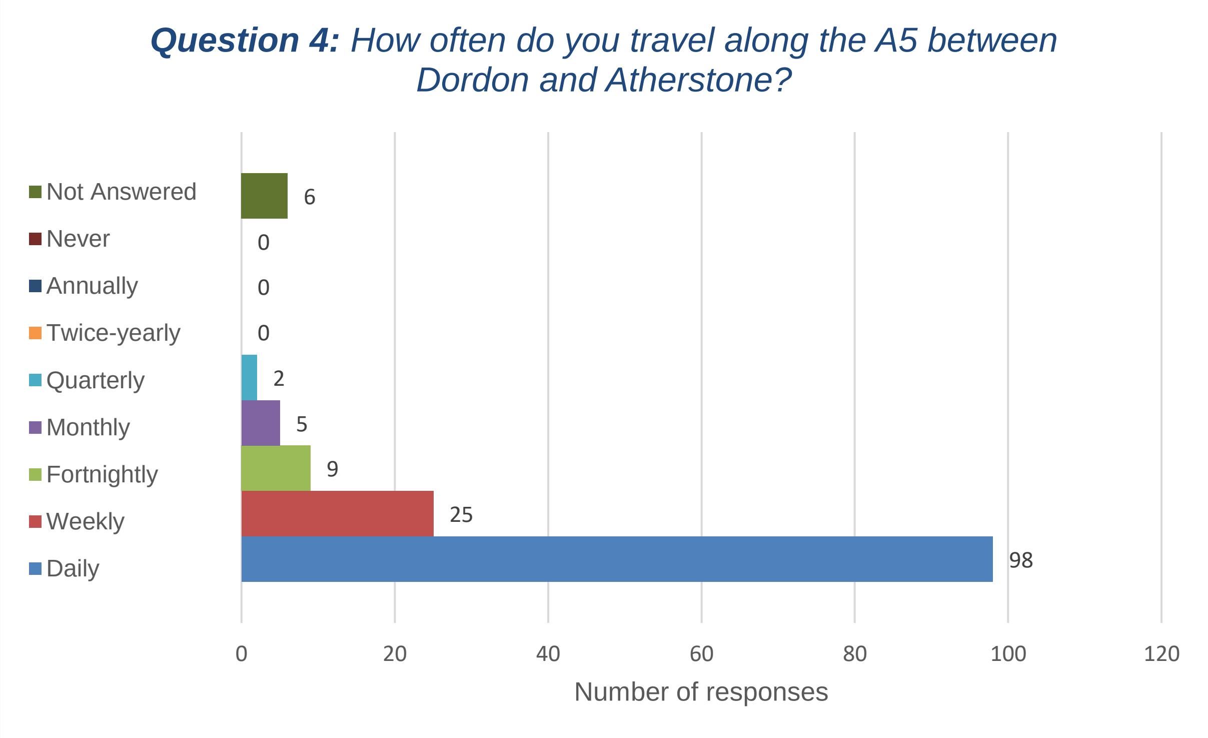
4.2.3 Mode of transport

When asked their mode of transport along the A5, **94% of consultees told us they travel by car,** with **27% walking, cycling or horse riding.**



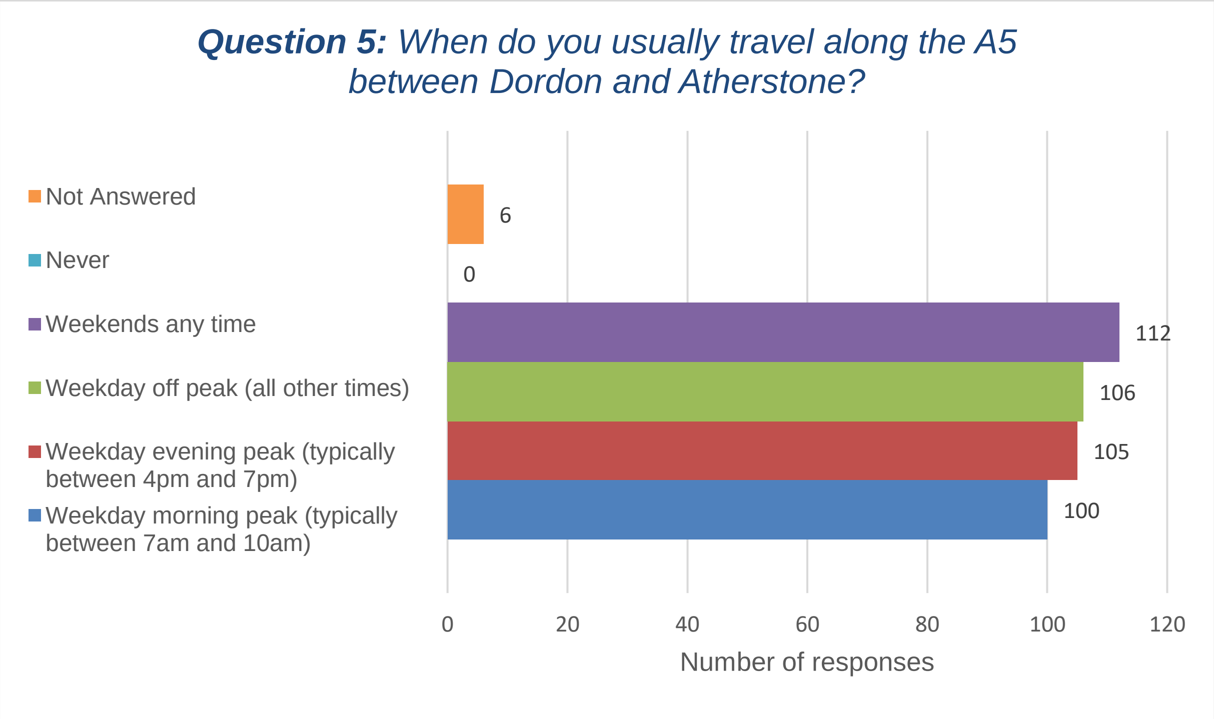
4.2.4 How often you travel

When asked how often they travel along the A5, **68% of consultees told us they travel daily,** with **17% travelling weekly.**



4.2.5 When you travel

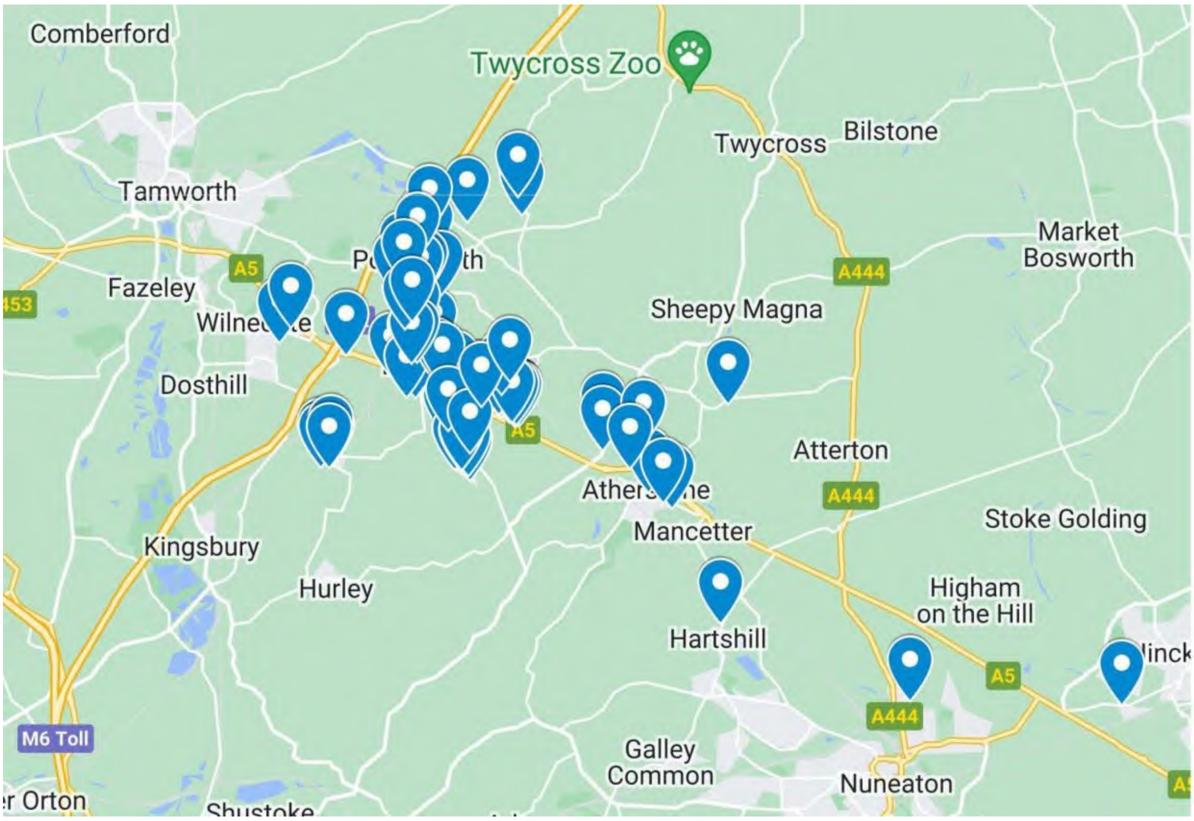
As can be seen below, there is a spread of travel times for those using the A5 during the week and on weekends, with many consultees listing multiple travel windows.



4.2.6 Response by location

Participants in the consultation were asked to share their address which shows a spread of response locations from across the scheme area.

The below map shows the locations of the participants of the consultation:



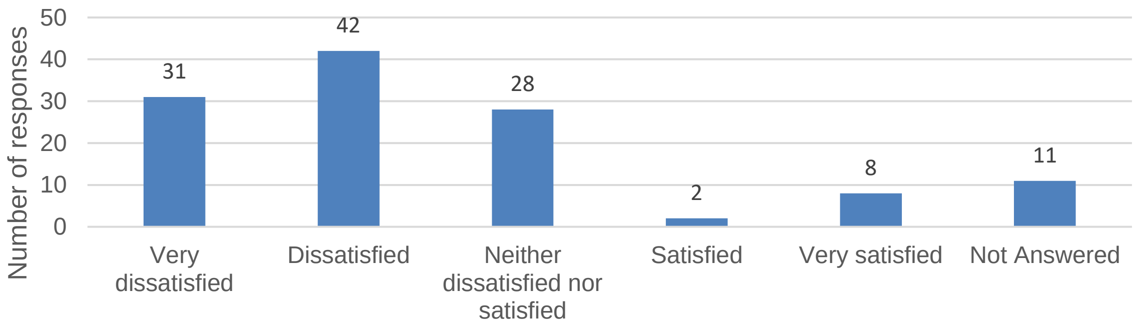
4.3 Views on the current road

To understand views relating to the current A5 road conditions, consultees were asked a series of closed-answer questions with an opportunity to provide further detail on any specific concerns or issues. The responses to these questions have been quantified to determine the current satisfaction levels for the stretch of road and the need for improvement.

4.3.1 Road layout

When asked about the level of satisfaction for the existing A5 road in relation to road layout, the results show **50% of respondents are either 'dissatisfied' or 'very dissatisfied', 27% are 'satisfied' or 'very satisfied' and 19% are 'neither dissatisfied nor satisfied'.**

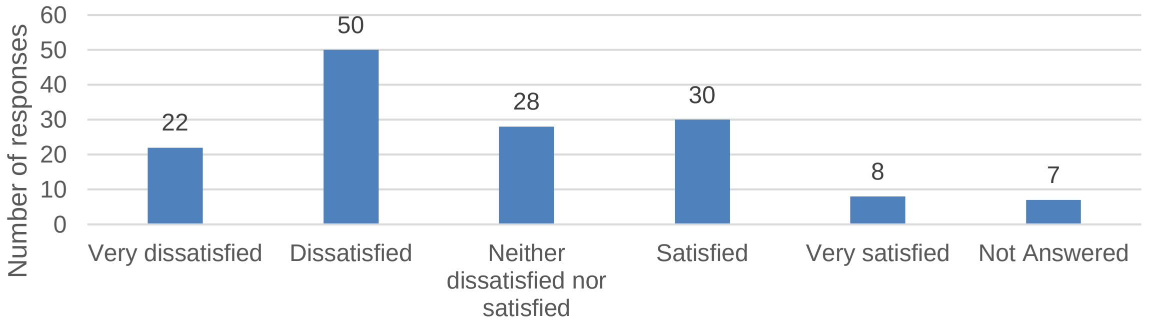
Question 6a: *How satisfied or dissatisfied are you with the following elements of the A5 between Dordon and Atherstone as it is now? – Road layout*



4.3.2 Journey time

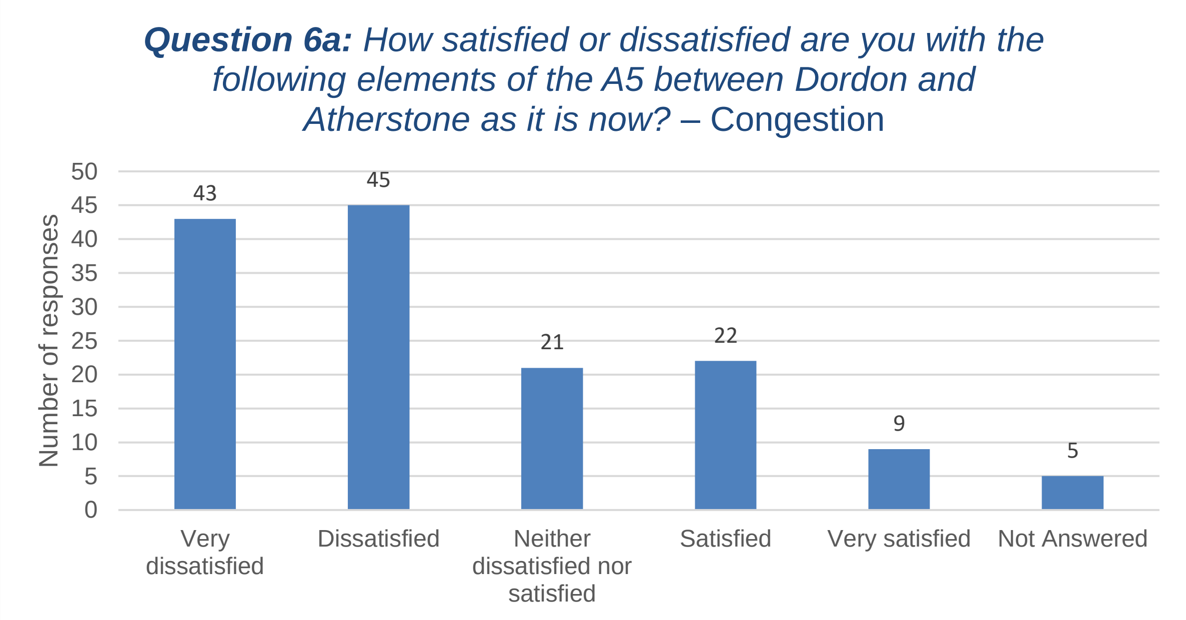
When asked about the level of satisfaction for the existing A5 in relation to journey time, the results show **50% of respondents are either 'dissatisfied' or 'very dissatisfied', 26% are 'satisfied' or 'very satisfied' and 19% are 'neither dissatisfied nor satisfied'.**

Question 6a: *How satisfied or dissatisfied are you with the following elements of the A5 between Dordon and Atherstone as it is now? – Journey time*



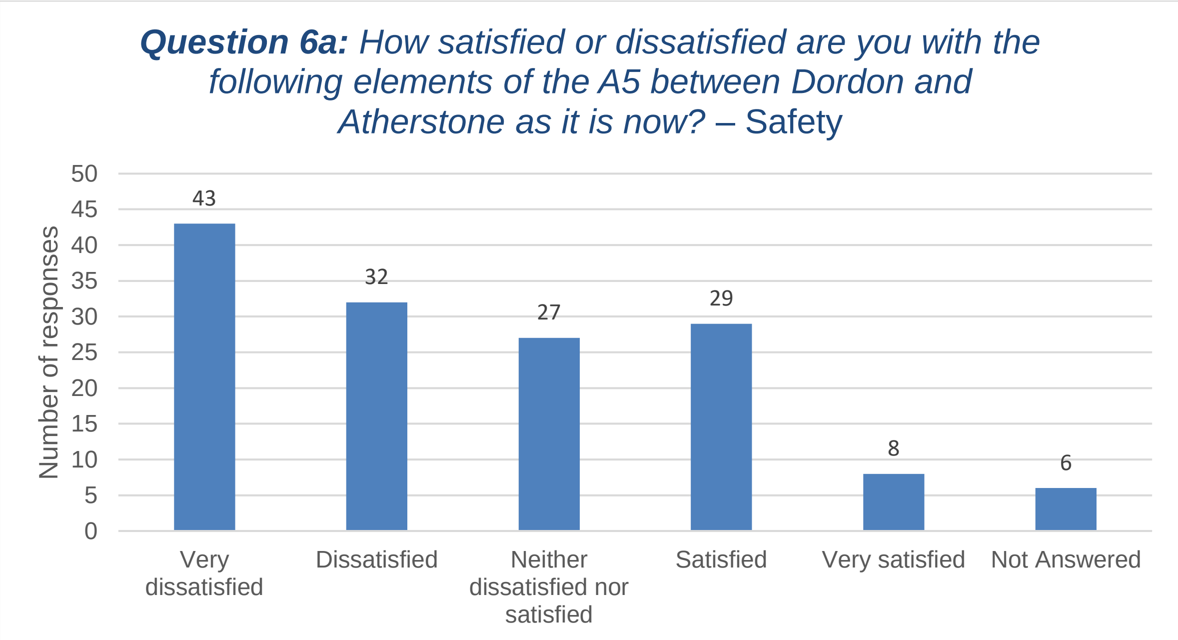
4.3.3 Congestion

When asked about the level of satisfaction for the existing A5 in relation to congestion, the results show **61% of respondents are either 'dissatisfied' or 'very dissatisfied', 21% are 'satisfied' or 'very satisfied' and 14% are 'neither dissatisfied nor satisfied'.**



4.3.4 Safety

When asked about the level of satisfaction for the existing A5 in relation to road safety, the results show **52% of respondents are either 'dissatisfied' or 'very dissatisfied', 26% are 'satisfied' or 'very satisfied' and 19% are 'neither dissatisfied nor satisfied'.**

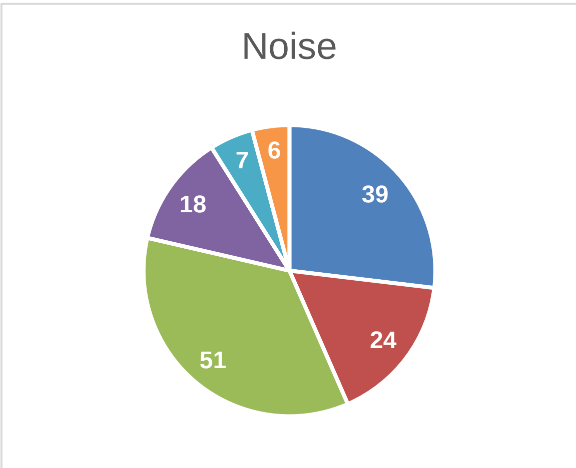


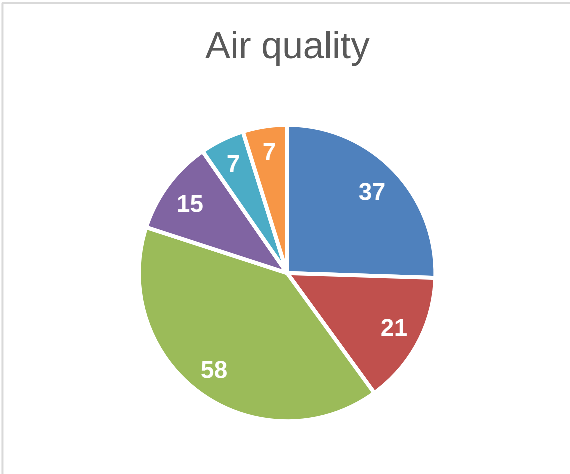
4.3.5 Environment and access

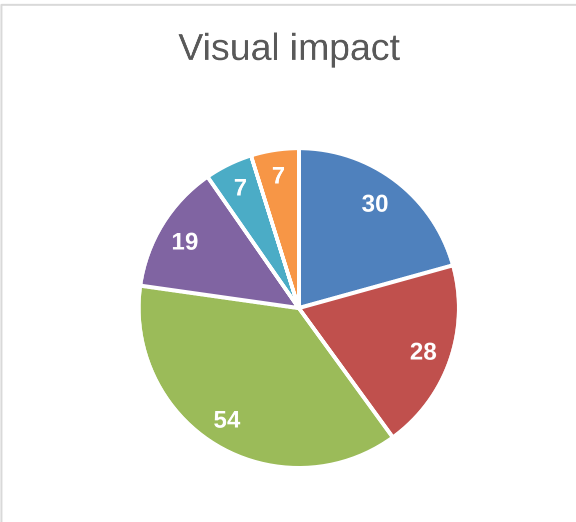
When asked about the level of satisfaction for the existing A5 in relation to environment and access, the results by number of responses can be seen as follows:

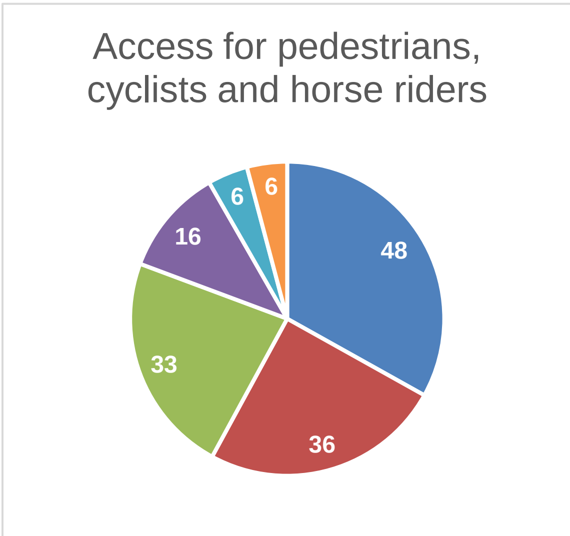
***Question 6a:** How satisfied or dissatisfied are you with the following elements of the A5 between Dordon and Atherstone as it is now? - Noise / Air quality / Visual impact / Access for pedestrians, cyclists and horse riders*

Very satisfied	Satisfied	Neither dissatisfied nor satisfied	Dissatisfied	Very dissatisfied	Not answered









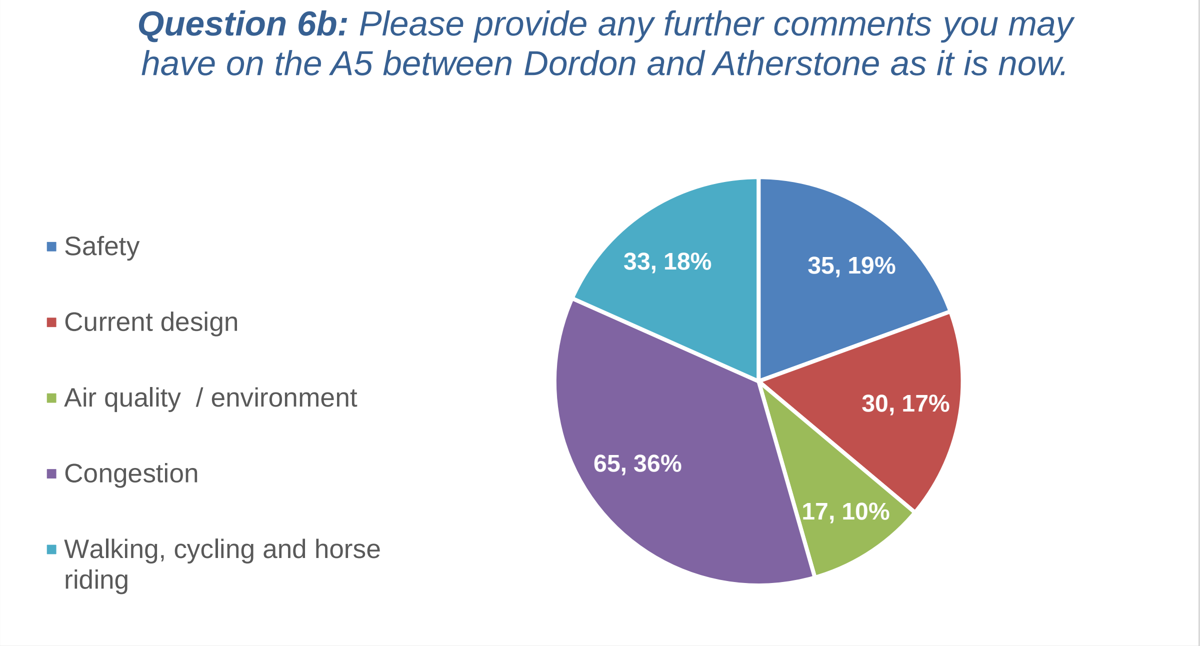
4.3.6 Key themes and priorities

Consultees were asked if they had any further comments in relation to the existing roadway which resulted in **106** responses. Of the responses that were submitted, we have identified several recurring themes.

The top five key themes by number of mentions include:

- **Congestion**
- **Walking, cycling and horse riding**
- **Safety**
- **Current design**
- **Air quality / environment**

The following chart shows the number of mentions by theme.



4.3.6.1 Extract of comments

"The congestion can lead to some drivers taking risks and driving dangerously"

"One of the biggest problems is getting out of Long Street, Dordon onto the A5. The parking on Long Street exacerbates the issue and creates nightmare queues. People are then so desperate to get out that they take risks."

"The noise levels are excessive due to the acceleration and speed of all passing vehicles."

"It flows absolutely fine. Slight build up of traffic during peak hours but absolutely no worse than any surrounding roads."

"The amount of HGV vehicles is on the increase air pollution is a concern and physical vibrations felt in the homes from heavy lorries. Accessing or crossing the A5 either on foot or by car is hindered from a constant stream of traffic."

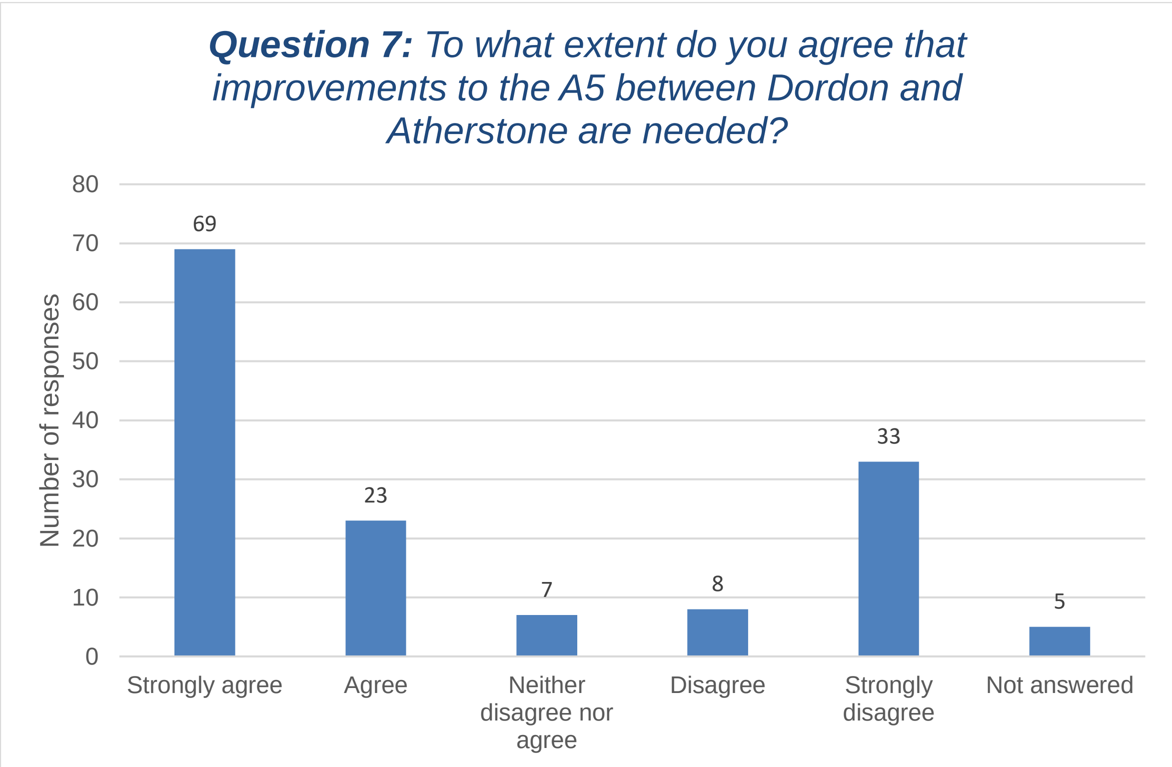
4.4 Views on the options to dual the route

Consultees were asked a series of closed-answer questions in relation to the proposed A5 improvements between Dordon and Atherstone with an opportunity to provide further detail on any specific concerns or issues. The outcomes of these questions have been quantified to determine the need for improvement and preference for the options presented.

The open-format sections of the survey and email submissions, enabled a deeper analysis of key issues, concerns and further considerations. This was completed through an analysis of common themes and sentiment.

4.4.1 The need for change

When asked for their opinion, **63% of consultees told us they ‘agree’ or ‘strongly agree’ that improvements to the A5 between Dordon and Atherstone are needed.**

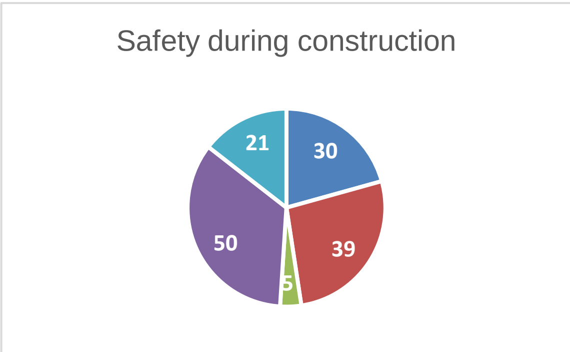


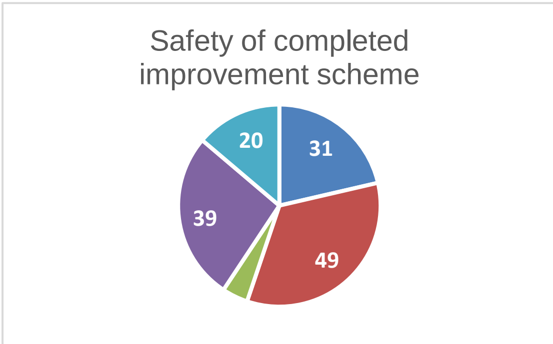
4.4.2 Safety of completed scheme / safety during construction

Consultees were asked to give their preference for the Options based on safety of the completed scheme and safety during construction. As can be see below, the highest response recorded for **safety during construction is ‘No preference’ (34%).** When considering **safety of the completed scheme, ‘Option B’ had the highest response rate of 34%.**

Question 8a: *Which option would you prefer when considering safety? – Safety during construction / Safety of completed improvement scheme*

Option A	Option B	Option C	No preference	Not answered



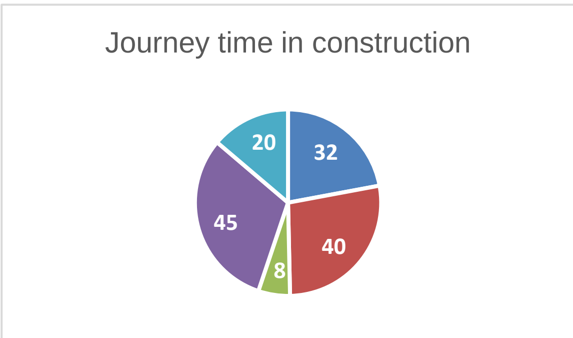


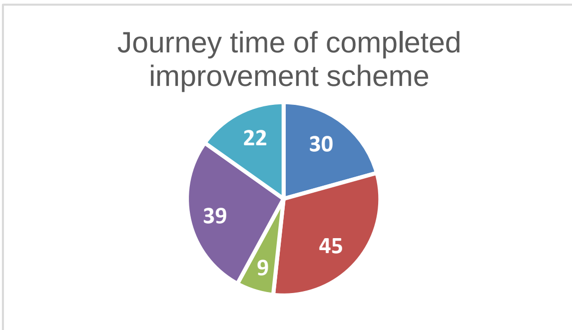
4.4.3 Journey time of completed scheme / during construction

When asked to give their preference for the Options based on journey time of the completed scheme and during construction, respondents showed the strongest level of support for **‘No preference’ (31%) during construction and ‘Option B’ (31%) for the completed scheme.**

Question 8b: *Which option would you prefer when considering journey time? – Journey time during construction / Journey time of completed improvement scheme*

Option A	Option B	Option C	No preference	Not answered

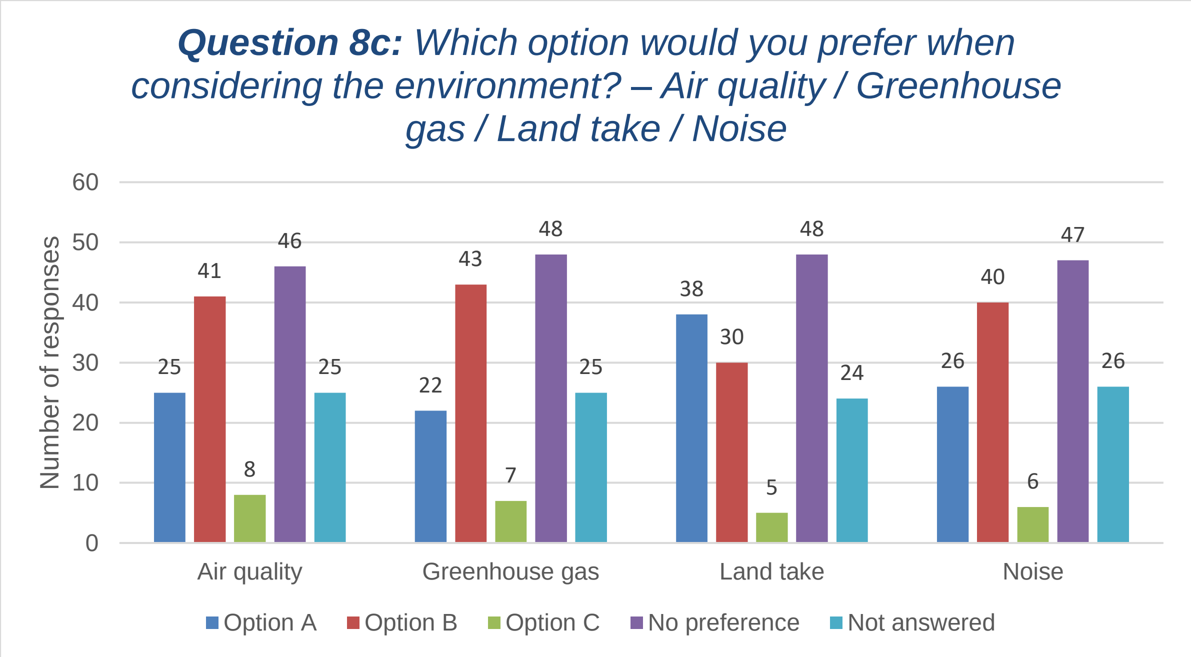




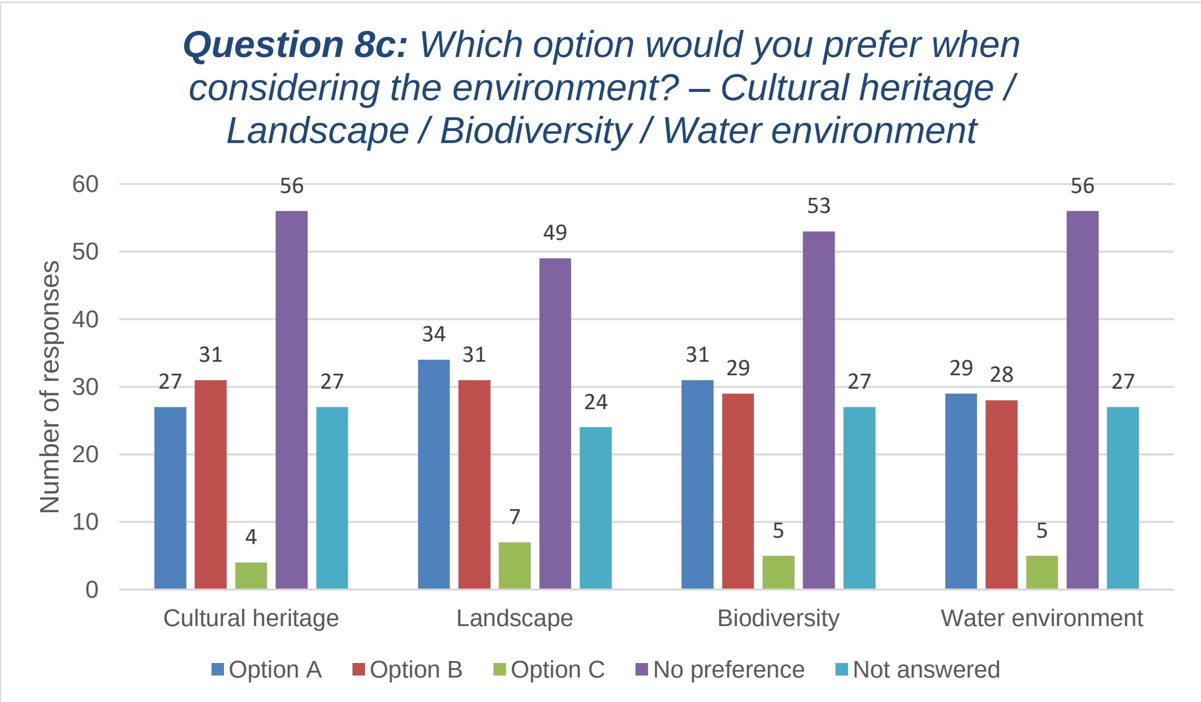
4.4.4 Environmental and heritage considerations

Consultees were asked to nominate their preferred route option when considering specific environmental and cultural heritage elements. The results of these questions have been collated and are presented below.

Part 1:

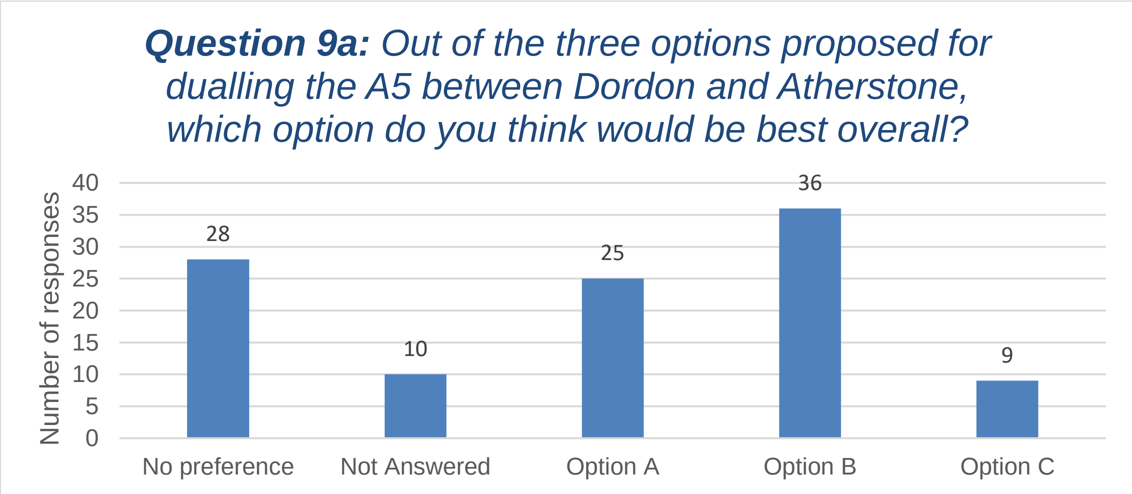


Part 2:



4.4.5 Preferred route

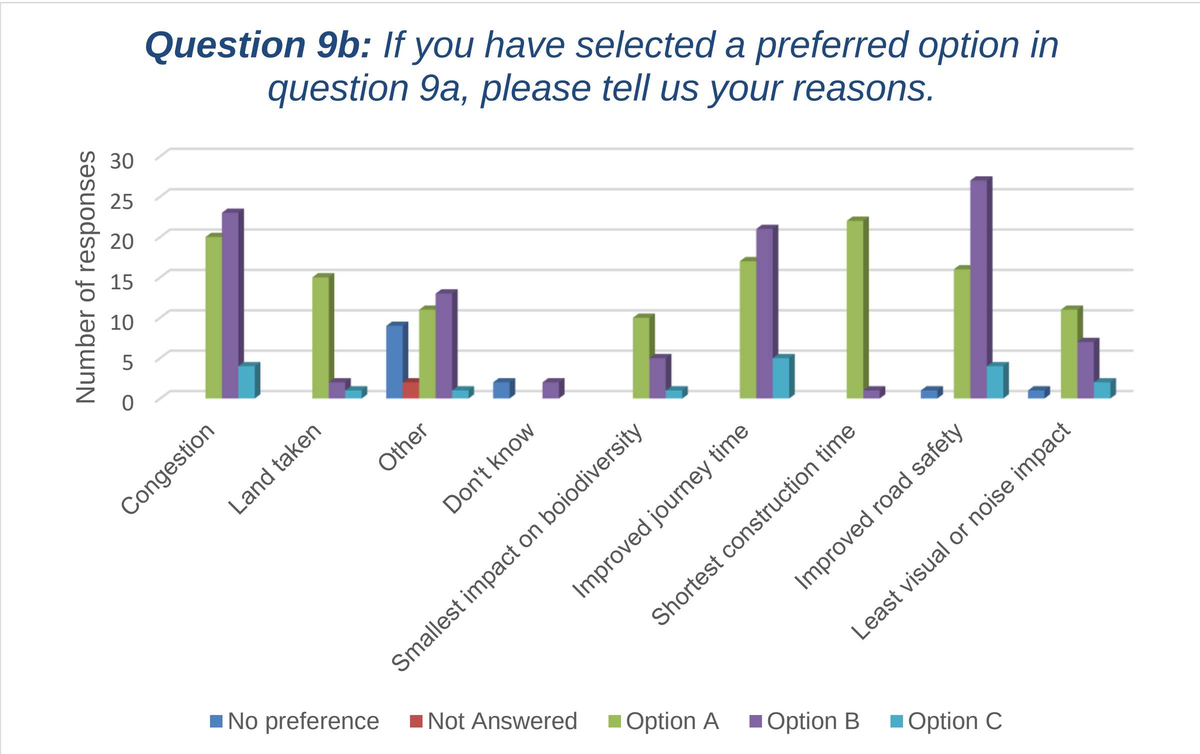
When asked about a preferred route overall, **Option B has the highest level of support, with a 34% response rate**. The results are shown below in percentage and graphical format.



Option A	Option B	Option C	No preference	Not answered
23%	**34%**	**6%**	**21%**	**16%**

4.4.6 Reason for route preference

Consultees were asked the reason(s) for choosing their preferred route. This question nominated a series of options for consultees to select in response to the question. The results can be seen below.



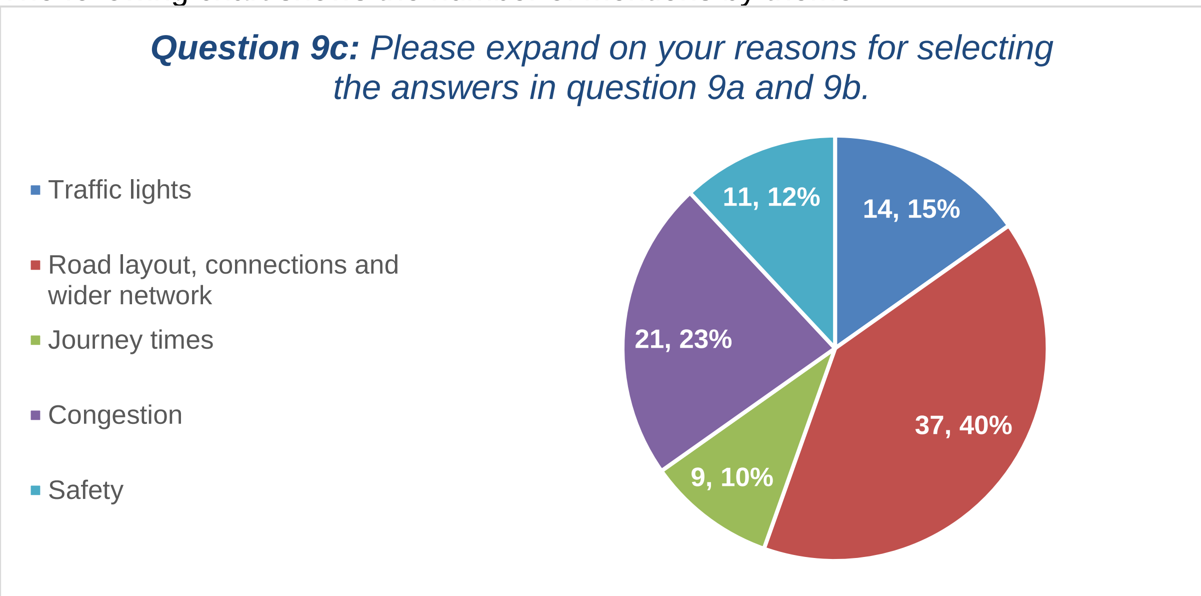
4.4.7 Key themes and priorities

Consultees were asked to expand on the reasons for their preferred route which resulted in **84** responses. These responses have been analysed to identify common themes and the frequency on mention. Many responses referenced more than one theme.

The top five key themes by number of mentions include:

- **Road layout, connections and wider network**
- **Congestion**
- **Traffic lights**
- **Safety**
- **Journey times**

The following chart shows the number of mentions by theme.



4.4.7.1 Extract of comments

"Option A is the speediest & cheapest construction project & provides a better solution for residents accessing Dordon from A5."

"Option B is the most comprehensive solution and considering the A5 is one of the busiest trunk roads in the UK, any proposed solution needs to be fit for the future."

"Option A in my opinion offers a straight forward solution to improve movement of traffic along the A5 without complicating the road system more than necessary and drawing vehicles away from built up areas."

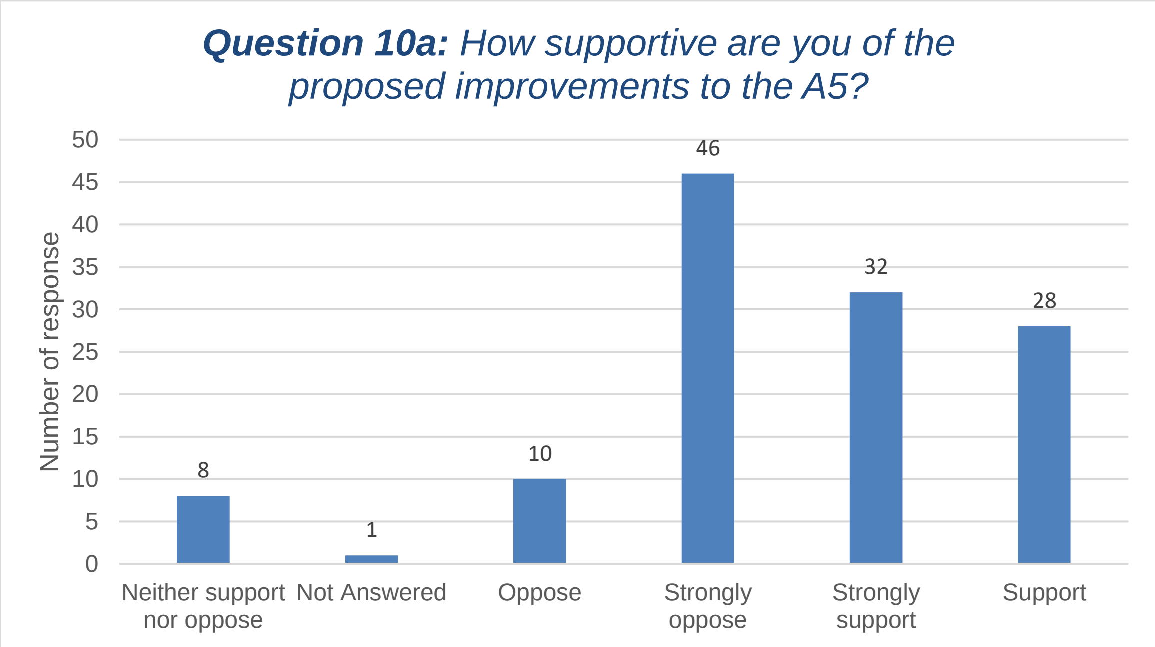
"B is the only option that satisfies all requirements for local traffic. Yes it's more expensive, bit if this is going to be done it needs to be done right."

"It seems option B takes into account the needs of local residents by still allowing access to frontages and business along the A5 whilst also taking the thoroughfare traffic away from these areas."

4.5 Views on proposed improvements to the A5

4.5.1 Support for the proposed scheme

When asked about levels of support for the proposed A5 improvements**, 48% ‘oppose’ or ‘strongly oppose’ the proposed improvements, 44% ‘support’ or ‘strongly support’, and 8% ‘Neither support nor oppose’ or did not answer.**



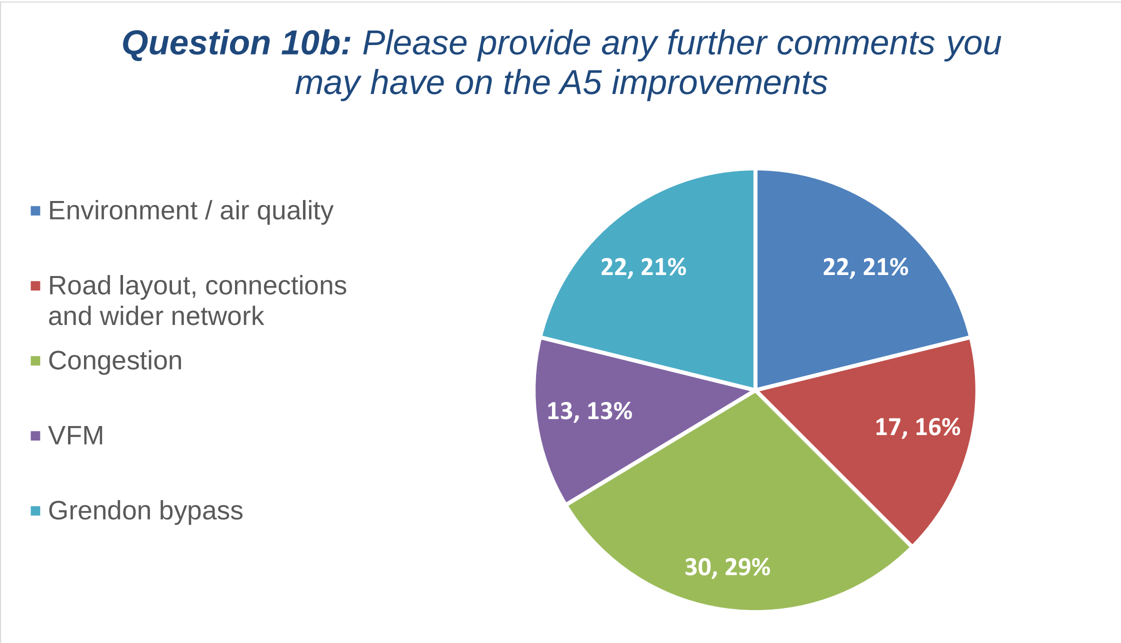
Key themes and priorities

Consultees were asked to provide any further comments on the proposed improvements which resulted in **94** responses. These responses have been analysed to identify common themes and the frequency on mention. Many responses referenced more than one theme.

Top five key themes by number of times mentioned include:

- **Congestion**
- **Environment / air quality**
- **Grendon Bypass**
- **Road layout, connections and wider network**
- **Value for money (VFM)**

The following chart shows the number and percentage of mentions by topic.



4.5.1.1 Extract of comments

“Any construction project needs to maximise the planting of new trees & negate the loss of agricultural land. Too often, such projects take from local communities & give nothing back. Attempts must be made to reduce noise & air pollution & breaking up the visual impact of a new section of dual-carriageway.”

“Better to bypass Grendon, improve road marking and signage at roundabouts, this would be as effective and way less money.”

“The proposed scheme will induce an increase in long-distance commuting, thereby adding to bottlenecks on nearby roads.”

“Would be wonderful if the improvements catered for cycling and walking - not just vehicles.”

“Attempts must be made to reduce noise & air pollution & breaking up the visual impact of a new section of dual-carriageway.”

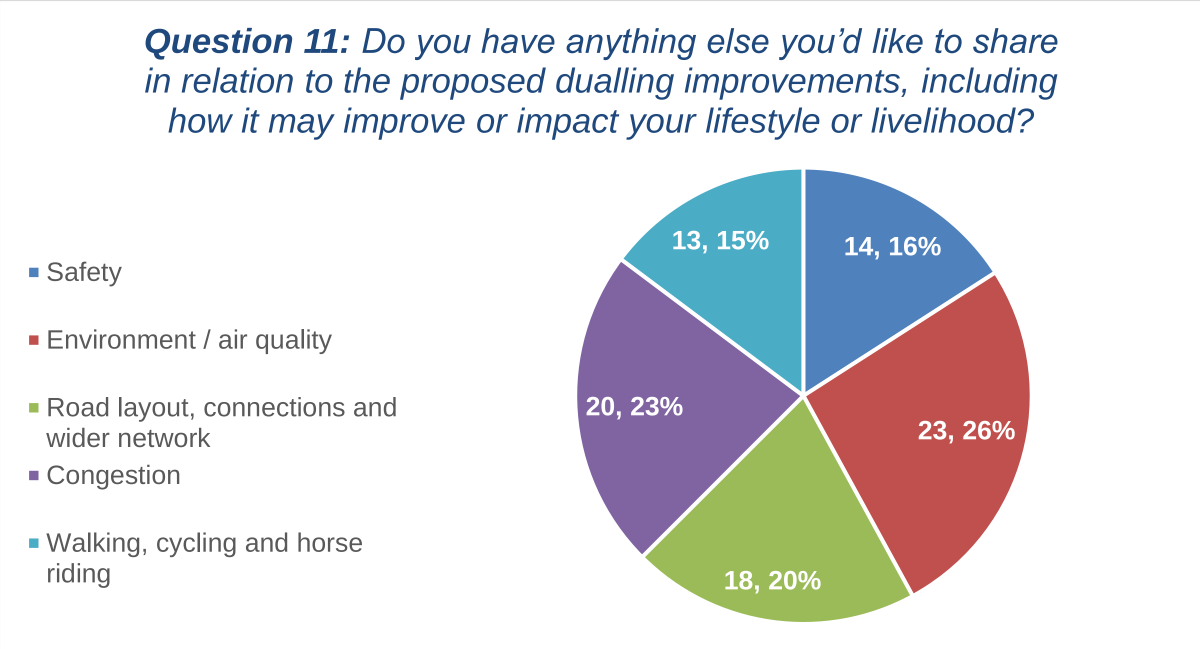
4.6 Any additional comments

Consultees were asked if they had anything else they'd like to share in relation to the proposed improvements, which resulted in **87** responses. These responses have been analysed to identify common themes and the frequency on mention. Many responses referenced more than one theme.

Top five key themes by number of times mentioned include:

- **Safety**
- **Environment / air quality**
- **Road layout, connections and wider network**
- **Congestion**
- **Walking, cycling and horse riding**

The following chart shows the number and percentage of mentions by topic.



4.6.1.1 Extract of comments

"These proposals will likely increase my commute time through the area as all 3 options would create a significant bottleneck around Dordon."

"I feel that all the options will be beneficial to travel time on this section of the A5, and also improve visual appeal."

"There will be more cars running through the area. Noise pollution and air quality will be severely impacted."

"Why not place a good quality, smooth, well maintained and segregated cycle lane along here? This villages are not far apart by bicycle and cycle lanes are many times cheaper than roads."

"Dualling of the A5 Option A will create a substantial distance between us and the traffic flow which will benefit our health, safety and physical/mental wellbeing."

4.7 Freeform responses

A further **36** summary and long-form responses were submitted to the project team through the project email address, letters and phone calls. Many of these responses included a great level of detail and insight from members of the local community which are being assessed alongside responses to the questionnaire.

Several key stakeholders submitted their views in this format, including the MP, county, borough and parish councils, landowners, and businesses in the area.

Many submissions contain questions, requests for further information, and technical notes relating to land ownership, future developments, impact to businesses and land take. The detail provided is being reviewed by the project team as part of the Options Assessment and further consultation will take place, should the project be taken forward to the next stage of development.

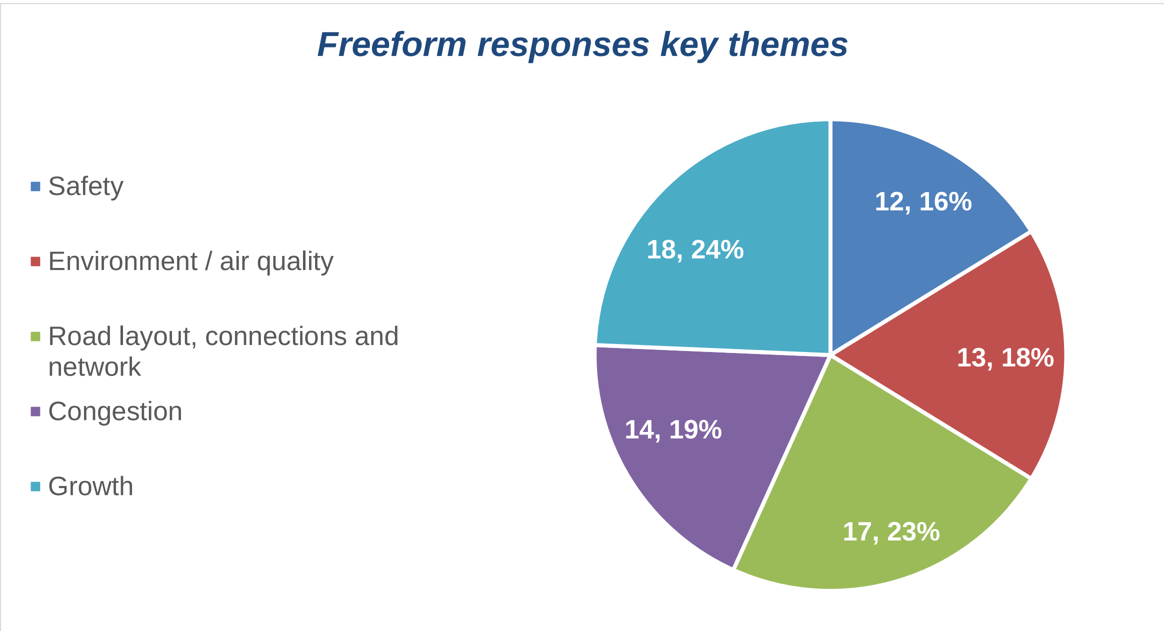
The freeform responses have been analysed to gauge the route preferences, which can be seen follows:

Option A	Option B	Option C	None
1	9	0	11

The top 5 key themes by number of times mentioned include:

- **Safety**
- **Environment / air quality**
- **Road layout, connections and network**
- **Congestion**
- **Growth**

The following chart shows the number of mentions by theme.



4.8 Change requests and alternative suggestions

There are 74 change requests and suggestions identified from all survey responses. Freeform responses contain a considerable number of change requests, alternative suggestions, and requests for information.

The main suggestion/recurring comment relates to a bypass around Grendon which consultees either cited as being a better solution, or one that should be undertaken before the proposed A5 improvement works to address flow-on congestion into Grendon.

While this proposal falls outside of the scope this project, the sentiment expressed by consultees has been acknowledged through this report and will be considered in relation to future development of the wider A5 corridor.

Other suggestions included alterations to connecting roads, parking facilities and general maintenance of this stretch of the A5. In addition, many consultees expressed a desire to see more development of walking, cycling and horse riding provisions in the proposals.

Change requests and alternative suggestions are reviewed by the project team as part of the Options Assessment and will be considered for inclusion, should the project be taken forward to the next stage of development.

4.9 Stakeholder participation

A total of **24 participants** in the consultation identified themselves as being a part of an organisation, authority, action group or local business.

We heard from representatives from **four councils** and one **MP** across the region through both formal letters, emails and survey responses, providing valuable insights from their experience and the communities they represent.

We also heard from **six transport groups and service providers**, including the **A5 Partnership** who provided detail on their views on the proposals in relation to the wider A5 network.

There were **seven responses from landowners, estates and developers** who expressed interest in the proposals in relation to future housing developments, planning applications and growth across the area.

We heard from **seven businesses** with an interest in the proposed scheme. The businesses who responded to the consultation have local offices, farms and estates, use the A5 between Dordon and Atherstone for transporting goods and services or have customers using this route.

The following organisations and stakeholder representatives submitted a response to the consultation:

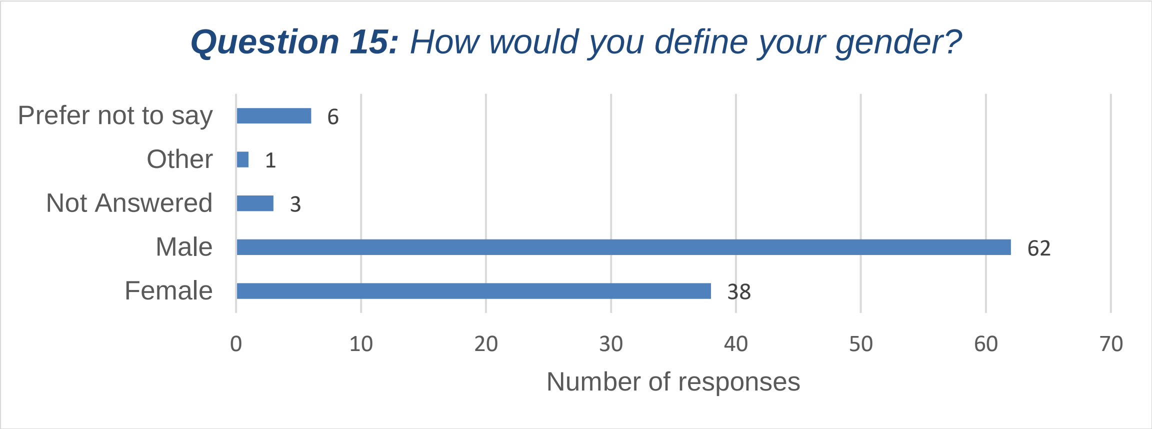
Landowners and Estates	Councils, MPs and Councillors
• Merevale Estates • Cathedral Agricultural Partnership • Hodgetts Estates • Dairy House Farm • IM Land • Lincourt Strategic Land • Church Commissioners for England	• Craig Tracey MP • Warwickshire County Council • North Warwickshire County Council • Dordon Parish Council • Grendon Parish Council • Dordon Ward Councillor
Businesses	**Transport and Service Providers**
• White Animal Feed • White Farming Partnership • Euro Garages Ltd • MPK Garages Ltd • Aldi • Award Leisure • AKF Contractors Ltd	• A5 Partnership • Atherstone Rails Users Group (ARUG) • FedEx Express UK Transportation Limited **Community and Action Groups** • Atherstone Forum

4.10 Equality and diversity

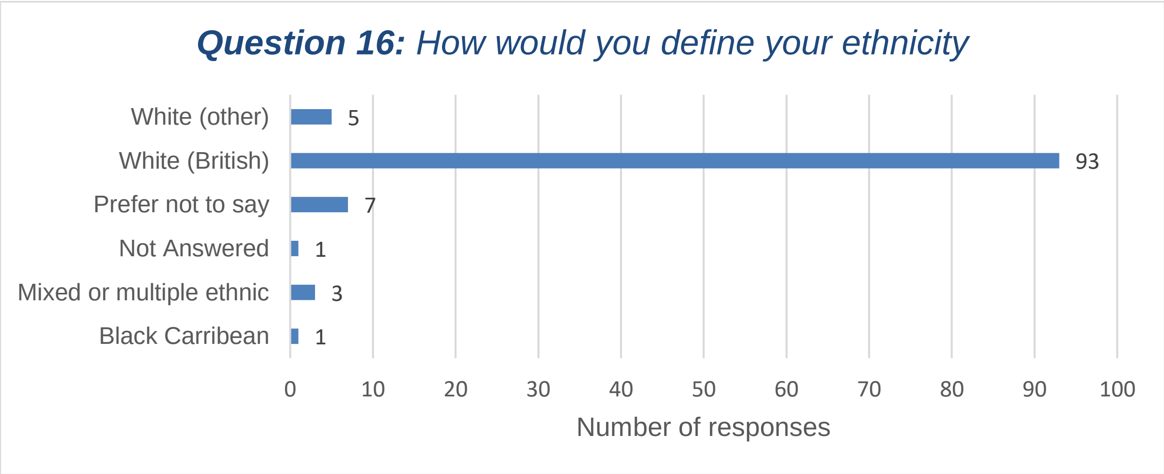
As part of the consultation survey, respondents were asked to provide demographic information, however, this was not mandatory. This information helps understand whether the consultation has been useful to people of different backgrounds and with different requirements, and to helps us to improve accessibility. Consent has been obtained for the presentation of this information.

Responses to key demographic questions:

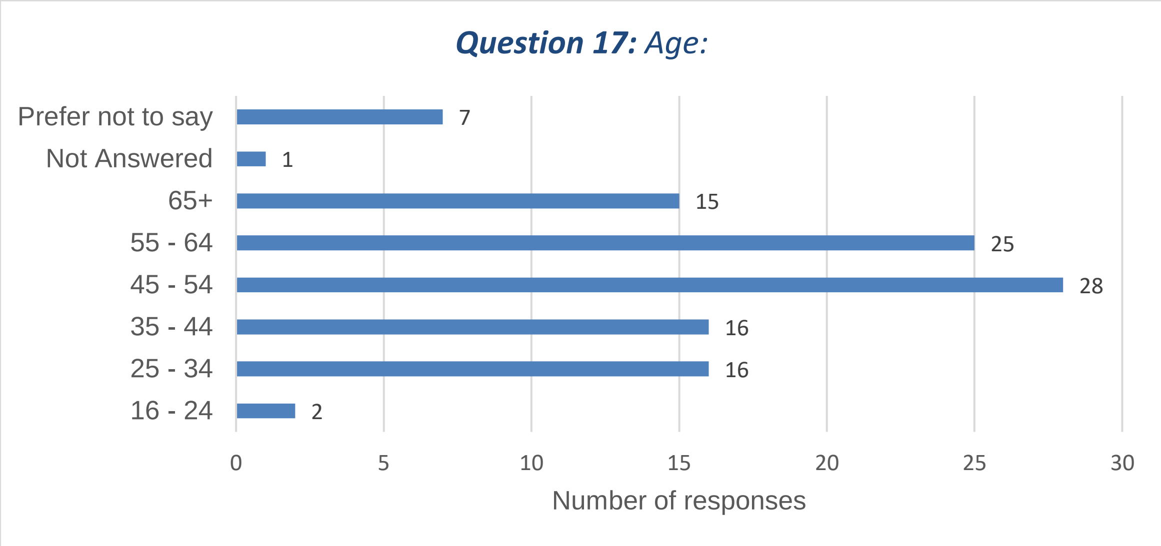
Gender:



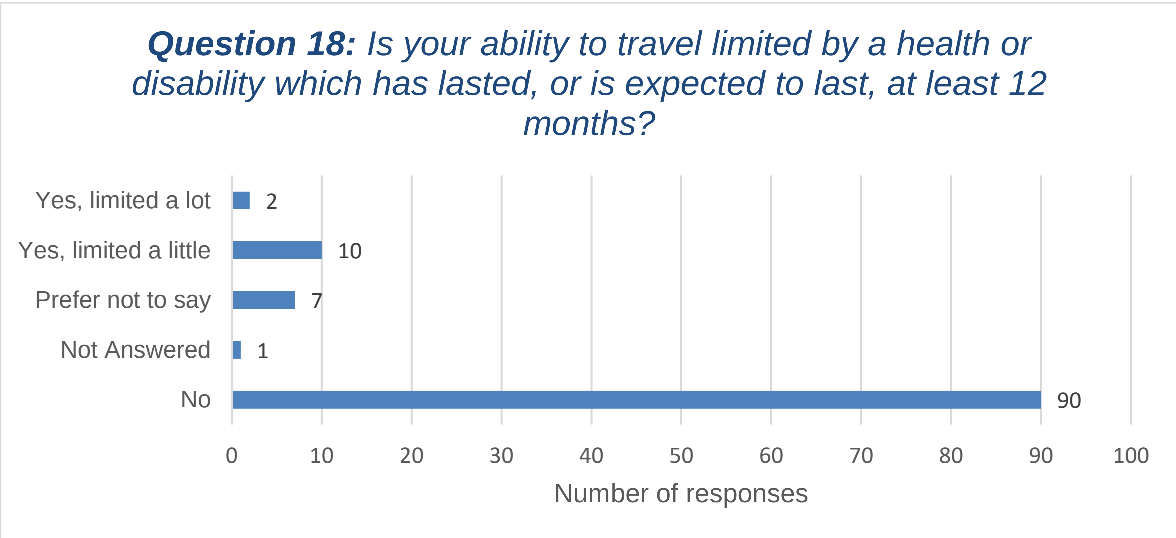
Ethnicity:



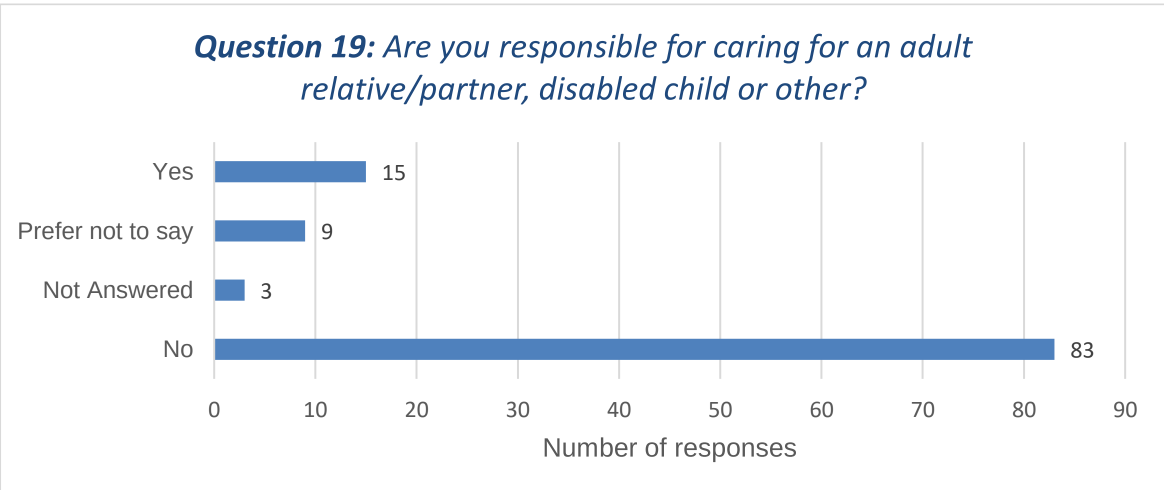
Age:



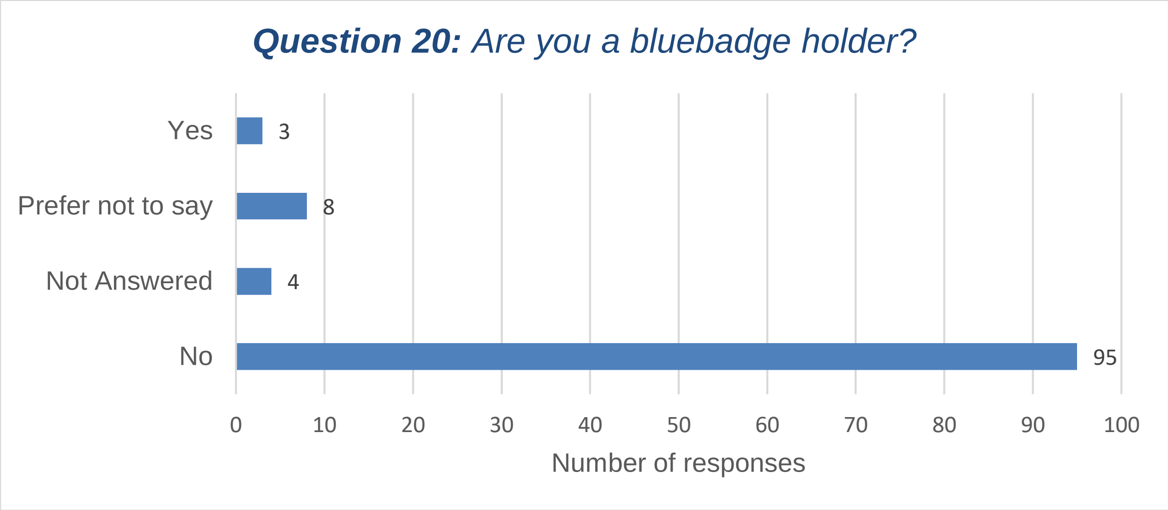
Health and disability:



Caring obligations:



Blue badge holders:


Question 20: Are you a bluebadge holder?
Yes
Prefer not to say
Not Answered
No
3
8
4
95
0
10
20
30
40
50
60
70
80
90
100
Number of responses

5. Conclusion

The public consultation has captured a wide range of views from local residents, authorities, business owners, local workers and those travelling along the A5 between Dordon and Atherstone on a regular basis. This has enabled a holistic view of the sentiments, key themes, concerns, and overall levels of support for the proposed improvements.

The feedback received relating to the existing A5 conditions show high levels of dissatisfaction relating to road layout, road safety, congestion, access for walking, cycling and horse riding, and journey times.

From the 179 responses to the consultation, there is a clear desire for change with 63% of consultees agreeing that improvements to the route are needed.

Overall, there is limited support for the proposals (44%), with majority of respondents opposed to the improvements (48%). Of the options presented, Option B has been shown to be the preferred route overall with 34% support from survey responses and 42% from the freeform responses.

It should be noted that while Option B is shown to be the preferred route, many consultees chose to not to answer or to list ‘No preference’ when asked for their preference of the three options. This can be seen in the 37% who submitted their views through the questionnaire and 52% through the freeform responses.

Many of the other objectives of the scheme show a similar response from consultees. For example, when asked specifically about the impact to journey times as a result of the proposed improvements, 31% of consultees selected Option B as their preferred option, with 42% answering ‘No preference’ or choosing not to answer.

When asked about environmental and heritage considerations, the ‘No preference’ response is the highest across all questions in this section.

Rationale for these results can be drawn from the open-format responses received with many consultees citing concerns relating to a perceived increase in congestion, slowing of journey times and the potential for a negative impact on air quality.

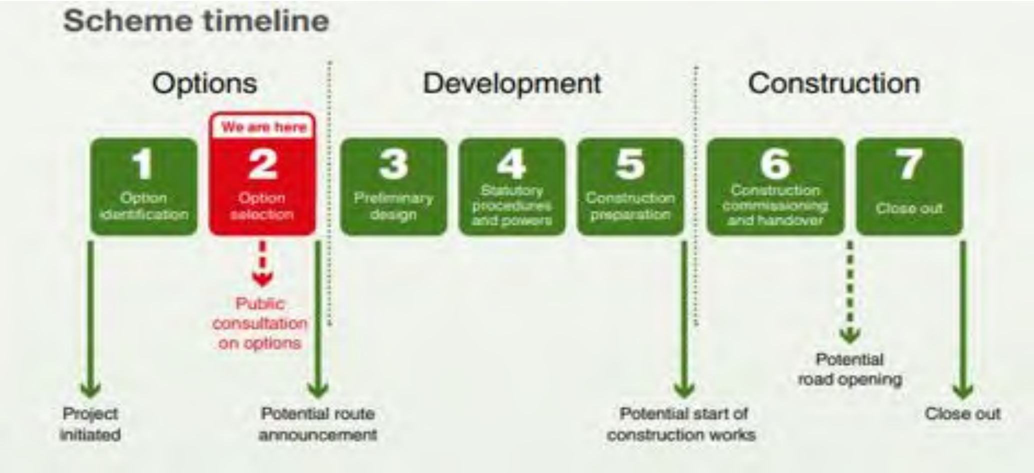
This reasoning comes from several points including: congestion arising from double to single lane transitions; increased traffic using the route once upgrades are complete; and, the use of signals at junctions causing traffic to slow and vehicles to idle.

Lastly, many consultees expressed a desire for a bypass road north of Grendon to be undertaken instead of, or prior to the proposed improvement works. While this suggestion is outside of the scope of this project, the feedback in this regard has been carefully documented and will be considered through assessments of the wider A5 corridor.

6. Next Steps

The feedback received during the consultation will now be considered as the A5 Dordon to Atherstone Project continues through the Options Stage. If the scheme is approved for the next stage of design (Stage 3 – Development Phase in the diagram below), there would be further opportunities for the public to have their say.

At that point we would develop the design in more detail, carry out more environmental assessments and look at further steps we can take to reduce environmental impacts. As part of this process, we would carry out another public consultation where the public would have the opportunity to review the chosen design and give more feedback.



APPENDIX J

A5 to B5000 Link Road Effect Traffic Flows

Analysis of the A5 to B5000 link road effect in the Local Plan scenario case

Cells highlighted red where the change in flow is +/- 50 and % change is +/- 10%

Time **08:00-09:00**

Pennine Way/A5 On-Slip

S1 Link Open Background Lights

	A	B	C
A	0	22	30
B	244	4	470
C	452	234	0

Total 1456
% Change -2.8%

S2 Link Closed Background Lights

	A	B	C
A	0	26	26
B	230	6	482
C	468	260	0

Total 1498

Absolute difference with/ without link road

	A	B	C
A	0	-4	4
B	14	-2	-12
C	-16	-26	0

Percentage difference with/ without link road

	A	B	C
A	0%	-15%	15%
B	6%	-33%	-2%
C	-3%	-10%	0%

Quarry Hill/Pennine Way/Centurion Way

S1 Link Open Background Lights

	A	B	C	D
A	10	46	0	204
B	98	0	0	66
C	0	0	0	0
D	610	0	0	0

Total 1034
% Change -2.3%

S2 Link Closed Background Lights

	A	B	C	D
A	14	62	0	214
B	108	0	0	60
C	0	0	0	0
D	600	0	0	0

Total 1058

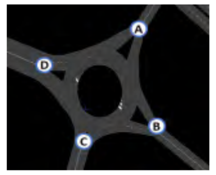
Absolute difference with/ without link road

	A	B	C	D
A	-4	-16	0	-10
B	-10	0	0	6
C	0	0	0	0
D	10	0	0	0

Percentage difference with/ without link road

S1-S2 Matrix

	A	B	C	D
A	-29%	-26%	0%	-5%
B	-9%	0%	0%	10%
C	0%	0%	0%	0%
D	2%	0%	0%	0%



M42 Junction 10 Interchange

S1 Link Open Background Lights

	A	B	C	D	E	F
A	0	78	20	0	44	70
B	28	10	126	218	410	58
C	14	52	0	6	50	0
D	0	206	32	0	92	164
E	84	664	130	198	0	116
F	64	34	2	48	42	0

Total 3060
% Change 2.3%

S2 Link Closed Background Lights

	A	B	C	D	E	F
A	0	66	26	0	44	68
B	28	8	110	208	376	60
C	14	64	0	10	48	0
D	0	196	32	0	108	164
E	86	640	124	214	0	106
F	70	30	2	46	42	0

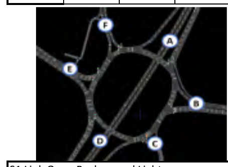
Total 2990

Absolute difference with/ without link road

	A	B	C	D	E	F
A	0	12	-6	0	0	2
B	0	2	16	10	34	-2
C	0	-12	0	-4	2	0
D	0	10	0	0	-16	0
E	-2	24	6	-16	0	10
F	-6	4	0	2	0	0

Percentage difference with/ without link road

	A	B	C	D	E	F
A	0%	18%	-23%	0%	0%	3%
B	0%	25%	15%	5%	9%	-3%
C	0%	-19%	0%	-40%	4%	0%
D	0%	5%	0%	0%	-15%	0%
E	-2%	4%	5%	-7%	0%	9%
F	-9%	13%	0%	4%	0%	0%



Time **17:00-18:00**

Pennine Way/A5 On-Slip

S1 Link Open Background Lights

	A	B	C
A	2	76	184
B	236	6	814
C	364	222	0

Total 1904
% Change -1.4%

S2 Link Closed Background Lights

	A	B	C
A	0	80	194
B	216	8	844
C	370	220	0

Total 1932

Absolute difference with/ without link road

	A	B	C
A	2	-4	-10
B	20	-2	-30
C	-6	2	0

Percentage difference with/ without link road

	A	B	C
A	0%	-5%	-5%
B	9%	-25%	-4%
C	-2%	1%	0%

Quarry Hill/Pennine Way/Centurion Way

S1 Link Open Background Lights

	A	B	C	D
A	18	32	0	254
B	276	0	0	76
C	0	0	0	0
D	760	0	0	0

Total 1416
% Change 0.9%

S2 Link Closed Background Lights

	A	B	C	D
A	26	0	0	252
B	314	0	0	78
C	0	0	0	0
D	734	0	0	0

Total 1404

Absolute difference with/ without link road

	A	B	C	D
A	-8	32	0	2
B	-38	0	0	-2
C	0	0	0	0
D	26	0	0	0

Percentage difference with/ without link road

	A	B	C	D
A	-31%	0%	0%	1%
B	-12%	0%	0%	-3%
C	0%	0%	0%	0%
D	4%	0%	0%	0%

M42 Junction 10 Interchange

S1 Link Open Background Lights

	A	B	C	D	E	F
A	0	70	16	0	48	60
B	20	22	60	224	582	22
C	20	66	0	12	128	0
D	0	250	16	0	176	76
E	74	654	64	174	0	100
F	116	78	12	112	112	0

Total 3364
% Change -0.2%

S2 Link Closed Background Lights

	A	B	C	D	E	F
A	0	74	16	0	60	58
B	22	14	74	212	584	22
C	22	88	0	12	132	0
D	0	240	16	0	198	76
E	76	612	70	180	0	104
F	122	54	12	114	108	0

Total 3372

Absolute difference with/ without link road

	A	B	C	D	E	F
A	0	-4	0	0	-12	2
B	-2	8	-14	12	-2	0
C	-2	-22	0	0	-4	0
D	0	10	0	0	-22	0
E	-2	42	-6	-6	0	-4
F	-6	24	0	-2	4	0

Percentage difference with/ without link road

S1-S2 Matrix

	A	B	C	D	E	F
A	0%	-5%	0%	0%	-20%	3%
B	-9%	57%	-19%	6%	0%	0%
C	-9%	-25%	0%	0%	-3%	0%
D	0%	4%	0%	0%	-11%	0%
E	-3%	7%	-9%	-3%	0%	-4%
F	-5%	44%	0%	-2%	4%	0%

Time **08:00-09:00**

A5 Watling Street/ Site Access junction

S1 Link Open Background Lights

	PCU		
	A	B	C
A	0	0	0
B	0	0	850
C	0	1036	0

Total 1886
% Change 4.2%

S2 Link Closed Background Lights

	A	B	C
A	0	0	0
B	0	0	808
C	0	1002	0

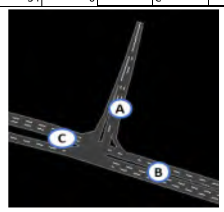
Total 1810

Absolute difference with/ without link road

	A	B	C
A	0	0	0
B	0	0	42
C	0	34	0

Percentage difference with/ without link road

	A	B	C
A	0%	0%	0%
B	0%	0%	5%
C	0%	3%	0%



A5 Watling Street/ Danny Morson Way

S1 Link Open Background Lights

	A	B	C
A	0	0	846
B	0	0	0
C	1036	0	0

Total 1882
% Change 4.3%

S2 Link Closed Background Lights

	A	B	C
A	0	0	802
B	0	0	0
C	1002	0	0

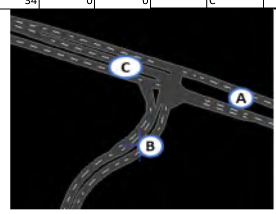
Total 1804

Absolute difference with/ without link road

	A	B	C
A	0	0	44
B	0	0	0
C	34	0	0

Percentage difference with/ without link road

.	A	B	C
A	0%	0%	5%
B	0%	0%	0%
C	3%	0%	0%



A5 Watling Street/ Meridian Drive

S1 Link Open Background Lights

	A	B	C
A	0	0	856
B	0	0	0
C	1034	0	0

Total 1890
% Change 4.5%

S2 Link Closed Background Lights

	A	B	C
A	0	0	804
B	0	0	0
C	1004	0	0

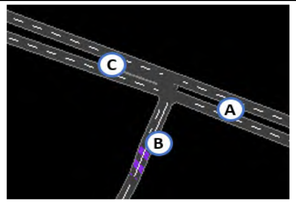
Total 1808

Absolute difference with/ without link road

	A	B	C
A	0	0	52
B	0	0	0
C	30	0	0

Percentage difference with/ without link road

	A	B	C
A	0%	0%	6%
B	0%	0%	0%
C	3%	0%	0%



A5 Watling Street/ Long Street/ Gypsey Lane

S1 Link Open Background Lights

	A	B	C	D	E
A	0	10	96	14	140
B	0	0	0	2	28
C	114	0	0	22	686
D	20	2	8	0	8
E	30	178	822	8	2

Total 2190
% Change -0.6%

S2 Link Closed Background Lights

	A	B	C	D	E
A	0	12	174	12	154
B	2	0	0	0	0
C	130	0	0	22	636
D	28	0	8	0	8
E	50	160	800	8	0

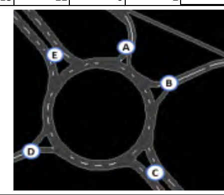
Total 2204

Absolute difference with/ without link road

	A	B	C	D	E
A	0	-2	-78	2	-14
B	-2	0	0	2	28
C	-16	0	0	0	50
D	-8	2	0	0	0
E	-20	18	22	0	2

Percentage difference with/ without link road

	A	B	C	D	E
A	0%	-17%	-45%	17%	-9%
B	-100%	0%	0%	0%	0%
C	-12%	0%	0%	0%	8%
D	-29%	0%	0%	0%	0%
E	-40%	11%	3%	0%	0%



Time **17:00-18:00**

A5 Watling Street/ Site Access junction

S1 Link Open Background Lights

	A	B	C
A	0	0	0
B	0	0	930
C	0	1144	0

Total 2074
% Change 2.5%

S2 Link Closed Background Lights

	A	B	C
A	0	0	0
B	0	0	926
C	0	1098	0

Total 2024

Absolute difference with/ without link road

	A	B	C
A	0	0	0
B	0	0	4
C	0	46	0

Percentage difference with/ without link road

	A	B	C
A	0%	0%	0%
B	0%	0%	0%
C	0%	4%	0%

A5 Watling Street/ Danny Morson Way

S1 Link Open Background Lights

	A	B	C
A	0	0	912
B	0	0	0
C	1142	0	0

Total 2054
% Change 1.7%

S2 Link Closed Background Lights

	A	B	C
A	0	0	922
B	0	0	0
C	1098	0	0

Total 2020

Absolute difference with/ without link road

	A	B	C
A	0	0	-10
B	0	0	0
C	44	0	0

Percentage difference with/ without link road

.	A	B	C
A	0%	0%	-1%
B	0%	0%	0%
C	4%	0%	0%

A5 Watling Street/ Meridian Drive

S1 Link Open Background Lights

	A	B	C
A	0	0	914
B	0	0	0
C	1128	0	0

Total 2042
% Change 1.3%

S2 Link Closed Background Lights

	A	B	C
A	0	0	908
B	0	0	0
C	1108	0	0

Total 2016

Absolute difference with/ without link road

	A	B	C
A	0	0	6
B	0	0	0
C	20	0	0

Percentage difference with/ without link road

	A	B	C
A	0%	0%	1%
B	0%	0%	0%
C	2%	0%	0%

A5 Watling Street/ Long Street/ Gypsey Lane

S1 Link Open Background Lights

	A	B	C	D	E
A	0	6	98	12	78
B	0	0	0	2	14
C	148	0	0	28	820
D	40	14	22	0	10
E	106	198	822	10	0

Total 2428
% Change -2.0%

S2 Link Closed Background Lights

	A	B	C	D	E
A	0	14	142	8	72
B	0	0	0	0	0
C	204	0	0	22	826
D	32	2	8	0	8
E	122	190	816	6	6

Total 2478

Absolute difference with/ without link road

	A	B	C	D	E
A	0	-8	-44	4	6
B	0	0	0	2	14
C	-56	0	0	6	-6
D	8	12	14	0	2
E	-16	8	6	4	-6

Percentage difference with/ without link road

	A	B	C	D	E
A	0%	-57%	-31%	50%	8%
B	0%	0%	0%	0%	0%
C	-27%	0%	0%	27%	-1%
D	25%	600%	175%	0%	25%
E	-13%	4%	1%	67%	-100%

APPENDIX H TABLE 5.1 2023 TRANSYT MODELLING RESULTS

Table 5.1a: M42/ Junction 10 + A5/ Birch Coppice + A5/ Core 42, 2023 Surveyed Year

Traffic Stream(s)	Lane	Saturation Flow pcu/hr	Model Output	AM Peak Observed Queue	AM Peak Results	PM Peak Observed Queue	PM Peak Results
B5080 Pennine Way North/ A5 Eastbound On/ Off Slip Road							
54/1 + 55/1	Pennine Way North Lane 1	N/A	Queue Aver Delay	5	4 32 secs	0	1 14 secs
54/2	Pennine Way South Lane 2	N/A	Queue Aver Delay	2	1 7 secs	1	0 5 secs
60/1	A5 Eastbound Off Slip Lane 1	N/A	Queue Aver Delay	0	0 4 secs	0	0 4 secs
60/2	A5 Eastbound Off Slip Lane 2	N/A	Queue Aver Delay	0	0 4 secs	0	0 4 secs
64/1 + 66/1	Northbound Overbridge Lane 1	N/A	Queue Aver Delay	0	1 5 secs	1	2 8 secs
64/2	Northbound Overbridge Lane 2	N/A	Queue Aver Delay	0	0 4 secs	0	0 7 secs
68/1 + 59/1	A5 Eastbound On-Slip Merge	N/A	Queue Aver Delay	4	9 1m 3s	0	0 2 secs
B5080 Pennine Way South/ A5 Westbound On/ Off Slip Road/ Quarry Hill							
89/1	Southbound Overbridge Lane 1	N/A	Queue Aver Delay	0	0 5 secs	0	0 4 secs
89/2	Southbound Overbridge Lane 2	N/A	Queue Aver Delay	0	0 5 secs	0	0 5 secs
76/1	A5 Westbound Off Slip Lane 1	N/A	Queue Aver Delay	0	0 6 secs	1	1 8 secs
76/2 + 75/1	A5 Westbound Off Slip Lane 2	N/A	Queue Aver Delay	1	0 6 secs	1	3 16 secs
81/1	Centurion Way Lane 1	N/A	Queue Aver Delay	0	0 6 secs	2	0 7 secs
81/2	Centurion Way Lane 2	N/A	Queue Aver Delay	0	0 4 secs	1	0 5 secs
86/1	Quarry Hill Lane 1	N/A	Queue Aver Delay	1	1 6 secs	6	6 41 secs
86/2	Quarry Hill Lane 2	N/A	Queue Aver Delay	0	0 4 secs	0	0 4 secs
M42 Junction 10							
1/1 + 2/1	M42 Northbound Offslip Lane 1	1740	Queue Aver Delay	6	3 16 secs	15	18 1m 19s
1/2	M42 Northbound Offslip Lane 2	1740	Queue Aver Delay	3	2 15 secs	5	5 32 secs
1/3	M42 Northbound Offslip Lane 3	1740	Queue Aver Delay	2	1 13 secs	2	2 21 secs
3/1	M42 Northbound Offslip Lane 4	1849	Queue Aver Delay	7	4 17 secs	9	6 28 secs
3/2	M42 Northbound Offslip Lane 5	1849	Queue Aver Delay	8	3 17 secs	9	6 26 secs
7/1	M42 Northbound Circulating Lane 1	2039	Queue Aver Delay	10	13 17 secs	16	24 22 secs
7/2	M42 Northbound Circulating Lane 2	1840	Queue Aver Delay	7	10 14 secs	14	15 18 secs
8/1 + 9/1 + 11/1 + 69/1 + 70/1	A5 Eastbound Lane 1	1828	Queue Aver Delay	47	63 4m 30s	12	13 53 secs
8/2	A5 Eastbound Lane 2	1900	Queue Aver Delay	10	3 20 secs	9	5 20 secs
8/3 + 9/2 + 11/2 + 69/2 + 70/2	A5 Eastbound Lane 3	1900	Queue Aver Delay	32	46 3m 5s	9	9 33 secs
12/1	A5 Eastbound Circulating Lane 1	1846	Queue Aver Delay	5	2 14 secs	3	4 18 secs
12/2	A5 Eastbound Circulating Lane 2	1878	Queue Aver Delay	6	4 15 secs	6	8 19 secs
12/3	A5 Eastbound Circulating Lane 3	1878	Queue Aver Delay	6	2 14 secs	7	7 18 secs
12/4	A5 Eastbound Circulating Lane 4	1878	Queue Aver Delay	2	1 12 secs	2	2 15 secs
14/1	Green Lane Lane 1	1602	Queue Aver Delay	4	3 40 secs	8	5 37 secs
14/2	Green Lane Lane 2	1602	Queue Aver Delay	4	5 55 secs	8	12 1m 37s
15/1	Green Lane Circulating Lane 1	1950	Queue Aver Delay	7	7 4 secs	6	9 9 secs
15/2	Green Lane Circulating Lane 2	1745	Queue Aver Delay	8	4 5 secs	6	8 11 secs

15/3	Green Lane Circulating Lane 3	1745	Queue Aver Delay	2	1 3 secs	1	1 3 secs
18/1	M42 Southbound Offslip Lane 1	1804	Queue Aver Delay	1	1 25 secs	3	1 19 secs
18/2	M42 Southbound Offslip Lane 2	1813	Queue Aver Delay	1	2 27 secs	3	4 33 secs
18/3	M42 Southbound Offslip Lane 3	1813	Queue Aver Delay	2	1 26 secs	4	3 25 secs
17/1	M42 Southbound Circulating Lane 1	1956	Queue Aver Delay	3	3 5 secs	5	4 7 secs
17/2	M42 Southbound Circulating Lane 2	1956	Queue Aver Delay	4	7 6 secs	6	10 10 secs
17/3	M42 Southbound Circulating Lane 3	1800	Queue Aver Delay	5	8 7 secs	5	7 9 secs
17/4	M42 Southbound Circulating Lane 4	1800	Queue Aver Delay	1	1 4 secs	3	1 5 secs
23/1	A5 Westbound Lane 1	1930	Queue Aver Delay	7	6 21 secs	6	4 20 secs
23/2	A5 Westbound Lane 2	1851	Queue Aver Delay	6	3 18 secs	5	3 18 secs
23/3 + 24/1 + 25/1	A5 Westbound Lane 3	1851	Queue Aver Delay	10	9 31 secs	13	18 58 secs
23/4 + 24/1	A5 Westbound Lane 4	1851	Queue Aver Delay	6	2 18 secs	6	4 22 secs
22/1	A5 Westbound Circulating Lane 1	1797	Queue Aver Delay	6	4 14 secs	6	10 19 secs
22/2	A5 Westbound Circulating Lane 2	1797	Queue Aver Delay	8	2 11 secs	5	2 14 secs
22/3	A5 Westbound Circulating Lane 3	1902	Queue Aver Delay	2	2 11 secs	5	3 13 secs
22/4	A5 Westbound Circulating Lane 4	1902	Queue Aver Delay	1	2 11 secs	5	3 13 secs
28/1 + 29/1	Trinity Road Lane 1	1669	Queue Aver Delay	8	4 30 secs	9	7 54 secs
28/2	Trinity Road Lane 2	1669	Queue Aver Delay	7	5 34 secs	7	4 32 secs
27/1	Trinity Road Circulating Lane 1	1846	Queue Aver Delay	3	9 9 secs	3	5 8 secs
27/2	Trinity Road Circulating Lane 2	1846	Queue Aver Delay	8	8 9 secs	6	5 10 secs
27/3	Trinity Road Circulating Lane 3	1878	Queue Aver Delay	3	13 10 secs	8	3 7 secs
27/4	Trinity Road Circulating Lane 4	1878	Queue Aver Delay	2	7 8 secs	4	3 8 secs
A5/ Birch Coppice							
31/1	A5 Eastbound Ahead Lane 1	1814	Queue Aver Delay	5	1 16 secs	9	9 25 secs
31/2	A5 Eastbound Ahead Lane 2	2082	Queue Aver Delay	4	1 13 secs	5	1 14 secs
32/1	A5 Eastbound Right Turn Lane 3	1960	Queue Aver Delay	5	8 56 secs	4	5 55 secs
32/2	A5 Eastbound Right Turn Lane 4	1667	Queue Aver Delay	8	10 1m 33s	4	4 50 secs
37/1	A5 Westbound Ahead Lane 1	1751	Queue Aver Delay	2	3 24 secs	2	1 22 secs
37/2 + 38/1 + 53/1	A5 Westbound Ahead Lane 2	2015	Queue Aver Delay	16	10 33 secs	13	12 47 secs
37/3 + 38/2 + 53/2	A5 Westbound Ahead Lane 3	2015	Queue Aver Delay	14	11 47 secs	13	18 1m 13s
42/1	Birch Coppice Left Turn Lane 1	1695	Queue Aver Delay	5	4 27 secs	6	5 22 secs
42/2	Birch Coppice Left Turn Lane 2	1983	Queue Aver Delay	6	3 25 secs	9	6 21 secs
43/1	Birch Coppice Right Turn Lane 3	1690	Queue Aver Delay	3	2 27 secs	5	3 23 secs
A5/ Core 42							
46/1	A5 Eastbound Ahead Lane 1	1833	Queue Aver Delay	2	2 3 secs	6	2 6 secs
46/2	A5 Eastbound Ahead Lane 2	2082	Queue Aver Delay	1	1 1 sec	3	1 2 secs
47/1	A5 Eastbound Right Turn Lane 3	1667	Queue Aver Delay	2	2 59 secs	1	1 1m 2s
49/1	A5 Westbound Ahead & Left Turn Lane 1	1957	Queue Aver Delay	6	7 9 secs	8	5 9 secs
49/2	A5 Westbound Ahead Lane 2	1909	Queue Aver Delay	4	5 8 secs	7	4 9 secs

51/1	Core 42 Left Turn Lane 1	1695	Queue Aver Delay	1	2 2m 35s	2	2 57 secs
52/1	Core 42 Right Turn Lane 2	1690	Queue Aver Delay	0	0 8m 47s	1	1 3m 23s
A5/ Dordon Roundabout							
91/1	A5 Eastbound Lane 1	N/A	Queue Aver Delay	2	3 15 secs	2	7 18 secs
91/2	A5 Eastbound Lane 2	N/A	Queue Aver Delay	0	0 5 secs	0	0 7 secs
92/1 + 92/2 + 93/1	Long Street	N/A	Queue Aver Delay	3	1 30 secs	2	1 34 secs
97/1 + 98/1	A5 Westbound Lane 1	N/A	Queue Aver Delay	3	6 18 secs	1	4 13 secs
97/2	A5 Westbound Lane 2	N/A	Queue Aver Delay	0	1 12 secs	0	1 13 secs
100/1 + 100/2	Gypsy Lane	N/A	Queue Aver Delay	1	0 21 secs	1	0 19 secs
			Network PI	5780.99		5247.57	

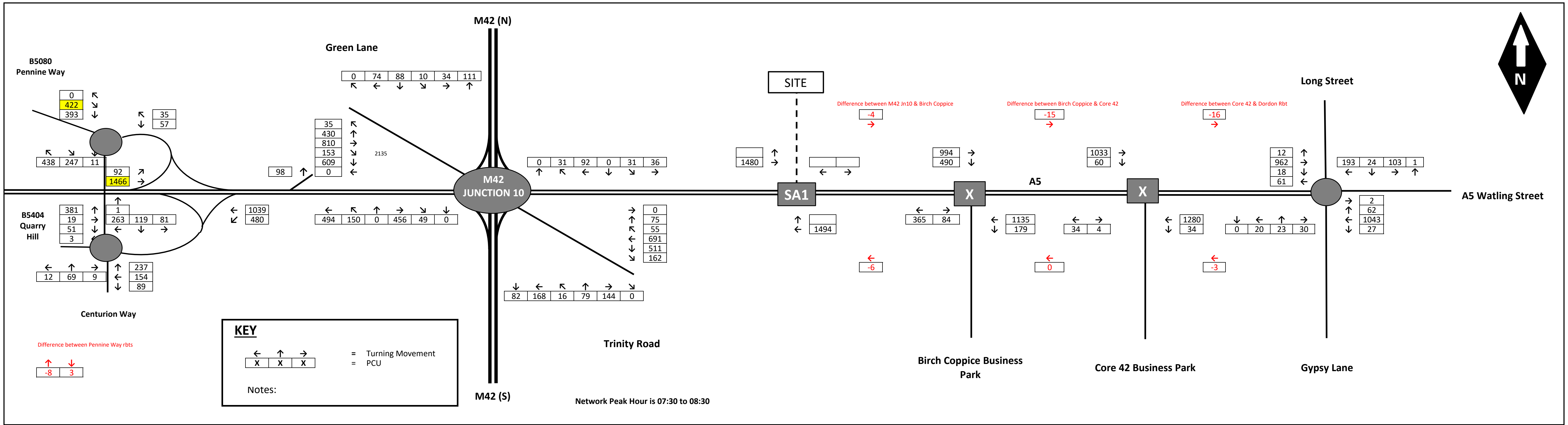
Table 5.1b: M42/ Junction 10 + A5/ Birch Coppice + A5/ Core 42, 2023 Surveyed Year

				AM Peak		PM Peak	
Traffic Stream(s)	Lane	Saturation Flow pcu/hr	Model Output	Observed Queue	Results	Observed Queue	Results
B5080 Pennine Way North/ A5 Eastbound On/ Off Slip Road							
54/1 + 55/1	Pennine Way North Lane 1	N/A	Queue Aver Delay	5	5 1m 7s	0	1 5 secs
54/2	Pennine Way North Lane 2	N/A	Queue Aver Delay	2	0 7 secs	1	0 6 secs
60/1	A5 Eastbound Off Slip Lane 1	N/A	Queue Aver Delay	0	0 4 secs	0	0 4 secs
60/2	A5 Eastbound Off Slip Lane 2	N/A	Queue Aver Delay	0	0 4 secs	0	0 4 secs
64/1 + 66/1	Northbound Overbridge Lane 1	N/A	Queue Aver Delay	0	1 5 secs	1	3 8 sec
64/2	Northbound Overbridge Lane 2	N/A	Queue Aver Delay	0	0 4 secs	0	1 7 secs
68/1 + 59/1	A5 Eastbound On-Slip Merge	N/A	Queue Aver Delay	4	24 2m 22s	0	0 3 secs
B5080 Pennine Way South/ A5 Westbound On/ Off Slip Road/ Quarry Hill							
89/1	Southbound Overbridge Lane 1	N/A	Queue Aver Delay	0	0 5 secs	0	0 4 secs
89/2	Southbound Overbridge Lane 2	N/A	Queue Aver Delay	0	0 5 secs	0	1 5 secs
76/1	A5 Westbound Off Slip Lane 1	N/A	Queue Aver Delay	0	1 6 secs	1	1 8 secs
76/2 + 75/1	A5 Westbound Off Slip Lane 2	N/A	Queue Aver Delay	1	1 6 secs	1	4 15 secs
81/1	Centurion Way Lane 1	N/A	Queue Aver Delay	0	0 4 secs	2	0 7 secs
81/2	Centurion Way Lane 2	N/A	Queue Aver Delay	0	0 4 secs	1	0 6 secs
86/1	Quarry Hill Lane 1	N/A	Queue Aver Delay	1	14 6 secs	6	5 41 secs
86/2	Quarry Hill Lane 2	N/A	Queue Aver Delay	0	0 4 secs	0	0 4 secs
M42 Junction 10							
1/1 + 2/1	M42 Northbound Offslip Lane 1	1740	Queue Aver Delay	6	3 16 secs	15	17 1m 15s
1/2	M42 Northbound Offslip Lane 2	1740	Queue Aver Delay	3	2 15 secs	5	5 32 secs
1/3	M42 Northbound Offslip Lane 3	1740	Queue Aver Delay	2	1 13 secs	2	2 21 secs
3/1	M42 Northbound Offslip Lane 4	1849	Queue Aver Delay	7	4 17 secs	9	6 28 secs
3/2	M42 Northbound Offslip Lane 5	1849	Queue Aver Delay	8	4 16 secs	9	5 27 secs
7/1	M42 Northbound Circulating Lane 1	2039	Queue Aver Delay	10	13 16 secs	16	25 22 secs
7/2	M42 Northbound Circulating Lane 2	1840	Queue Aver Delay	7	9 14 secs	14	13 17 secs
8/1 + 9/1 + 11/1 + 69/1 + 70/1	A5 Eastbound Lane 1	1828	Queue Aver Delay	47	53 4m 11s	12	12 53 secs
8/2	A5 Eastbound Lane 2	1900	Queue Aver Delay	10	2 20 secs	9	5 20 secs
8/3 + 9/2 + 11/2 + 69/2 + 70/2	A5 Eastbound Lane 3	1900	Queue Aver Delay	32	48 3m 9s	9	8 31 secs
12/1	A5 Eastbound Circulating Lane 1	1846	Queue Aver Delay	5	2 14 secs	3	5 18 secs
12/2	A5 Eastbound Circulating Lane 2	1878	Queue Aver Delay	6	4 15 secs	6	8 19 secs
12/3	A5 Eastbound Circulating Lane 3	1878	Queue Aver Delay	6	2 14 secs	7	7 17 secs
12/4	A5 Eastbound Circulating Lane 4	1878	Queue Aver Delay	2	1 13 secs	2	1 14 secs
14/1	Green Lane Lane 1	1602	Queue Aver Delay	4	3 40 secs	8	4 37 secs
14/2	Green Lane Lane 2	1602	Queue Aver Delay	4	5 55 secs	8	15 1m 56s
15/1	Green Lane Circulating Lane 1	1950	Queue Aver Delay	7	6 4 secs	6	10 9 secs
15/2	Green Lane Circulating Lane 2	1745	Queue Aver Delay	8	3 5 secs	6	8 11 secs

15/3	Green Lane Circulating Lane 3	1745	Queue Aver Delay	2	1 3 secs	1	1 3 secs
18/1	M42 Southbound Offslip Lane 1	1804	Queue Aver Delay	1	1 25 secs	3	1 18 secs
18/2	M42 Southbound Offslip Lane 2	1813	Queue Aver Delay	1	1 27 secs	3	4 34 secs
18/3	M42 Southbound Offslip Lane 3	1813	Queue Aver Delay	2	1 26 secs	4	3 25 secs
17/1	M42 Southbound Circulating Lane 1	1956	Queue Aver Delay	3	3 5 secs	5	4 7 secs
17/2	M42 Southbound Circulating Lane 2	1956	Queue Aver Delay	4	5 6 secs	6	9 10 secs
17/3	M42 Southbound Circulating Lane 3	1800	Queue Aver Delay	5	5 7 secs	5	6 9 secs
17/4	M42 Southbound Circulating Lane 4	1800	Queue Aver Delay	1	1 4 secs	3	1 5 secs
23/1	A5 Westbound Lane 1	1930	Queue Aver Delay	7	5 21 secs	6	4 19 secs
23/2	A5 Westbound Lane 2	1851	Queue Aver Delay	6	2 17 secs	5	3 18 secs
23/3 + 24/1 + 25/1	A5 Westbound Lane 3	1851	Queue Aver Delay	10	10 31 secs	13	16 55 secs
23/4 + 24/1	A5 Westbound Lane 4	1851	Queue Aver Delay	6	3 18 secs	6	4 22 secs
22/1	A5 Westbound Circulating Lane 1	1797	Queue Aver Delay	6	4 14 secs	6	11 19 secs
22/2	A5 Westbound Circulating Lane 2	1797	Queue Aver Delay	8	2 11 secs	5	2 14 secs
22/3	A5 Westbound Circulating Lane 3	1902	Queue Aver Delay	2	2 11 secs	5	2 12 secs
22/4	A5 Westbound Circulating Lane 4	1902	Queue Aver Delay	1	2 11 secs	5	3 13 secs
28/1 + 29/1	Trinity Road Lane 1	1669	Queue Aver Delay	8	4 31 secs	9	8 55 secs
28/2	Trinity Road Lane 2	1669	Queue Aver Delay	7	5 34 secs	7	3 32 secs
27/1	Trinity Road Circulating Lane 1	1846	Queue Aver Delay	3	8 9 secs	3	5 8 secs
27/2	Trinity Road Circulating Lane 2	1846	Queue Aver Delay	8	8 9 secs	6	5 10 secs
27/3	Trinity Road Circulating Lane 3	1878	Queue Aver Delay	3	12 10 secs	8	3 8 secs
27/4	Trinity Road Circulating Lane 4	1878	Queue Aver Delay	2	7 8 secs	4	3 8 secs
A5/ Birch Coppice							
31/1	A5 Eastbound Ahead Lane 1	1814	Queue Aver Delay	5	1 16 secs	9	14 26 secs
31/2	A5 Eastbound Ahead Lane 2	2082	Queue Aver Delay	4	1 12 secs	5	1 14 secs
32/1	A5 Eastbound Right Turn Lane 3	1960	Queue Aver Delay	5	8 56 secs	4	5 56 secs
32/2	A5 Eastbound Right Turn Lane 4	1667	Queue Aver Delay	8	11 1m 28s	4	4 50 secs
37/1	A5 Westbound Ahead Lane 1	1751	Queue Aver Delay	2	3 24 secs	2	2 21 secs
37/2 + 38/1 + 53/1	A5 Westbound Ahead Lane 2	2015	Queue Aver Delay	16	10 41 secs	13	12 42 secs
37/3 + 38/2 + 53/2	A5 Westbound Ahead Lane 3	2015	Queue Aver Delay	14	10 45 secs	13	17 1m 3s
42/1	Birch Coppice Left Turn Lane 1	1695	Queue Aver Delay	5	4 28 secs	6	5 22 secs
42/2	Birch Coppice Left Turn Lane 2	1983	Queue Aver Delay	6	3 25 secs	9	5 21 secs
43/1	Birch Coppice Right Turn Lane 3	1690	Queue Aver Delay	3	2 27 secs	5	3 24 secs
A5/ Core 42							
46/1	A5 Eastbound Ahead Lane 1	1833	Queue Aver Delay	2	2 3 secs	6	3 6 secs
46/2	A5 Eastbound Ahead Lane 2	2082	Queue Aver Delay	1	1 1 sec	3	1 1 sec
47/1	A5 Eastbound Right Turn Lane 3	1667	Queue Aver Delay	2	2 59 secs	1	2 1m 6s
49/1	A5 Westbound Ahead & Left Turn Lane 1	1957	Queue Aver Delay	6	9 9 secs	8	5 11 secs
49/2	A5 Westbound Ahead Lane 2	1909	Queue Aver Delay	4	5 7 secs	7	5 10 secs

51/1	Core 42 Left Turn Lane 1	1695	Queue Aver Delay	1	1 2m 43s	2	1 44 secs
52/1	Core 42 Right Turn Lane 2	1690	Queue Aver Delay	0	1 8m 3s	1	1 4m 18s
91/1	A5 Eastbound Lane 1	N/A	Queue Aver Delay	2	2 16 secs	2	8 18 secs
91/2	A5 Eastbound Lane 2	N/A	Queue Aver Delay	0	0 5 secs	0	1 7 secs
92/1 + 92/2 + 93/1	Long Street	N/A	Queue Aver Delay	3	2 30 secs	2	1 31 secs
97/1 + 98/1	A5 Westbound Lane 1	N/A	Queue Aver Delay	3	4 16 secs	1	3 11 secs
97/2	A5 Westbound Lane 2	N/A	Queue Aver Delay	0	0 12 secs	0	1 13 secs
100/1 + 100/2	Gypsy Lane	N/A	Queue Aver Delay	1	1 22 secs	1	0 20 secs
			Network PI	6016.86		5190.70	

APPENDIX I FLOW DIAGRAMS



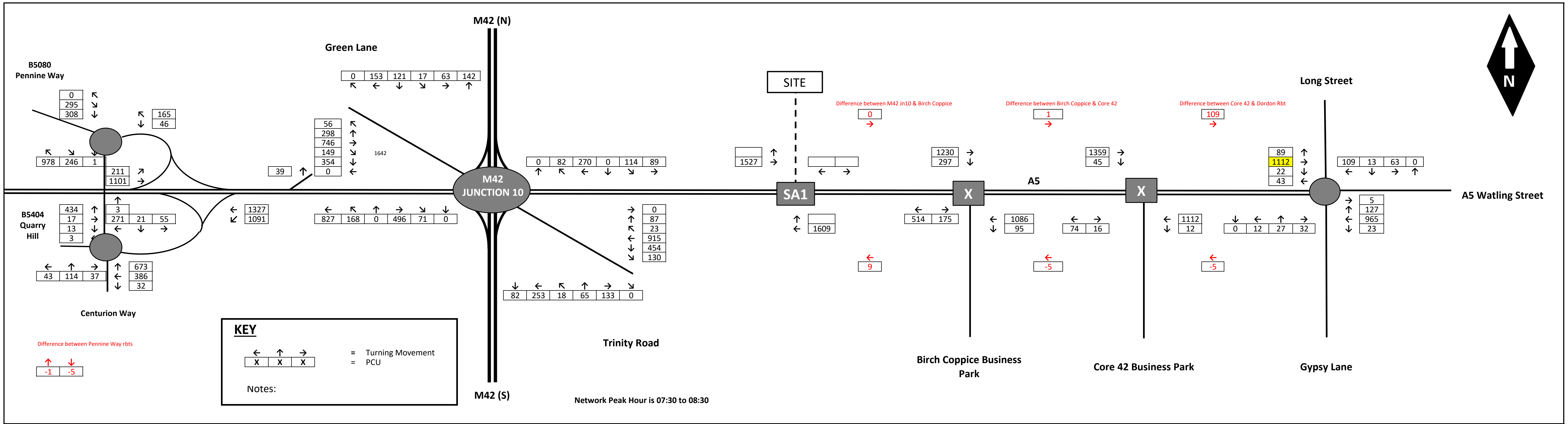
TETRA TECH

FIGURE 1

2023 AM PEAK (0730 TO 0830) - DEMAND FLOWS

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920



TETRA TECH

FIGURE 2

2023 PM PEAK (1645 TO 1745) - DEMAND FLOWS CORRECTED

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

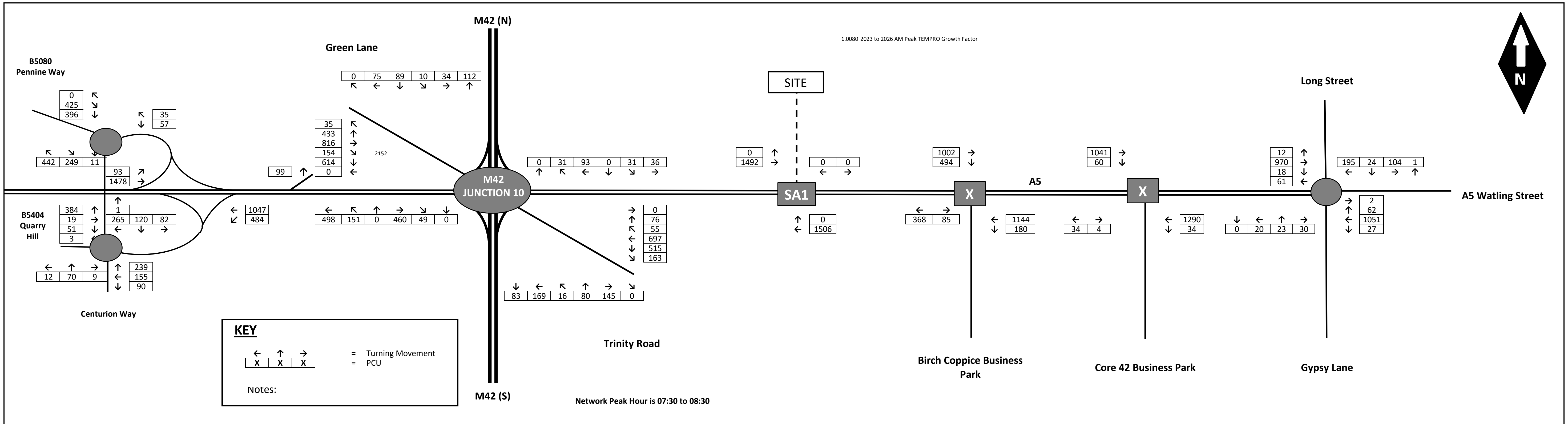


FIGURE 3

2026 AM PEAK REFERENCE CASE BASELINE (0730 TO 0830) - DEMAND FLOWS

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

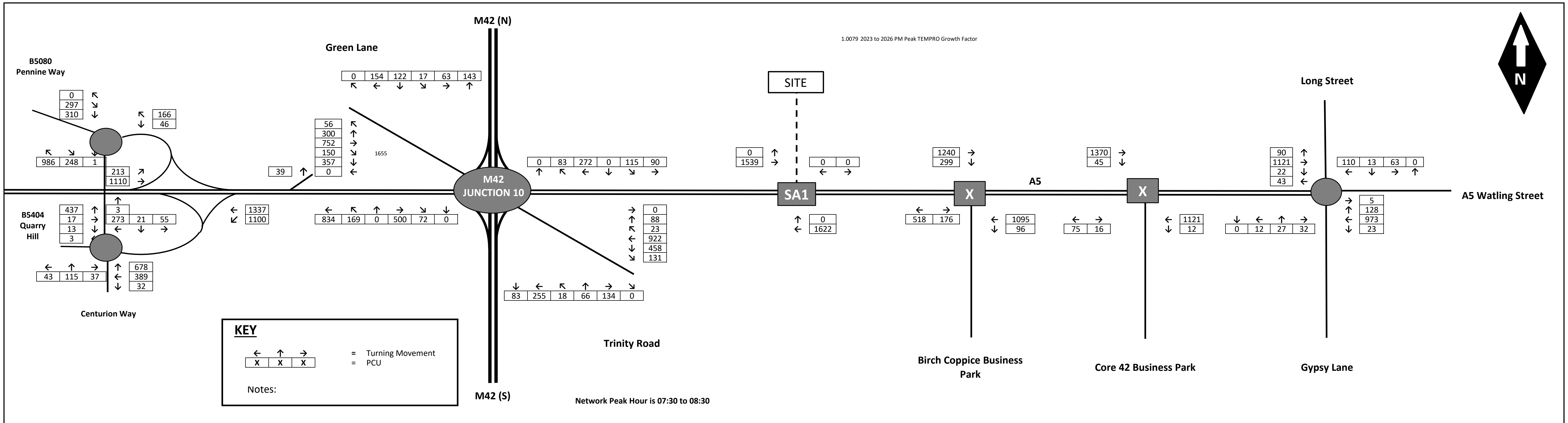


FIGURE 4

2026 PM PEAK REFERENCE CASE BASELINE (1645 TO 1745) - DEMAND FLOWS

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

TETRA TECH

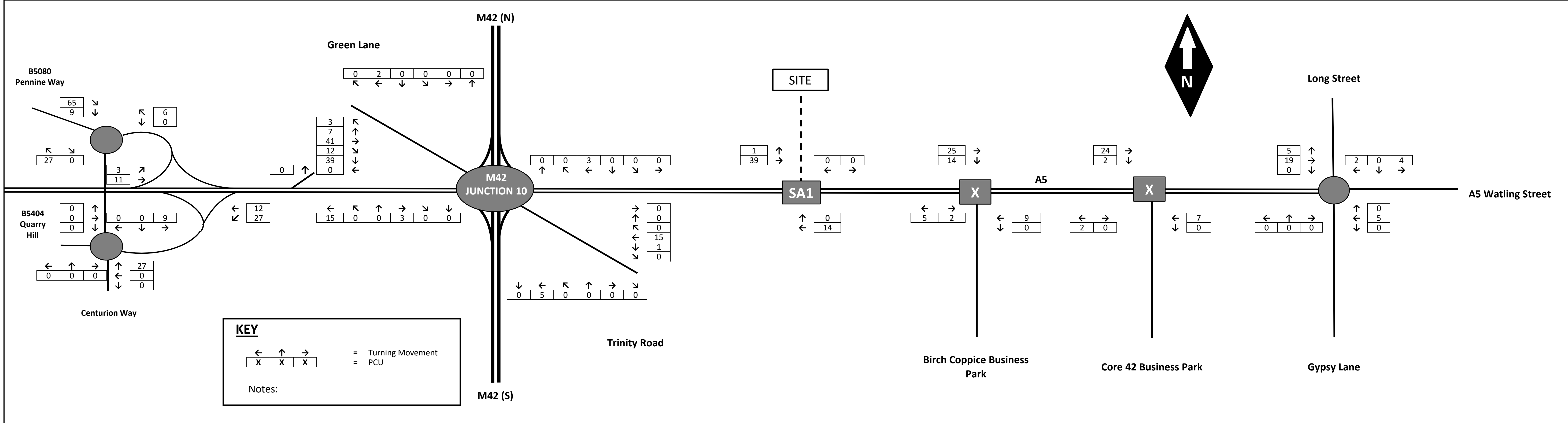
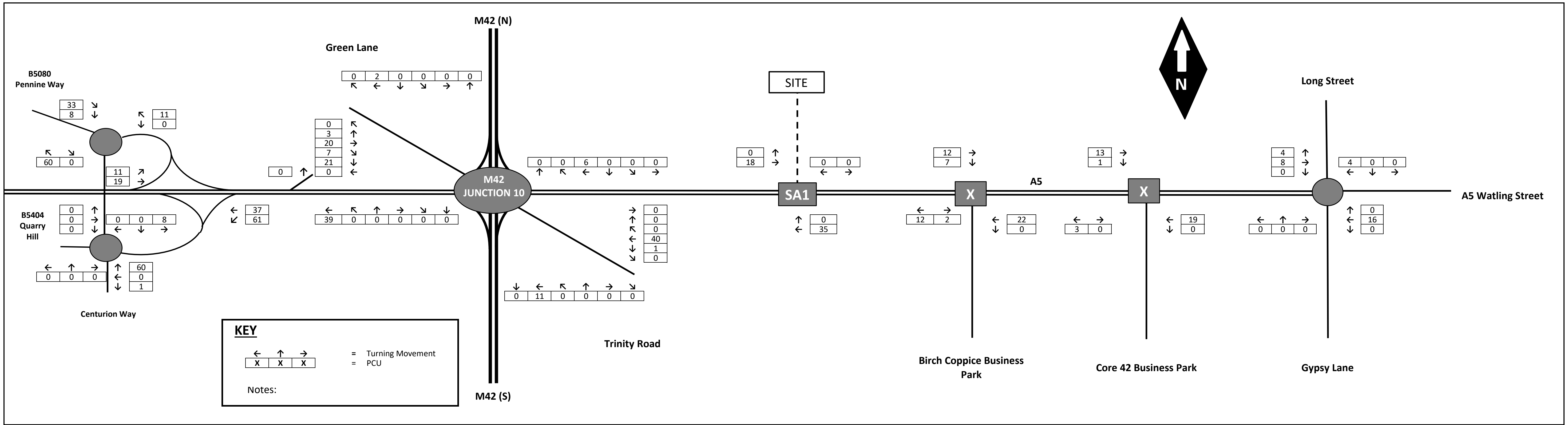


FIGURE 5

2026 AM Peak Total Committed Development Flows

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920



TETRA TECH

FIGURE 6

2026 PM Peak Total Committed Development Flows

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

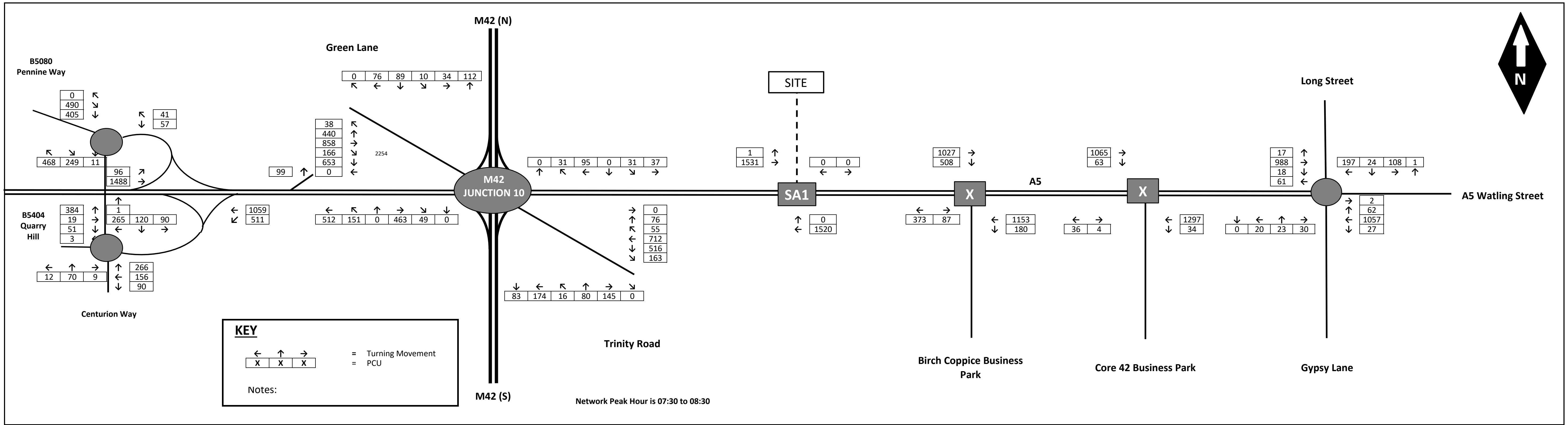


FIGURE 7

2026 AM PEAK NO DEVELOPMENT REFERENCE CASE (0730 TO 0830) - DEMAND FLOWS

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

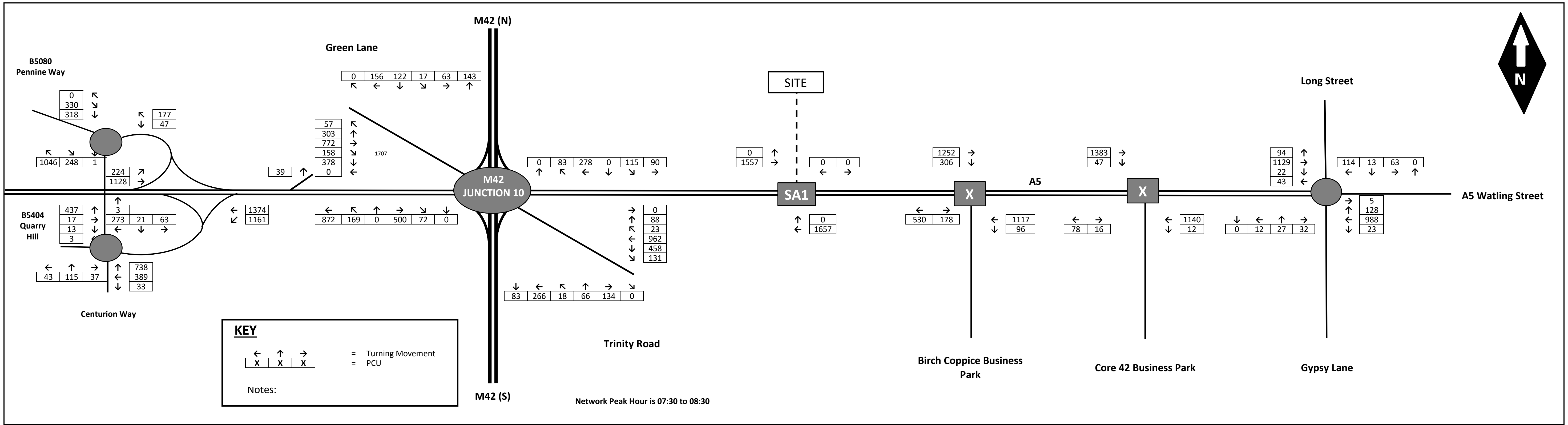


FIGURE 8

2026 PM PEAK NO DEVELOPMENT REFERENCE CASE (1645 TO 1745) - DEMAND FLOWS

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

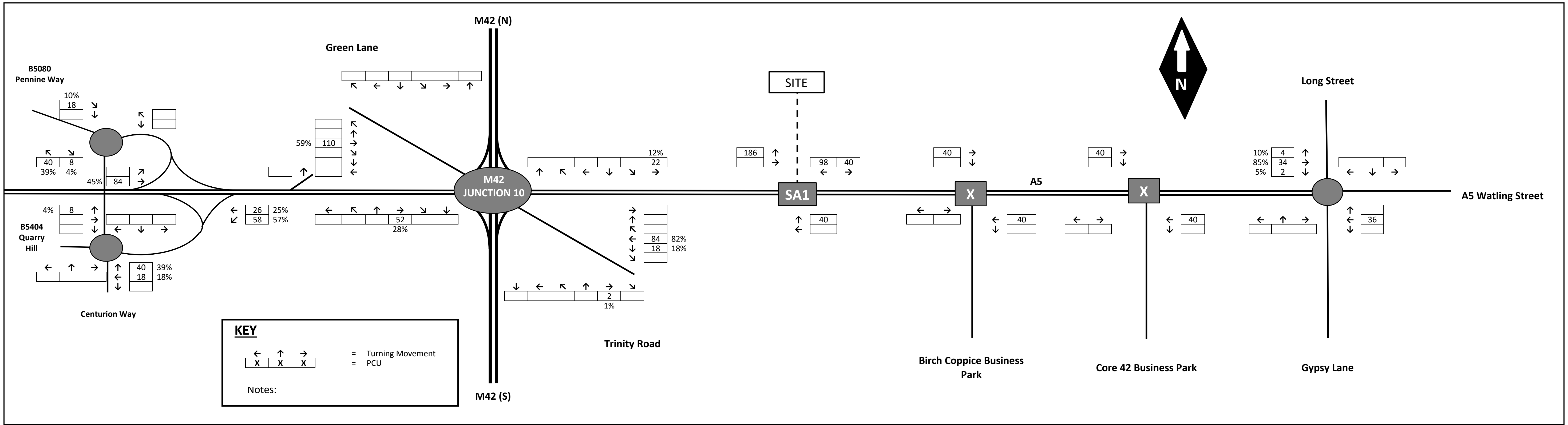


FIGURE 9

AM Peak Development Generated Traffic Flows (PCU)

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

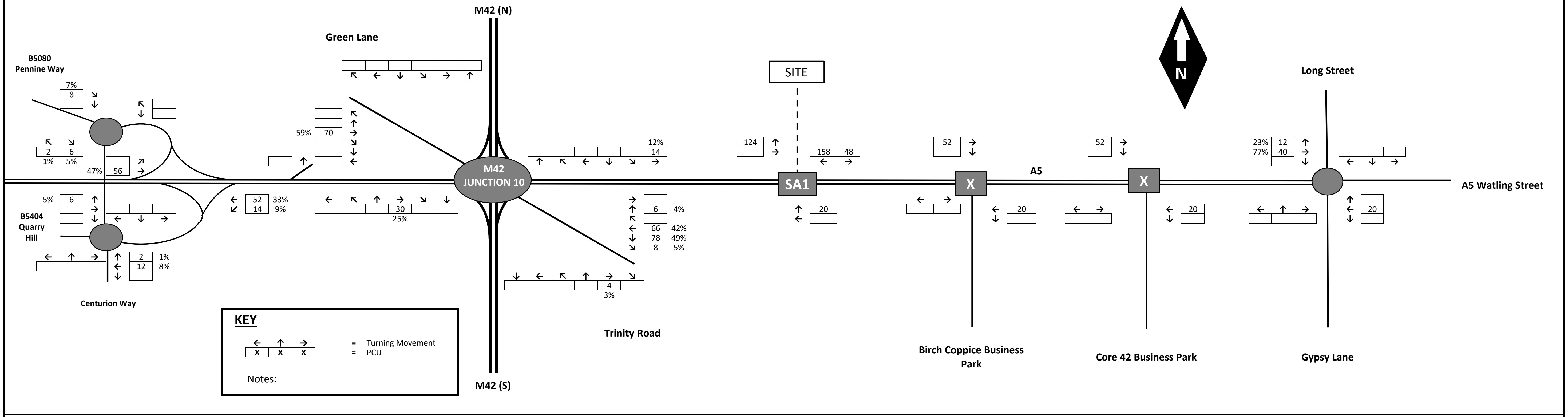


FIGURE 10

PM Peak Development Generated Traffic Flows (PCU)

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

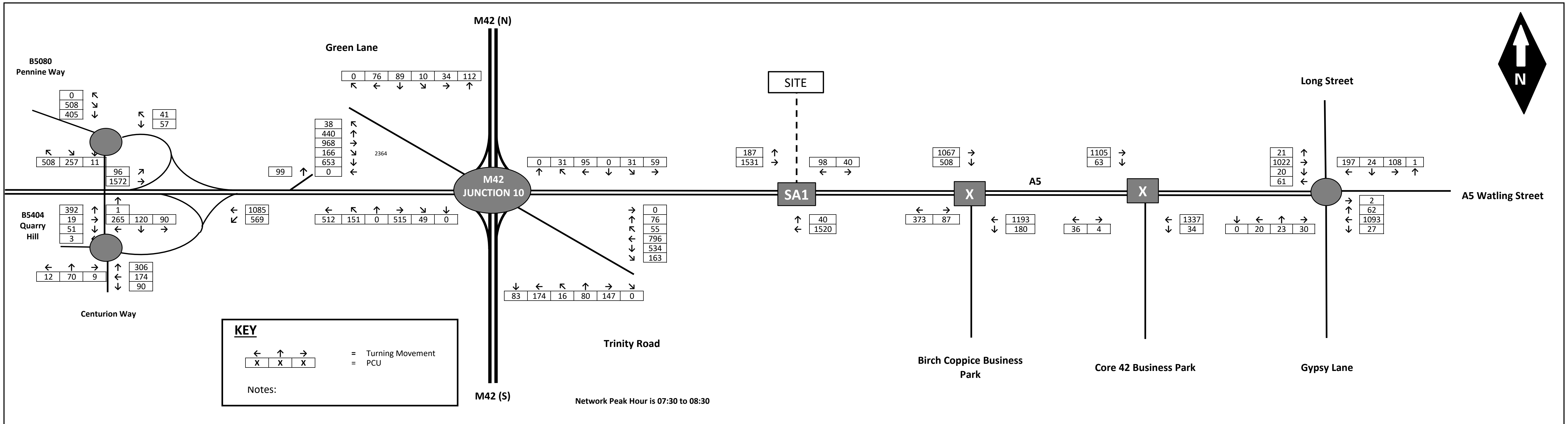


FIGURE 11

2026 AM PEAK WITH DEVELOPMENT REFERENCE CASE (0730 TO 0830) - DEMAND FLOWS

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

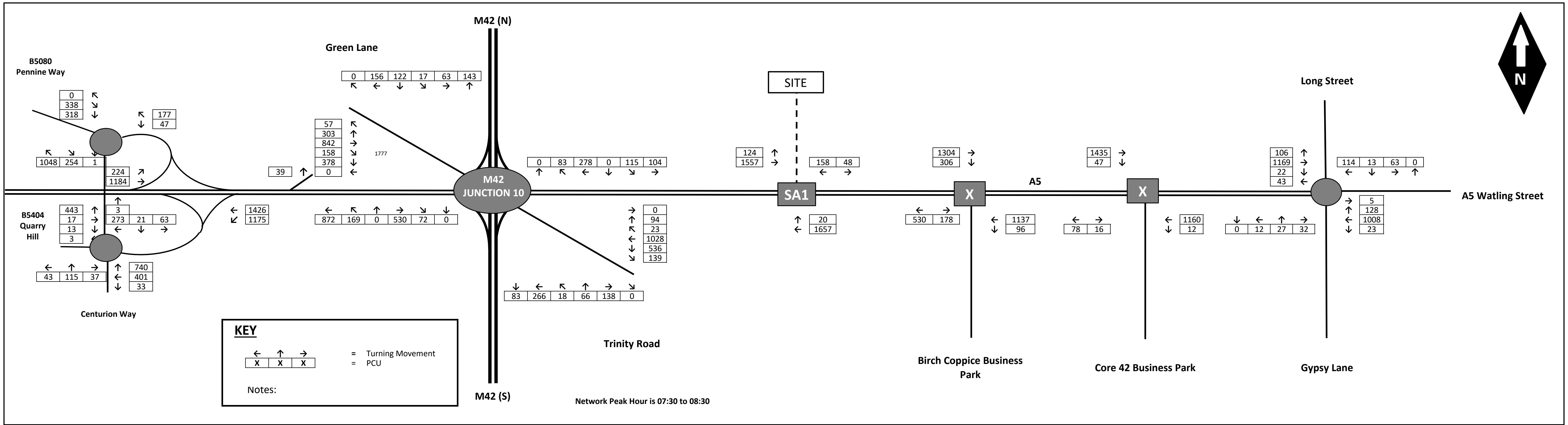


FIGURE 12

2026 PM PEAK WITH DEVELOPMENT REFERENCE CASE (1645 TO 1745) - DEMAND FLOWS

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

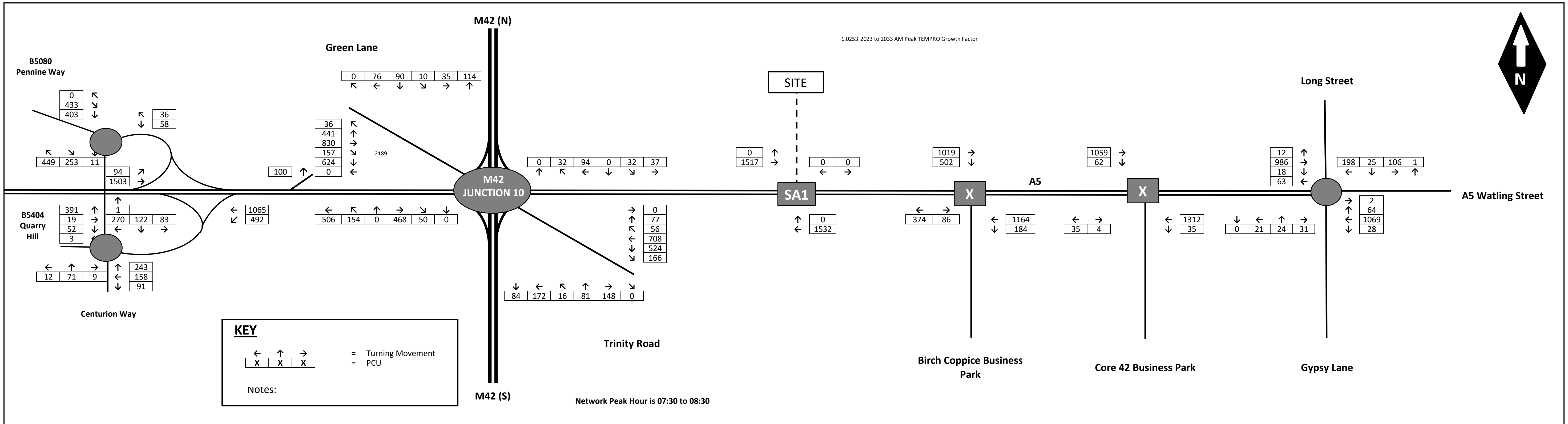


FIGURE 13

2033 AM PEAK REFERENCE CASE BASELINE (0730 TO 0830) - DEMAND FLOWS

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

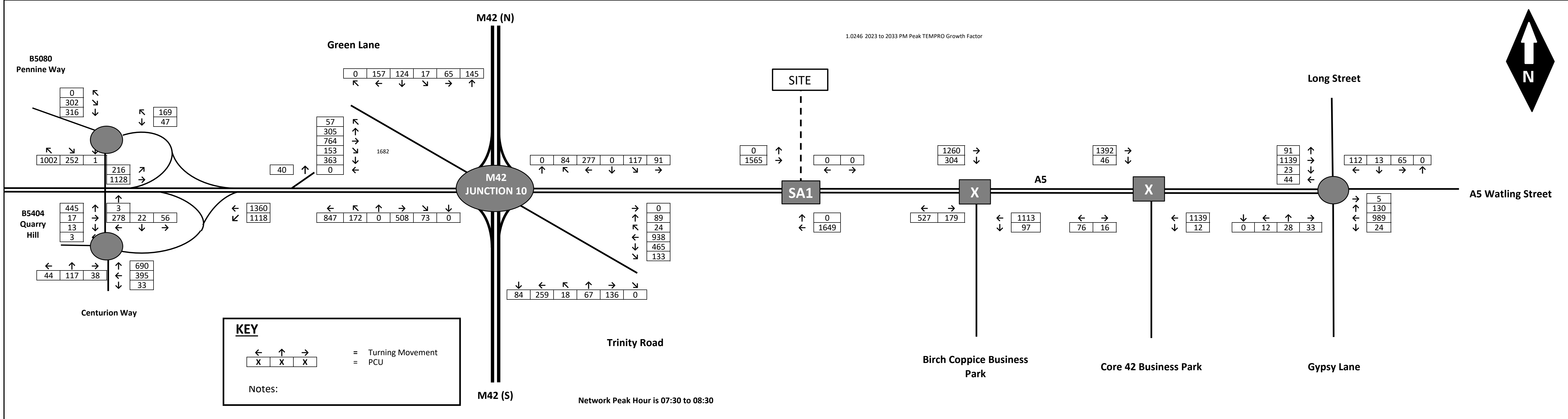


FIGURE 14

2033 PM PEAK REFERENCE CASE BASELINE (1645 TO 1745) - DEMAND FLOWS

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

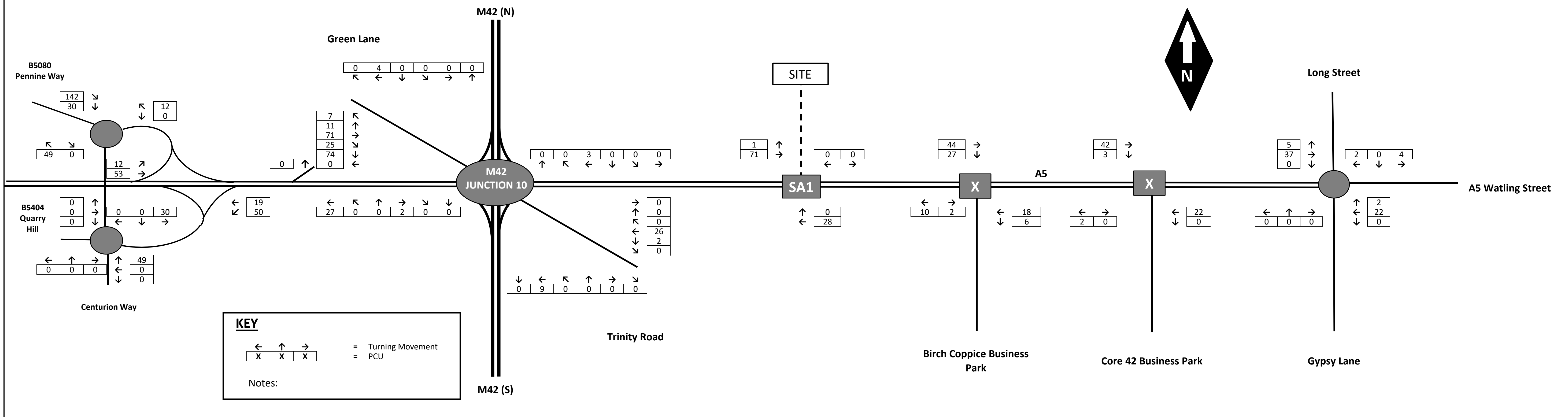


FIGURE 15

2033 AM Peak Total Committed Development Flows

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

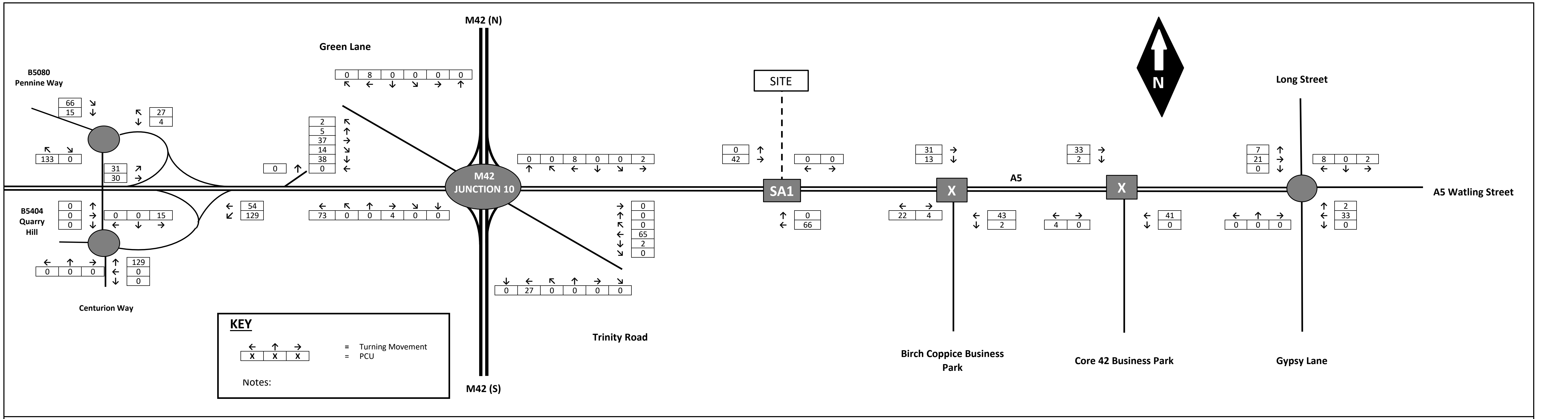


FIGURE 16

2033 PM Peak Total Committed Development Flows

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

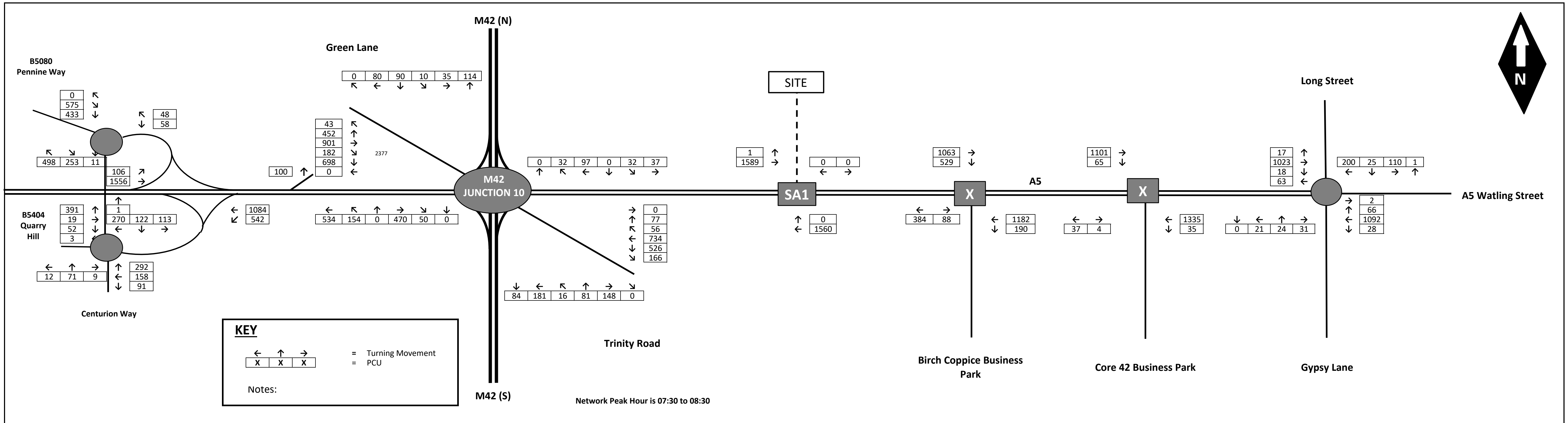
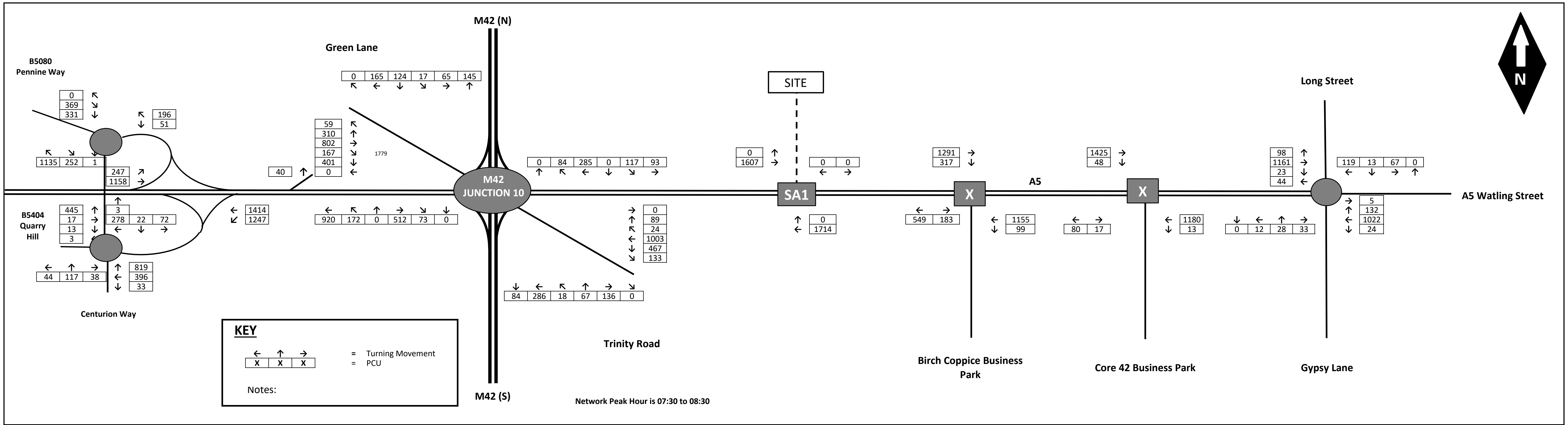


FIGURE 17

2033 AM PEAK NO DEVELOPMENT REFERENCE CASE (0730 TO 0830) - DEMAND FLOWS

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920



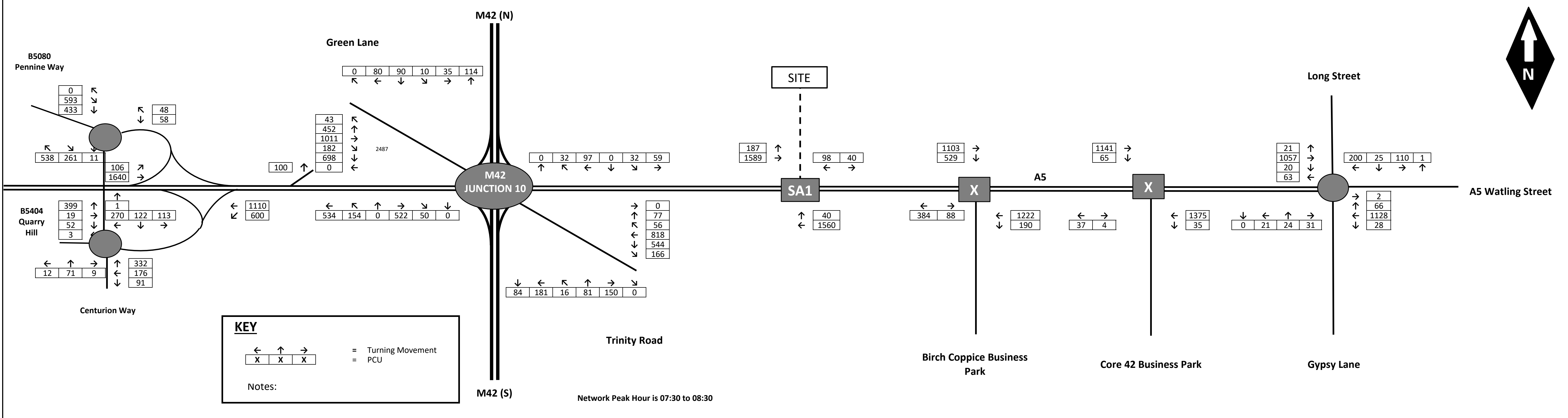
TETRA TECH

FIGURE 18

2033 PM PEAK NO DEVELOPMENT REFERENCE CASE (1645 TO 1745) - DEMAND FLOWS

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920



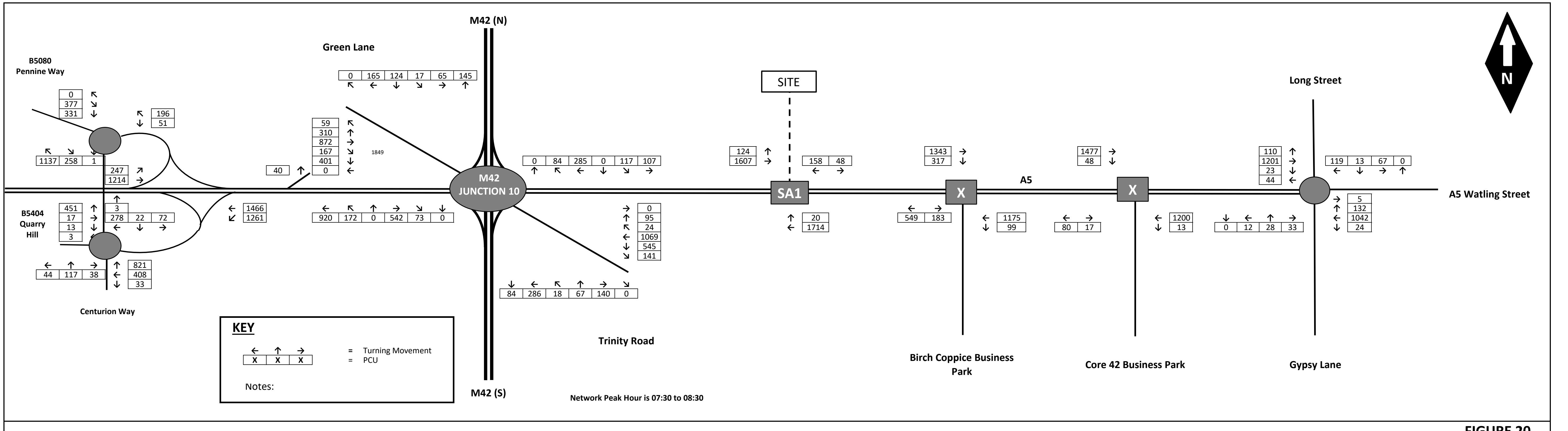
TETRA TECH

FIGURE 19

2033 AM PEAK WITH DEVELOPMENT REFERENCE CASE (0730 TO 0830) - DEMAND FLOWS

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920



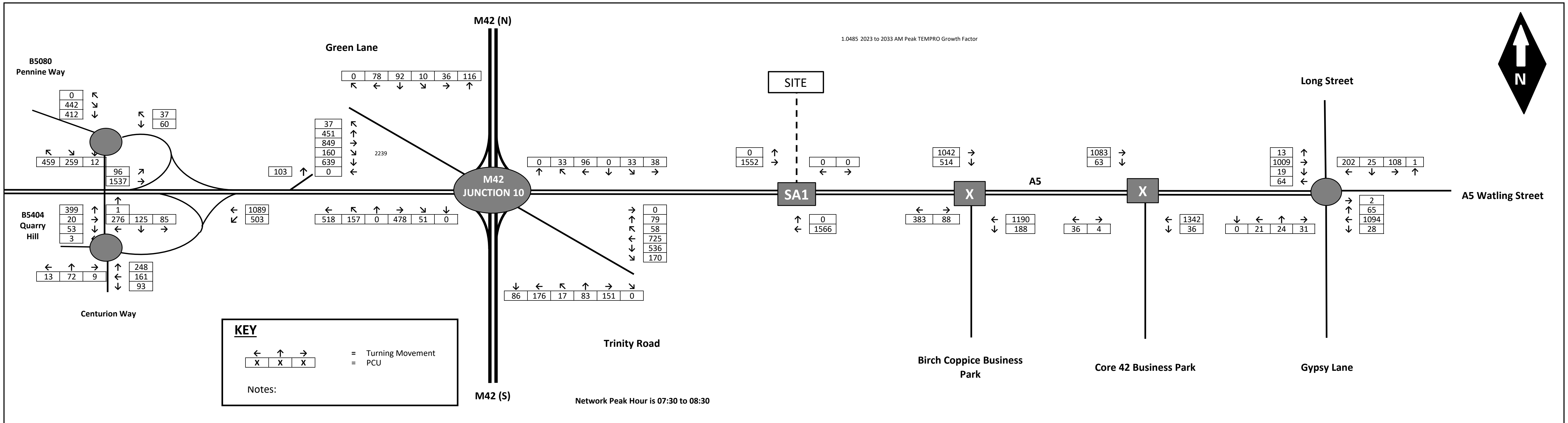
TETRA TECH

FIGURE 20

2033 PM PEAK WITH DEVELOPMENT REFERENCE CASE (1645 TO 1745) - DEMAND FLOWS

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920



TETRA TECH

FIGURE 21

2033 AM PEAK LOCAL PLAN BASELINE (0730 TO 0830) - DEMAND FLOWS

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

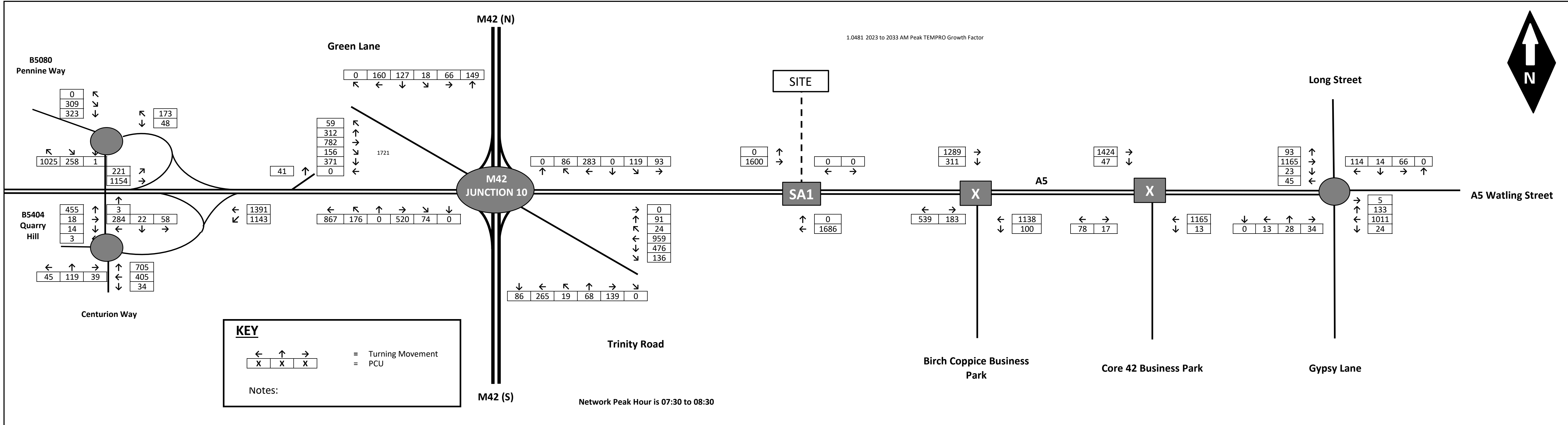


FIGURE 22

2033 PM PEAK LOCAL PLAN BASELINE (1645 TO 1745) - DEMAND FLOWS

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

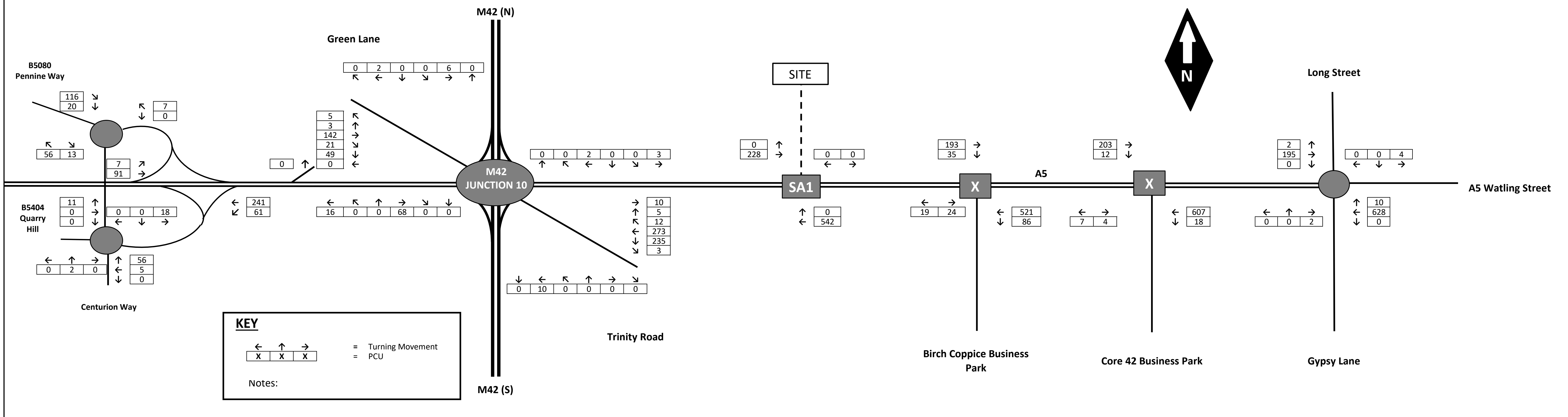


FIGURE 23

2033 AM Peak Total Local Plan Traffic Flows (PCU)

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

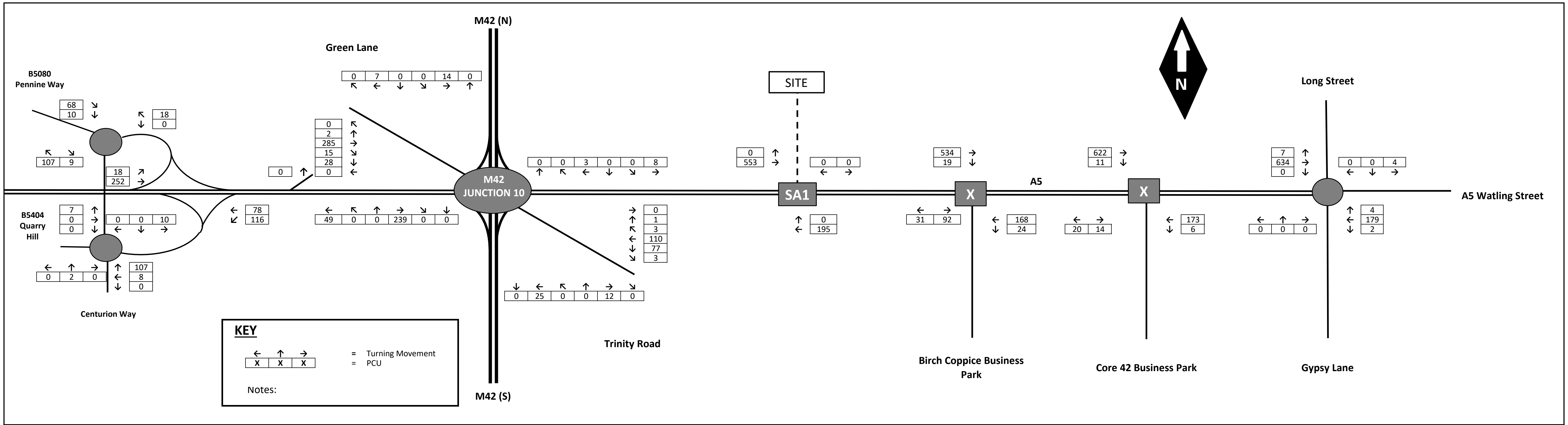


FIGURE 24

2033 PM Peak Total Local Plan Traffic Flows (PCU)

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

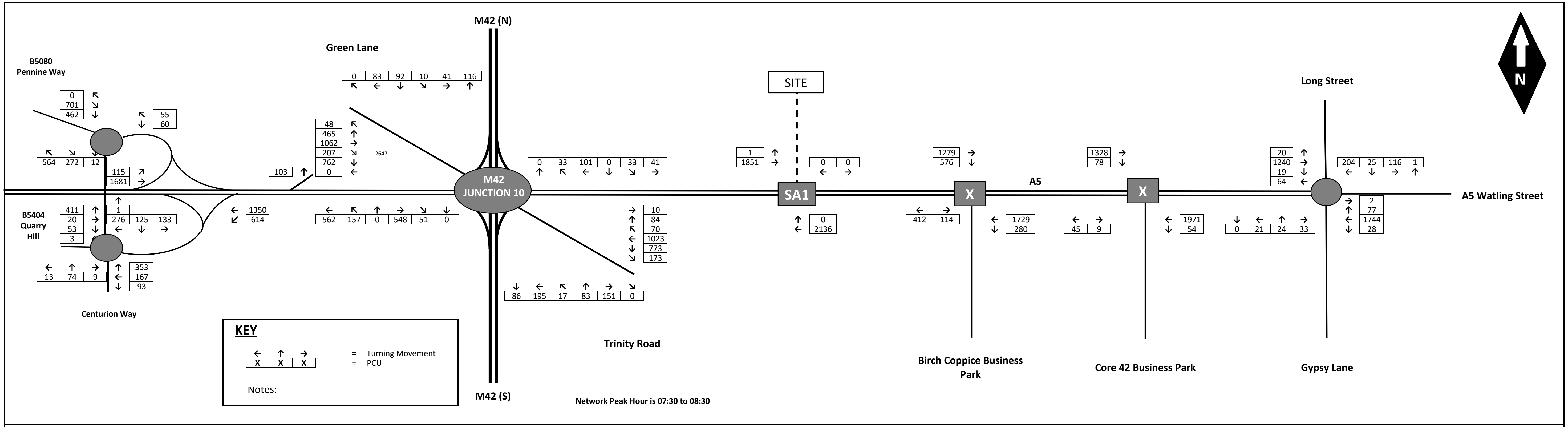


FIGURE 25

2033 AM PEAK NO DEVELOPMENT LOCAL PLAN (0730 TO 0830) - DEMAND FLOWS

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

TETRA TECH

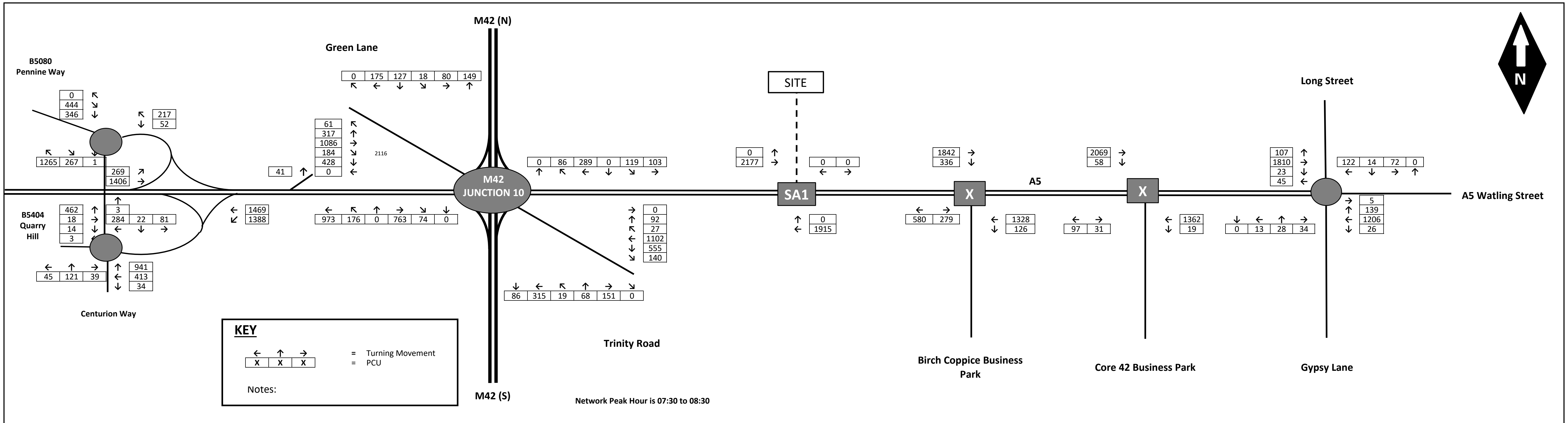


FIGURE 26

2033 PM PEAK NO DEVELOPMENT RLOCAL PLAN (1645 TO 1745) - DEMAND FLOWS

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

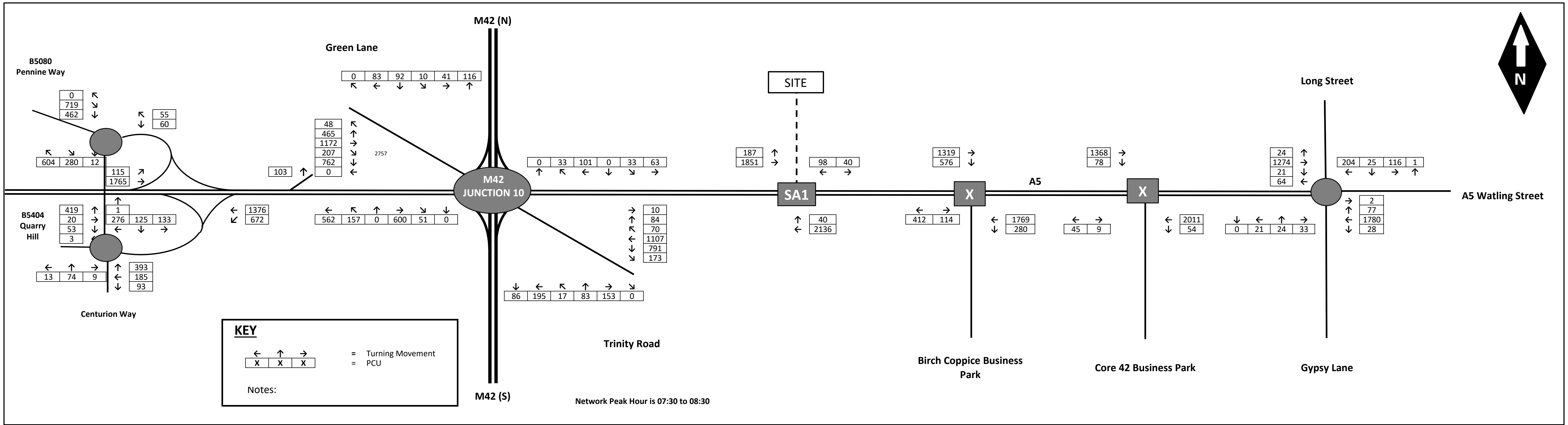


FIGURE 27

2033 AM PEAK WITH DEVELOPMENT LOCAL PLAN (0730 TO 0830) - DEMAND FLOWS

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

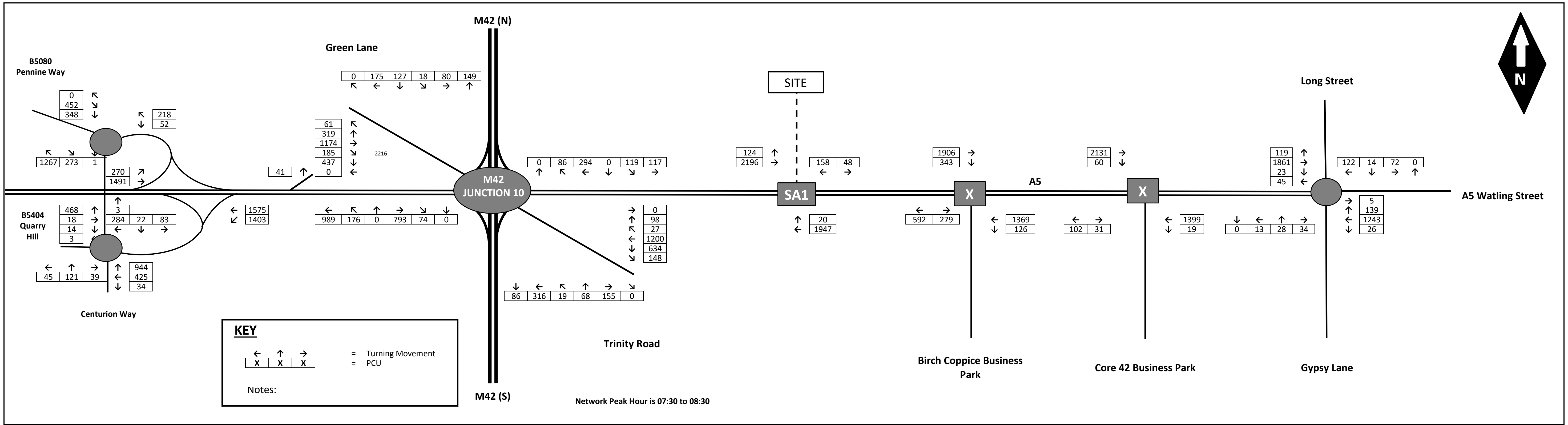


FIGURE 28

2033 PM PEAK WITH DEVELOPMENT LOCAL PLAN (1645 TO 1745) - DEMAND FLOWS

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

APPENDIX J TABLE 5.2 2026 REFERENCE CASE MODELLING RESULTS

Table 4.2: M42/ Junction 10 + A5/ Birch Coppice + A5/ Core 42, 2026 Reference Case

Traffic Stream(s)	Lane	Saturation Flow pcu/hr	Model Output	AM Peak		PM Peak	
				No Dev	With Dev + Improv.	No Dev	With Dev + Improv.
B5080 Pennine Way North/ A5 Eastbound On/ Off Slip Road							
54/1 + 55/1	Pennine Way North Lane 1	N/A	Queue Aver Delay	2 20 secs	1 8 secs	1 5 secs	1 6 secs
54/2	Pennine Way North Lane 2	N/A	Queue Aver Delay	1 6 secs	1 6 secs	1 6 secs	0 5 secs
60/1	A5 Eastbound Off Slip Lane 1	N/A	Queue Aver Delay	0 4 secs	0 4 secs	0 4 secs	0 4 secs
60/2	A5 Eastbound Off Slip Lane 2	N/A	Queue Aver Delay	0 4 secs	0 4 secs	0 4 secs	0 4 secs
64/1 + 66/1 + 86/1	Northbound Overbridge Lane 1	N/A	Queue Aver Delay	1 5 secs	1 6 secs	4 10 secs	3 9 secs
64/2	Northbound Overbridge Lane 2	N/A	Queue Aver Delay	0 4 secs	0 4 secs	0 7 secs	0 7 secs
68/1 + 59/1	A5 Eastbound On-Slip Merge	N/A	Queue Aver Delay	12 34 secs	0 2 secs	1 4 secs	0 2 secs
B5080 Pennine Way South/ A5 Westbound On/ Off Slip Road							
89/1	Southbound Overbridge Lane 1	N/A	Queue Aver Delay	0 5 secs	0 5 secs	0 4 secs	0 4 secs
89/2	Southbound Overbridge Lane 2	N/A	Queue Aver Delay	0 5 secs	0 5 secs	1 5 secs	0 5 secs
76/1	A5 Westbound Off Slip Lane 1	N/A	Queue Aver Delay	0 6 secs	0 6 secs	1 9 secs	1 9 secs
76/2 + 75/1 + 71/1	A5 Westbound Off Slip Lane 2	N/A	Queue Aver Delay	0 7 secs	0 7 secs	7 17 secs	7 26 secs
81/1	Centurion Way Lane 1	N/A	Queue Aver Delay	0 4 secs	0 4 secs	0 7 secs	0 7 secs
81/2	Centurion Way Lane 2	N/A	Queue Aver Delay	0 4 secs	0 4 secs	0 6 secs	0 6 secs
86/1	Quarry Hill Lane 1	N/A	Queue Aver Delay	1 6 secs	1 6 secs	8 59 secs	9 1m 4s
86/2	Quarry Hill Lane 2	N/A	Queue Aver Delay	0 4 secs	0 4 secs	0 4 secs	0 4 secs
M42 Junction 10							
1/1 + 2/1 + 4/1 + 5/1	M42 Northbound Offslip Lane 1	1740	Queue Aver Delay	3 16 secs	2 17 secs	11 43 secs	11 44 secs
1/2	M42 Northbound Offslip Lane 2	1740	Queue Aver Delay	2 15 secs	2 15 secs	1 22 secs	2 22 secs
1/3	M42 Northbound Offslip Lane 3	1740	Queue Aver Delay	1 14 secs	1 13 secs	6 29 secs	8 28 secs
3/1	M42 Northbound Offslip Lane 4	1849	Queue Aver Delay	4 17 secs	6 21 secs	7 27 secs	7 27 secs
3/2	M42 Northbound Offslip Lane 5	1849	Queue Aver Delay	3 17 secs	3 17 secs	7 26 secs	8 30 secs
7/1	M42 Northbound Circulating Lane 1	2039	Queue Aver Delay	15 18 secs	3 16 secs	19 17 secs	21 19 secs
7/2	M42 Northbound Circulating Lane 2	1840	Queue Aver Delay	11 14 secs	8 19 secs	24 31 secs	25 34 secs

8/1 + 9/1 + 11/1+ 69/1 + 70/1	A5 Eastbound Lane 1	1828	Queue Aver Delay	28 2m 17s	5 13 secs	12 1m 1s	5 15 secs
8/2	A5 Eastbound Lane 2	1900	Queue Aver Delay	4 15 secs	8 18 secs	5 22 secs	10 23 secs
8/3 + 9/2 + 11/2 + 69/2 + 70/2	A5 Eastbound Lane 3	1900	Queue Aver Delay	29 2m 23s	8 19 secs	11 44 secs	4 15 secs
8/4	A5 Eastbound Lane 4	1900	Queue Aver Delay	N/A	10 18 secs	N/A	9 17 secs
12/1	A5 Eastbound Circulating Lane 1	1846	Queue Aver Delay	3 19 secs	4 21 secs	5 18 secs	5 18 secs
12/2	A5 Eastbound Circulating Lane 2	1878	Queue Aver Delay	5 20 secs	3 19 secs	8 19 secs	2 16 secs
12/3	A5 Eastbound Circulating Lane 3	1878	Queue Aver Delay	5 18 secs	6 22 secs	7 18 secs	5 17 secs
12/4	A5 Eastbound Circulating Lane 4	1878	Queue Aver Delay	1 15 secs	6 23 secs	1 14 secs	8 20 secs
14/1	Green Lane Lane 1	1602	Queue Aver Delay	3 40 secs	3 41 secs	4 38 secs	5 37 secs
14/2	Green Lane Lane 2	1602	Queue Aver Delay	4 54 secs	5 59 secs	11 1m 35s	12 1m 42s
15/1	Green Lane Circulating Lane 1	1950	Queue Aver Delay	9 7 secs	3 3 secs	8 8 secs	2 2 secs
15/2	Green Lane Circulating Lane 2	1745	Queue Aver Delay	7 8 secs	13 12 secs	7 11 secs	10 7 secs
15/3	Green Lane Circulating Lane 3	1745	Queue Aver Delay	1 3 secs	10 11 secs	1 3 secs	9 14 secs
15/4	Green Lane Circulating Lane 4	1745	Queue Aver Delay	N/A	2 3 secs	N/A	2 3 secs
A13/1	Green Lane Toucan Crossing	2272	Queue Aver Delay	N/A	1 2 secs	N/A	2 16 secs
18/1	M42 Southbound Offslip Lane 1	1804	Queue Aver Delay	1 25 secs	1 26 secs	1 19 secs	1 21 secs
18/2	M42 Southbound Offslip Lane 2	1813	Queue Aver Delay	1 28 secs	1 27 secs	5 33 secs	6 52 secs
18/3	M42 Southbound Offslip Lane 3	1813	Queue Aver Delay	1 26 secs	1 26 secs	4 26 secs	4 34 secs
A16/1	Green Lane Toucan Crossing	2213	Queue Aver Delay	N/A	2 3 secs	N/A	2 2 secs
17/1	M42 Southbound Circulating Lane 1	1956	Queue Aver Delay	5 5 secs	8 7 secs	4 7 secs	15 9 secs
17/2	M42 Southbound Circulating Lane 2	1956	Queue Aver Delay	10 6 secs	7 7 secs	10 10 secs	9 7 secs
17/3	M42 Southbound Circulating Lane 3	1800	Queue Aver Delay	9 7 secs	9 9 secs	6 10 secs	8 8 secs
17/4	M42 Southbound Circulating Lane 4	1800	Queue Aver Delay	1 4 secs	1 3 secs	2 6 secs	1 5 secs
23/1	A5 Westbound Lane 1	1930	Queue Aver Delay	6 21 secs	9 20 secs	6 19 secs	7 19 secs
23/2	A5 Westbound Lane 2	1851	Queue Aver Delay	2 18 secs	6 21 secs	4 17 secs	4 18 secs

23/3 + 24/1 + 25/1	A5 Westbound Lane 3	1851	Queue Aver Delay	10 34 secs	10 28 secs	12 30 secs	11 41 secs
23/4 + 24/1	A5 Westbound Lane 4	1851	Queue Aver Delay	3 18 secs	7 19 secs	9 32 secs	10 47 secs
22/1	A5 Westbound Circulating Lane 1	1797	Queue Aver Delay	6 16 secs	4 14 secs	10 20 secs	8 16 secs
22/2	A5 Westbound Circulating Lane 2	1797	Queue Aver Delay	2 12 secs	5 18 secs	2 14 secs	7 15 secs
22/3	A5 Westbound Circulating Lane 3	1902	Queue Aver Delay	2 11 secs	2 11 secs	3 13 secs	2 13 secs
22/4	A5 Westbound Circulating Lane 4	1902	Queue Aver Delay	2 11 secs	2 10 secs	3 13 secs	3 13 secs
28/1 + 29/1	Trinity Road Lane 1	1669	Queue Aver Delay	4 31 secs	4 32 secs	12 1m 5s	9 1m 44s
28/2	Trinity Road Lane 2	1669	Queue Aver Delay	5 34 secs	5 32 secs	5 41 secs	6 43 secs
27/1	Trinity Road Circulating Lane 1	1846	Queue Aver Delay	9 9 secs	6 8 secs	5 8 secs	3 6 secs
27/2	Trinity Road Circulating Lane 2	1846	Queue Aver Delay	9 9 secs	7 11 secs	5 10 secs	10 12 secs
27/3	Trinity Road Circulating Lane 3	1878	Queue Aver Delay	13 10 secs	11 10 secs	3 7 secs	5 7 secs
27/4	Trinity Road Circulating Lane 4	1878	Queue Aver Delay	7 8 secs	9 9 secs	4 10 secs	5 12 secs
A5/ Proposed Site Access							
A56/1	A5 Eastbound Left & Ahead Lane 1	1677	Queue Aver Delay	N/A	7 15 secs	N/A	10 12 secs
A56/2	A5 Eastbound Ahead Lane 2	1738	Queue Aver Delay	N/A	6 14 secs	N/A	11 12 secs
A56/3	A5 Eastbound Ahead Lane 3	1995	Queue Aver Delay	N/A	2 8 secs	N/A	5 7 secs
A59/1	A5 Westbound Ahead Lane 1	1930	Queue Aver Delay	N/A	1 9 secs	N/A	3 9 secs
A59/2	A5 Westbound Ahead Lane 2	1930	Queue Aver Delay	N/A	0 9 secs	N/A	3 9 secs
A60/1	A5 Westbound Right Turn Lane	1597	Queue Aver Delay	N/A	1 42 secs	N/A	1 41 secs
A54/1	Site Access Left Turn Lane	1624	Queue Aver Delay	N/A	1 37 secs	N/A	1 35 secs
A55/1	Site Access Right Turn Lane 1	1619	Queue Aver Delay	N/A	1 41 secs	N/A	2 42 secs
A55/2	Site Access Right Turn Lane 2	1619	Queue Aver Delay	N/A	1 42 secs	N/A	2 41 secs
A5/ Birch Coppice							
31/1	A5 Eastbound Ahead Lane 1	1814	Queue Aver Delay	1 17 secs	1 16 secs	2 18 secs	7 19 secs
31/2	A5 Eastbound Ahead Lane 2	2082	Queue Aver Delay	1 13 secs	2 17 secs	1 16 secs	3 17 secs
32/1	A5 Eastbound Right Turn Lane 3	1960	Queue Aver Delay	10 1m 14s	9 1m 26s	4 57 secs	5 58 secs
32/2	A5 Eastbound Right Turn Lane 4	1667	Queue Aver Delay	9 1m 15s	12 1m 58s	3 50 secs	4 53 secs

37/1	A5 Westbound Left Turn Lane 1	1751	Queue Aver Delay	3 23 secs	3 22 secs	1 18 secs	1 18 secs
37/2 + 38/1	A5 Westbound Ahead Lane 2	2015	Queue Aver Delay	10 43 secs	10 48 secs	18 1 min	15 1m 2s
37/3 + 38/2	A5 Westbound Ahead Lane 3	2015	Queue Aver Delay	11 48 secs	11 53 secs	16 58 secs	14 1m 6s
42/1	Birch Coppice Left Turn Lane 1	1695	Queue Aver Delay	4 27 secs	5 27 secs	4 21 secs	4 22 secs
42/2	Birch Coppice Left Turn Lane 2	1983	Queue Aver Delay	3 25 secs	3 26 secs	5 21 secs	5 22 secs
43/1	Birch Coppice Right Turn Lane 3	1690	Queue Aver Delay	2 28 secs	2 28 secs	3 23 secs	3 24 secs
A5/ Core 42							
46/1	A5 Eastbound Ahead Lane 1	1833	Queue Aver Delay	2 3 secs	3 4 secs	3 7 secs	5 8 secs
46/2	A5 Eastbound Ahead Lane 2	2082	Queue Aver Delay	1 1 sec	1 1 sec	1 2 secs	2 2 secs
47/1	A5 Eastbound Right Turn Lane 3	1667	Queue Aver Delay	1 1 min	2 1m 4s	1 1m 21s	2 1m 27s
49/1	A5 Westbound Ahead & Left Turn Lane 1	1957	Queue Aver Delay	8 9 secs	8 10 secs	5 10 secs	5 10 secs
49/2	A5 Westbound Ahead Lane 2	1909	Queue Aver Delay	5 7 secs	5 8 secs	4 9 secs	4 9 secs
51/1	Core 42 Left Turn Lane 1	1695	Queue Aver Delay	2 2m 49s	2 2m 31s	2 54 secs	2 58 secs
52/1	Core 42 Right Turn Lane 2	1690	Queue Aver Delay	0 7m 56s	1 7m 8s	1 3m 58s	1 3m 57s
A5/ Dordon Roundabout							
91/1	A5 Eastbound Lane 1	N/A	Queue Aver Delay	4 17 secs	7 21 secs	6 19 secs	13 23 secs
91/2	A5 Eastbound Lane 2	N/A	Queue Aver Delay	0 4 secs	1 5 secs	0 7 secs	1 7 secs
92/1 + 92/2 + 93/1	Long Street	N/A	Queue Aver Delay	2 33 secs	3 37 secs	1 36 secs	1 37 secs
97/1 + 98/1	A5 Westbound Lane 1	N/A	Queue Aver Delay	5 18 secs	8 22 secs	5 14 secs	5 13 secs
97/2	A5 Westbound Lane 2	N/A	Queue Aver Delay	0 12 secs	0 12 secs	1 12 secs	1 12 secs
100/1 + 100/2 + 101/1	Gypsy Lane	N/A	Queue Aver Delay	0 21 secs	0 22 secs	0 20 secs	0 20 secs
			Network PI	5390.07	4592.34	5415.40	5688.67

KEY	
#	New traffic lanes as a result of the proposed development mitigation works
	Impact of development results in a reduction in queue of over 10pcu and/ or a reduction in delays of over 1 minute.
	Impact of development results in an increase queue of 10pcu or over and/ or an increase in delay of over 1 minute

APPENDIX K TABLE 5.3 2033 REFERENCE CASE MODELLING RESULTS

Table 5.3: M42/ Junction 10 + A5/ Birch Coppice + A5/ Core 42, 2033 Reference Case

Traffic Stream(s)	Lane	Saturation Flow pcu/hr	Model Output	AM Peak No Dev	AM Peak With Dev + Improv.	PM Peak No Dev	PM Peak With Dev + Improv.
B5080 Pennine Way North/ A5 Eastbound On/ Off Slip Road							
54/1 + 55/1	Pennine Way North Lane 1	N/A	Queue Aver Delay	14 1m 44s	2 10 secs	1 6 secs	1 6 secs
54/2	Pennine Way North Lane 2	N/A	Queue Aver Delay	1 8 secs	1 7 secs	0 5 secs	1 6 secs
60/1	A5 Eastbound Off Slip Lane 1	N/A	Queue Aver Delay	0 4 secs	0 4 secs	0 4 secs	0 4 secs
60/2	A5 Eastbound Off Slip Lane 2	N/A	Queue Aver Delay	0 4 secs	0 4 secs	0 4 secs	0 4 secs
64/1 + 66/1 + 86/1	Northbound Overbridge Lane 1	N/A	Queue Aver Delay	1 6 secs	1 6 secs	4 12 secs	4 12 secs
64/2	Northbound Overbridge Lane 2	N/A	Queue Aver Delay	0 4 secs	0 4 secs	1 7 secs	1 7 secs
68/1 + 59/1 + 58/1	A5 Eastbound On-Slip Merge	N/A	Queue Aver Delay	28 2m 6s	0 2 secs	0 5 secs	0 1 sec
B5080 Pennine Way South/ A5 Westbound On/ Off Slip Road							
89/1	Southbound Overbridge Lane 1	N/A	Queue Aver Delay	0 5 secs	0 5 secs	0 4 secs	0 4 secs
89/2	Southbound Overbridge Lane 2	N/A	Queue Aver Delay	0 5 secs	0 5 secs	0 5 secs	0 5 secs
76/1	A5 Westbound Off Slip Lane 1	N/A	Queue Aver Delay	0 6 secs	0 6 secs	1 9 secs	1 9 secs
76/2 + 75/1	A5 Westbound Off Slip Lane 2	N/A	Queue Aver Delay	1 7 secs	0 7 secs	14 42 secs	14 42 secs
81/1	Centurion Way Lane 1	N/A	Queue Aver Delay	0 4 secs	0 4 secs	0 7 secs	0 7 secs
81/2	Centurion Way Lane 2	N/A	Queue Aver Delay	0 4 secs	0 4 secs	0 6 secs	0 6 secs
86/1	Quarry Hill Lane 1	N/A	Queue Aver Delay	1 6 secs	1 6 secs	12 1m 33s	14 1m 36s
86/2	Quarry Hill Lane 2	N/A	Queue Aver Delay	0 4 secs	0 4 secs	0 5 secs	0 5 secs
M42 Junction 10							
1/1 + 2/1 + 4/1 + 5/1	M42 Northbound Offslip Lane 1	1740	Queue Aver Delay	3 17 secs	2 17 secs	10 51 secs	12 53 secs
1/2	M42 Northbound Offslip Lane 2	1740	Queue Aver Delay	2 15 secs	2 15 secs	2 24 secs	1 24 secs
1/3	M42 Northbound Offslip Lane 3	1740	Queue Aver Delay	1 13 secs	1 13 secs	8 30 secs	8 30 secs
3/1	M42 Northbound Offslip Lane 4	1849	Queue Aver Delay	4 18 secs	5 22 secs	7 28 secs	7 28 secs
3/2	M42 Northbound Offslip Lane 5	1849	Queue Aver Delay	3 17 secs	3 17 secs	7 27 secs	9 31 secs
7/1	M42 Northbound Circulating Lane 1	2039	Queue Aver Delay	15 19 secs	4 16 secs	20 18 secs	22 20 secs
7/2	M42 Northbound Circulating Lane 2	1840	Queue Aver Delay	11 15 secs	7 20 secs	26 34 secs	27 35 secs

8/1 + 9/1 + 11/1+ 69/1 + 70/1	A5 Eastbound Lane 1	1828	Queue Aver Delay	41 3m 5s	6 13 secs	10 58 secs	5 15 secs
8/2	A5 Eastbound Lane 2	1900	Queue Aver Delay	3 15 secs	8 20 secs	4 23 secs	10 24 secs
8/3 + 9/2 + 11/2 + 69/2 + 70/2	A5 Eastbound Lane 3	1900	Queue Aver Delay	46 3m 24s	6 15 secs	8 37 secs	4 15 secs
8/4	A5 Eastbound Lane 4	1900	Queue Aver Delay	N/A	12 27 secs	N/A	8 18 secs
12/1	A5 Eastbound Circulating Lane 1	1846	Queue Aver Delay	3 19 secs	4 21 secs	4 18 secs	6 18 secs
12/2	A5 Eastbound Circulating Lane 2	1878	Queue Aver Delay	5 21 secs	2 19 secs	7 19 secs	2 16 secs
12/3	A5 Eastbound Circulating Lane 3	1878	Queue Aver Delay	5 19 secs	5 21 secs	7 18 secs	4 17 secs
12/4	A5 Eastbound Circulating Lane 4	1878	Queue Aver Delay	1 16 secs	5 23 secs	1 14 secs	9 20 secs
14/1	Green Lane Lane 1	1602	Queue Aver Delay	3 41 secs	3 43 secs	5 37 secs	5 37 secs
14/2	Green Lane Lane 2	1602	Queue Aver Delay	5 59 secs	5 59 secs	16 2m 16s	17 2m 17s
15/1	Green Lane Circulating Lane 1	1950	Queue Aver Delay	9 7 secs	3 3 secs	8 8 secs	2 2 secs
15/2	Green Lane Circulating Lane 2	1745	Queue Aver Delay	6 8 secs	13 12 secs	8 12 secs	11 8 secs
15/3	Green Lane Circulating Lane 3	1745	Queue Aver Delay	1 3 secs	10 11 secs	1 3 secs	10 14 secs
15/4	Green Lane Circulating Lane 4	1745	Queue Aver Delay	N/A	1 3 secs	N/A	3 3 secs
A13/1	Green Lane Toucan Crossing	2272	Queue Aver Delay	N/A	1 2 secs	N/A	3 16 secs
18/1	M42 Southbound Offslip Lane 1	1804	Queue Aver Delay	1 25 secs	1 26 secs	1 19 secs	2 20 secs
18/2	M42 Southbound Offslip Lane 2	1813	Queue Aver Delay	1 28 secs	1 27 secs	5 36 secs	6 53 secs
18/3	M42 Southbound Offslip Lane 3	1813	Queue Aver Delay	1 26 secs	1 27 secs	3 25 secs	4 36 secs
A16/1	Green Lane Toucan Crossing	2213	Queue Aver Delay	N/A	3 3 secs	N/A	2 2 secs
17/1	M42 Southbound Circulating Lane 1	1956	Queue Aver Delay	4 5 secs	8 7 secs	3 7 secs	14 9 secs
17/2	M42 Southbound Circulating Lane 2	1956	Queue Aver Delay	9 6 secs	7 7 secs	10 10 secs	10 7 secs
17/3	M42 Southbound Circulating Lane 3	1800	Queue Aver Delay	10 8 secs	11 9 secs	7 10 secs	8 9 secs
17/4	M42 Southbound Circulating Lane 4	1800	Queue Aver Delay	1 4 secs	1 3 secs	2 6 secs	1 5 secs
23/1	A5 Westbound Lane 1	1930	Queue Aver Delay	6 21 secs	9 20 secs	6 19 secs	8 19 secs
23/2	A5 Westbound Lane 2	1851	Queue Aver Delay	2 18 secs	5 23 secs	4 18 secs	5 19 secs

23/3 + 24/1 + 25/1	A5 Westbound Lane 3	1851	Queue Aver Delay	10 35 secs	10 28 secs	12 35 secs	11 41 secs
23/4 + 24/1	A5 Westbound Lane 4	1851	Queue Aver Delay	3 18 secs	8 20 secs	8 2 secs	11 45 secs
22/1	A5 Westbound Circulating Lane 1	1797	Queue Aver Delay	6 16 secs	4 14 secs	11 20 secs	8 17 secs
22/2	A5 Westbound Circulating Lane 2	1797	Queue Aver Delay	2 12 secs	5 19 secs	3 14 secs	7 16 secs
22/3	A5 Westbound Circulating Lane 3	1902	Queue Aver Delay	2 11 secs	2 11 secs	2 12 secs	2 13 secs
22/4	A5 Westbound Circulating Lane 4	1902	Queue Aver Delay	2 11 secs	2 11 secs	3 13 secs	3 13 secs
28/1 + 29/1	Trinity Road Lane 1	1669	Queue Aver Delay	4 32 secs	4 33 secs	15 1m 32s	10 2m 3s
28/2	Trinity Road Lane 2	1669	Queue Aver Delay	5 35 secs	5 33 secs	6 46 secs	6 47 secs
27/1	Trinity Road Circulating Lane 1	1846	Queue Aver Delay	9 9 secs	6 9 secs	5 8 secs	3 6 secs
27/2	Trinity Road Circulating Lane 2	1846	Queue Aver Delay	9 9 secs	7 12 secs	5 10 secs	9 12 secs
27/3	Trinity Road Circulating Lane 3	1878	Queue Aver Delay	13 10 secs	12 10 secs	3 7 secs	5 7 secs
27/4	Trinity Road Circulating Lane 4	1878	Queue Aver Delay	8 8 secs	9 9 secs	4 12 secs	5 13 secs
A5/ Proposed Site Access							
A56/1	A5 Eastbound Left & Ahead Lane 1	1677	Queue Aver Delay	N/A	8 15 secs	N/A	11 12 secs
A56/2	A5 Eastbound Ahead Lane 2	1738	Queue Aver Delay	N/A	5 14 secs	N/A	11 11 secs
A56/3	A5 Eastbound Ahead Lane 3	1995	Queue Aver Delay	N/A	2 8 secs	N/A	5 7 secs
A59/1	A5 Westbound Ahead Lane 1	1930	Queue Aver Delay	N/A	0 9 secs	N/A	3 9 secs
A59/2	A5 Westbound Ahead Lane 2	1930	Queue Aver Delay	N/A	0 9 secs	N/A	3 9 secs
A60/1	A5 Westbound Right Turn Lane	1597	Queue Aver Delay	N/A	1 43 secs	N/A	0 41 secs
A54/1	Site Access Left Turn Lane	1624	Queue Aver Delay	N/A	1 36 secs	N/A	1 36 secs
A55/1	Site Access Right Turn Lane 1	1619	Queue Aver Delay	N/A	1 40 secs	N/A	2 42 secs
A55/2	Site Access Right Turn Lane 2	1619	Queue Aver Delay	N/A	2 41 secs	N/A	2 42 secs
A5/ Birch Coppice							
31/1	A5 Eastbound Ahead Lane 1	1814	Queue Aver Delay	1 16 secs	1 16 secs	3 18 secs	9 20 secs
31/2	A5 Eastbound Ahead Lane 2	2082	Queue Aver Delay	1 13 secs	1 20 secs	1 16 secs	5 17 secs
32/1	A5 Eastbound Right Turn Lane 3	1960	Queue Aver Delay	10 1m 19s	11 1m 40s	5 54 secs	5 55 secs
32/2	A5 Eastbound Right Turn Lane 4	1667	Queue Aver Delay	10 1m 19s	13 2m 8s	4 51 secs	4 53 secs

37/1	A5 Westbound Left Turn Lane 1	1751	Queue Aver Delay	3 23 secs	2 22 secs	1 17 secs	1 17 secs
37/2 + 38/1 + 53/1	A5 Westbound Ahead Lane 2	2015	Queue Aver Delay	11 45 secs	10 48 secs	25 1m 16s	18 1m 14s
37/3 + 38/2 + 53/2	A5 Westbound Ahead Lane 3	2015	Queue Aver Delay	11 51 secs	10 55 secs	18 1m 7s	17 1m 15s
42/1	Birch Coppice Left Turn Lane 1	1695	Queue Aver Delay	4 27 secs	5 27 secs	5 22 secs	5 22 secs
42/2	Birch Coppice Left Turn Lane 2	1983	Queue Aver Delay	3 25 secs	3 25 secs	6 21 secs	5 22 secs
43/1	Birch Coppice Right Turn Lane 3	1690	Queue Aver Delay	2 27 secs	2 28 secs	3 24 secs	4 24 secs
A5/ Core 42							
46/1	A5 Eastbound Ahead Lane 1	1833	Queue Aver Delay	2 4 secs	3 5 secs	7 11 secs	9 12 secs
46/2	A5 Eastbound Ahead Lane 2	2082	Queue Aver Delay	1 1 sec	2 2 secs	3 4 secs	4 4 secs
47/1	A5 Eastbound Right Turn Lane 3	1667	Queue Aver Delay	1 57 secs	2 57 secs	1 51 secs	1 53 secs
49/1	A5 Westbound Ahead & Left Turn Lane 1	1957	Queue Aver Delay	8 10 secs	8 10 secs	7 13 secs	8 14 secs
49/2	A5 Westbound Ahead Lane 2	1909	Queue Aver Delay	4 8 secs	4 8 secs	5 12 secs	7 13 secs
51/1	Core 42 Left Turn Lane 1	1695	Queue Aver Delay	2 2m 35s	2 2m 38s	1 59 secs	2 1m 3s
52/1	Core 42 Right Turn Lane 2	1690	Queue Aver Delay	1 7m 29s	0 7m 20s	1 1m 35s	1 1m 42s
A5/ Dordon Roundabout							
91/1	A5 Eastbound Lane 1	N/A	Queue Aver Delay	4 17 secs	7 23 secs	8 20 secs	14 26 secs
91/2	A5 Eastbound Lane 2	N/A	Queue Aver Delay	0 5 secs	1 5 secs	0 7 secs	1 7 secs
92/1 + 92/2 + 93/1	Long Street	N/A	Queue Aver Delay	2 35 secs	2 41 secs	2 37 secs	2 40 secs
97/1 + 98/1	A5 Westbound Lane 1	N/A	Queue Aver Delay	8 21 secs	9 28 secs	3 14 secs	4 14 secs
97/2	A5 Westbound Lane 2	N/A	Queue Aver Delay	0 12 secs	0 12 secs	0 12 secs	1 13 secs
100/1 + 100/2 + 101/1	Gypsy Lane	N/A	Queue Aver Delay	0 23 secs	0 23 secs	0 21 secs	0 20 secs
			Network PI	6561.51	4929.41	6121.87	6338.70

KEY	
#	New traffic lanes as a result of the proposed development mitigation works
	Impact of development results in a reduction in queue of over 10pcu and/ or a reduction in delays of over 1 minute.
	Impact of development results in an increase queue of 10pcu or over and/ or an increase in delay of over 1 minute

APPENDIX L LOCAL PLAN ASSOCIATED HIGHWAY WORKS

Appendix L1 – M42 Junction 10 Local Plan Improvements

Phil Jones Associates Drawing 02853-01 Rev A

Drawing Status:
These drawings have been produced with reference to the CDM Regulations 2015; Regulation 9.

These Drawings are for planning approvals and are not to be used for construction purposes. It is the responsibility of the contractor and client to identify risks associated with the construction stage and to design appropriate measures to mitigate. The risks identified on the PJA Scheme Design Risk Assessment are based on the information available at the time of the design (drawing date) Where shown on PJA Design Drawings, the position of services is based on information provided by other parties at the time of the design and is for guidance only. It is the responsibility of the Client and Contractor to verify the exact position of any services before commencing works on site.

Client Duties:
The client is directed to Regulation 4 of the CDM 2015 Regulations: Client duties in relation to managing projects

Rev / Date	Description	Drn	Chck'd

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Client
Warwickshire County Council (WCC)

Project
02853 M42 Junction 10

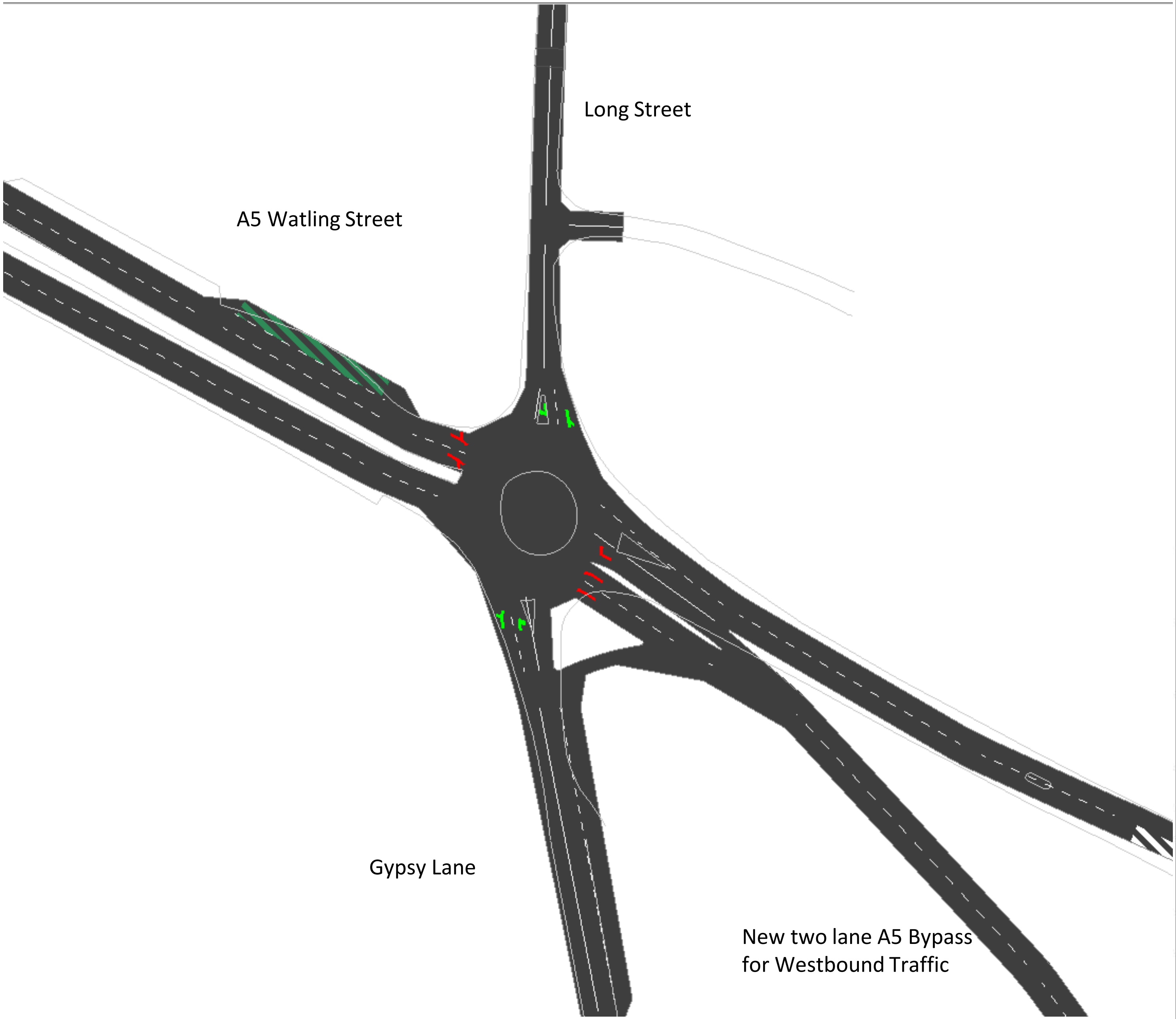
Drawing
Indicative Solution. Level Intervention 2 B+C+D+E+F

Drawn by: AH 24/08/2017	Scale:
Checked by: MN 24/08/2017	1:2000 @ A1
Drawing No. 02853 - 01	Revision A

File: T:\Projects Current\#2800\02853 M42 J10 HS2 Impact\2. Drawings\Design\Preliminary Design\Level Intervention 2B&C&D&E&F\Level Intervention 2B+C+D+E+F.dwg

Appendix L2 – A5/ Dordon Roundabout Upgrade to Traffic Signals

Vectos Strategic Transport Assessment – ID6 Dordon Signals



Existing roundabout replaced by a fully signalised junction signalisation which can accommodate the A5 Bypass

CLIENT: Warwickshire County Council

PROJECT:
VM175102
NBWA STA Testing

TITLE:
ID 6 – 2026
Dordon Signals
Watling Street/Long Stret/Gypsy Lane

SCALE: NTS

DRAWN:	CHECKED:	DATE:	REVISION:
CH	BN	24/03/2017	1

vectos
microsimulation specialists

Cornwall Buildings, 45 Newhall Street, Birmingham B3 3QR
Tel: 0121 213 6376 Email: microsim@vectos.co.uk www.vectos.co.uk

DRAWING REFERENCE:

Appendix L3 – A5/ Dordon Roundabout Upgrade to Traffic Signals

TT Drawing 784-B033920-TTE-00-ZZ-SK-H-0009

1. THIS DRAWING SHOULD BE READ IN RELATION TO THE SUBJECT OF THE TITLE ONLY. OTHER INFORMATION SHOWN ON THE DRAWING IS TO BE CONSIDERED INDICATIVE ONLY. REFERENCE SHOULD BE MADE TO APPROPRIATE DRAWING SERIES/SPECIFICATIONS FOR OTHER INFORMATION.
2. ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED OTHERWISE.
3. THIS DRAWING IS BASED ON 'WCC M42 JUNCTION 10 INDICATIVE SOLUTION LEVEL INTERVENTION 2 B C D E F'
4. PLEASE NOTE THAT THE OIL PIPE AND GAS MAIN ARE DISPLAYED FOR INDICATIVE PURPOSES

PRELIMINARY ISSUE

Rev	Description	Date	Drn / Chk / App		
P01	PRELIMINARY FIRST ISSUE	08.09.2023	JG	LB	GW

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TETRA TECH

Client

HODGETTS ESTATES

Project Name

LAND NORTH EAST OF JUNCTION 10
M42, NORTH WARWICKSHIRE

Sheet Title

OPTION A - DUAL CARRIAGEWAY & SIGNALISED A5/ LONG STREET/ GYPSY LANE JUNCTION

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A1	Suitability
784-B033920	JG	Nov '23	LB	Nov '23	GW	Nov '23	1:500	S3

Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision
B033920	TTE	00	ZZ	SK	H	0009	P01

TTE_MT_v1

APPENDIX M TABLE 5.4 2033 LOCAL PLAN MODELLING RESULTS

Table 5.4: M42/ Junction 10 + A5/ Birch Coppice + A5/ Core 42, 2033 Local Plan

Traffic Stream(s)	Lane	Saturation Flow pcu/hr	Model Output	AM Peak No Dev	AM Peak With Dev + Improv.	PM Peak No Dev	PM Peak With Dev + Improv.
B5080 Pennine Way North/ A5 Eastbound On/ Off Slip Road							
54/1 + 55/1	Pennine Way North Lane 1	N/A	Queue Aver Delay	3 18 secs	5 27 secs	1 8 secs	2 16 secs
54/2	Pennine Way North Lane 2	N/A	Queue Aver Delay	1 7 secs	1 8 secs	1 6 secs	1 6 secs
60/1	A5 Eastbound Off Slip Lane 1	N/A	Queue Aver Delay	0 4 secs	0 4 secs	0 4 secs	0 4 secs
60/2	A5 Eastbound Off Slip Lane 2	N/A	Queue Aver Delay	0 4 secs	0 4 secs	0 5 secs	0 5 secs
64/1 + 66/1 + 86/1	Northbound Overbridge Lane 1	N/A	Queue Aver Delay	1 6 secs	1 6 secs	5 15 secs	5 14 secs
64/2	Northbound Overbridge Lane 2	N/A	Queue Aver Delay	0 4 secs	1 4 secs	0 7 secs	1 7 secs
68/1 + 59/1 + 58/1	A5 Eastbound On-Slip Merge	N/A	Queue Aver Delay	4 17 secs	8 29 secs	5 25 secs	13 58 secs
B5080 Pennine Way South/ A5 Westbound On/ Off Slip Road							
89/1	Southbound Overbridge Lane 1	N/A	Queue Aver Delay	0 5 secs	0 5 secs	0 4 secs	0 4 secs
89/2	Southbound Overbridge Lane 2	N/A	Queue Aver Delay	0 5 secs	0 5 secs	0 5 secs	0 5 secs
76/1	A5 Westbound Off Slip Lane 1	N/A	Queue Aver Delay	1 7 secs	1 7 secs	1 10 secs	1 10 secs
76/2 + 75/1 + 71/1	A5 Westbound Off Slip Lane 2	N/A	Queue Aver Delay	1 8 secs	1 8 secs	37 1m 27s	37 1m 37s
81/1	Centurion Way Lane 1	N/A	Queue Aver Delay	0 4 secs	0 5 secs	0 8 secs	0 8 secs
81/2	Centurion Way Lane 2	N/A	Queue Aver Delay	0 4 secs	0 4 secs	0 6 secs	0 6 secs
86/1	Quarry Hill Lane 1	N/A	Queue Aver Delay	1 6 secs	1 7 secs	25 2m 47s	25 2m 59s
86/2	Quarry Hill Lane 2	N/A	Queue Aver Delay	0 4 secs	0 4 secs	0 5 secs	0 5 secs
M42 Junction 10							
1/1 + 2/1 + 4/1 + 5/1	M42 Northbound Offslip Lane 1	1740	Queue Aver Delay	3 17 secs	3 17 secs	12 45 secs	12 45 secs
1/2	M42 Northbound Offslip Lane 2	1740	Queue Aver Delay	2 15 secs	2 15 secs	5 28 secs	5 28 secs
1/3	M42 Northbound Offslip Lane 3	1740	Queue Aver Delay	1 13 secs	1 13 secs	4 1m 1s	4 1m 5s
3/1	M42 Northbound Offslip Lane 4	1849	Queue Aver Delay	6 23 secs	6 27 secs	13 46 secs	13 53 secs
3/2	M42 Northbound Offslip Lane 5	1849	Queue Aver Delay	3 17 secs	4 18 secs	11 39 secs	12 47 secs
7/1	M42 Northbound Circulating Lane 1	2039	Queue Aver Delay	3 8 secs	3 8 secs	7 11 secs	8 11 secs
7/2	M42 Northbound Circulating Lane 2	1840	Queue Aver Delay	11 17 secs	12 17 secs	18 23 secs	21 24 secs

7/3	M42 Northbound Circulating Lane 3	1840	Queue Aver Delay	13 18 secs	15 22 secs	17 47 secs	18 48 secs
7/4	M42 Northbound Circulating Lane 4	1840	Queue Aver Delay	3 9 secs	2 8 secs	1 10 secs	1 10 secs
8/1 + 9/1 + 11/1	A5 Eastbound Lane 1	1828	Queue Aver Delay	10 27 secs	10 31 secs	6 42 secs	6 42 secs
8/2 + 9/2 + 11/2 + 69/1 + 70/1	A5 Eastbound Lane 2	1900	Queue Aver Delay	27 1m 20s	34 1m 47s	30 2m 28s	49 3m 35s
8/3	A5 Eastbound Lane 3	1900	Queue Aver Delay	4 17 secs	5 20 secs	8 38 secs	9 45 secs
8/4 + 9/3 + 11/3 + 69/2 + 70/2	A5 Eastbound Lane 4	1900	Queue Aver Delay	28 1m 16s	31 1m 26s	20 1m 40s	31 3m 9s
12/1	A5 Eastbound Circulating Lane 1	1846	Queue Aver Delay	4 21 secs	5 23 secs	4 19 secs	4 19 secs
12/2	A5 Eastbound Circulating Lane 2	1878	Queue Aver Delay	1 18 secs	2 20 secs	2 17 secs	3 17 secs
12/3	A5 Eastbound Circulating Lane 3	1878	Queue Aver Delay	7 22 secs	7 25 secs	9 22 secs	8 21 secs
12/4	A5 Eastbound Circulating Lane 4	1878	Queue Aver Delay	7 24 secs	8 29 secs	11 26 secs	12 27 secs
14/1	Green Lane Lane 1	1602	Queue Aver Delay	4 43 secs	4 44 secs	6 42 secs	5 42 secs
14/2	Green Lane Lane 2	1602	Queue Aver Delay	6 1m 4s	5 1m 6s	20 2m 58s	21 3m 2s
15/1	Green Lane Circulating Lane 1	1950	Queue Aver Delay	1 2 secs	2 4 secs	2 2 secs	2 3 secs
15/2	Green Lane Circulating Lane 2	1745	Queue Aver Delay	16 13 secs	17 13 secs	16 16 secs	16 15 secs
15/3	Green Lane Circulating Lane 3	1745	Queue Aver Delay	9 11 secs	12 11 secs	16 17 secs	18 18 secs
15/4	Green Lane Circulating Lane 4	1745	Queue Aver Delay	1 3 secs	1 4 secs	4 5 secs	5 5 secs
A13/1	Green Lane Toucan Crossing	2272	Queue Aver Delay	N/A	2 2 secs	N/A	4 16 secs
18/1	M42 Southbound Offslip Lane 1	1804	Queue Aver Delay	1 25 secs	1 26 secs	2 21 secs	2 21 secs
18/2	M42 Southbound Offslip Lane 2	1813	Queue Aver Delay	1 25 secs	2 27 secs	2 23 secs	8 1m 7s
18/3	M42 Southbound Offslip Lane 3	1813	Queue Aver Delay	2 27 secs	2 26 secs	5 54 secs	5 54 secs
A16/1	Green Lane Toucan Crossing	2213	Queue Aver Delay	N/A	2 3 secs	N/A	2 2 secs
17/1	M42 Southbound Circulating Lane 1	1956	Queue Aver Delay	18 7 secs	19 7 secs	13 10 secs	14 11 secs
17/2	M42 Southbound Circulating Lane 2	1956	Queue Aver Delay	16 6 secs	17 7 secs	13 11 secs	14 11 secs
17/3	M42 Southbound Circulating Lane 3	1800	Queue Aver Delay	21 10 secs	21 11 secs	9 12 secs	9 11 secs
17/4	M42 Southbound Circulating Lane 4	1800	Queue Aver Delay	1 3 secs	1 3 secs	1 8 secs	1 10 secs

23/1 + 24/1 + A25/1	A5 Westbound Lane 1	1930	Queue Aver Delay	14 32 secs	8 35 secs	7 37 secs	15 46 secs
23/2	A5 Westbound Lane 2	1851	Queue Aver Delay	7 28 secs	5 29 secs	5 31 secs	7 33 secs
23/3 + 24/2	A5 Westbound Lane 3	1851	Queue Aver Delay	9 24 secs	6 25 secs	8 41 secs	13 43 secs
23/4 + 24/3 + A25/2	A5 Westbound Lane 4	1851	Queue Aver Delay	12 30 secs	8 31 secs	8 1m 23s	8 1m 48s
22/1	A5 Westbound Circulating Lane 1	1797	Queue Aver Delay	13 22 secs	12 22 secs	14 22 secs	14 21 secs
22/2	A5 Westbound Circulating Lane 2	1797	Queue Aver Delay	6 18 secs	6 19 secs	6 15 secs	5 15 secs
22/3	A5 Westbound Circulating Lane 3	1902	Queue Aver Delay	1 11 secs	1 11 secs	1 12 secs	1 12 secs
22/4	A5 Westbound Circulating Lane 4	1902	Queue Aver Delay	2 11 secs	2 11 secs	5 33 secs	5 34 secs
28/1	Trinity Road Lane 1	1669	Queue Aver Delay	4 45 secs	4 44 secs	3 29 secs	3 29 secs
28/2	Trinity Road Lane 2	1669	Queue Aver Delay	2 40 secs	2 40 secs	2 26 secs	3 26 secs
28/3 + 29/1	Trinity Road Lane 3	1669	Queue Aver Delay	8 1m 1s	9 1m 2s	13 1m 26s	12 1m 33s
27/1	Trinity Road Circulating Lane 1	1846	Queue Aver Delay	11 8 secs	11 8 secs	6 9 secs	7 9 secs
27/2	Trinity Road Circulating Lane 2	1846	Queue Aver Delay	15 10 secs	15 10 secs	9 14 secs	9 14 secs
27/3	Trinity Road Circulating Lane 3	1878	Queue Aver Delay	11 7 secs	11 7 secs	2 6 secs	2 6 secs
27/4	Trinity Road Circulating Lane 4	1878	Queue Aver Delay	12 8 secs	13 8 secs	7 25 secs	6 26 secs
A5/ Proposed Site Access							
A56/1	A5 Eastbound Left & Ahead Lane 1	1677	Queue Aver Delay	N/A	12 16 secs	N/A	16 14 secs
A56/2	A5 Eastbound Ahead Lane 2	1738	Queue Aver Delay	N/A	11 15 secs	N/A	14 13 secs
A56/3	A5 Eastbound Ahead Lane 3	1995	Queue Aver Delay	N/A	4 8 secs	N/A	5 8 secs
A59/1	A5 Westbound Ahead Lane 1	1930	Queue Aver Delay	N/A	1 12 secs	N/A	4 21 secs
A59/2	A5 Westbound Ahead Lane 2	1930	Queue Aver Delay	N/A	2 12 secs	N/A	3 21 secs
A60/1	A5 Westbound Right Turn Lane	1597	Queue Aver Delay	N/A	1 42 secs	N/A	1 41 secs
A54/1	Site Access Left Turn Lane	1624	Queue Aver Delay	N/A	1 36 secs	N/A	1 36 secs
A55/1	Site Access Right Turn Lane 1	1619	Queue Aver Delay	N/A	1 41 secs	N/A	2 1m 10s
A55/2	Site Access Right Turn Lane 2	1619	Queue Aver Delay	N/A	1 41 secs	N/A	2 1m 6s
A5/ Birch Coppice							
31/1	A5 Eastbound Ahead Lane 1	1814	Queue Aver Delay	1 9 secs	2 11 secs	2 13 secs	2 14 secs

31/2	A5 Eastbound Ahead Lane 2	2082	Queue Aver Delay	2 10 secs	6 9 secs	1 11 secs	3 12 secs
32/1	A5 Eastbound Right Turn Lane 3	1960	Queue Aver Delay	13 1m 39s	12 1m 36s	6 1m 2s	5 1 min
32/2	A5 Eastbound Right Turn Lane 4	1667	Queue Aver Delay	16 2m 14s	13 2m 8s	4 54 secs	4 53 secs
37/1	A5 Westbound Left Turn Lane 1	1751	Queue Aver Delay	3 14 secs	2 13 secs	2 15 secs	2 15 secs
37/2 + 38/1 + 53/1	A5 Westbound Ahead Lane 2	2015	Queue Aver Delay	10 35 secs	10 37 secs	12 29 secs	12 32 secs
37/3 + 38/2 + 53/2	A5 Westbound Ahead Lane 3	2015	Queue Aver Delay	11 42 secs	12 46 secs	11 28 secs	12 31 secs
42/1	Birch Coppice Left Turn Lane 1	1695	Queue Aver Delay	7 44 secs	7 44 secs	6 37 secs	6 39 secs
42/2	Birch Coppice Left Turn Lane 2	1983	Queue Aver Delay	5 39 secs	4 39 secs	7 36 secs	7 38 secs
43/1	Birch Coppice Right Turn Lane 3	1690	Queue Aver Delay	3 41 secs	3 42 secs	8 46 secs	8 47 secs
A5/ Core 42							
46/1	A5 Eastbound Ahead Lane 1	1833	Queue Aver Delay	3 4 secs	3 4 secs	4 8 secs	6 8 secs
46/2	A5 Eastbound Ahead Lane 2	2082	Queue Aver Delay	2 1 sec	1 1 sec	4 6 secs	5 7 secs
47/1	A5 Eastbound Right Turn Lane 3	1667	Queue Aver Delay	2 1m 4s	2 1m 3s	1 55 secs	2 54 secs
49/1	A5 Westbound Ahead & Left Turn Lane 1	1957	Queue Aver Delay	14 25 secs	15 27 secs	9 19 secs	9 17 secs
49/2	A5 Westbound Ahead Lane 2	1909	Queue Aver Delay	12 23 secs	12 24 secs	7 17 secs	8 16 secs
51/1	Core 42 Left Turn Lane 1	1695	Queue Aver Delay	2 2m 42s	2 2m 32s	3 1m 14s	3 1m 10s
52/1	Core 42 Right Turn Lane 2	1690	Queue Aver Delay	1 7m 7s	1 8m 1s	1 1m 49s	2 1m 48s
A5/ Dordon Roundabout							
91/1	A5 Eastbound Lane 1	N/A	Queue Aver Delay	13 20 secs	12 20 secs	18 18 secs	20 19 secs
91/2	A5 Eastbound Lane 2	N/A	Queue Aver Delay	13 19 secs	12 19 secs	21 17 secs	19 18 secs
92/1 + 92/2 + 93/1	Long Street	N/A	Queue Aver Delay	7 1m 14s	7 1m 15s	7 2m 12s	7 2m 12s
98/1	A5 Westbound Left Turn Slip	N/A	Queue Aver Delay	0 5 secs	0 5 secs	0 5 secs	0 5 secs
97/1 + 98/1	A5 Westbound Ahead Lane 1	N/A	Queue Aver Delay	5 20 secs	5 20 secs	3 6 secs	3 6 secs
97/2 + 98/2	A5 Westbound Ahead Lane 2	N/A	Queue Aver Delay	4 17 secs	4 18 secs	3 6 secs	3 6 secs
111/1	A5 Westbound Right Turn Lane 3	N/A	Queue Aver Delay	2 49 secs	2 48 secs	5 1m 4s	4 1m 5s
100/1	Gypsy Lane	N/A	Queue Aver Delay	2 28 secs	2 28 secs	2 42 secs	2 42 secs
			Network PI	5806.65	6925.51	8634.57	10103.21

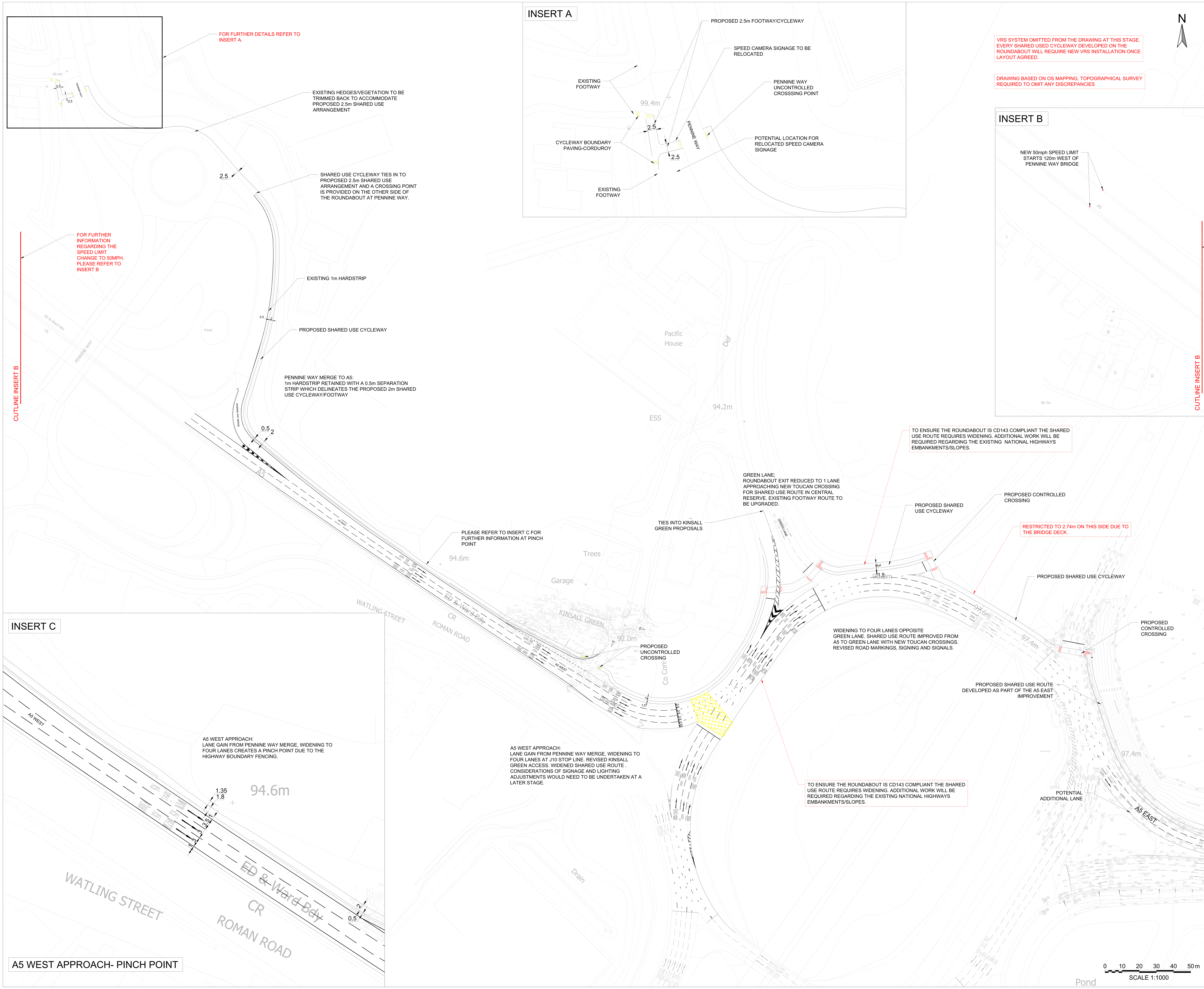
KEY	
#	New traffic lanes as a result of the Local Plan works

#	New traffic lanes as a result of the proposed development mitigation works
	Impact of development results in a reduction in queue of over 10pcu and/ or a reduction in delays of over 1 minute.
	Impact of development results in an increase queue of 10pcu or over and/ or an increase in delay of over 1 minute

APPENDIX N ADDITIONAL MITIGATION DRAWINGS

Appendix N1 – Potential Additional Mitigation at M42 Junction 10

TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0010



1. THIS DRAWING SHOULD BE READ IN RELATION TO THE SUBJECT OF THE TITLE ONLY. OTHER INFORMATION SHOWN ON THE DRAWING IS TO BE CONSIDERED INDICATIVE ONLY. REFERENCE SHOULD BE MADE TO APPROPRIATE DRAWING SERIES/SPECIFICATIONS FOR OTHER INFORMATION.
2. ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED OTHERWISE.

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TETRA TECH

Client

HODGETTS ESTATES

Project Name

M42 JUNCTION 10 ROUNDABOUT IMPROVEMENT

Sheet Title

POTENTIAL ADDITIONAL MITIGATION

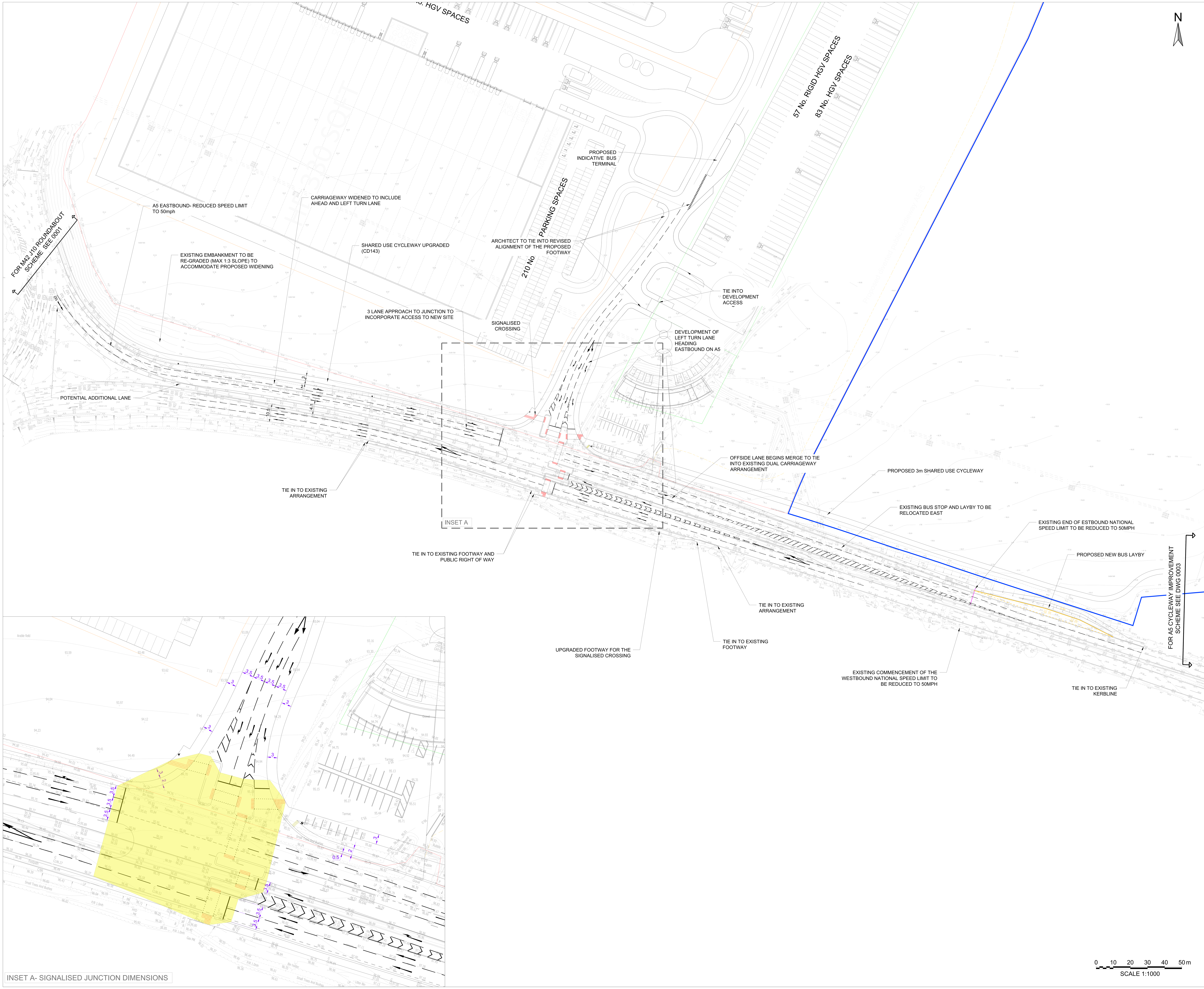
TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A1	Suitability
784-B033920	JG	DEC' 23	GW	DEC' 23	NB	DEC' 23	1:1000	S3

Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision
B033920	TTE	00	ZZ	SK	H	0010	P01

TTE_MT_v1

Appendix N2 – Potential Additional Mitigation at Site Access

TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0011



NOTES -

1. ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
2. THE INFORMATION SHOWN ON THIS DRAWING IS INTENDED TO PROVIDE A GENERAL OUTLINE OF THE HIGHWAY IMPROVEMENT WORKS.

KEY:

SITE BOUNDARY 1

SITE BOUNDARY 2

INTERVISIBILITY ZONE

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TETRA TECH

Client

HODGETTS ESTATES

Project Name

M42 JUNCTION 10
A5 CYCLEWAY IMPROVEMENT

Sheet Title

POTENTIAL ADDITIONAL MITIGATION

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B033920	TTE	00	ZZ	SK	H	0011	P01

TTE_MT_v1

APPENDIX O TABLE 5.5 2033 LOCAL PLAN MODELLING RESULTS WITH ADDITIONAL MITIGATION

Table 5.5: M42/ Junction 10 + A5/ Birch Coppice + A5/ Core 42, 2033 Local Plan + Additional Mitigation

Traffic Stream(s)	Lane	Saturation Flow pcu/hr	Model Output	AM Peak No Dev	AM Peak With Dev + Improv.	PM Peak No Dev	PM Peak With Dev + Improv.
B5080 Pennine Way North/ A5 Eastbound On/ Off Slip Road							
54/1 + 55/1	Pennine Way North Lane 1	N/A	Queue Aver Delay	3 18 secs	3 16 secs	1 8 secs	1 7 secs
54/2	Pennine Way North Lane 2	N/A	Queue Aver Delay	1 7 secs	1 7 secs	1 6 secs	1 6 secs
60/1	A5 Eastbound Off Slip Lane 1	N/A	Queue Aver Delay	0 4 secs	0 4 secs	0 4 secs	0 4 secs
60/2	A5 Eastbound Off Slip Lane 2	N/A	Queue Aver Delay	0 4 secs	0 4 secs	0 5 secs	0 5 secs
64/1 + 66/1 + 86/1	Northbound Overbridge Lane 1	N/A	Queue Aver Delay	1 6 secs	1 6 secs	5 15 secs	6 15 secs
64/2	Northbound Overbridge Lane 2	N/A	Queue Aver Delay	0 4 secs	0 4 secs	0 7 secs	1 secs
68/1 + 59/1 + 58/1	A5 Eastbound On-Slip Merge	N/A	Queue Aver Delay	4 17 secs	4 11 secs	5 25 secs	1 3 secs
B5080 Pennine Way South/ A5 Westbound On/ Off Slip Road							
89/1	Southbound Overbridge Lane 1	N/A	Queue Aver Delay	0 5 secs	0 5 secs	0 4 secs	0 4 secs
89/2	Southbound Overbridge Lane 2	N/A	Queue Aver Delay	0 5 secs	0 5 secs	0 5 secs	0 5 secs
76/1	A5 Westbound Off Slip Lane 1	N/A	Queue Aver Delay	1 7 secs	1 7 secs	1 10 secs	1 10 secs
76/2 + 75/1 + 71/1	A5 Westbound Off Slip Lane 2	N/A	Queue Aver Delay	1 8 secs	1 8 secs	37 1m 27s	37 1m 34s
81/1	Centurion Way Lane 1	N/A	Queue Aver Delay	0 4 secs	0 5 secs	0 8 secs	0 8 secs
81/2	Centurion Way Lane 2	N/A	Queue Aver Delay	0 4 secs	0 4 secs	0 6 secs	0 6 secs
86/1	Quarry Hill Lane 1	N/A	Queue Aver Delay	1 6 secs	1 7 secs	25 2m 47s	24 2m 54s
86/2	Quarry Hill Lane 2	N/A	Queue Aver Delay	0 4 secs	0 4 secs	0 5 secs	0 5 secs
M42 Junction 10							
1/1 + 2/1 + 4/1 + 5/1	M42 Northbound Offslip Lane 1	1740	Queue Aver Delay	3 17 secs	3 17 secs	12 45 secs	12 45 secs
1/2	M42 Northbound Offslip Lane 2	1740	Queue Aver Delay	2 15 secs	2 15 secs	5 28 secs	5 27 secs
1/3	M42 Northbound Offslip Lane 3	1740	Queue Aver Delay	1 13 secs	1 13 secs	4 1m 1s	4 54 secs
3/1	M42 Northbound Offslip Lane 4	1849	Queue Aver Delay	6 23 secs	8 33 secs	13 46 secs	14 53 secs
3/2	M42 Northbound Offslip Lane 5	1849	Queue Aver Delay	3 17 secs	3 18 secs	11 39 secs	13 45 secs
7/1	M42 Northbound Circulating Lane 1	2039	Queue Aver Delay	3 8 secs	2 8 secs	7 11 secs	5 10 secs
7/2	M42 Northbound Circulating Lane 2	1840	Queue Aver Delay	11 17 secs	13 20 secs	18 23 secs	22 28 secs

7/3	M42 Northbound Circulating Lane 3	1840	Queue Aver Delay	13 18 secs	17 31 secs	17 47 secs	21 44 secs
7/4	M42 Northbound Circulating Lane 4	1840	Queue Aver Delay	3 9 secs	2 8 secs	1 10 secs	1 9 secs
8/1 + 9/1 + 11/1	A5 Eastbound Lane 1	1828	Queue Aver Delay	10 27 secs	20 52 secs	6 42 secs	10 40 secs
8/2 + 9/2 + 11/2 + 69/1 + 70/1	A5 Eastbound Lane 2	1900	Queue Aver Delay	27 1m 20s	19 52 secs	30 2m 28s	17 1m 8s
8/3	A5 Eastbound Lane 3	1900	Queue Aver Delay	4 17 secs	9 30 secs	8 38 secs	7 30 secs
8/4 + 9/3 + 11/3 + 69/2 + 70/2	A5 Eastbound Lane 4	1900	Queue Aver Delay	28 1m 16s	18 1m 1s	20 1m 40s	7 31 secs
12/1	A5 Eastbound Circulating Lane 1	1846	Queue Aver Delay	4 21 secs	5 22 secs	4 19 secs	4 19 secs
12/2	A5 Eastbound Circulating Lane 2	1878	Queue Aver Delay	1 18 secs	6 24 secs	2 17 secs	7 19 secs
12/3	A5 Eastbound Circulating Lane 3	1878	Queue Aver Delay	7 22 secs	4 21 secs	9 22 secs	4 18 secs
12/4	A5 Eastbound Circulating Lane 4	1878	Queue Aver Delay	7 24 secs	7 26 secs	11 26 secs	11 25 secs
14/1	Green Lane Lane 1	1602	Queue Aver Delay	4 43 secs	3 40 secs	6 42 secs	5 42 secs
14/2	Green Lane Lane 2	1602	Queue Aver Delay	6 1m 4s	7 1m 36s	20 2m 58s	19 3m 2s
15/1	Green Lane Circulating Lane 1	1950	Queue Aver Delay	1 2 secs	14 9 secs	2 2 secs	5 6 secs
15/2	Green Lane Circulating Lane 2	1745	Queue Aver Delay	16 13 secs	7 7 secs	16 16 secs	6 7 secs
15/3	Green Lane Circulating Lane 3	1745	Queue Aver Delay	9 11 secs	16 13 secs	16 17 secs	15 18 secs
15/4	Green Lane Circulating Lane 4	1745	Queue Aver Delay	1 3 secs	1 4 secs	4 5 secs	1 4 secs
A13/1	Green Lane Toucan Crossing	2272	Queue Aver Delay	N/A	2 2 secs	N/A	4 16 secs
18/1	M42 Southbound Offslip Lane 1	1804	Queue Aver Delay	1 25 secs	1 26 secs	2 21 secs	1 21 secs
18/2	M42 Southbound Offslip Lane 2	1813	Queue Aver Delay	1 25 secs	2 34 secs	2 23 secs	4 34 secs
18/3	M42 Southbound Offslip Lane 3	1813	Queue Aver Delay	2 27 secs	1 26 secs	5 54 secs	9 1m 36s
A16/1	Green Lane Toucan Crossing	2213	Queue Aver Delay	N/A	3 3 secs	N/A	2 2 secs
17/1	M42 Southbound Circulating Lane 1	1956	Queue Aver Delay	18 7 secs	7 4 secs	13 10 secs	3 6 secs
17/2	M42 Southbound Circulating Lane 2	1956	Queue Aver Delay	16 6 secs	18 7 secs	13 11 secs	13 11 secs
17/3	M42 Southbound Circulating Lane 3	1800	Queue Aver Delay	21 10 secs	19 8 secs	9 12 secs	14 15 secs
17/4	M42 Southbound Circulating Lane 4	1800	Queue Aver Delay	1 3 secs	10 18 secs	1 8 secs	3 13 secs

23/1 + 24/1 + A25/1	A5 Westbound Lane 1	1930	Queue Aver Delay	14 32 secs	15 1m 3s	7 37 secs	15 48 secs
23/2	A5 Westbound Lane 2	1851	Queue Aver Delay	7 28 secs	6 45 secs	5 31 secs	7 37 secs
23/3 + 24/2	A5 Westbound Lane 3	1851	Queue Aver Delay	9 24 secs	8 32 secs	8 41 secs	11 35 secs
23/4 + 24/3 + A25/2	A5 Westbound Lane 4	1851	Queue Aver Delay	12 30 secs	8 34 secs	8 1m 23s	9 1m 57s
22/1	A5 Westbound Circulating Lane 1	1797	Queue Aver Delay	13 22 secs	4 16 secs	14 22 secs	10 19 secs
22/2	A5 Westbound Circulating Lane 2	1797	Queue Aver Delay	6 18 secs	16 46 secs	6 15 secs	8 19 secs
22/3	A5 Westbound Circulating Lane 3	1902	Queue Aver Delay	1 11 secs	1 11 secs	1 12 secs	2 13 secs
22/4	A5 Westbound Circulating Lane 4	1902	Queue Aver Delay	2 11 secs	2 12 secs	5 33 secs	6 33 secs
28/1	Trinity Road Lane 1	1669	Queue Aver Delay	4 45 secs	4 44 secs	3 29 secs	3 29 secs
28/2	Trinity Road Lane 2	1669	Queue Aver Delay	2 40 secs	2 39 secs	2 26 secs	3 28 secs
28/3 + 29/1	Trinity Road Lane 3	1669	Queue Aver Delay	8 1m 1s	9 1m 4s	13 1m 26s	16 1m 40s
27/1	Trinity Road Circulating Lane 1	1846	Queue Aver Delay	11 8 secs	10 8 secs	6 9 secs	5 8 secs
27/2	Trinity Road Circulating Lane 2	1846	Queue Aver Delay	15 10 secs	16 13 secs	9 14 secs	12 17 secs
27/3	Trinity Road Circulating Lane 3	1878	Queue Aver Delay	11 7 secs	12 8 secs	2 6 secs	4 8 secs
27/4	Trinity Road Circulating Lane 4	1878	Queue Aver Delay	12 8 secs	13 8 secs	7 25 secs	8 25 secs
A5/ Proposed Site Access							
A56/1	A5 Eastbound Left & Ahead Lane 1	1677	Queue Aver Delay	N/A	14 18 secs	N/A	17 15 secs
A56/2	A5 Eastbound Ahead Lane 2	1738	Queue Aver Delay	N/A	11 16 secs	N/A	18 16 secs
A56/3	A5 Eastbound Ahead Lane 3	1995	Queue Aver Delay	N/A	4 8 secs	N/A	5 7 secs
A59/1	A5 Westbound Ahead Lane 1	1930	Queue Aver Delay	N/A	2 13 secs	N/A	3 20 secs
A59/2	A5 Westbound Ahead Lane 2	1930	Queue Aver Delay	N/A	2 13 secs	N/A	3 18 secs
A60/1	A5 Westbound Right Turn Lane	1597	Queue Aver Delay	N/A	1 41 secs	N/A	1 42 secs
A54/1	Site Access Left Turn Lane	1624	Queue Aver Delay	N/A	1 36 secs	N/A	1 36 secs
A55/1	Site Access Right Turn Lane 1	1619	Queue Aver Delay	N/A	1 43 secs	N/A	2 1m 10s
A55/2	Site Access Right Turn Lane 2	1619	Queue Aver Delay	N/A	1 43 secs	N/A	2 1m 6s
A5/ Birch Coppice							
31/1	A5 Eastbound Ahead Lane 1	1814	Queue Aver Delay	1 9 secs	3 11 secs	2 13 secs	3 15 secs

31/2	A5 Eastbound Ahead Lane 2	2082	Queue Aver Delay	2 10 secs	7 10 secs	1 11 secs	3 12 secs
32/1	A5 Eastbound Right Turn Lane 3	1960	Queue Aver Delay	13 1m 39s	12 1m 41s	6 1m 2s	6 1m 5s
32/2	A5 Eastbound Right Turn Lane 4	1667	Queue Aver Delay	16 2m 14s	12 2m 7s	4 54 secs	4 56 secs
37/1	A5 Westbound Left Turn Lane 1	1751	Queue Aver Delay	3 14 secs	3 14 secs	2 15 secs	2 15 secs
37/2 + 38/1 + 53/1	A5 Westbound Ahead Lane 2	2015	Queue Aver Delay	10 35 secs	10 39 secs	12 29 secs	12 31 secs
37/3 + 38/2 + 53/2	A5 Westbound Ahead Lane 3	2015	Queue Aver Delay	11 42 secs	12 47 secs	11 28 secs	11 33 secs
42/1	Birch Coppice Left Turn Lane 1	1695	Queue Aver Delay	7 44 secs	6 45 secs	6 37 secs	6 39 secs
42/2	Birch Coppice Left Turn Lane 2	1983	Queue Aver Delay	5 39 secs	5 39 secs	7 36 secs	7 39 secs
43/1	Birch Coppice Right Turn Lane 3	1690	Queue Aver Delay	3 41 secs	3 42 secs	8 46 secs	8 47 secs
A5/ Core 42							
46/1	A5 Eastbound Ahead Lane 1	1833	Queue Aver Delay	3 4 secs	3 4 secs	4 8 secs	5 9 secs
46/2	A5 Eastbound Ahead Lane 2	2082	Queue Aver Delay	2 1 sec	2 2 secs	4 6 secs	4 7 secs
47/1	A5 Eastbound Right Turn Lane 3	1667	Queue Aver Delay	2 1m 4s	2 1m 1s	1 55 secs	1 53 secs
49/1	A5 Westbound Ahead & Left Turn Lane 1	1957	Queue Aver Delay	14 25 secs	16 26 secs	9 19 secs	9 18 secs
49/2	A5 Westbound Ahead Lane 2	1909	Queue Aver Delay	12 23 secs	14 24 secs	7 17 secs	8 16 secs
51/1	Core 42 Left Turn Lane 1	1695	Queue Aver Delay	2 2m 42s	2 2m 42s	3 1m 14s	3 1m 11s
52/1	Core 42 Right Turn Lane 2	1690	Queue Aver Delay	1 7m 7s	1 7m 41s	1 1m 49s	1 1m 46s
A5/ Dordon Roundabout							
91/1	A5 Eastbound Lane 1	N/A	Queue Aver Delay	13 20 secs	12 20 secs	18 18 secs	21 20 secs
91/2	A5 Eastbound Lane 2	N/A	Queue Aver Delay	13 19 secs	12 19 secs	21 17 secs	22 18 secs
92/1 + 92/2 + 93/1	Long Street	N/A	Queue Aver Delay	7 1m 14s	7 1m 17s	7 2m 12s	7 2m 15s
98/1	A5 Westbound Left Turn Slip	N/A	Queue Aver Delay	0 5 secs	0 5 secs	0 5 secs	0 5 secs
97/1 + 98/1	A5 Westbound Ahead Lane 1	N/A	Queue Aver Delay	5 20 secs	5 20 secs	3 6 secs	3 6 secs
97/2 + 98/2	A5 Westbound Ahead Lane 2	N/A	Queue Aver Delay	4 17 secs	5 17 secs	3 6 secs	3 6 secs
111/1	A5 Westbound Right Turn Lane 3	N/A	Queue Aver Delay	2 49 secs	2 48 secs	5 1m 4s	4 1m 6s
100/1	Gypsy Lane	N/A	Queue Aver Delay	2 28 secs	2 28 secs	2 42 secs	2 42 secs
			Network PI	5806.65	6978.02	8634.57	8995.13

KEY	
#	New traffic lanes as a result of the Local Plan works

#	New traffic lanes as a result of the proposed development mitigation works
	Impact of development results in a reduction in queue of over 10pcu and/ or a reduction in delays of over 1 minute.
	Impact of development results in an increase queue of 10pcu or over and/ or an increase in delay of over 1 minute

APPENDIX P VISION BASED TRAVEL PLAN

Land North-East of Jn10 M42 Motorway, North Warwickshire

784-B033920

Vision-Based Travel Plan

Hodgetts Estates

December 2023

Tetra Tech Newcastle, 4th Floor, Rotterdam House, 116 Quayside, Newcastle upon Tyne, United Kingdom, NE1 3DY

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APPENDICES

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Appendix C: TAG Unit M5.2 Modelling Smarter Choices
Appendix D: Drawings by others
Appendix E: TT connectivity plans

1.0 INTRODUCTION

1.1 Tetra Tech have been engaged by Hodgetts Estates to produce a Vision-Based Travel Plan (TP) in support of a major development consisting of 100,000sqm of employment uses and a 150-space overnight lorry park with 400sqm amenity block, located off the A5 Watling Street, north-east of the M42 Junction 10 (M42 Jn10) interchange, in Warwickshire. Figure 1 at Appendix A1 shows the site location.

1.2 An outline planning application for the development site was submitted to North Warwickshire Borough Council (NWBC). The application (ref: PAP/2021/0663) was validated on 2 December 2021. The application was initially supported by a TA and FTP produced by Bancroft Consulting.

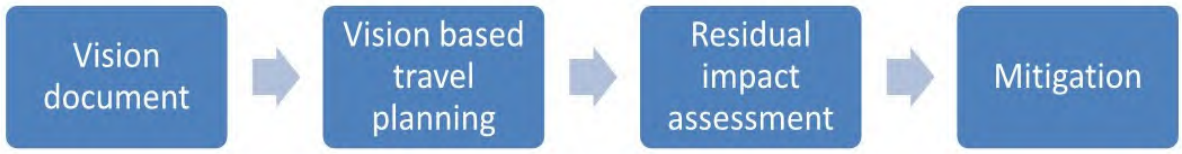
1.3 Tetra Tech (TT) was engaged by Hodgetts Estates in January 2022 to assess the impact of the proposed development on the highway network and provide additional information requested by National Highways (NH). The revised TA produced by TT also explored the opportunities to provide sustainable transport access to and though the site. A Walking Cycling and Horse-riding Assessment was undertaken by specialist subconsultants Drummond Black in accordance with GG142, and a Public Transport Strategy (PTS) was prepared in consultation with the bus operator Stagecoach and Warwickshire County Council (WCC) Public Transport team.

1.4 At the meeting held on 23rd May 2023 with WCC, NWBC and SCC, NH confirmed that although the planning application was submitted in December 2021, the polices set out in DfT circular 01/2022 Strategic Road Network and the Delivery of Sustainable Development would apply because the local road network was to be remodelled using new traffic survey data.

1.5 The circular advises that:

- new developments should give priority to walking, wheeling and cycle movements and facilitate access to high-quality public transport where possible (para 42).
- enable a reduction in the need to travel by private car and prioritise sustainable transport opportunities ahead of capacity enhancements and new connections on the SRN (para 43).
- [in travel plans] development promoters must put forward clear targets and commitments to manage down the traffic impact of development and maximise the accessibility of and within sites by walking, wheeling, cycling, public transport and shared travel. Targets for achieving a modal shift to sustainable transport will need to be subject to sustained monitoring and management by an appointed travel plan coordinator (para 44)
- [a transport assessment] should start with a vision of what the development is seeking to achieve and then test a set of scenarios to determine the optimum design and transport infrastructure to realise this vision (para 48)

1.6 In discussions with NH elsewhere an iterative process is suggested in line with national planning policy which comprised the flow chart shown below, but noting that the first two blocks can be combined.



1.7 NH have suggested that the vision-based travel plan will need to show how the vision can be achieved, and should include suitable multi-modal (person) trip rates, clear targets and commitments to manage down the traffic impact of development and maximise the accessibility of the site by walking, wheeling, cycling, public transport and shared travel.

1.8 This TP has been produced having due regard for the advice contained in:

- National Planning Policy Framework (NPPF) published by the Department for Communities & Local Government (DCLG).
- MHCLG's Transport Assessment and Travel Plan guidelines set out in Planning Practice Guidance.
- North Warwickshire Borough Council Local Plan.
- Department for Transport Circular 01/2022 Strategic Road Network and the Delivery of Sustainable Development

1.9 The applicant is committed to the principle of sustainable development, and is seeking to influence the travel choices of employees and visitors to the site with the implementation of a Full TP. This TP provides the approach to encourage the use of sustainable modes which will inform the Full Travel Plan.

1.10 In accordance with local and national policies to protect and enhance the environment, and to encourage sustainable development and travel patterns, this report reviews the current situation in the vicinity of the development site and proposes measures to encourage accessibility via a choice of transport modes. This report also includes the proposals for public transport improvements as outlined in the Public Transport Strategy.

2.0 VISION

2.1 The vision for Land North-East of Jn10 M42 is set out in www.landne-j10m42.co.uk to create:

The Greenest Business Park in the West Midlands

2.2 It is derived from Hodgetts Estates' commitment to achieving the highest possible level of sustainability and design and to mitigate possible climate change impacts. The vision will be achieved through:

- Sustainability Strategy
- Sustainable Transport & Highways

Sustainability Strategy

2.3 Hodgetts Estates is committed to sustainability and has set a very high target to achieve its vision, the proposals incorporate, inter alia, the following features and building standards:

- Targeting a BREEAM 'Excellent' Rating for all buildings;
- Energy Performance Certificate 'A' Rating for all buildings;
- Speculative buildings to be built to UK Green Building Council's 'Net Zero Carbon Ready' standard for construction;
- At least 10% of energy generated from on-site renewable or low carbon sources, electricity to sitewide infrastructure to be 100% renewable and ensuring all buildings can be adapted to accommodate existing and future technologies, e.g., solar panels and battery storage;
- Air and ground source heat pumps to provide heating to all offices;
- Recyclable structure and cladding system;
- Use of low environmental impact and bio-based materials that also provide good insulation;
- Rainwater harvesting to reduce water consumption, for measures such as flushing toilets, landscape watering and vehicle/interior cleaning;
- Minimise construction waste;
- Substantial biodiversity net gains of +26.5% for habitats and +298% for linear features – far in excess of the 10% policy requirement;
- At least 10,000 trees to be planted in on and offsite locations;
- **Up to 100% of electric vehicle charging from on-site renewable energy sources**;
- **Electric vehicle charging points and 'rapid' charging points**, with ducting provided to all parking spaces to future proof the development;
- **Electric vehicle charging points and 'rapid' charging points to HGV and LGV parking**

spaces and loading docks for battery electric and hybrid electric commercial vehicles;

- **Ducting provided to all remaining lorry parking spaces**, to future proof all service yards and the overnight lorry parking facility;
- Channels to be left clear throughout the site to provide **future hydrogen mains supply to all premises and the overnight lorry park**, to future proof the proposals;
- **Hydrogen tanking (bunkers) to be provided to all buildings**, subject to occupier requirements, to allow re-fuelling of HGVs onsite;
- Develop **a Sustainable Travel Plan** to minimise single occupancy vehicle trips to and from the site;
- **Cycle parking provided to all units at in excess of the North Warwickshire Borough standard**;
- Cycle parking to comprise **a range of parking facilities, including indoor/ outdoor parking, secure parking, covered parking and electric bike charge points**, all located at or close to pedestrian entrances;
- **Showers and changing facilities provided to all buildings**;
- **Communal cycle parking, showers and changing facilities at ancillary Hub Office**, available to the general public including employees of neighbouring employment sites; and
- **Extensive new and existing public footpaths, public bridleways, footway/ cycleways and pavements**, all designed to be the Equalities Act 2010 compliant to provide **"Access for All"** (e.g. mobility impaired, mothers with prams, etc).

Sustainable Transport & Highways

2.4 From the outset, the transport strategy is to take holistic and inclusive approach to minimise trips to and from the site by single occupancy private vehicles, promotion of sustainable forms of transport and reducing the volume of freight arriving solely by road. This will be achieved by:

Proximity to the SRN

2.5 Proximity to the SRN is important for SRN dependent sectors such as logistics and manufacturing, which are the primary uses at this site, and such proximity is supported by Circular 01/2022.

2.6 The development includes a 150 space lorry park. Circular 01/2022 is also supportive of providing such facilities, especially where there is an identified need for such[1].

Walking & Cycling Connectivity

2.7 Throughout the site, 3m wide shared foot/cycleways will be provided. Fully-signalised pedestrian/cycle crossings will be provided across the mouth of the proposed access junction with the A5 and a fully-signalised pedestrian crossing of the A5 carriageway is to be introduced.

2.8 Externally, enhancements will be made to the pedestrian/ cycle path on the A5 eastbound carriageway together with improving the pedestrian and cycle facilities on the northern part of the M42 Jn10. Signalised crossings will replace uncontrolled crossings on the north facing slips and

[1] HGV Parking Facility Need Assessment, November 2021, MDS Transmodal.

also on Green Lane. From Green Lane to the A5/ Pennine Way north roundabout the existing narrow footway/ cycleway will be widened and improved providing a key link into Stoneydelph and onwards to Tamworth.

2.9 The site will provide connections onto the existing Bridleways and Footpaths adjacent to the site (AE45, AE46 and AE48) whilst these paths will also be upgraded to make them wider and higher quality, providing excellent connectivity from the site to/ from Birchmoor (with connections to Tamworth, and to/ from Polesworth and Dordon. Footpath AE46 will be upgraded and diverted to provide a more direct route between Birchmoor / Polesworth / Tamworth and the A5 opposite the entrance to Birch Coppice Business Park. There will also be new footpaths/ cycleways (new Public Rights of Way), running parallel with the A5 between the site (at Footpath AE46) and Dordon and between Footpath AE46 and the A5 opposite the entrance to Core 42 Business Park. All of these will significantly enhance the sustainable routes available to both local residents in the area and also employees of both the development site and surrounding employment centres as shown on the Chetwoods drawings 00801/P3, 00802/P3 and 00803/P6 attached in Appendix D.

2.10 All of the new and improved existing public Footpaths, Bridleways, cycleways and pavements will be designed to be the Equalities Act 2010 compliant, to provide access to all (subject to the agreement of WCC Rights of Way Team).

2.11 To encourage walking and cycling uptake, showers and changing facilities will be provided to all employment units. In addition, communal cycle parking, showers and changing facilities will also be provided at the ancillary Hub Office, available to the employees of all site occupiers and the general public including staff from neighbouring business parks.

Public Transport Connectivity

2.12 As part of the site access works, the A5 eastbound bus stop has to be relocated approx. 130m further east. The layby is lengthened to meet current standards, and a bus shelter with seating, associated street furniture and segregated footway/ cycleway is to be provided. The potential for a green bus shelter (i.e., made from recycled materials with green roof and solar panels to power digital information board) is to be explored, subject to agreement from the highway authority(s).

2.13 The extension of the Stagecoach 766/ 767 Tamworth and Nuneaton services from the A5 into the proposed development has been agreed with Stagecoach and WCC. The 766/ 767 bus service provides connections to a number of residential areas which draw employees by both car and bus to the area in which the application site lies. The whole of the application site would be within a 400m walk of the proposed on-site bus stop and shelter.

Rail-Served Site

2.14 MDS Transmodal were appointed by Hodgetts Estates to assess the potential for linkage with the Birmingham Intermodal Freight Terminal (BIFT) at Birch Coppice. A copy of their report is available on the planning file, and relevant extracts are attached at Appendix B. In their report, MDS estimated that around 10% of loaded inbound and outbound traffic from the site could be expected to move by rail freight via the Terminal. The effect would be to reduce the volume of HGVs travelling from the site along the SRN – the A5 and M42, and typically these are long distance trips. There would be an increase in very short distance HGV movements between the site and the terminal at Birch Coppice, although this means the route has potential for the implementation highly sustainable battery electric vehicles (E.V.) as opposed to traditional HGVs. Overall, there are significant vehicle mileage and emissions savings.

Car Sharing

2.15 Employees who live close to one another can potentially share cars for their journey to the proposed development.

Electrical Vehicles

2.16 E.V. charging will be provided at 10% of all car and motorcycle spaces across the site and all parking spaces will be ducted for E.V. for future conversion.

2.17 A proportion of electric vehicle charging points and 'rapid' charging points are also proposed for HGV and LGV parking spaces and/or loading docks for battery electric and hybrid electric vehicles. Ducting would also be provided to all remaining HGV/LGV lorry parking spaces, to future proof all service yards and the overnight lorry parking facility.

2.18 Cycle parking facilities to incorporate electric bike charging points.

Publicity and Promotion via the Site Travel Plan

2.19 The accessibility of the site is to be actively promoted to prospective employees alongside suggestions to encourage walking, wheeling, cycling or use of public transport.

2.20 So that employees are fully aware of the transport options available to them, a website will be set up and a Sustainable Travel Pack will be provided to all employees. Also, employees can benefit from personalised journey planning sessions which will be provided by the TP Co-ordinator on request.

2.21 The Sustainable Travel Pack will comprise the following:

- Information on the TP, its targets, and the health, financial and environmental benefits.
- Information about the local area, e.g., location, distance and directions to local shops and destinations for staff on their meal breaks, Banks and other local amenities.
- Public transport details, including stop locations and routes, up-to-date timetables for bus services, fares, information on discounted tickets, how to access the Journey Planner online and links to live timetable information, e.g., www.stagecoach.com.
- Cycle maps showing the key surrounding routes in relation to local facilities, as well as local bike shops and where cycle maintenance training can be obtained.
- Walk maps showing the key surrounding routes to local facilities and services.
- Details on how to gain access to local car share websites/databases.
- Details of discounted bus taster tickets for employees of site occupiers.
- Details of emergency lift home scheme, e.g., provision of alternative means of transport for staff of site occupiers that travel to site by foot, wheel or bicycle.
- Name of the TP Co-ordinator, along with contact details by telephone, email or in person.

2.22 Any major changes to travels services, such as bus routes/services, rail routes will be circulated by the TP Co-ordinator via e-mail or a mail drop.

Policy Compliance

2.23 The vision for the site accords with the following key policies in relation to sustainability:

1. NPPF:
    - Para 105, the proposed development is significant in scale and is located adjacent to the SRN which is suitable for the anticipated type of development. Sustainable access to the site is improved with the provision of foot/cycle and public transport connections to nearby settlements including Tamworth, Polesworth, Dordon, Atherstone and Nuneaton.
    - para 110, a) appropriate opportunities to promote sustainable transport modes have been taken up with an appropriate mix of uses, and a choice of sustainable transport modes with high quality networks supporting pedestrians, cyclists and public transport users is provided and b) safe and suitable access to the site can be achieved for all users including people with disabilities and reduced mobility (e.g., wheelchair users and mothers with prams).
    - para 112, a) priority is given to pedestrian and cycle movements with a network of routes providing connections within the site and to external areas, including access to public transport, c) the site creates a place and routes that are safe, secure and attractive; e) the site enables charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.
    - para 113, a travel plan is provided which sets out a series of measures, targets and a monitoring procedure.
2. DfT Circular 01/2022:
    - para 12, the site is in a sustainable location for the uses proposed and its transport sustainability will be improved with a choice of sustainable transport modes with high quality networks supporting pedestrians, those wheeling, cyclists and public transport users.
    - para 15, the developer recognises the need to move away from transport planning based on predicting future demand to provide capacity (‘predict and provide’) to planning that sets an outcome communities want to achieve and provides the transport solutions to deliver those outcomes (vision-led approaches including ‘vision and validate,’ ‘decide and provide’ or ‘monitor and manage’).
    - para 16, the site creates high-quality sustainable buildings and sustainable transport networks.
    - para 17, the site provides a movement network that makes connections within and beyond the site with a network of routes providing connections within the site and to external areas, including access to bus and freight rail services.
    - para 28 is supportive of new accesses onto the Strategic Road Network (SRN) for roadside facilities or SRN-dependent sectors (such as logistics and manufacturing).
    - para 30 states that in order to operate efficiently, the freight and logistics sector requires land for distribution and consolidation centres at multiple stages within supply chains including the need for welfare facilities for the drivers of commercial vehicles. The proposals respond directly to this.

- para 42, priority is given to walking, wheeling, cycling and high quality public transport with high quality networks supporting pedestrians, people with disabilities / reduced mobility, cyclists and public transport users.
- para 43, to minimise the number and length of journeys, the site has an appropriate mix of uses. Businesses will be provided with high-speed broadband. A clear movement network is provided with sustainable transport choices. Secure cycle parking is provided, both at workplaces and communal facilities. Electric vehicle charging points and "rapid" charging points with ducting to all parking spaces, including for commercial vehicle parking spaces, service yards and the overnight lorry parking facility.
- para 44, a travel plan will be provided which sets out a series of measures, targets and a monitoring procedure.
- paras 49-51, a transport assessment will be provided.
- para 79, the roadside facilities proposed are critical to ensure drivers of heavy goods vehicles have easy access to facilities.
- para 80, the new facility is located immediately off the M42, providing essential daytime and overnight parking facilities for HGV drivers.
- para 82, the proposed overnight lorry park addresses an identified unmet need for HGV parking.

3. North Warwickshire Borough Council Local Plan:

2.24 Policy LP23 of the North Warwickshire Borough Council (NWBC) Local Plan sets out the requirements for Travel Plans:

> The Assessments should assess the impact on level crossings in the vicinity of the development.
>
> Travel Plans will be required to be submitted alongside these Assessments.
>
> ***Travel Plan***
> Development will be expected to link with existing road, cycle and footpath networks. Developments that are likely to generate significant amounts of traffic and particularly larger developments will be expected to focus on the longer-term management of new trips; encourage the use of public and shared transport as well as appropriate cycle and pedestrian links. Increasing the opportunity to access these developments for all sections of the community should be addressed. This will be secured through a Travel Plan and/or financial contributions which will be secured either through planning conditions or the provisions of Section 106.

2.25 Policy LP34 of the NWBC Local Plan sets out the requirement for Parking and E.V. Charging points:

> **LP34 Parking**
>
> Adequate vehicle parking provision commensurate to a proposed development will be expected, as guided by the standards in the Document "Parking Standards". Greater emphasis will be placed on parking provision in areas not served by public transport whilst lower provision within the main towns may be appropriate.

Electric Vehicle Charging points

Electric charging points will be provided as part of all relevant developments to an agreed specification and location dependent on the scheme proposed and applicable technical guidance. Rapid charging points will be provided on sites when located in the public realm. On housing sites homes with on- site parking will provide an electric charging point in an accessible location close to the parking space(s). On commercial sites there will be employee and visitor rapid charging points.

Lorry Parking

Proposals which reduce lorry parking (either informal or formal parking areas) should be accompanied by evidence to support its loss and explore opportunities for alternative provision. In recognition of the Borough's strategic location and demand for lorry parking, the Council will give weight to lorry parking provision and facilities, and opportunities for alternative provision and for improved management in decision-taking.

3.0 ACCESSIBILITY

3.1 NPPF was updated and revised in September 2023, replacing the July 2021 version of the Framework. At Paragraph 104 c) NPPF identifies "opportunities to promote walking, cycling and public transport use are identified and pursued" for development proposals and at Paragraph 105 it indicates "opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making". The accessibility of the proposed development has been considered based on the policies in the NPPF.

3.2 Some details for this section, including photos, have been taken from the Bancroft TA.

Walking

3.3 In the vicinity of the site, a narrow 1.2m – 1.5m wide footway extends along the southern edge of the A5 carriageway. This may also be a shared unsegregated cycleway, although the signing is somewhat ambiguous. Along the northern edge of the carriageway, a typically 2m wide shared unsegregated footway / cycleway exists, although this is reduced to c.1m by street furniture at the entrance to Birch Coppice.

3.4 To the west, these facilities extend to Jn10 interchange where, the M42 slip road and the Green Lane arms include unsignalized dropped kerbs and tactile paving crossings. There are no pedestrian crossings over the A5 approaches to Jn10. Photos showing the above are provided below.


Existing crossing facilities at M42 Junction 10: Green Lane (left), Sbd Off-Slip (right)


Existing footways at site frontage on A5 (left) and at northern overbridge of M42 Junction 10 (right)

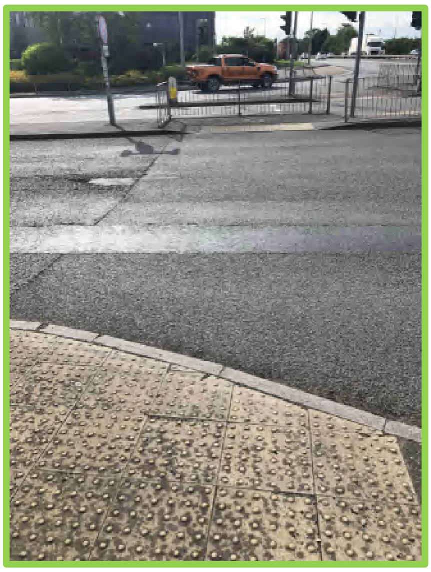
3.5 Figure 2, Appendix A1, identifies opportunities for pedestrian travel to the site, based on a 1.95km walking distance. This was based on research using NTS data of walking distances and published in Local Transport Today in October 2017. This is a 24-minute walk at a typical walking speed of 1.3m per second. The catchment area extends to the B5000 to the north, encompassing Birchmoor and the southwestern part of Polesworth which includes a significant amount of allocated residential development, approximately a 16-17 minute walk from the centre of the proposed site using the new footpath from the site entering Birchmoor through Cockspur Street, before heading east along Birchmoor Road, then south on Dordon Road.

3.6 The eastern edge of the catchment drops down from the B5000/Common Lane junction to the west of Common Lane. It then extends further to the east encompassing most of Dordon, including Browns Lane and the southern end of Long Street. This includes local shops and restaurants at the designated Browns Lane & New Street Shopping parade ‘Neighbourhood Centre’ along with further residential development. For example, Spar, Happy Dinner, FOCHA Turkish Kitchen and Dordon Fish Bar can all be accessed within a 22-23 minute walk from the centre of the site. This would involve exiting the site to the south and heading eastbound on the proposed foot/ cycleway alongside the A5 and the public footpath link to Browns Lane in Dordon. It is also important to note that many of the local roads within Polesworth and Dordon are traffic calmed, helping to keep speeds low and thereby improving conditions for pedestrian movement. Photos showing the above are provided below. A new Co-operative Food store at the corner of Whitehouse Road and Roman Way would also be within a 20-21 minute walk from the centre of the site, via the proposed new Public Right of Way (PROW) connecting Footpath AE46 and Barn Close.

Local shops at Browns Lane (left) and traffic calming on Whitehouse Road (right)

3.7 South of the site, the majority of the Birch Coppice and whole of Core 42 business park sites are within a reasonable walking distance. The two bus stops located within Birch Coppice can be accessed by a 16-17 minute walk from the centre of the proposed site whilst the entrance to Core 42 can be accessed within a 17-18 minute walk from the proposed site. Access to these areas requires crossing of the A5, which can be done via controlled crossing at the Birch Coppice or Core 42 junctions, or the uncontrolled crossing of the A5 dual carriageway opposite the existing bus stop layby. The proposed new site access would provide a further controlled crossing across the A5.

3.8 Each of these sites has comprehensive internal pedestrian and cyclist infrastructure to facilitate movement. Photos showing examples of these existing crossing facilities are provided below.



Crossing facilities at the Birch Coppice access (left) and Core 42 access (right)

3.9 The catchment then extends further west via Watling Street to include part of the adjacent residential area.

3.10 The area covered by the catchment north of the A5, west of Jn10 M42, comprises a mixture of residential and employment uses. It is connected to the site via Birchmoor using Cockspur Street and Green Lane, with footways along the entire length of the route and some sections with a footway on both sides of the carriageway. At the western end of Green Lane, the speed limit changes from 30 mph to national speed limit restrictions as the road splits to the north and south. The existing footway facilities at Green Lane are shown below.

Footways on Green Lane (bridge over M42 motorway)

3.11 Continuing south from this junction the route is via a Permissive Footpath that extends through to the northern edge of the Tamworth Moto service area as a traffic free route, where shops and restaurants including M&S Food, WHSmith, Greggs, Pret a Manger, Burger King, Costa Coffee and KFC can be found. From this, the catchment extends west to include additional residential development within Tamworth including the wards of Stonydelph, Glascote and Wilnecote. Photos showing parts of the pedestrian route to the south are provided below.

Pedestrian facilities on route south from Green Lane

3.12 Turning right and heading north from the Green Lane junction there is a foot/cycleway which provides various opportunities to cut into the adjacent residential areas and access the Tamworth foot/cycle network, including the wards of Stonydelph, Glascote and Amington. The first of these is a segregated footpath/cycle path which extends through to the eastern edge of the residential estate and then offers convenient access to Pennine Way (B5080).

Pedestrian facilities on route north from Green Lane

3.13 There are a number of PROW within the surrounding area. Bancroft TA Figure 23, reproduced in Figure 3 Appendix A1, shows the designated PROWs in the area.

3.14 Bridleway 166/AE45/1 runs though the site parallel to the eastern site boundary in a north / south direction between Birchmoor and the A5, which will be diverted at the southern end to accommodate the new site access as shown in Figure 3 at Appendix A1. In addition, Figure 3 in Appendix A1 also shows how an existing Public Footpath (166/AE46/1) which extends east from the site and arches around to the south will be slightly diverted so as to provide a more direct route to the entrance to Birch Coppice Business Park. The footpath presently connects onto the A5, between the Birch Coppice and Core 42 accesses. In addition, the existing farm track which connects public footpath 166/AE46/1 with the A5 adjacent the Core 42 access junction will be upgraded as a new PROW (footway / cycleway). Continuing further east, the northern side of the A5 leads to another Footpath 166/AE48/2 that connects north-east into Browns Lane, Dordon.

3.15 A number of foot/ cycle improvements are proposed for the A5 are proposed.

3.16 The existing shared unsegregated pedestrian/ cycle path on the A5 eastbound carriageway is substandard and will be improved to comply with CD143 “Designing for Walking, Cycling and Horse-riding”. This entails widening the path to 3.0m and providing a 2.0m separation strip. As the cycleway approaches the M42 Jn10 interchange, the improvement requires alterations to the highway embankment, as shown at TT Drawings 784-B033920-TTE-00-ZZ-PL-H-0003-P02, 784-B033920-TTE-00-ZZ-PL-H-0004-P01 and 784-B033920-TTE-00-ZZ-PL-H-0005-P01 attached in Appendix A2. The drawings also show the eastbound connectivity enhancement with a 3m shared foot/ cycleway connecting to the existing A5 opposite Core 42, near Dordon.

3.17 To provide continuity and connectively for both pedestrians and cyclists it is also proposed to improve pedestrian and cycle facilities at Jn10 to comply with CD143. Signalised crossing of the north facing M42 slip roads (northbound on-slip and southbound off-slip) and of the Green Lane arm will be provided to replace the current uncontrolled crossing points. There is no space on the north overbridge to improve pedestrian and cycle facilities, but between Green Lane and the A5/ Pennine Way north roundabout the existing narrow footway/ cycleway is to be widened to 2.0m with a 1.5m separation strip where achievable. There is a short pinch point section (circa 33m) on the A5 westbound approach to Jn10 where, owing to land constraints, a maximum 1.0m separation strip and 1.8m foot/ cycleway is achievable, refer to TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0001-P04 attached in Appendix A2, which shows the complete set of improvement works.

3.18 In addition to the improvements discussed above, Bridleway 166/AE45/1 will be upgraded and a new PROW (footpath / bridleway) introduced between Birchmoor and Dordon, significantly enhancing the sustainable routes available to local residents in the area. The new and upgraded bridleways and footpaths are shown at Figure 3 in Appendix A1 and the connectivity plans attached at Appendix D, and are also listed below for completeness:

- Bridleway AE45;
- Footpath AE46, part diverted;
- Footpath AE48.

3.19 With the above new infrastructure and enhancements to existing routes in place, not only do they benefit potential users of the proposed development, but they also offer an enhancement for existing residents and people travelling to work in the area as discussed below.

Birchmoor to Dordon

3.20 A community integration route plan showing the connectivity between Birchmoor and Dordon is attached at Appendix E. Without the proposed development it would take an 11 minute cycle ride or 27½ min walk to get from Birchmoor to Dordon and vice versa via Polesworth. With the Bridleway, and Footpath improvements the journey time for cyclists is reduced to 10 minutes and walkers to 25 minutes.

Dordon to Relay Park

3.21 A commuter point to point plan showing the available route choices between Dordon and Relay Park is attached at Appendix E. There are two existing route choices to get to Relay Park, one via Polesworth and Birchmoor and the other via the A5 and M42 Jn10. The latter provides the most direct route, taking a cyclists 15 minutes, although they would have to cross the busy M42 Jn10 at 4 uncontrolled crossings. With the proposed development enhancements, cyclists could use the new cycle path, separated from the A5 carriageway and it would also provide 4 signal controlled crossings at the M42 Jn10. The improvements would also reduce the journey time by 1 minute.

Stoneydelph to Core 42

3.22 A commuter point to point plan showing the available tarmacked route choices between Stoneydelph and Core 42 is attached at Appendix E. There are two existing route choices to get to Core 42, one via Birchmoor, Polesworth and Dordon and the other via the Tamworth Services, M42 Jn10 and the A5. The latter provides the most direct route, taking a cyclists 20 minutes, although they would have to cross the busy M42 Jn10 at 4 uncontrolled crossings. With the proposed development enhancements, cyclists could use the new cycle path, separated from the A5 carriageway and it would also provide 4 signal controlled crossings at the M42 Jn10, or the upgraded Bridleways. Although the improvements wouldn't reduce the journey time for cyclists, they would offer safer and more pleasant routes.

Polesworth to St Modwen Park

3.23 A commuter point to point plan showing the available tarmacked route choices between Polesworth to St Modwen Park is attached at Appendix E. There are two existing route choices to get to Relay Park, one via Birchmoor, Relay Park and M42 Jn10 and the other via Dordon & the A5. The latter provides the most direct route, taking cyclists 23½ minutes, although they would have to cross the A5 at two uncontrolled crossing points. With the proposed development enhancements, cyclists could use the new cycle path running through the centre of the development and the signal controlled crossing points on the A5 (dismounted) at the site access junction. The improvements would make a substantial journey time saving for cyclists to 16½ mins.

Cycle Travel

3.24 Figure 4, Appendix A1, shows a 7.2km cycle catchment area centred on the site. It demonstrates how a large number of the surrounding residential areas would be within a reasonable cycling distance. This includes the densely populated residential areas of eastern Tamworth, such as Kettlebrook, Glascote, Glascote Heath, Belgrave, Wilnecote, and Stoneydelph, as well as the majority of Tamworth other than the residential areas on its western edge. To the northeast and east, residential areas within Polesworth, Dordon, Grendon, Baddesley Ensor, and the western residential areas of Atherstone would also be well within a comfortable cycling distance of the site. The four largest housing allocations in the NWBC Local Plan are also within a comfortable cycling distance of the site; namely, site allocations H1 (620 dwellings) and H2 (1,282 dwellings) at Atherstone, H4 (1,675 dwellings) at Polesworth and Dordon and H5 (1,270 dwellings) at Tamworth, refer to Figure 4.

3.25 Figure 5, Appendix A1, shows an extract from 'Cycling in Lichfield' map published online by Staffordshire County Council. It shows how the site is surrounded by a network of cycle facilities, ranging from traffic-free cycle paths through to advisory cycle routes along quiet roads. In the immediate vicinity of the site these facilities include advisory cycle routes at Birchmoor Road and Trinity Road, shared footway/cycleway at the northern edge of the A5 (including a Toucan crossing at the Birch Coppice access), and further cycle paths routing through the residential areas of Stoneydelph and Glascote Heath. This demonstrates how the proposed development would be well connected to the surrounding local cycle network, ensuring that cycling trips to and from the surrounding site area are within a comfortable distance and with suitable facilities.

Cyclists using existing facilities at A5 passing the site frontage

3.26 There are a number of cycle improvements proposed for the A5 which are outlined in paragraph 3.15 onwards above and illustrated by the connectivity plans at Appendix E.

Bus Travel

3.27 The closest bus stop is located at the northern edge of the A5, approximately 200m to the east of the proposed site access, and 650m from the centre of the site. This comprises a bus layby with no flag and pole (photo below refers) and serves eastbound services for Routes 766 and 767. To access westbound services, the closest existing bus stop is located within the Birch Coppice Business Park, a further 400m east.

Existing bus stop facilities at A5 eastbound

3.28 Table 3.1 below lists the services which call at the A5 Watling Street eastbound bus stop.

Table 3.1: Bus Routes – A5 Watling Street

Route No.	Route Description	Monday to Friday		Saturday	Sunday
		Daytime	Evening	Daytime	
Stagecoach 766/ 767	**Tamworth to Nuneaton** Via Birch Coppice, Dordon, Baddesley Ensor, Grendon, Atherstone, Mancetter, Hartshill	**Every 1-2 hours**	**No Service**	**Every 1-2 hours**	**Every 1-2 hours**

3.29 The 766/ 767 provide direct journey opportunities to a range of large residential areas, where employees may live including Tamworth, Atherstone and Nuneaton.

3.30 There are a pair of bus stops served by the 766 and 767 services at Birch Coppice Business Park, which are approximately 1,300m from the centre of the application site (well within walking distance). These stops can be reached by footway along the northside of Watling Street, the controlled pedestrian crossing facility on the A5 and footway through the business park.

3.31 There are two bus stops on Birchmoor Road to the north of the application site which can be reached within an approximate 800m walk from the centre of the application site. The stops can be reached via a proposed footway connection to Cockspur Street / public bridleway AE45 and then continuous footway on Cockspur Street and Birchmoor Road. The eastbound stop provides a flag/ pole arrangement, and the westbound stop provides a flag/ pole arrangement and timetable information. Table 3.2 below lists the services which call at the Birchmoor Road stops.

Table 3.2: Bus Routes – Birchmoor Road

Route No.	Route Description	Monday to Friday		Saturday	Sunday
		Daytime	Evening	Daytime	
Arriva 785/ 786	**Tamworth to Austrey** Via Arrington, Shuttington, Newton Regis, Wartyon, Polesworth	5 morning services then every 2 hours approx	No Service	5 morning services then every 2 hours approx	7 services

3.32 The 785/ 786 services provide direct journey opportunities to Tamworth and other residential areas where employees may live, including Polesworth and Shuttington. The proposed improvements to bus services, bus stop facilities and integration into the site are discussed in more detail at paras 6.18 to 6.27.

Rail Travel

3.33 Polesworth Station is located approximately 2.8km to the north of the site and has an extremely limited train service with only one train, early morning, per day (Monday to Saturday), and only in one direction (northbound) because the southbound platform is inaccessible.

3.34 Wilnecote Train Station is approximately 3.5km to the west of the site and could be cycled to as part of a shared journey, a route which would benefit from the proposed offsite infrastructure enhancements. Tamworth Station is approximately 7km northwest and is at the limit of a reasonable cycle ride, but could be used as part of a shared journey. Both Tamworth and Wilnecote Train Stations operate regular services to key surrounding towns that could fit with conventional working times for employees at the site.

3.35 For freight activities, the site is also close to the Birmingham Intermodal Freight Terminal (BIFT) at Birch Coppice Business Park. This is operated by Maritime Transport and provides a 24/7 operation with capacity for holding 3,000 containers. On a typical weekday, the terminal receives three trains a day from the Port of Felixstowe and two trains a day from the Port of Southampton. This provides a clear opportunity for goods associated with the proposed development to be delivered by rail rather than road, thereby reducing highway impact and increasing accessibility by sustainable modes. Maritime Transport (September 2022) has confirmed that, based on existing infrastructure, BIFT could accommodate eight trains per day meaning there is significant capacity for growth in throughput of freight at the facility.

Summary

3.36 The proposed development has good levels of accessibility on foot and by cycling to a range of useful local destinations. With the proposed bus service diversions, the majority of the site will be within an accessible walk distance to bus services that provide regular journey opportunities to a number of useful destinations. The nearby BIFT rail terminal provides an excellent opportunity for rail-road intermodal freight, which could replace 10% of HGV movements thereby reducing both HGV milage and CO_2 emissions.

3.37 Overall, the accessibility of the site, taking into account the proposed connectivity improvements outlined elsewhere in this report is considered to be very good.

4.0 CURRENT MODE SHARE

4.1 The vehicle trip rates have been previously agreed by Bancroft Consulting with WCC and NH. The agreed trip rates focused on vehicles (light vehicles and HGVs) and there was no discussion regarding the trip rates for other modes of travel (i.e., via foot, wheel, bicycle, motorcycle or public transport).

4.2 The light vehicle and HGV flows predicted to be generated from the 90,000sqm B8 development and 10,000sqm E (g)(iii)/ B2/ B8 development using the agreed trip rates are shown below at Table 4.1, extracted from the Bancroft Consulting TA Rev C, dated November 2021. It was also agreed with NH and WCC that the trips associated with the proposed Truck Stop are all pass-by trips and it does not generate additional vehicles on the surrounding road network.

Table 4.1: Total Vehicle & HGV Trip Generation, 100,000sqm Employment

Time Period		Arrivals	Departures
Weekday AM Peak Hour 08:00 to 09:00	Lights	126	34
	HGV	50	52
	Total	**176**	**86**
Weekday PM Peak Hour 17:00 to 18:00	Lights	40	150
	HGV	52	28
	Total	**92**	**178**

4.3 In order to predict the arrivals and departures at the 100,000sqm employment of other modes of travel during the peak hours, data extracted from the 2011 Census for journeys from home to work has been analysed, excluding working from home. The Middle Super Output Area (MSOA) North Warwickshire 002 (which includes the development) was used to estimate the current mode share among employees who work in the area. This level of detail has been released for the 2021 Census but is affected by Covid travel restrictions and so the 2011 Census is viewed as the most reliable published data. The Census-derived employment mode shares are shown at Table 4.2 below.

Table 4.2: Mode of Travel to Work to MSOA North Warwickshire 002

Mode of Travel	Percentage Split
Car Driver	78%
Car Passenger	11%
Light rail/ Tram	0%
Train	0%
Bus	2%
Taxi	0%
Motorcycle	1%
Cycle	3%
Walk	5%
Other	0%

4.4 To predict the quantum of people likely to use the other modes of travel during the peak hours, the numbers of light vehicles from Table 4.1 have been assumed to make up 78% of the employees at the proposed development (Table 4.2). So, for example, as there are 126 light vehicle arrivals in the AM peak (representing 78% of the whole), therefore (100%/78%) x 126 = 162 total people arrivals. The 36 employees not arriving by light vehicles have been split between the other modes of travel based on the respective mode shares set out at Table 4.2.

4.5 It should be noted that the above calculations have not included the HGV trips each peak hour as they are vehicles associated with the development operations rather than journeys to work by the employees. Table 4.3 below shows the derived multi modal trip generations among employees at the 100,000sqm employment floorspace at the proposed development.

Table 4.3: Multi-Modal Trips, Combined Employment

Time Period	Arrivals	Departures
Car Driver/ Light Vehicles		
Weekday AM Peak Hour 08:00 to 09:00	126	34
Weekday PM Peak Hour 17:00 to 18:00	40	150
Car Passenger		
Weekday AM Peak Hour 08:00 to 09:00	18	5
Weekday PM Peak Hour 17:00 to 18:00	6	21
Bus		
Weekday AM Peak Hour 08:00 to 09:00	3	1
Weekday PM Peak Hour 17:00 to 18:00	1	4
Motorcycle		
Weekday AM Peak Hour 08:00 to 09:00	2	0
Weekday PM Peak Hour 17:00 to 18:00	1	2
Cycle		
Weekday AM Peak Hour 08:00 to 09:00	5	1
Weekday PM Peak Hour 17:00 to 18:00	2	6
Walk		
Weekday AM Peak Hour 08:00 to 09:00	8	2

Weekday PM Peak Hour 17:00 to 18:00	3	10
HGV		
Weekday AM Peak Hour 08:00 to 09:00	50	52
Weekday PM Peak Hour 17:00 to 18:00	52	28

5.0 TRAVEL PLAN ADMINISTRATION

5.1 Experience has shown there are certain key elements to the successful implementation of a Travel Plan:

- Commitment and involvement of the developers.
- Regular audit of travel patterns to monitor travel behaviours.
- Active promotion of the TP from the outset.
- A named TP Co-ordinator responsible for its management day to day site wide. It is envisaged some of the larger occupiers might have their own TP Co-ordinator who would report to the Site TP Co-ordinator.
- Co-operation of and communication with employees at all stages of the TP.

5.2 David Groves will be appointed TP Co-ordinator for the proposed development and his contact details are set out below.

David Groves, Principal Transport Planner, Tetra Tech, 4th Floor, Rotterdam House, 116 Quayside, Newcastle upon Tyne, NE1 3DY

T: 07966298053; email: david.groves@tetratech.com

5.3 The Site Co-ordinator will:

- Support, oversee and implement the requirements of the Travel Plan upon the users first occupation;
- Provide travel advice and guidance to employees in the early stages of occupation and throughout the development process;
- Organise the distribution of the work place Sustainable Travel Packs to employees upon first occupation;
- Ensure the travel information made available is current and up to date;
- Ensure cycle storage, showers and changing facilities are functional upon first occupation and promote use throughout the life of the development;
- Assist the end occupiers to deliver the stated TP commitments;
- Monitoring usage of the car parking and cycle parking facilities on site;
- Organise Travel Surveys, analyse these and submit regular Monitoring Reports summarising the results to Warwickshire County Council transport planning officers, together with an assessment of the success of the Travel Plan in reducing the number of trips by private car and details of any additional measures necessary to achieve the targets set within the Travel Plan.

5.4 The developer will commit to providing a budget for the Travel Plan (TP) Co-ordinator to implement measures and initiatives to encourage sustainable travel at the site.

5.5 If David Groves were to leave his post, then the LPA will be informed within 10 days with the details of the new TP Co-ordinator.

6.0 COMMITTED MEASURES TO REDUCE CAR USE

6.1 The prime objective of the TP is to reduce the number of single occupancy car trips generated by the development. A series of measures are proposed below to address this objective by encouraging greater use of public transport, car-share, walking, wheeling and cycling. Specific measures can be designed with the Full TP, when the end occupiers are better known, and can build on the below measures.

Infrastructure Improvements

6.2 There are a number of infrastructure improvement being implemented through the delivery of the development site which are outlined below:

- Between the B5080 Pennine Way (north) roundabout and M42 J10 a 2.0m wide foot/cycle way with a 1.5m separation strip will be provided.
- On M42 Jn10 a 2.0m wide foot/cycleway with a 1.5m separation strip is provided between the A5 (west) arm and the M42 northbound on-slip as well as controlled pedestrian/ cycle crossings of the two north facing M42 slip roads and at the Green Lane arm.
- Between the M42 southbound off slip and the site access the existing foot/cycleway will be widened to 3.0m and a 2.0m separation strip will be provided, as shown at TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0003-P02, 784-B033920-TTE-00-ZZ-PL-H-0004-P01 and 784-B033920-TTE-00-ZZ-PL-H-0005-P01.
- Between the site access and the A5 at Browns Lane an off-carriageway 3.0m foot/cycleway will be provided as shown at TT Drawings 784-B033920-TTE-00-ZZ-PL-H-0003-P02, 784-B033920-TTE-00-ZZ-PL-H-0004-P01 and 784-B033920-TTE-00-ZZ-PL-H-0005-P01.

Publicity and Promotion

6.3 The accessibility of the site is to be actively promoted to prospective employees alongside suggestions to encourage walking, wheeling, cycling or use of public transport.

6.4 So that employees are fully aware of the transport options available to them, a website will be set up and a Sustainable Travel Pack will be provided to all employees. Also, employees can benefit from personalised journey planning sessions for all types of journey purposes, e.g., travelling to/from work and will be provided by the TP Co-ordinator on request subject to GDPR.

6.5 The Sustainable Travel Pack will comprise the following:

- Information on the TP, its targets, and the health, financial and environmental benefits.
- Information about the local area, e.g., location, distance and directions to local shops and destinations for staff on their meal breaks, Banks and other local amenities.
- Public transport details, including stop locations and routes, up-to-date timetables for bus services, fares, information on discounted tickets, how to access the Journey Planner online and links to live timetable information, e.g., www.stagecoach.com.
- Cycle maps showing the key surrounding routes in relation to local facilities, as well as local bike shops and where cycle maintenance training can be obtained.
- Walk maps showing the key surrounding routes to local facilities and services.

- Details on how to gain access to local car share websites/databases.
- Details of discounted bus taster tickets for employees of site occupiers.
- Details of emergency lift home scheme, e.g., provision of alternative means of transport for staff of site occupiers that travel to site by foot, wheel or bicycle.
- Name of the TP Co-ordinator, along with contact details by telephone, email or in person.

6.6 Any major changes to travel services, such as bus routes/services, rail routes will be circulated by the TP Co-ordinator via e-mail or a mail drop.

Measures to Improve Walking

6.7 In addition to the proposed foot/cycleways within the development site, linking to the existing footway on the network, walking is to be encouraged by the information within the Sustainable Travel Pack advising of recommended routes to destinations on meal breaks and bus stops and rail stations. The health benefits associated with walking will be promoted by the TP Co-ordinator.

6.8 In line with Manual for Streets, the internal layout will be designed to encourage safe routes within the development to provide clear, coherent, and attractive routes for pedestrians to encourage walking to destinations within a short walk which may replace short car journeys.

6.9 There are a number of infrastructure improvements being delivered through the development which are outlined in Chapter 2.0 and 3.0 above and Chapter 6 below, and illustrated at the plans attached at Appendix D.

6.10 With the above new infrastructure and enhancements to existing routes in place, not only do they benefit potential users of the proposed development, but they also offer an enhancement for existing residents and people travelling to work in the area as discussed below.

Measures to Improve Cycling

6.11 Cycle parking will be provided at all units at an excess of the North Warwickshire Borough Council standard, incorporating a range of parking facilities to include indoor/ outdoor parking, secure parking and covered parking, and electric bicycle charging points, all located at or close to pedestrian entrances.

6.12 Showers and changing facilities will be provided at all units and in the ancillary Hub Office which would also be available to members of the public to encourage walking, wheeling and cycling to work at neighbouring business parks.

6.13 In addition to the proposed shared foot/cycleways within the site, and improvements to and connections to the wider footway network, cycling is to be encouraged by the information within the Sustainable Travel Packs including local cycle maps showing recommended routes. The health benefits associated with cycling will be promoted by the TP Co-ordinator.

6.14 In line with Manual for Streets, the internal layout will be designed to encourage safe routes within the development to provide clear, coherent and attractive routes for cyclists to encourage cycling.

6.15 The TP Co-ordinator will make endeavours on behalf of staff to agree discounts at local cycle shops and investigate and publicise cycle training courses and cycle check services. The TP Co-ordinator will explore setting up a Bicycle User Group (BUG) for the development and encourage regular meetings to discuss issues and problems.

6.16 At the request of Staffordshire County Council, any staff members who have walked, wheeled or cycled into work are entitled to a taxi fare if an emergency visit is required.

6.17 The TP Co-ordinator will liaise with individual operators to encourage staff to participate in the 'Cycle to Work' scheme, which will allow employees of companies to purchase bikes and cycle equipment tax-free through their employer.

Measures to Improve Public Transport

6.18 The development proposals include improvements to bus provision. As part of the site access works, the A5 eastbound bus stop has to be relocated approx. 130m further east to comply with CD169 as shown at TT Drawing 784-B033920-TTE-00-ZZ-PL-H-0002-P02 attached in Appendix A2. The layby is lengthened, and facilities are improved, including the provision of a modern shelter with seating, associated street furniture and a separated cycle bypass behind the waiting area. The potential for a green bus shelter (i.e., made from recycled materials with green roof and solar panels to power digital information board) is to be explored, subject to agreement from the relevant highway authority(s).

6.19 The existing pedestrian connection and informal crossing over the A5 that serves the bus layby is extended to the new location.

6.20 A Public Transport Strategy (PTS) has been prepared and has been agreed by WCC and Stagecoach.

6.21 The Public Transport Strategy for the site is predicated on the extension of the Stagecoach 766/ 767 Tamworth – Nuneaton services into the proposed development. The 766/ 767 bus service provides connections to a number of residential areas which draw employees by both car and bus to the area in which the application site lies. These areas include Tamworth, Dordon, Atherstone and Nuneaton. The 766/767 already serves Birch Coppice Business Park as a diversion from the A5 and clearly is considered to provide a suitable level of service to this large employment site.

6.22 A bus turning area is proposed within the proposed development site, which would be located approximately 200m from the A5/ Site Access junction. The proposed bus turning area would be deliberately located close to the site access junction to reduce the length of the diversion and thereby reduce the impact on existing passengers. The length of the diversion from the site access junction and out onto the A5 would be approximately 400m.

6.23 The whole of the application site would be within a 400m walk of the proposed bus stop at the bus turning area, which accords with local policy requirements for new developments. The bus extension and proposed bus turning area has been agreed in principle with WCC's Transport Operations team and with Stagecoach. The proposals for the site at M42 Jn10 comply with local and national standards and, if approved, would provide attractive sustainable public transport travel options for employees travelling to and from the site.

6.24 There are also two bus stops on Birchmoor Road to the north of the application site which can be reached within an approximate 800m walk from the centre of the application site via a proposed footway connection to Cockspur Street / public bridleway AE45 and then continuous footway on Cockspur Street and Birchmoor Road.

6.25 Any service changes will be circulated by the TP Co-ordinator via e-mail or mail drop. Awareness is to be raised among residents and workers of the public transport options available to them by making easy-to-understand timetables and maps for operators supplied by the TP Co-ordinator.

6.26 A map showing the nearest bus stops, walk distances to each, and times by bus to the most common destinations near to the proposed development will be distributed by the TP Co-ordinator.

6.27 The TP Co-ordinator will also liaise with Stagecoach to determine whether discounted bus tickets can be provided to employees as taster tickets, which could help to encourage bus use to/ from the site.

Car Sharing

6.28 Employees who live close to one another can potentially share cars for their journey to the proposed development.

6.29 Car sharing will be encouraged with information provided by the TP Co-ordinator on how to gain access to local car share websites/databases, e.g., www.liftshare.com.

6.30 The financial and social benefits associated with car sharing are to be promoted by the TP Co-Coordinator.

Electrical Vehicles

6.31 In terms of electronic vehicle (E.V.) charging spaces, these are proposed to be provided for 10% of all car and motorcycle spaces across the site with ducting installed so that all spaces are capable of being converted to E.V. charging spaces if required in the future.

6.32 A proportion of electric vehicle charging points and ‘rapid’ charging points are also proposed for HGV and LGV parking spaces and/or loading docks for battery electric and hybrid electric vehicles. Ducting would also be provided to all remaining HGV/LGV lorry parking spaces, to future proof all service yards and the overnight lorry parking facility.

6.33 Finally, electric bike charging points would be provided to all units.

6.34 Full details of the E.V. charging provision would be set out in any final scheme layout, in full compliance with these levels of provision.

New Recruits

6.35 When people move jobs, they often reconsider their travel behaviour. Consequently, when taking on new recruits, there is an opportunity to encourage them to consider travelling by more environmentally friendly modes than they usually do.

6.36 The Site TP Co-ordinator would arrange personalised journey planning, if requested, and provide Welcome Packs to the end occupiers for them to distribute among new recruits prior to their first day. Details of pedestrian, wheel, cycle links and bus routes, including their associated timetables, would be made available to employees as part of the packs.

Heavy Goods Vehicles

6.37 Research undertaken has forecast that around 10% of loaded inbound and outbound traffic from the site could be expected to move by rail freight via BIFT. The use of rail freight will be promoted to minimise the volume of HGV movements.

6.38 As noted above, the proposals would incorporate a proportion of E.V. charging points and 'rapid' charging points for HGV and LGV parking spaces and/or loading docks, with ducting to all remaining HGV/LGV lorry parking spaces to future proof the development.

6.39 The application scheme has also been assessed against its preparedness for the transition to zero-emission goods vehicles and a series of design measure incorporated to ensure the scheme is 'net-zero ready'. The report concludes that the scheme would make a significant contribution to the process of decarbonising the road transport sector along a section of the Strategic Road Network (the A5) identified as being deficient at the present time.

7.0 TARGET MODE SHARE

7.1 This Travel Plan proposes a variety of methods to reduce the mode share of car driver trips while increasing the mode share of sustainable modes, such as public transport, walking, wheeling and cycling. As described above, these include extensive infrastructure provision for pedestrians and cyclists, improvements to the existing PROW network, and the extension of bus routes into the site.

7.2 The good accessibility of the site when complete can be expected to produce a shift in mode choice for journeys to work for all purposes, over and above what would be expected without any sustainable transport interventions together with the publicity and promotion of the Travel Plan.

7.3 Ultra-low and zero emission vehicles are considered to be sustainable modes of transport in the NPPF and the proportion of such vehicle in the national fleet is expected to rise in the coming years.

7.4 Recent research by the UK's Society of Motor Manufacturers and Traders, shows electric vehicles accounted for 16% of new car sales in 2022. By 2030 it is estimated that 30% of the second-hand car market will be electric vehicles. Taken alongside the Government's Decarbonisation plan which prohibits the manufacture of fossil fuel cars after 2030, this trend is only going to increase.

7.5 Targets are measurable goals which are set in order to assess whether the objectives of the plan have been achieved. They need to be realistic and consider the particular circumstances and location of the development.

7.6 The prime objective of the TP is to reduce the number car trips by employees to work. Several of the TP measures are implemented before, or as the first employees move to site, therefore the Census mode share for home to work shown at Table 4.2 is considered a good initial base.

7.7 For the proposed employment element of the scheme, a target of 18% car driver reduction is suggested based on guidance in TAG Unit M5.2[2]. Relevant extracts from M5.2 are attached at Appendix C. An 18% reduction in the mode share for Car Driver recorded in the Baseline Survey is proposed as an Initial Target. This is not considered unreasonable to seek to achieve that over the first 5-year period of the TP. An 18% reduction on 78% is a 14-percentage point reduction, so the car driver mode share target is 64%.

7.8 The modal shift of 14-percentage points are therefore anticipated to be attributed wholly to bus, walking, wheeling, cycling and car passenger. With the measures discussed in Chapter 6 to increase these modes of travel, the shift to any of these modes is immaterial so long as the reduction in car driver is reduced by 14-percentage points. Nevertheless, a target of the mode shares is provided in Table 7.1 below.

[2] TAG Unit M5.2 Modelling Smarter Choices, January 2014 Department for Transport

Table 7.1: Current and Target Mode Share, Employment

Mode of Travel	Residential	
	Current	Target
Car Driver	78%	64%
Car Passenger	11%	16% (+5%)
Bus	2%	7% (+5%)
Cycle	3%	5% (+2%)
Walk (inc. Wheeling)	5%	7% (+2%)
Motorcycle	1%	1%

7.9 The TP will endeavour to achieve the modal shift targets shown in Table 7.1 among staff journeys to work over 5 years.

7.10 It will be at the discretion of the TP Co-ordinator to identify where measures should be focussed year on year and amend the table accordingly. However, the focus must always be to reduce single occupancy private car use which must always have a Target which represents year on year reduction.

7.11 These Targets will not be omitted or changed without prior consultation with NH and WCC's Travel Plan Officers.

HGV

7.12 As previously discussed, research undertaken by MDS Transmodal in November 2021 has forecast that around 10% of loaded inbound and outbound traffic from the site could be expected to move by rail freight via BIFT. It is therefore a target to reduce the longer distance HGV movements by 10%. However, there would be corresponding increase in movements between the site and Birch Coppice.

8.0 RESIDUAL TRIPS

8.1 The residual employment trip rates for each mode of travel have been calculated by applying the TP target mode shares at Table 7.1 (i.e., after travel planning measures have had an impact) to the initial trips as shown at Table 4.3.

8.2 Likewise, the residual HGV trips can be calculated by applying the TP target reduction of 10% to the initial trips as shown at Table 4.3.

Residual Multi-Modal Trips

8.3 Table 8.1 below shows the volume of trips generated by the proposed development, by mode, for the weekday AM and PM peak hours, after the TP measures have been taken into account. It also shows the comparison between the initial generated trips and proposed generated trips, by mode.

Table 8.1: Current and Target Multi Modal Trips

	Arrivals			Departures		
Time Period	**Current**	**Target**	**Difference**	**Current**	**Target**	**Difference**
Car Driver/ Light Vehicles						
Weekday AM Peak 08:00 to 09:00	126	104	**-22**	34	28	**-6**
Weekday PM Peak 17:00 to 18:00	40	33	**-7**	150	122	**-28**
Car Passenger						
Weekday AM Peak 08:00 to 09:00	18	26	**+8**	5	7	**+2**
Weekday PM Peak 17:00 to 18:00	6	8	**+2**	21	31	**+10**
Bus						
Weekday AM Peak 08:00 to 09:00	3	11	**+8**	1	3	**+2**
Weekday PM Peak 17:00 to 18:00	1	4	**+3**	4	14	**+10**
Motorcycle						
Weekday AM Peak 08:00 to 09:00	2	2	**0**	0	0	**0**
Weekday PM Peak 17:00 to 18:00	1	1	**0**	2	2	**0**
Cycle						
Weekday AM Peak 08:00 to 09:00	5	8	**+3**	1	2	**+1**
Weekday PM Peak 17:00 to 18:00	2	3	**+1**	6	10	**+4**
Walk						

Weekday AM Peak 08:00 to 09:00	8	11	**+3**	2	3	**+1**
Weekday PM Peak 17:00 to 18:00	3	4	**+1**	10	14	**+4**
HGV						
Weekday AM Peak 08:00 to 09:00	50	45	**-5**	52	47	**-5**
Weekday PM Peak 17:00 to 18:00	52	47	**-5**	28	25	**-3**

Note: No change in total HGV movement at the site access, the reduction of trips on the wider network go to/ from the Freight Rail at Birch Coppice.

8.4 The TP measures and the subsequent reduction in car driver trips results in 28 fewer vehicle trips in the AM peak hour and 35 fewer in the PM peak hour, whilst there is a reduction of 10 HGV trips in the AM and 8 in the PM peak hour.

Flow Diagrams

8.5 To understand the effect of the Travel Plan measures and resultant vehicle reductions on the local road network, this section discusses in more detail.

Current Traffic Flows (Prior to Travel Plan Effects)

8.6 Figure 6 attached in Appendix A1 shows the AM peak development generated traffic flows for light vehicles and Figure 7 shows the PM Peak equivalent. Figure 8 shows the AM Peak development generated HGV flows and Figure 9 shows the PM peak equivalent. The traffic flows have been extracted from WCC's A5 Atherstone Paramics model, provided by Vectos.

Car Passenger Effect (Light Vehicles)

8.7 Table 8.1 shows the predicted increase in the car passenger share and this has been applied to the light vehicles traffic flows. The reductions in light vehicle trips on the network have been broadly based on the distribution and assignment shown at Figures 6 and 7. Figure 10 shows the predicted reductions in light vehicles in the AM peak as a result of the increase in car passenger trips. Figure 11 shows the PM peak equivalent.

Bus Effect (Light Vehicles)

8.8 Table 8.1 shows the predicted increase in the bus share and this has been applied to the light vehicles traffic flows. The Stagecoach 766/ 767 which will serve the development site serves Tamworth City Centre and Atherstone, therefore the light vehicle trips have been reduced on these routes, broadly based on the distribution and assignment shown at Figures 6 and 7. Figure 12 shows the predicted reductions in light vehicles in the AM peak as a result of the increase in bus trips. Figure 13 shows the PM peak equivalent.

Walk/ Cycle Effect (Light Vehicles)

8.9 Table 8.1 shows the predicted increase in the walk/ cycle share and this has been applied to the light vehicles traffic flows. The improvement to foot/ cycleways connecting the development site to the east, north and west have been considered and how it will translate to a reduction in car trips. Upon review of Figures 6 and 7 it is clear that car trips to/ from residential areas within walking/

cycling distance are Tamworth and Wilnecote to the west of the M42/ Junction 10. There are no arrival car trips from the Grendon area (via Long Street). Therefore, all of the walk/ cycle trips are expected to be from these areas, therefore the light vehicle trips have been reduced on these routes. Figure 14 shows the predicted reductions in light vehicles in the AM peak as a result of the increase in walk/ cycle trips. Figure 15 shows the PM peak equivalent.

Total Effect (Light Vehicles)

8.10 Figure 16 attached in Appendix A1 shows the total AM peak reductions in light vehicles as a result of the Travel Plan measures, and Figure 17 shows the PM peak equivalent. Figure 18 shows the total AM peak light vehicle traffic flows with the effects of the Travel Plan and Figure 19 shows the PM peak equivalent.

Birmingham Intermodal Fright Terminal Effect (HGV's)

8.11 Table 8.1 shows the predicted decrease in the HGV's. The 10% reduction in HGV trips on the network have been applied based on the distribution and assignment shown at Figures 8 and 9. It is also necessary to assign the HGV trips from the fright terminal (within Birch Coppice) to the development site and so the reductions in HGV's on the wider network have been transferred to this Terminal. Figure 20 shows the AM peak reductions (and increase) in HGV movements and Figure 21 shows the PM peak equivalent.

8.12 Figure 22 shows the total AM peak HGV traffic flows with the effects of the Freight Terminal and Figure 23 shows the PM peak equivalent.

Total Residual Traffic Flows (PCU)

8.13 The total residual traffic flows for modelling purposes have been derived by converting the traffic flows into passenger car units (pcu). The light vehicles represent 1pcu and a HGV represents 2pcu, therefore the HGV flows have been multiplied by 2 and added to the light vehicles. Figure 24 attached in Appendix A1 shows the total AM peak development generated traffic flows in pcu and Figure 25 shows the PM peak equivalent.

9.0 MONITORING OF SUCCESS

9.1 The most effective way of monitoring the progress of a TP is to regularly survey employees to identify their travel behaviours over time.

9.2 The Travel Plan measures discussed at Chapter 6 will be implemented prior to occupation, therefore when employees start working on site most if not all of the Travel Plan measures are in place, therefore the 1st survey to establish mode of travel should not be taken as the baseline for which to achieve the targets identified at Chapter 7. The 2011 Census mode share to work provides a good estimate of the likely mode of travel, prior to the effect of Travel Plan measures.

9.3 The 1st travel surveys of employees can be undertaken during a neutral month on a date post-occupation agreed with NH and WCC to determine revealed travel patterns during the AM and PM peaks (7:30am-9:30am and 4:00pm-6:00pm, respectively). The surveys can be undertaken by mail drop of leaflets with QR codes and/or paper questionnaires with pre-paid envelopes. Traffic surveys would also be undertaken at the site access and the separate pedestrian/ cycle access points. The data will provide the trip generation of the site, and will allow a direct comparison to the residual trip rates outlined in Chapter 8.

9.4 If the survey results reveal the mode share for car driver exceeds 64%, then the TP Co-ordinator can consult with NH, WCC and site developer to discuss remedial options that may be deemed necessary and viable to reduce single occupancy car drivers.

9.5 These surveys would seek to identify any changes in travel behaviours and would also be a means of identifying areas in which the efforts of the Site TP Co-ordinator should be best directed. The survey results and TP outcomes would be shared with the NH and WCC within 1 month of the data being received.

9.6 Subsequent surveys are to follow on an annual basis thereafter until 5 years following occupation of the whole site. After 5 years a thorough review of the plan will be carried out and revised targets set if necessary.

10.0 POLICY REQUIREMENTS

10.1 As discussed in Chapter 2.0 above the NWBC Local Plan sets out the requirements for Travel Plans:

> The Assessments should assess the impact on level crossings in the vicinity of the development.
>
> Travel Plans will be required to be submitted alongside these Assessments.
>
> ***Travel Plan***
> Development will be expected to link with existing road, cycle and footpath networks. Developments that are likely to generate significant amounts of traffic and particularly larger developments will be expected to focus on the longer-term management of new trips; encourage the use of public and shared transport as well as appropriate cycle and pedestrian links. Increasing the opportunity to access these developments for all sections of the community should be addressed. This will be secured through a Travel Plan and/or financial contributions which will be secured either through planning conditions or the provisions of Section 106.

10.2 Table 10.1 below summarises how the Local Plan requirements have been met by this Travel Plan:

Table 10.1: Travel Plan Compliance with NWBC Local Plan Requirements

Local Plan - Travel Plan Requirement	Travel Plan Compliance
Development linking with existing road, cycle and footpath networks	Fully-signalised pedestrian/ cycle crossings at site access junction. Fully signalised crossing of the A5 carriageway. Pedestrian/ cycle connections to Cockspur Street to the north and the A5 to the south. Pedestrian/ cycle connections to Bridleway 166/AE45/1 and Public Footpath 166/AE46/1 to the east.
Longer term management of new trips	Five-year targets for the Travel Plan have been set.
Encourage the use of public transport	Diversion of Stagecoach 766/ 767 service into the development site providing connections to surrounding residential areas. Provision of shelter with seating and information within the site. Provision of replacement bus stop on the A5, upgraded to comply with design standards.
Appropriate cycle and pedestrian links	Enhanced pedestrian/ cycle connections along the north side of the A5. Enhanced pedestrian/ cycle connections across the north side of M42 Jn10. Upgraded bridleways and footpaths and new footway / cycleways in the vicinity of the site – see Proposed Connectivity Plan (ref. 00803/P3) attached at Appendix D
Access for all sections of the community	Mobility impaired car parking spaces will be provided at the site and located close to the entrances. Tactile paving and dropped kerbs will be provided at all proposed crossing facilities.

	Routes through the site and other land under the control of the applicant will be improved to facilities walking, wheeling and cycling through the site to nearby employment areas such as Brich Coppice. All new and existing public footpaths, public bridleways, footway/ cycleways and pavements to be designed to be Equalities Act 2010 compliant.

10.3 As discussed in Chapter 2.0 above, the Department for Transport sets out requirements for Travel Plans in its Policy paper; 'Strategic road network and the delivery of sustainable development'.

10.4 Table 10.2 below summarises how the DfT Policy paper requirements have been met by this Travel Plan:

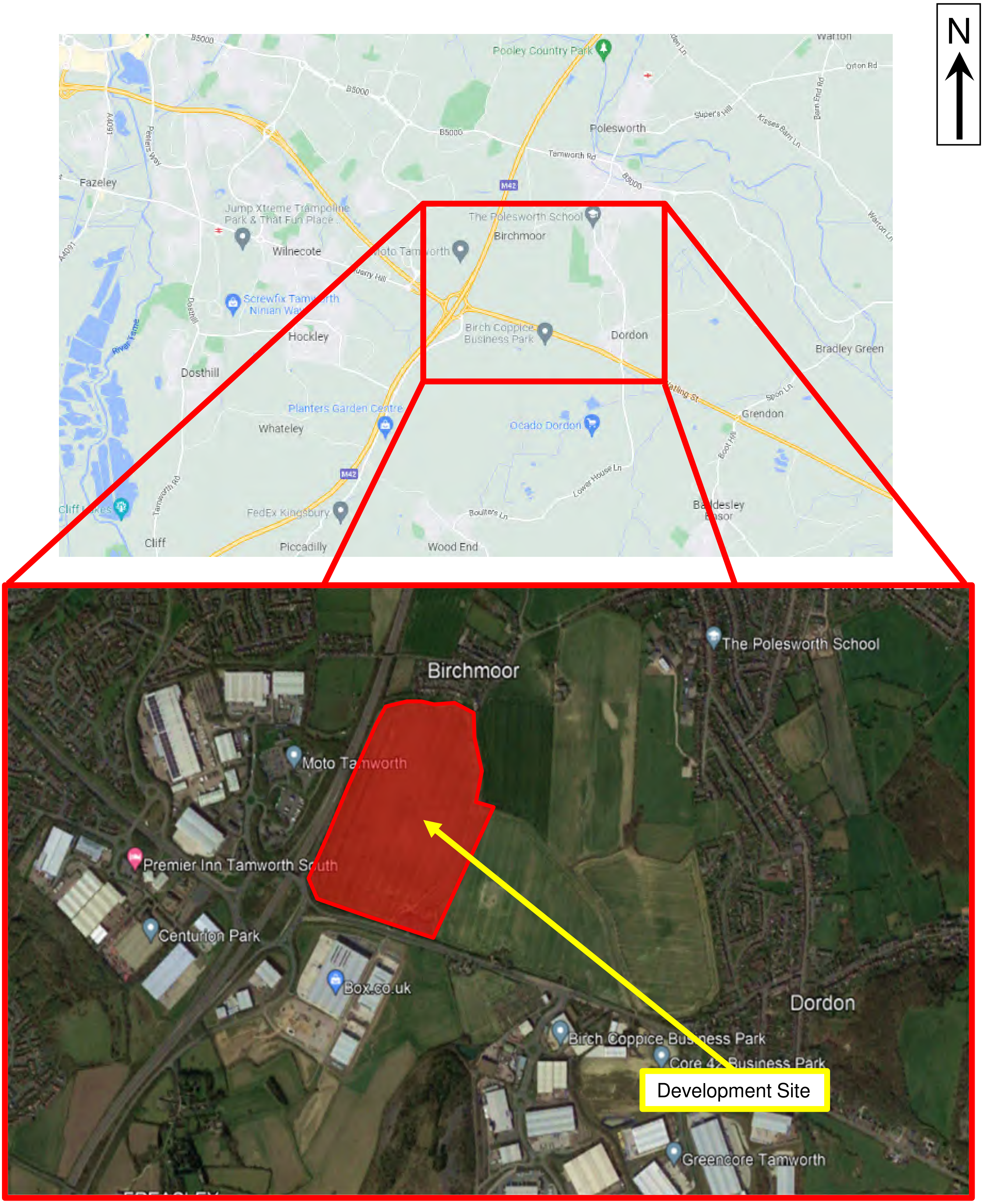
Table 10.2: Travel Plan Compliance with DfT Policy Paper Requirements

Local Plan - Travel Plan Requirement	Travel Plan Compliance
Clear targets to manage down the traffic impacts of the scheme	Five-year targets for the site wide Travel Plan have been set.
Maximise the sustainability of and within the site by walking, wheeling, cycling, public transport and shared travel	A series of measures are to be introduced to encourage walking, wheeling, cycling, public transport and shared travel. Enhanced pedestrian/ cycle connections along the north side of the A5. Enhanced pedestrian/ cycle connections across the north side of the M42 Jn10. Upgraded bridleways and footpaths and new footway / cycleways across the site, and surrounding area. Diversion of Stagecoach 766/ 767 service into the development site providing connections to surrounding residential areas. Provision of shelter with seating and information within the site.
Sustained monitoring	Monitoring surveys and reports will be produced annually for the duration of the travel plan
Appointment of a Travel Plan Co-ordinator	A Travel Plan Co-ordinator will be appointed prior to first occupation.

11.0 ACTION PLAN

Measure	Objective	Responsibility	Deadline
Produce Full TP to be agreed with Local Planning Authority	Refine TP to site conditions	TT	Post planning permission
Provide on-site pedestrian and cyclist facilities	Promote walking and cycling	The developer	During construction
Appoint Travel Plan Co-ordinator	Provide person responsible for plan	The developer	Prior to first occupation
Issue employees with Sustainable Travel Pack	Promotion of sustainable travel	Travel Plan Co-ordinator	At first occupation
Set up sustainable travel website	Promotion of sustainable travel	Travel Plan Co-ordinator	At first occupation
Offer personalised journey planning to employees	Promotion of sustainable travel	Travel Plan Co-ordinator	At first occupation
Investigate car sharing	Promotion of sustainable travel	Travel Plan Co-ordinator	From first occupation
Investigate BUG groups	Promotion of sustainable travel	Travel Plan Co-ordinator	From first occupation
Carry out Baseline Survey and Report to NH, WCC and the LPA	Determine baseline travel patterns	Travel Plan Co-ordinator	Date agreed with NH, WCC and the LPA after first occupation
Carry out Follow Up Surveys and Reports to NH, WCC and the LPA	Monitor plan progress towards targets	Travel Plan Co-ordinator	12 months after Baseline Survey and then on annual basis thereafter
Produce TP Review Report and agree TP for next 5 years with NH, WCC and the LPA	Tailor TP to site conditions and progress for targets	Travel Plan Co-ordinator	5 years after first occupation and thereafter every 5 years until targets met.

APPENDIX A1: FIGURES



M42 Junction 10, Tamworth

Site Location Plan

Figure 1

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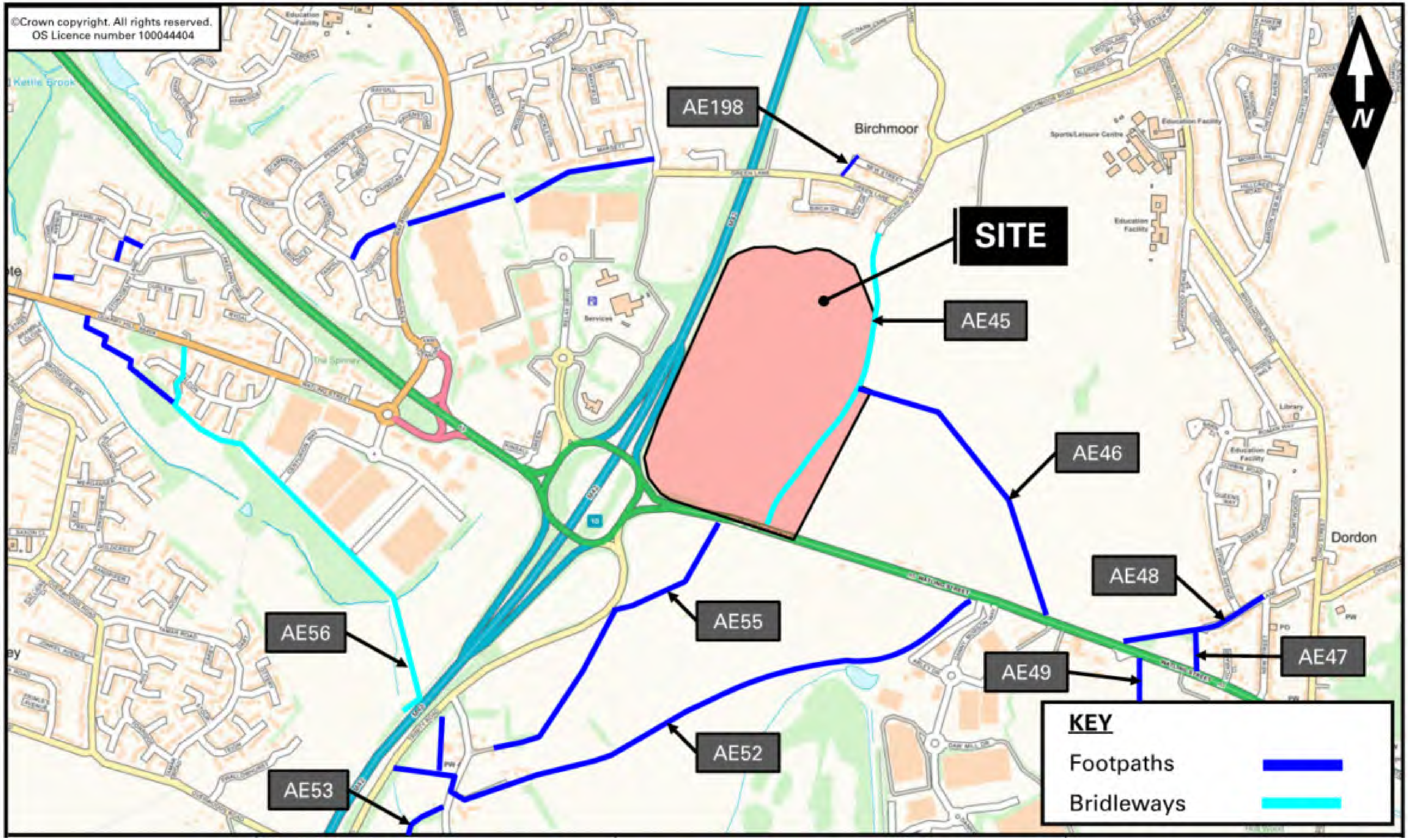
Proposed Employment Land NE of J10 M42

Walk Accessibility Plan

Figure 2

TETRA TECH



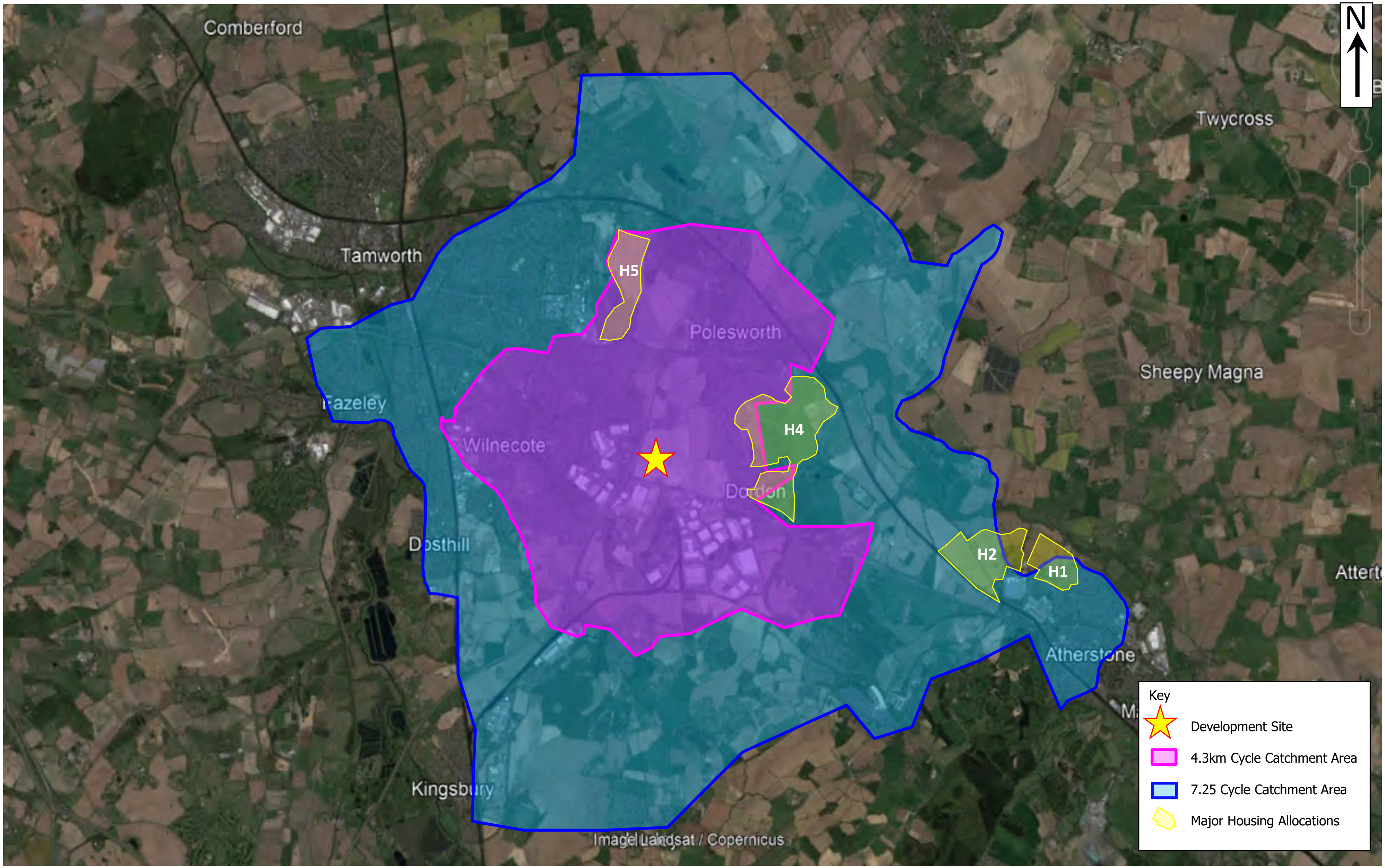
Source: Bancroft Figure 23

M42 Junction 10, Tamworth

Local Public Rights of Way

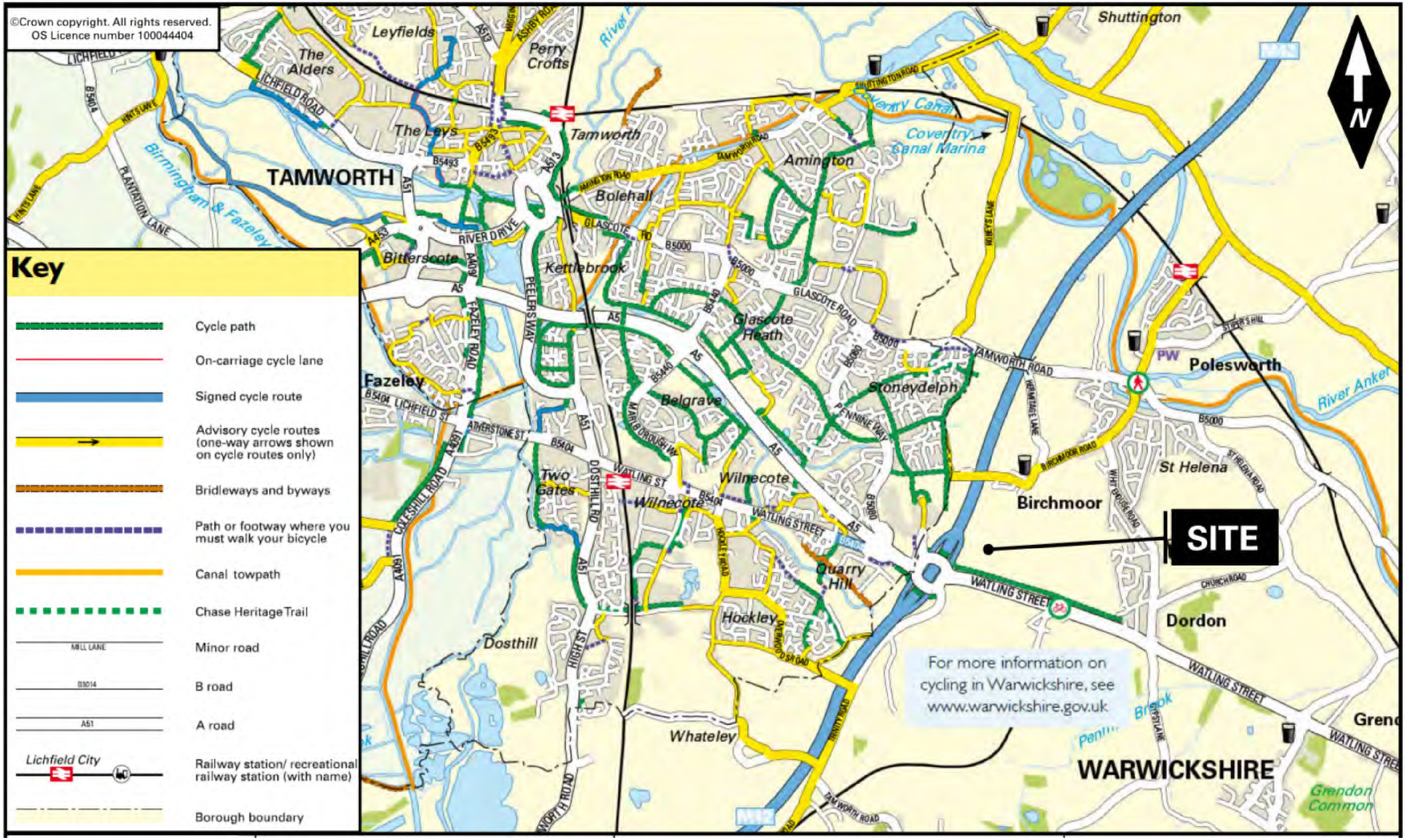
Figure 3

TETRA TECH



Source: Google Earth

M42 Junction 10, Tamworth	Figure 4
Cycling Accessibility Plan	TETRA TECH



Source: Bancroft Figure 25

M42 Junction 10, Tamworth

Cycling in Lichfield Map

Figure 5

TETRA TECH

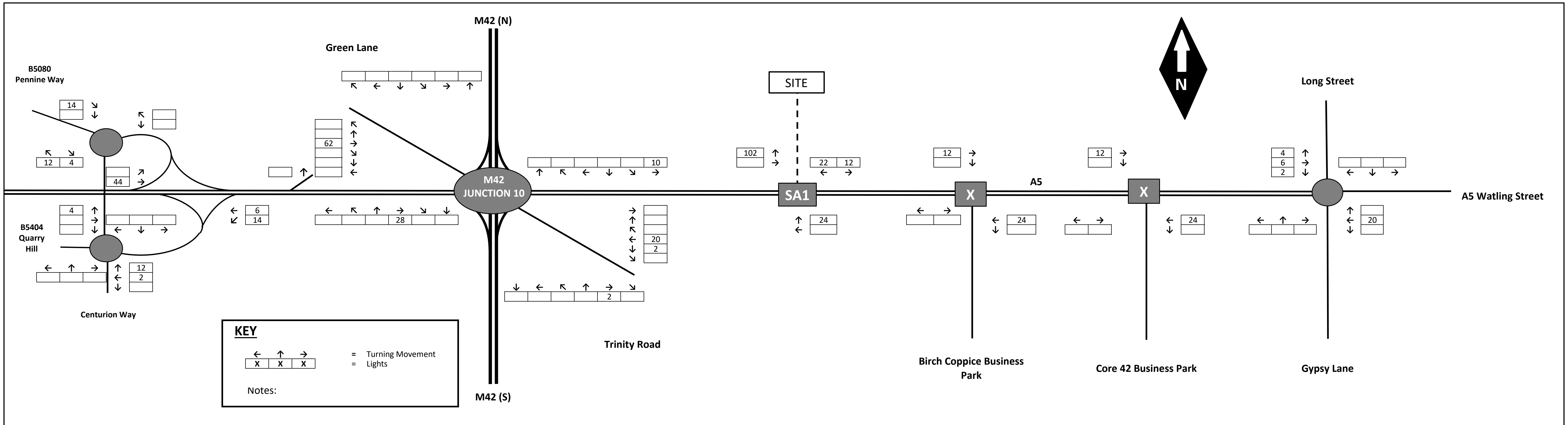


FIGURE 6

AM Peak Development Generated Traffic Flows (Lights)

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

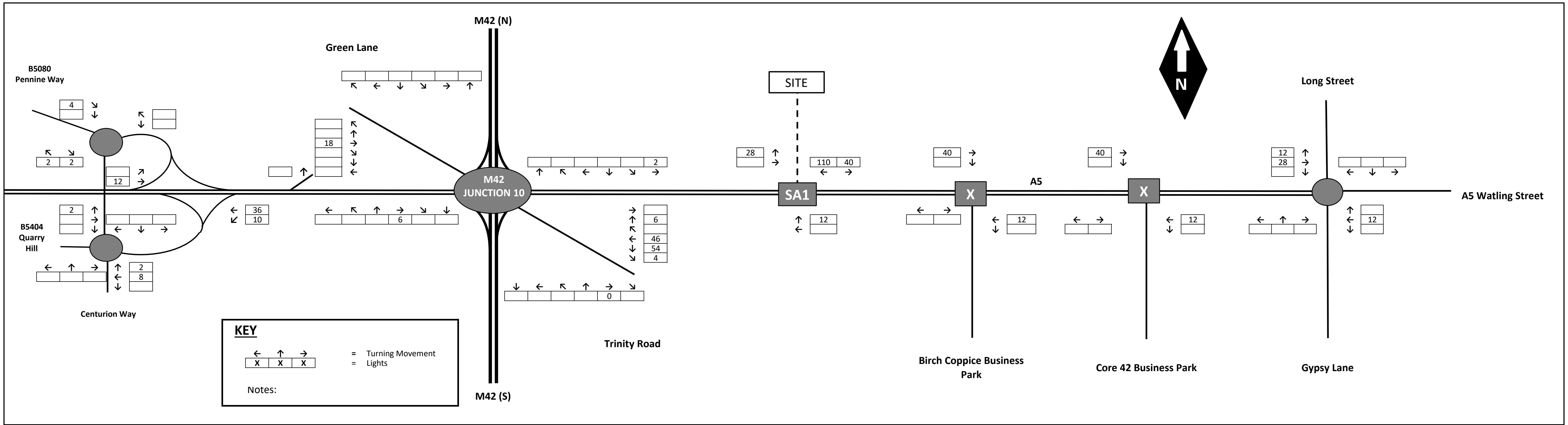


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FIGURE 7

PM Peak Development Generated Traffic Flows (Lights)

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

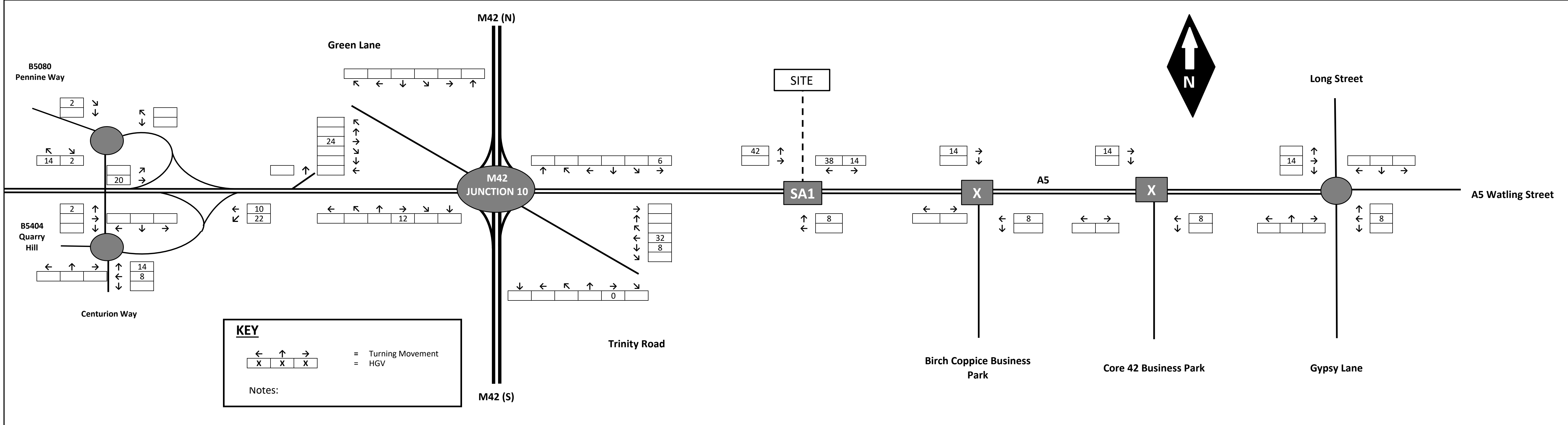

FIGURE 8

AM Peak Development Generated Traffic Flows (HGV)

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

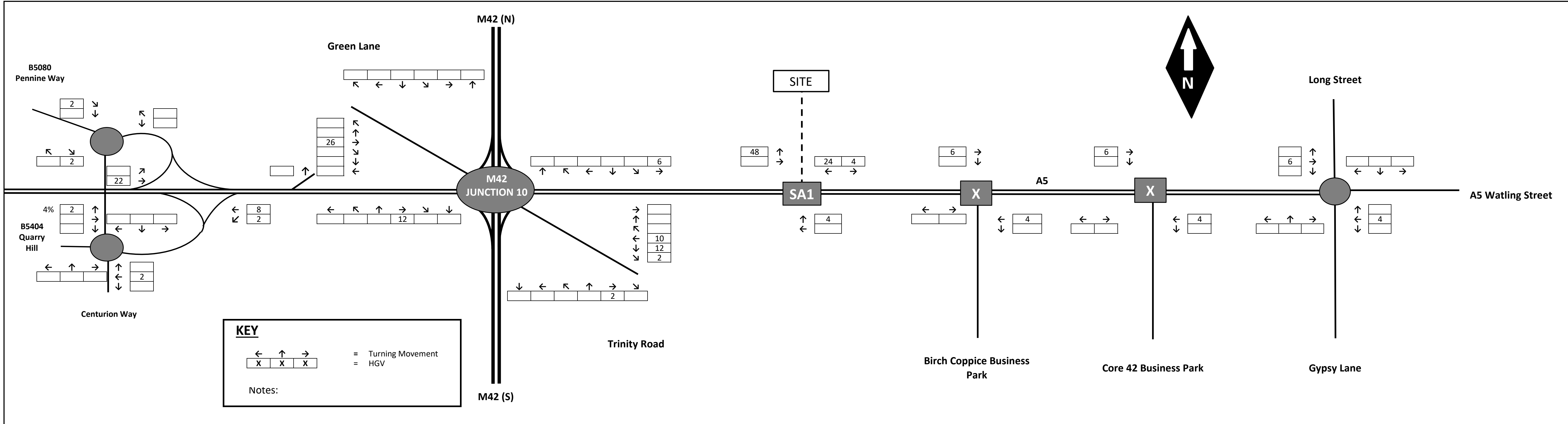

FIGURE 9

PM Peak Development Generated Traffic Flows (HGV)

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

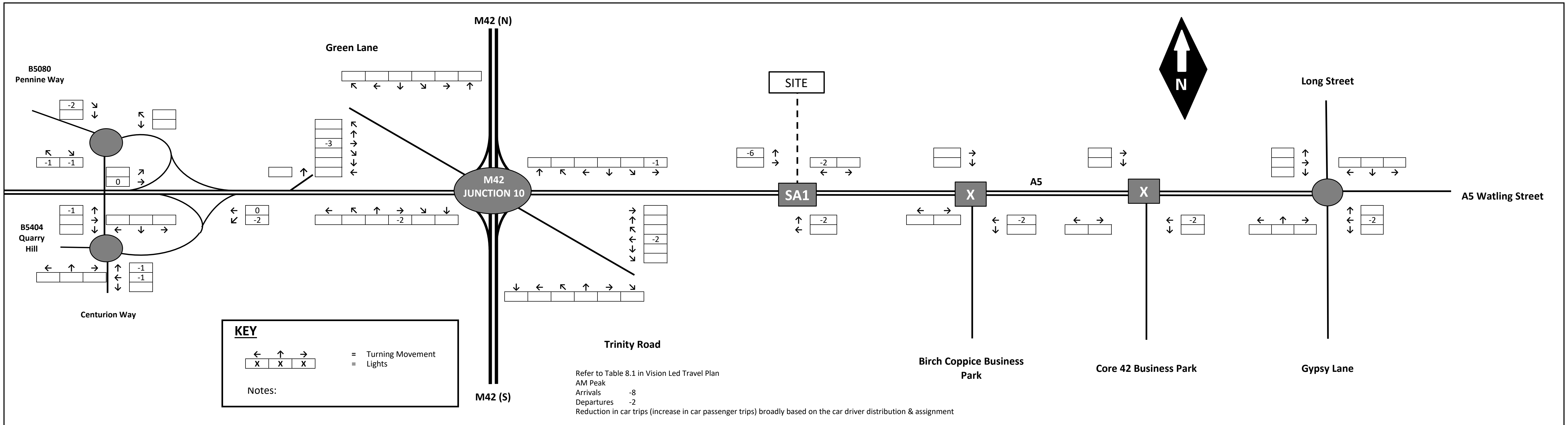

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FIGURE 10

AM Peak Development Generated Traffic Flows (Lights) - Residual Effect from Transfer of Trips to Car Passenger

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

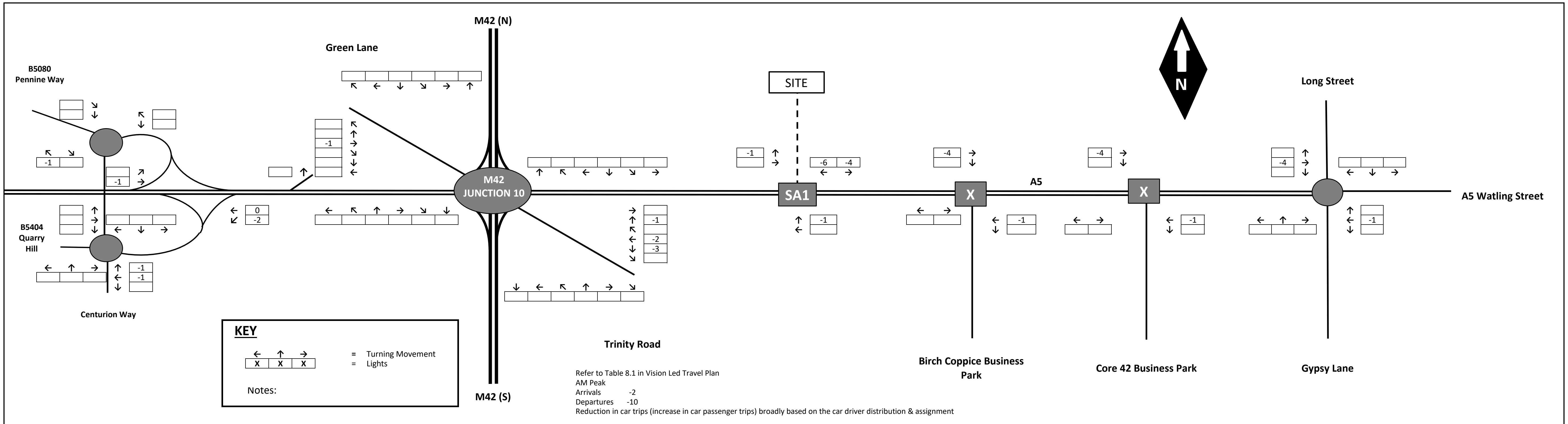

FIGURE 11

PM Peak Development Generated Traffic Flows (Lights) - Residual Effect from Transfer of Trips to Car Passenger

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

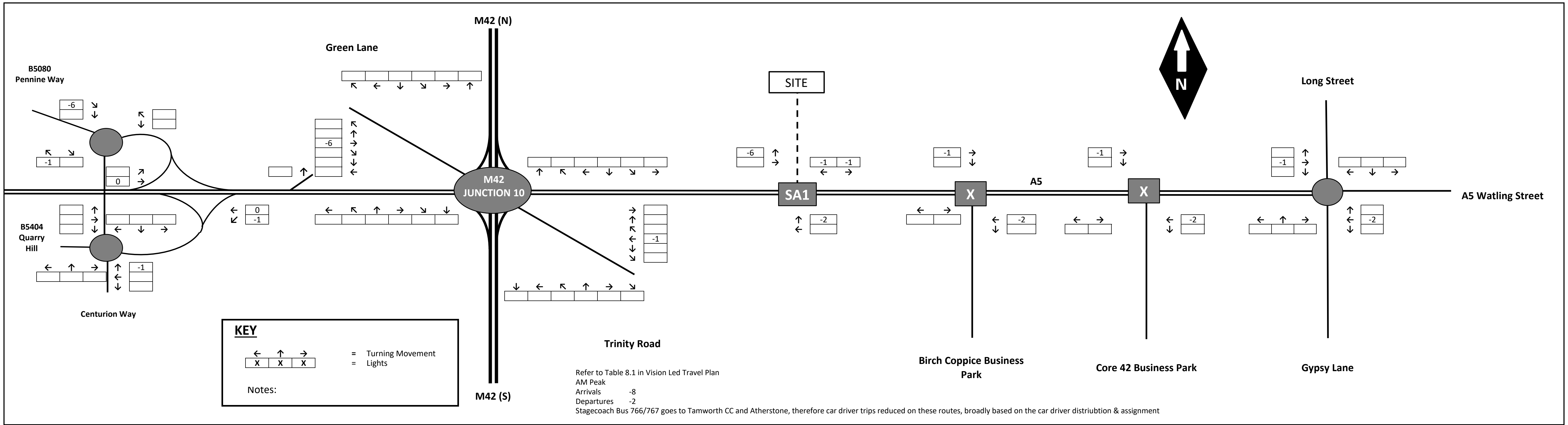

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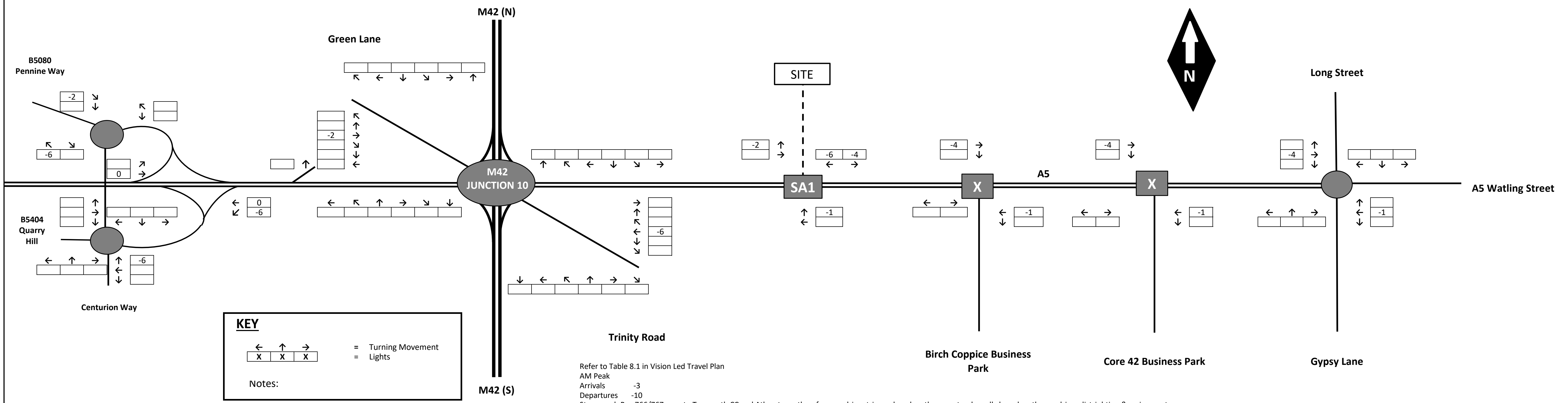
FIGURE 12

AM Peak Development Generated Traffic Flows (Lights) - Residual Effect from Transfer of Trips to Bus

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920



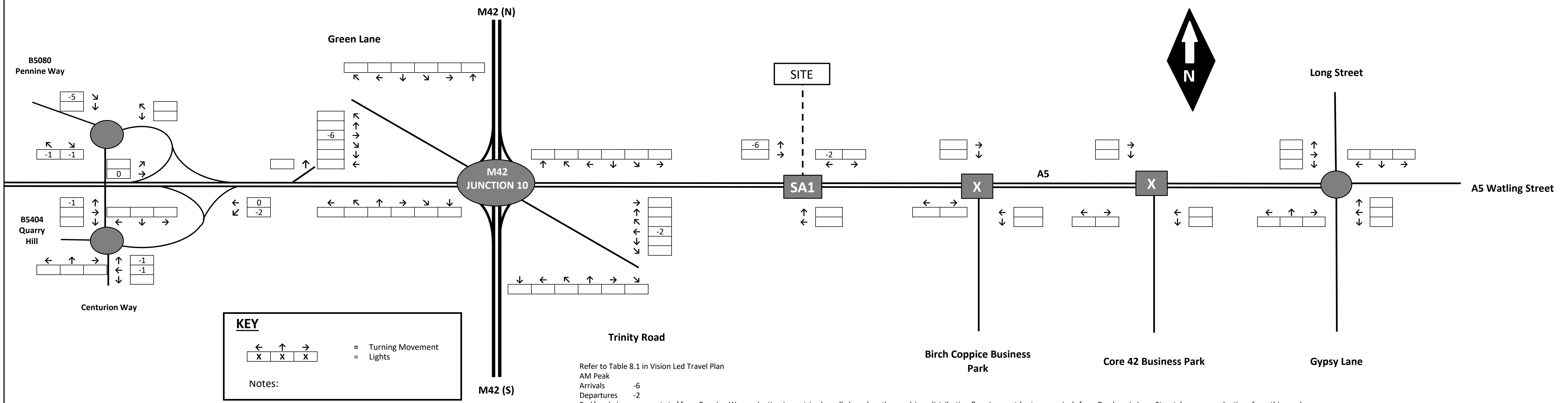
Refer to Table 8.1 in Vision Led Travel Plan
AM Peak
Arrivals -3
Departures -10
Stagecoach Bus 766/767 goes to Tamworth CC and Atherstone, therefore car driver trips reduced on these routes, broadly based on the car driver distriubtion & assignment

FIGURE 13

PM Peak Development Generated Traffic Flows (Lights) - Residual Effect from Transfer of Trips to Bus

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920



Refer to Table 8.1 in Vision Led Travel Plan
AM Peak
Arrivals -6
Departures -2
Ped/ cycle improvements to/ from Pennine Way, reduction in car trips broadly based on the car driver distribution & assignment (note: no arrivals from Dordon via Long Street, hence no reductions from this area)

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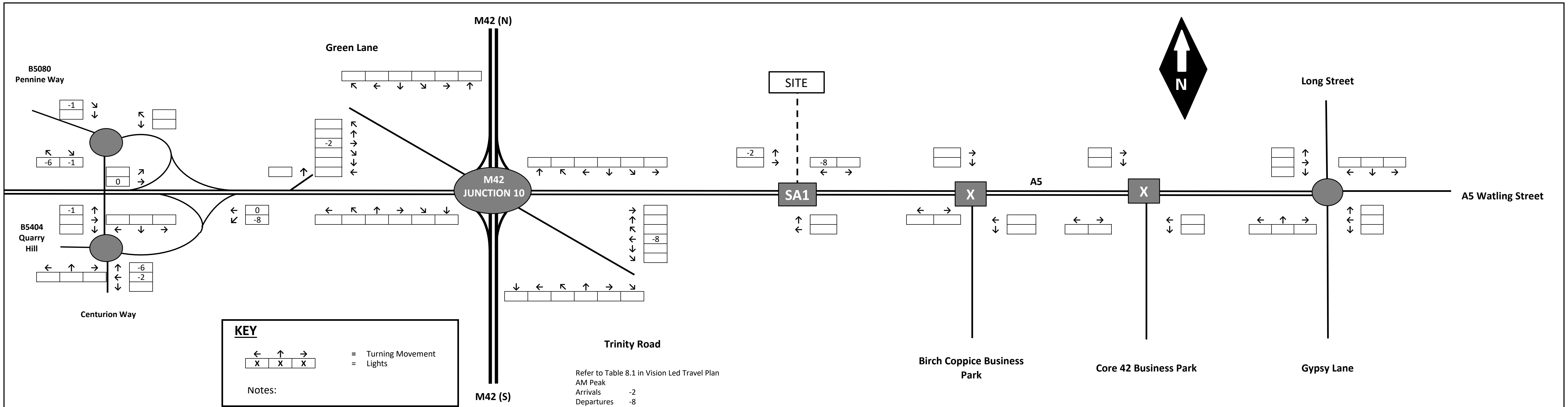
FIGURE 14

AM Peak Development Generated Traffic Flows (Lights) - Residual Effect from Transfer of Trips to Walk/ Cycle

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920



Refer to Table 8.1 in Vision Led Travel Plan
AM Peak
Arrivals -2
Departures -8
Ped/ cycle improvements to/ from Pennine Way, reduction in car trips broadly based on the car driver distribution & assignment (note: no arrivals from Dordon via Long Street, hence no reductions from this area)

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FIGURE 15

PM Peak Development Generated Traffic Flows (Lights) - Residual Effect from Transfer of Trips to Walk/ Cycle

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

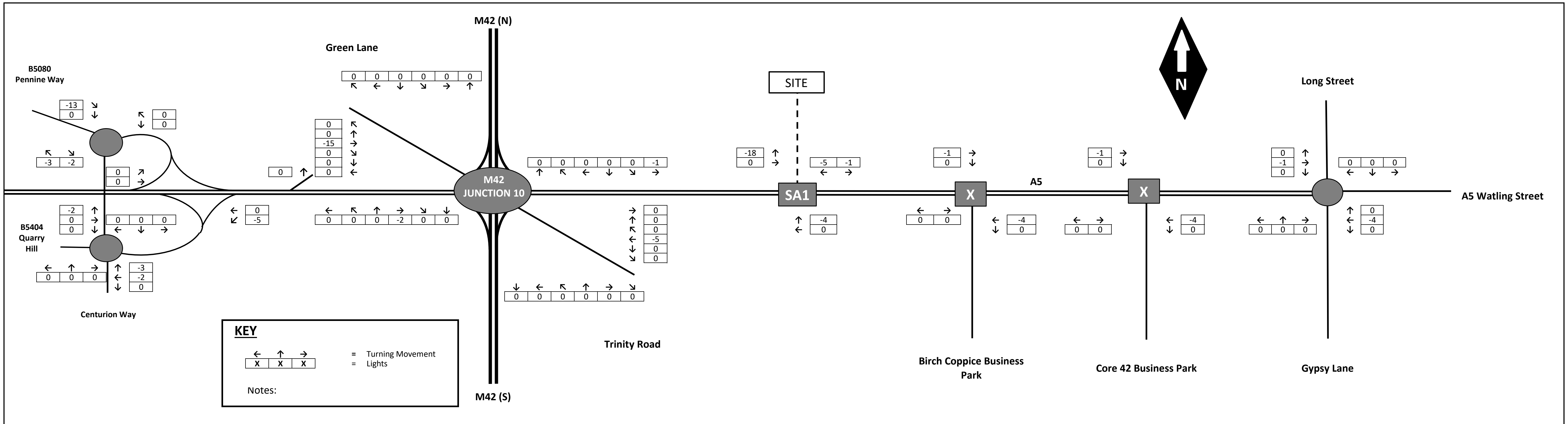

FIGURE 16

AM Peak Development Generated Traffic Flows (Lights) - Overall Reductions in Light Vehicles

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

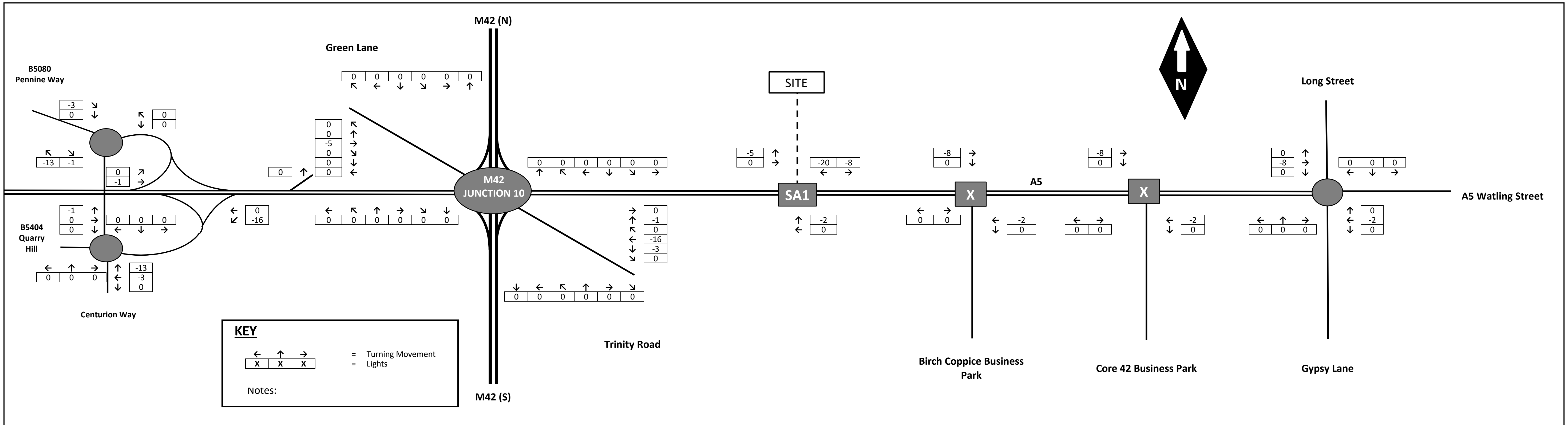

FIGURE 17

PM Peak Development Generated Traffic Flows (Lights) - Overall Reductions in Light Vehicles

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

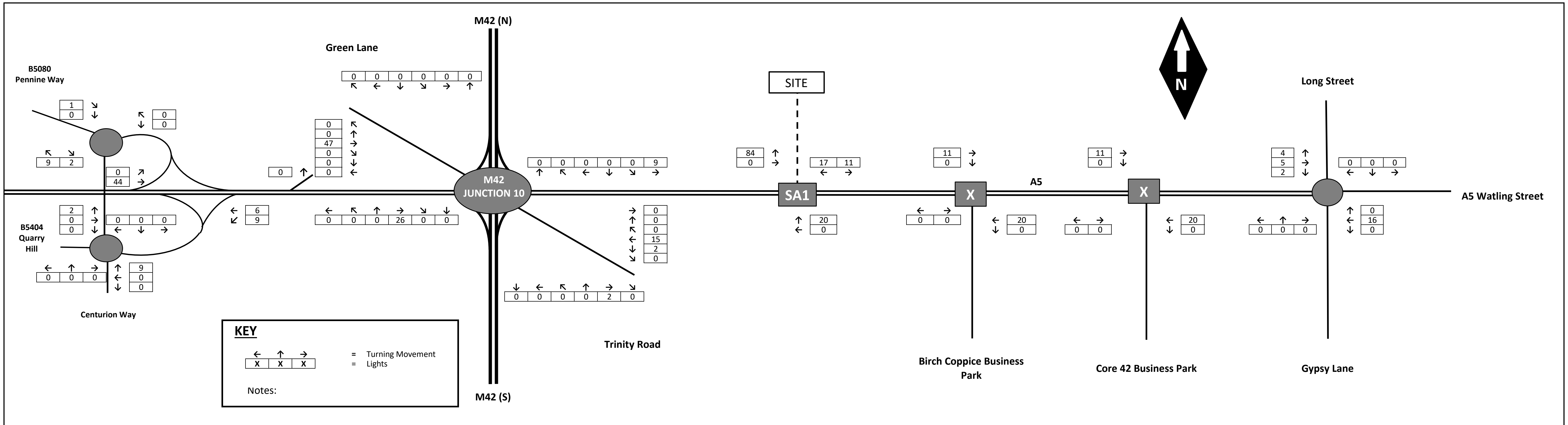

FIGURE 18

AM Peak Development Generated Traffic Flows (Lights) with Travel Plan Effect

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

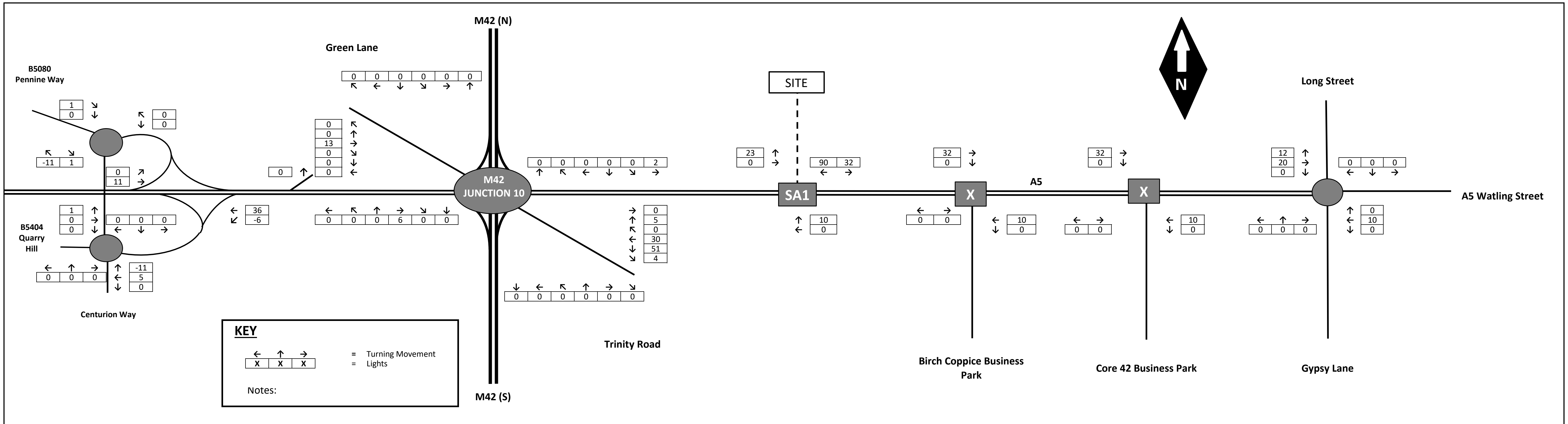

FIGURE 19

PM Peak Development Generated Traffic Flows (Lights) with Travel Plan Effect

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

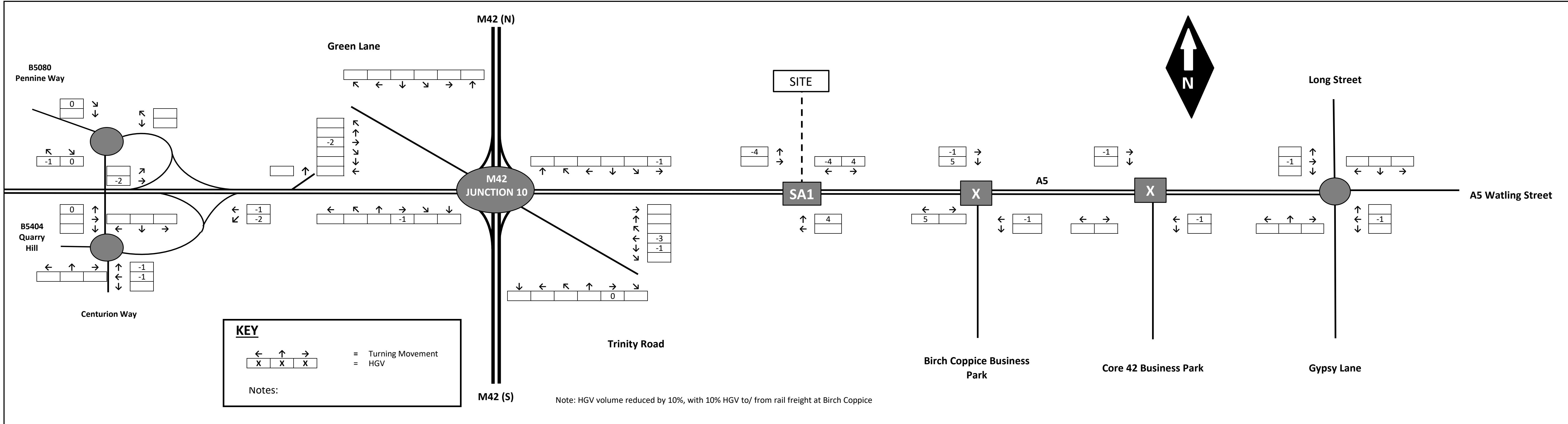

FIGURE 20

AM Peak Development Generated Traffic Flows (HGV) Reduction with Travel Plan Effect

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

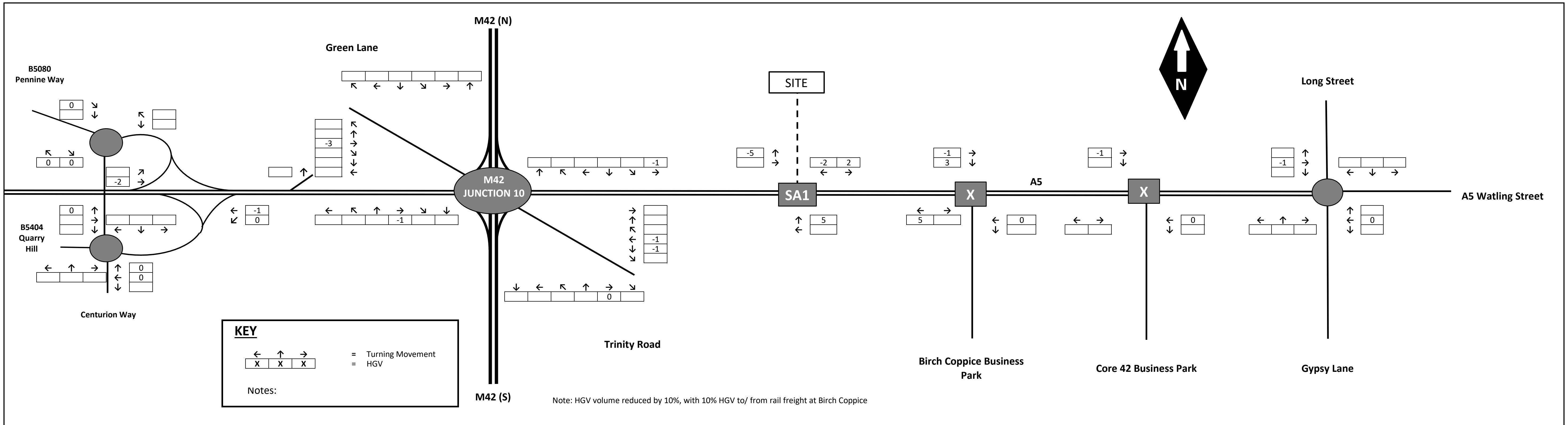

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FIGURE 21

PM Peak Development Generated Traffic Flows (HGV) Reduction with Travel Plan Effect

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

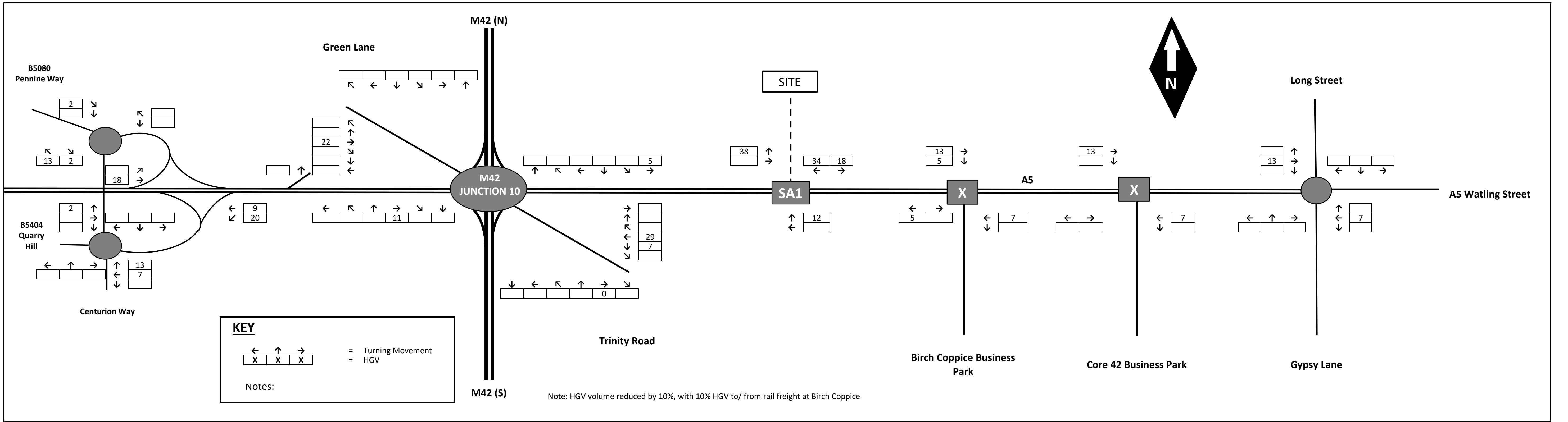

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FIGURE 22

AM Peak Development Generated Traffic Flows (HGV) with Travel Plan Effect

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

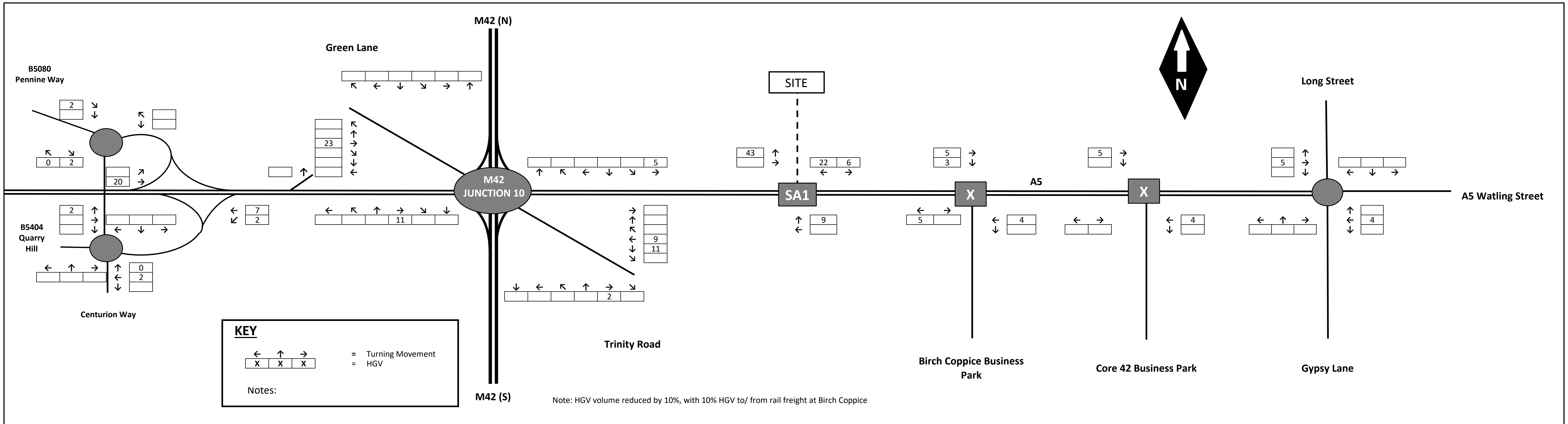

FIGURE 23

PM Peak Development Generated Traffic Flows (HGV) with Travel Plan Effect

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

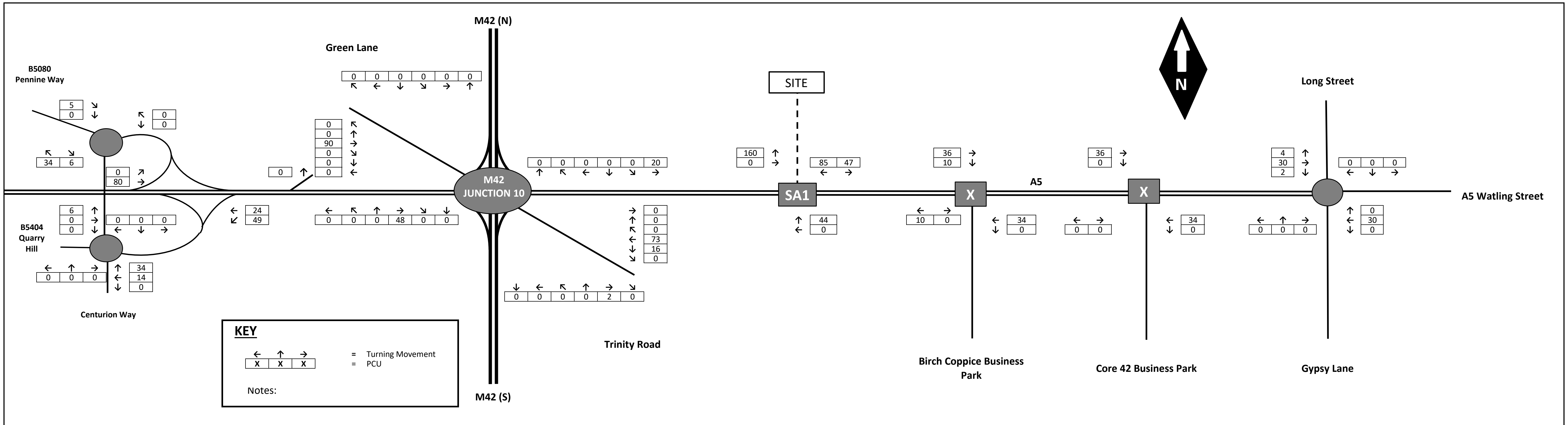

FIGURE 24

AM Peak Development Generated Traffic Flows (PCU) with Travel Plan Effect

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

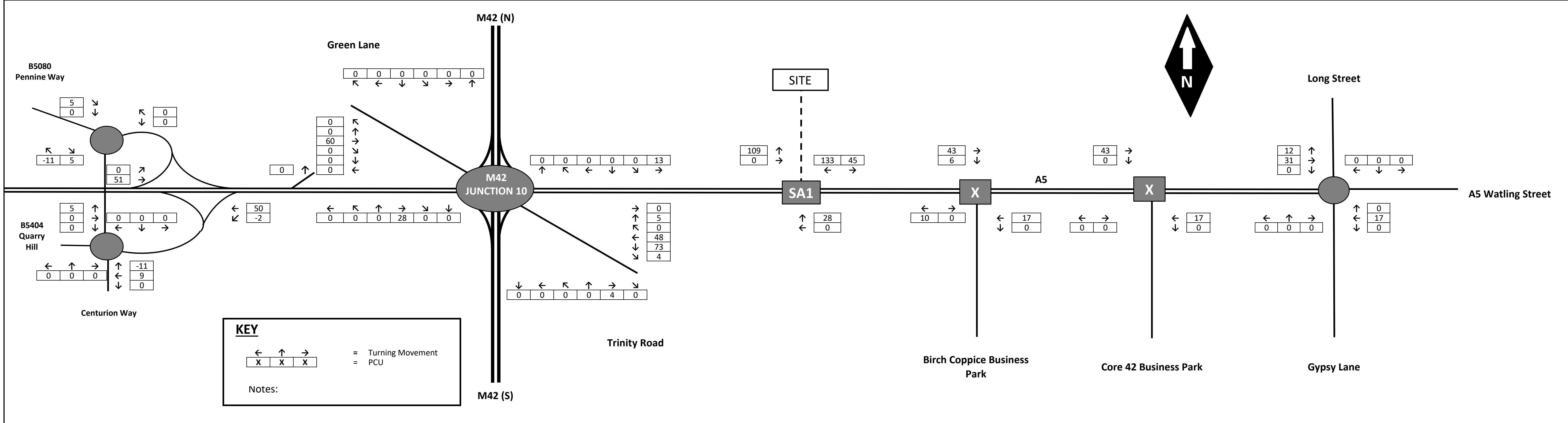

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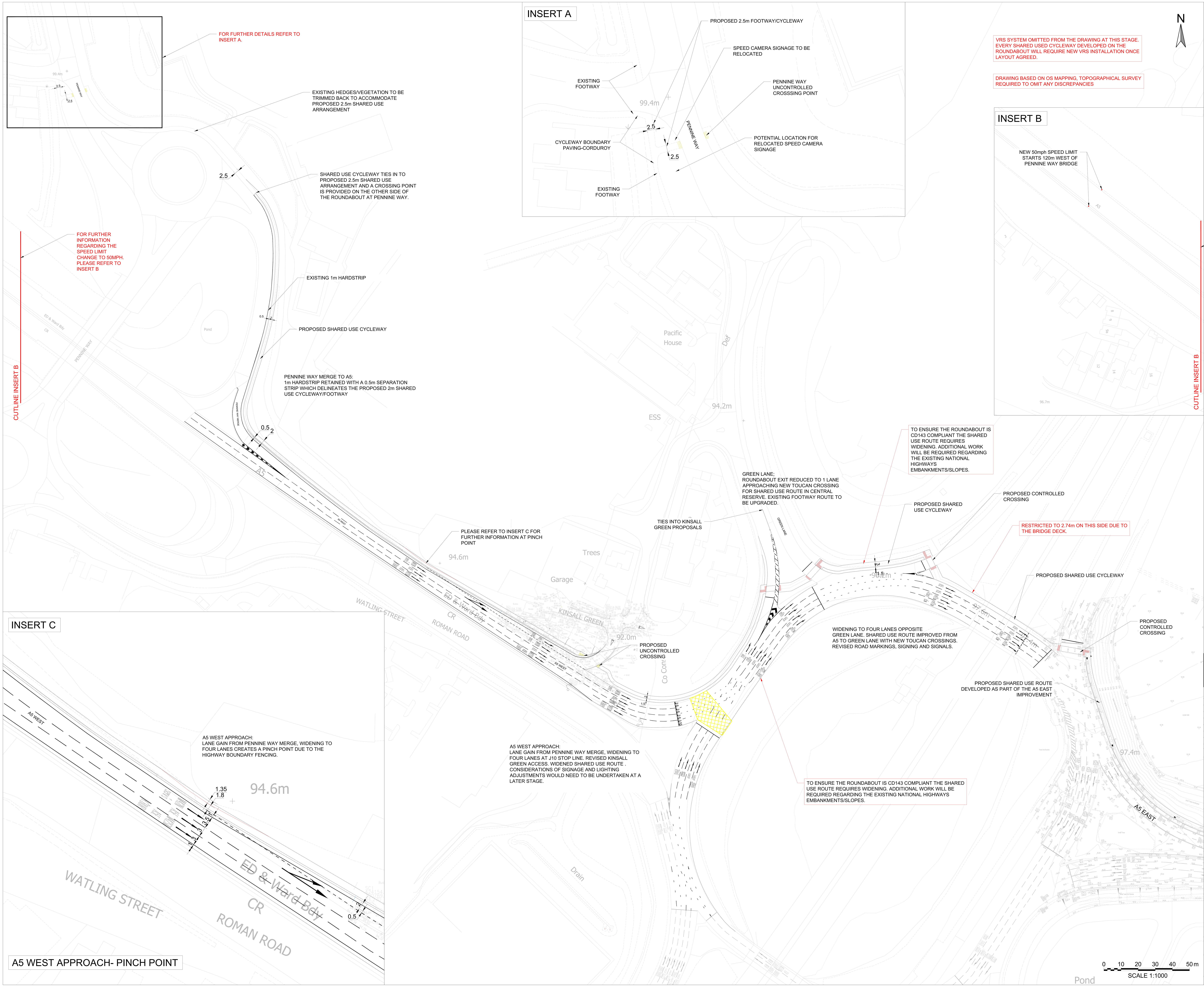
FIGURE 25

PM Peak Development Generated Traffic Flows (PCU) with Travel Plan Effect

Land North East of M42 Junction 10

JOB NUMBER: 784-B033920

APPENDIX A2: DRAWINGS



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2. ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED OTHERWISE.

PRELIMINARY ISSUE

Rev	Description	Date	Drn	Chk	App
P04	AMENDMENTS TO ROAD MARKINGS	04.12.2023	JG	GW	NB
P03	MINOR AMENDMENTS	25.10.2023	LJB	LB	NB
P02	MINOR AMENDMENTS	14.08.2023	LJB	LB	NB
P01	PRELIMINARY FIRST ISSUE	21.10.2022	LJB	LB	NB

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Client

HODGETTS ESTATES

Project Name

M42 JUNCTION 10
ROUNDABOUT IMPROVEMENT

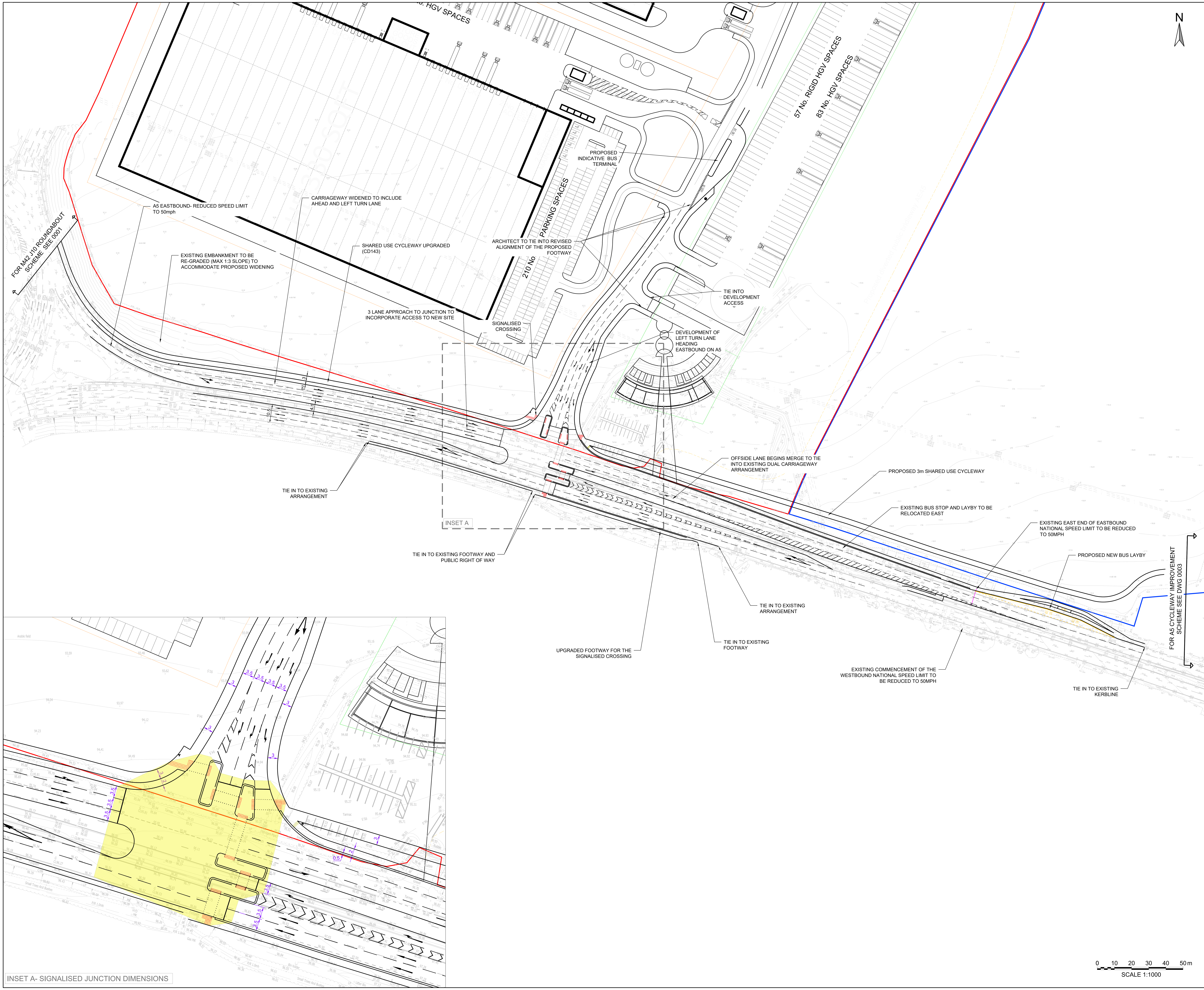
Sheet Title

PROPOSED LAYOUT

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A1	Suitability
784-B033920	LJB	Sep'22	LB	Sep '22	NB	Sep '22	1:1000	S3

Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision
B033920	TTE	00	ZZ	SK	H	0001	P04

TTE_MT_v1



NOTES -

1. ALL DIMENSIONS IN METRES UNLESS STATED OTHERWISE.
2. THE INFORMATION SHOWN ON THIS DRAWING IS INTENDED TO PROVIDE A GENERAL OUTLINE OF THE HIGHWAY IMPROVEMENT WORKS.

KEY:

SITE BOUNDARY 1

SITE BOUNDARY 2

INTERVISIBILITY ZONE

PRELIMINARY ISSUE

Rev	Description	Date	Drn / Chk / App		
P02	ADJUSTMENT TO SPEED LIMIT SIGNS & INTERVISIBILITY ZONE ADDED	04.12.2023	JG	GW	NB
P01	PRELIMINARY FIRST ISSUE	04.11.2022	LJB	LB	NB

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Project Name

M42 JUNCTION 10
A5 CYCLEWAY IMPROVEMENT

Sheet Title

PROPOSED LAYOUT FOR A5 AND NEW SITE ACCESS

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A1	Suitability
784-B033920	LJB	Oct'22	LB	Oct '22	NB	Oct '22	1:1000	S3

Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision
B033920	TTE	00	ZZ	PL	H	0002	P02

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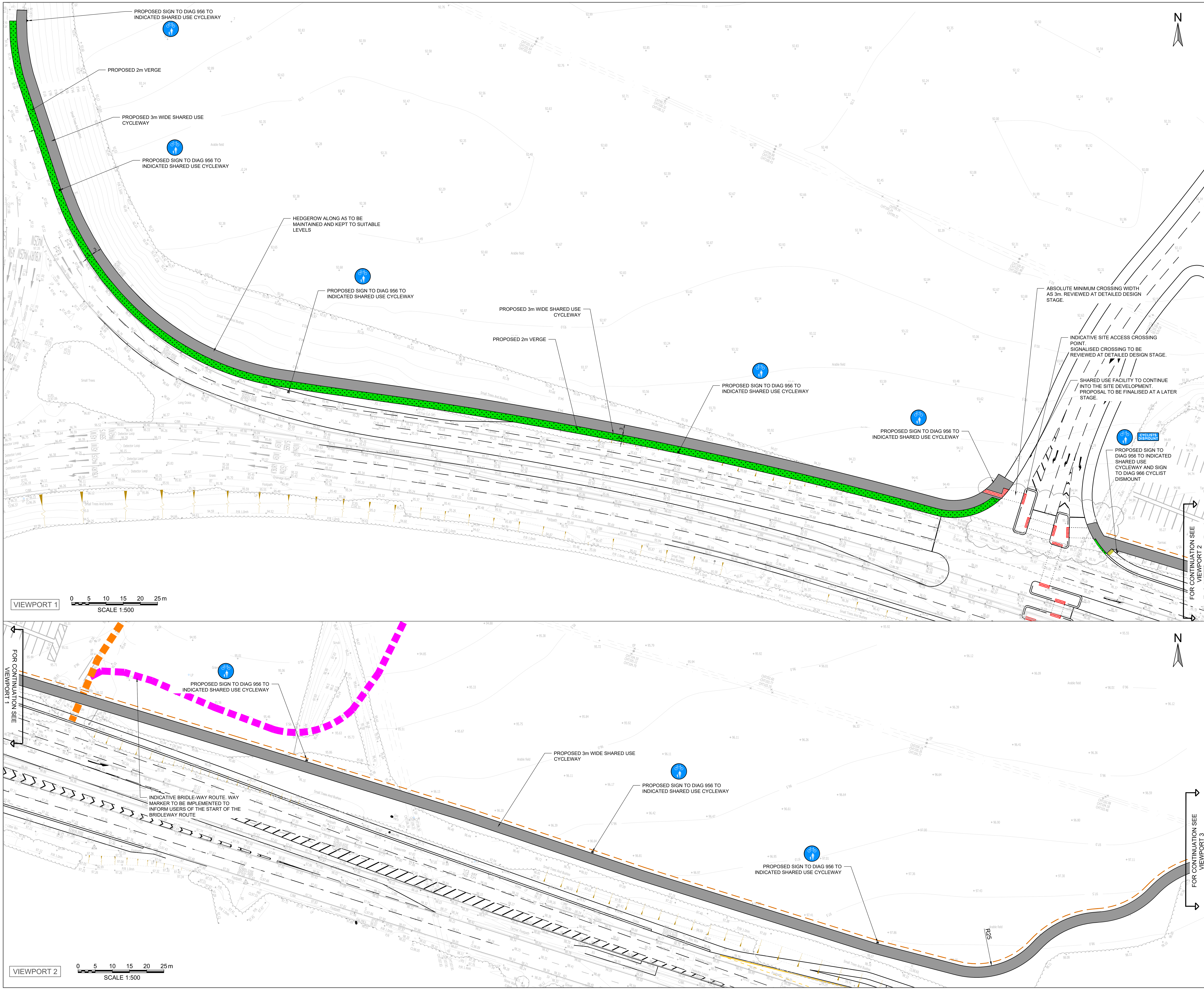

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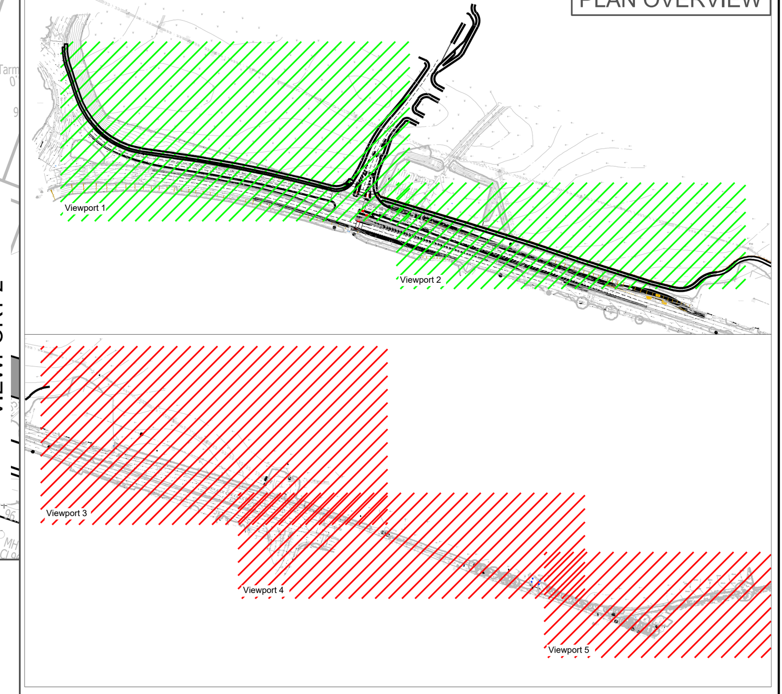
KEY:

- SITE BOUNDARY 1
- SITE BOUNDARY 2
- PROPOSED 5m SHARED USE CYCLEWAY
- INDICATIVE SITE ACCESS LAYOUT
- PROTECTIVE TIMBER FENCE OR SIMILAR APPROVED
- EXISTING BRIDLEWAY ROUTE (166/AE45/1)
- PROPOSED DIVERSION OF BRIDLEWAY ROUTE

PLAN OVERVIEW



PRELIMINARY ISSUE

Rev	Description	Date	Drn / Chk / App		
P02	INITIAL COMMENTS INCORPORATED	11.08.2022	LJB	JG	LB
P01	PRELIMINARY FIRST ISSUE	25.05.2022	LJB	JG	LB

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Project Name

M42 JUNCTION 10
A5 CYCLEWAY IMPROVEMENT

Sheet Title

PROPOSED LAYOUT
SHEET 1

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A1	Suitability
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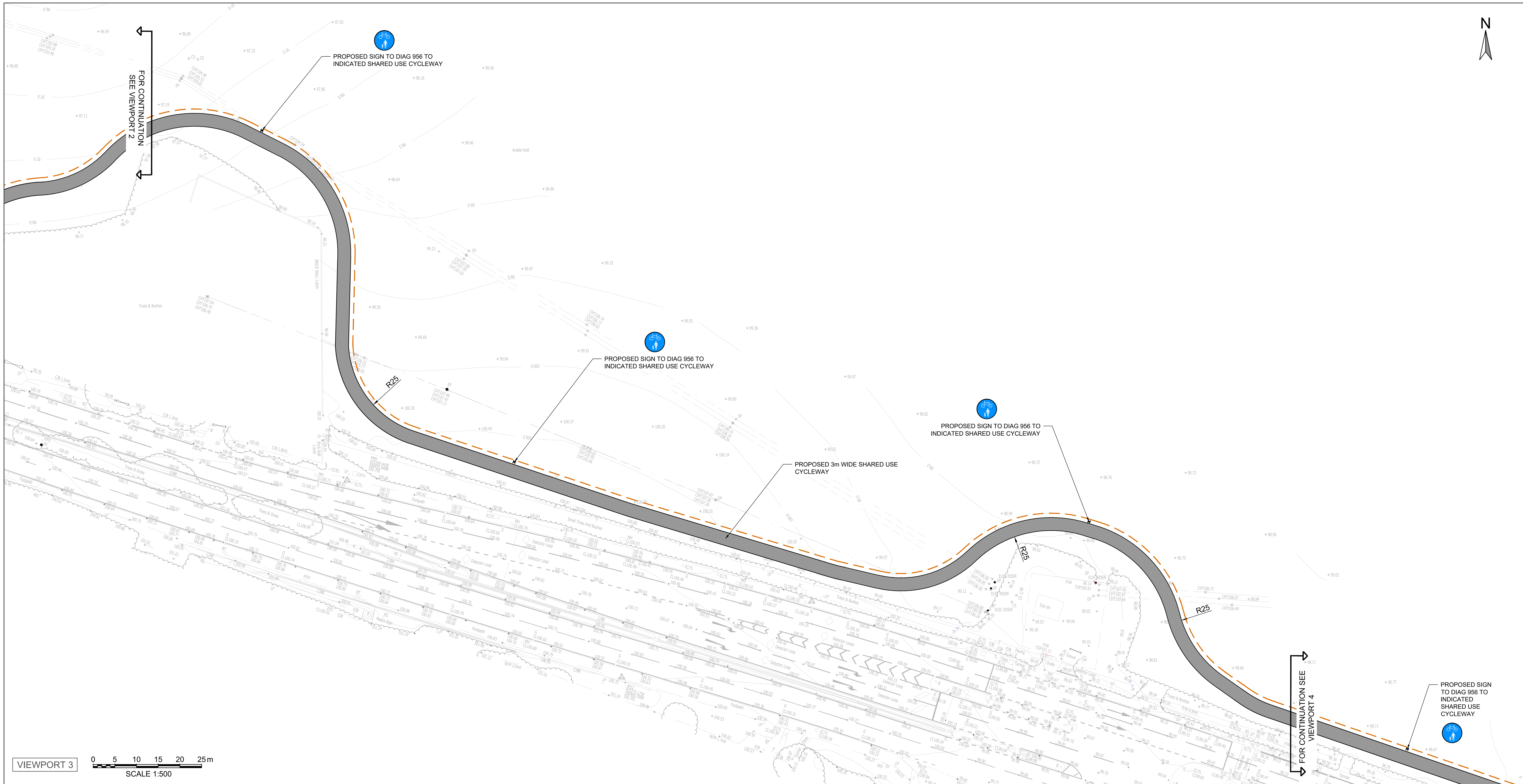
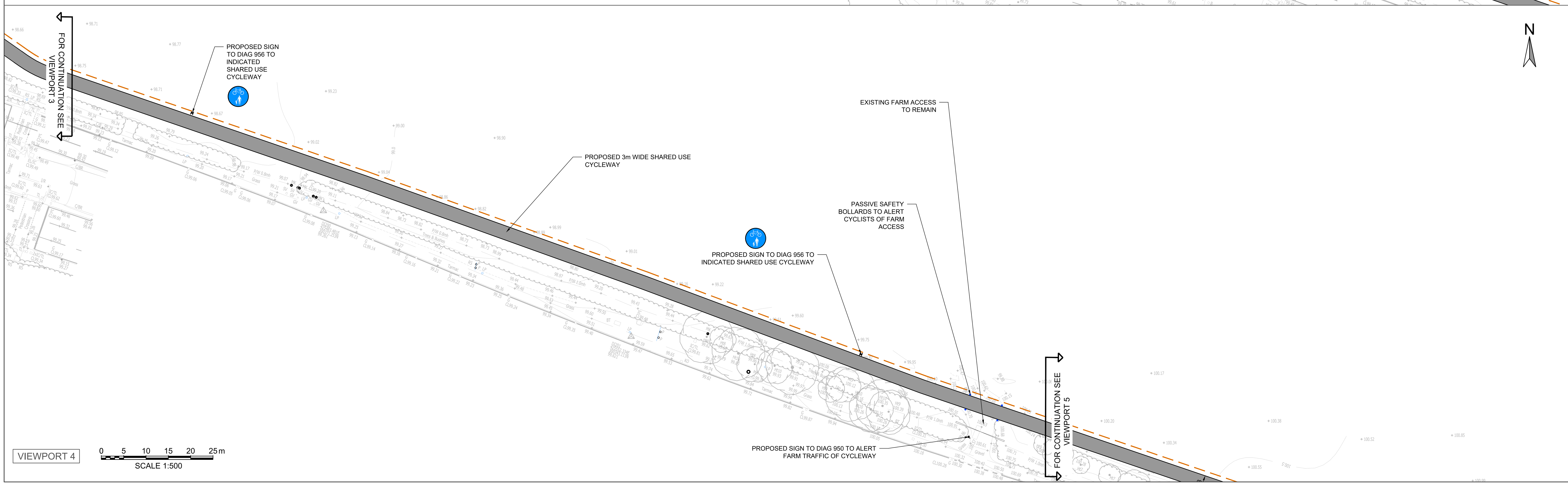
Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision
B033920	TTE	00	ZZ	PL	H	0003	P02

TTE_MT_v1





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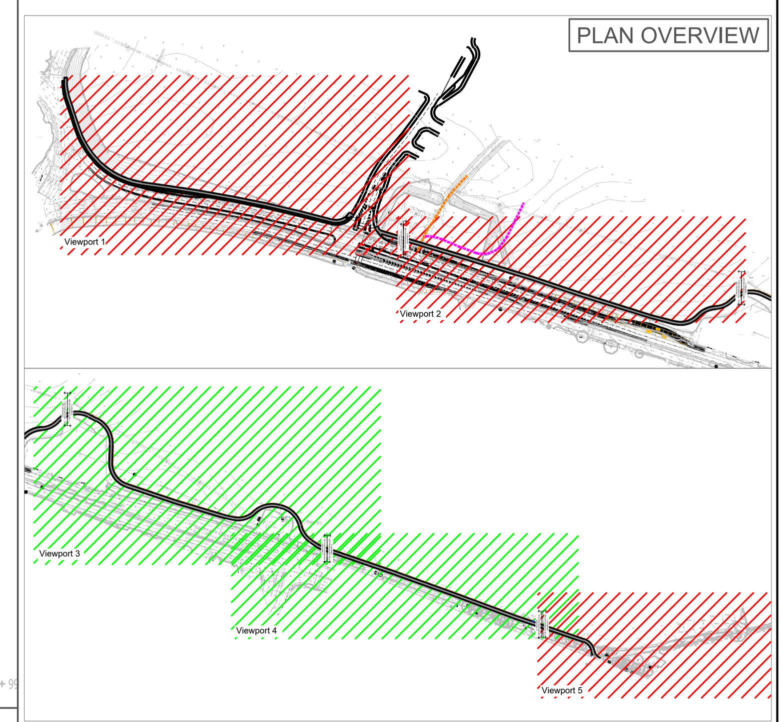
2. ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED OTHERWISE.
3. PROPOSALS FOR THE SHARED USE CYCLEWAY HAVE BEEN DESIGNED IN ACCORDANCE WITH LTN1/20. DUE TO THE LOW VOLUME OF PEDESTRIANS SHARED USE CYCLEWAY HAS BEEN UTILISED COINCIDING WITH POINTS 6.5.2 AND 6.5.6 OF THE LTN 1/20 DESIGN GUIDANCE.

KEY:

- SITE BOUNDARY 2
- PROPOSED 5m SHARED USE CYCLEWAY
- PROTECTIVE TIMBER FENCE OR SIMILAR APPROVED
- PASSIVE SAFETY BOLLARDS



PRELIMINARY ISSUE

Rev	Description	Date	Drn / Chk / App		
P02	INITIAL COMMENTS INCORPORATED	11.08.2022	LJB	LB	NB
P01	PRELIMINARY FIRST ISSUE	25.05.2022	LJB	JG	LB

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Client

HODGETTS ESTATES

Project Name

M42 JUNCTION 10
A5 CYCLEWAY IMPROVEMENT

Sheet Title

PROPOSED LAYOUT
SHEET 2

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A1	Suitability
784-B033920	LJB	May '22	JG	May '22	LB	May '22	1:500	S3

Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision
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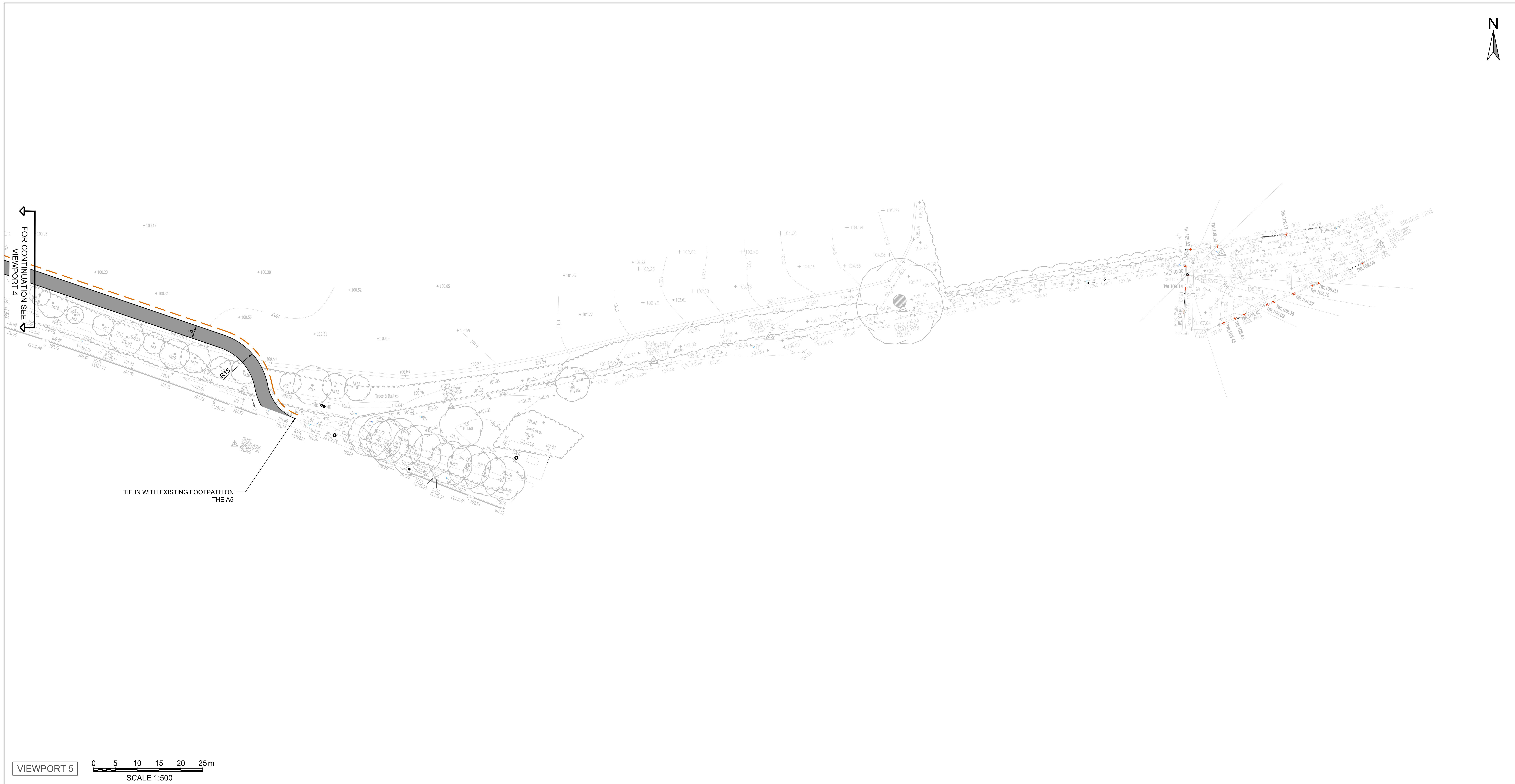
TTE_MT_v1



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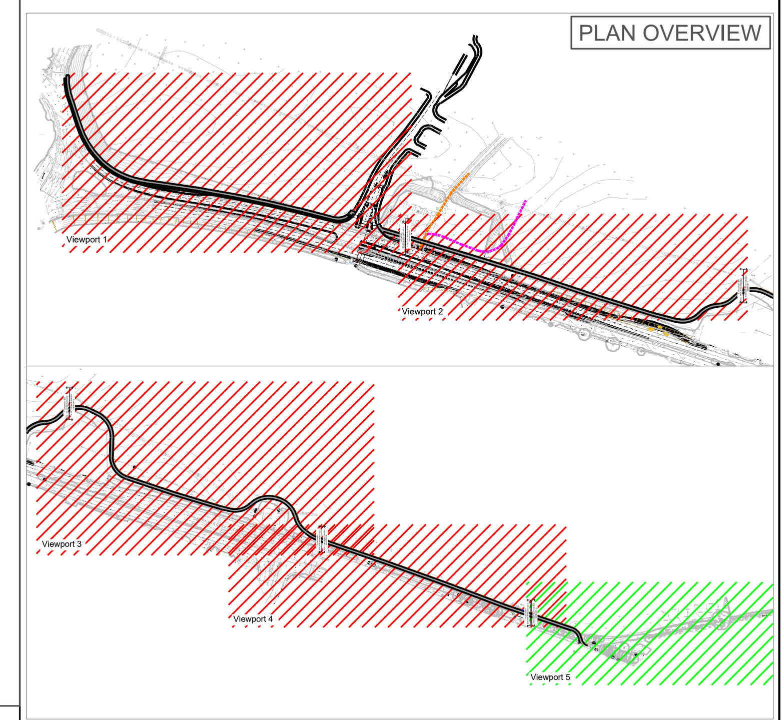
KEY:

- SITE BOUNDARY 2
- PROPOSED 5m SHARED USE CYCLEWAY
- PROTECTIVE TIMBER FENCE OR SIMILAR APPROVED



PRELIMINARY ISSUE

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TETRA TECH

Client

HODGETTS ESTATES

Project Name

M42 JUNCTION 10
A5 CYCLEWAY IMPROVEMENT

Sheet Title

PROPOSED LAYOUT
SHEET 3

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A1	Suitability
784-B033920	LJB	May '22	JG	May '22	LB	May '22	1:500	S3

Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision
B033920	TTE	00	ZZ	SK	H	0005	P02

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APPENDIX B: TT REPORT – HOW FAR DO PEOPLE WALK?

Gareth Wakenshaw and Nick Bunn
WYG

VIEWPOINT

Distance guidelines not fair reflection on how far people are willing to cycle and walk

Is current guidance on walking and cycling distances in need of an overhaul? And, if so, why does this matter? These distances form the basis of many decisions about where we live and work. Distances are used as criteria in assessing land allocations in Local Plans and in determining planning applications. They are also used in decision-making around transport infrastructure, including bus stops.

We decided, firstly, to investigate the distances on which existing guidance is based and then, secondly, to research the National Travel Survey (NTS) data to find out how far people actually walk and cycle.

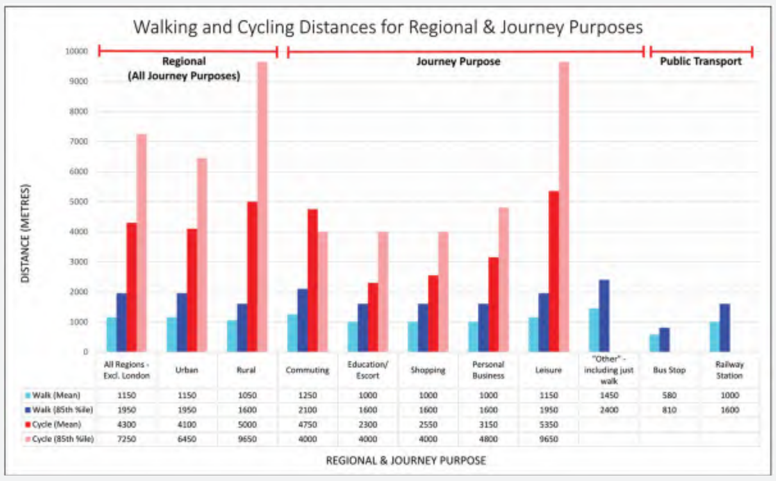
The old *Planning Policy Guidance 13*: Transport advised that walking and cycling could replace short car trips of 2km and 5km respectively. In 2012, PPG13 was withdrawn and replaced with the *National Planning Policy Framework*, which does not provide any specific guidance on walking or cycling distances.

The Institute of Highways & Transportation 2000 Guidelines for Providing for Journeys on Foot provided 'suggested acceptable' walking distances but gave no evidence in support.

The Chartered Institute of Highways & Transportation (CIHT's) current 2015, *Planning for Walking* offers no firm guidance either other than: "Most people will only walk if their destination is less than a mile away". But it does recognise the lack of supporting evidence and that more work is needed.

CIHT's 2014 *Planning for Cycling* guidance also provides limited guidance. So, it is clear that existing guidance is limited for walking, missing for cycling, and backed by out of date evidence.

The NTS is a UK-wide survey of around 15,000 households and around half fully co-operate. This is around 18,000 individuals (Department for Transport, 2010, 2011 and 2012). We used the 2010 to 2012 NTS dataset, which provides more than 30,000 records for walking and over 15,000 records for cycling from home for a range of journey purposes.



	All Regions - Excl. London	Urban	Rural	Commuting	Education/ Escort	Shopping	Personal Business	Leisure	"Other" - including just walk	Bus Stop	Railway Station
Walk (Mean)	1150	1150	1050	1250	1000	1000	1000	1150	1450	580	1000
Walk (85th %ile)	1950	1950	1600	2100	1600	1600	1600	1950	2400	810	1600
Cycle (Mean)	4300	4100	5000	4750	2300	2550	3150	5350			
Cycle (85th %ile)	7250	6450	9650	4000	4000	4000	4800	9650			

We then reported the mean and 85th percentile walking and cycling distances. The mean establishes the average distance people walk and cycle, whilst the 85th percentile can be taken as the distance people are prepared to walk or cycle and beyond which they are less likely to do so.

We first explored the walking and cycling distances for regional variation and then for journey purpose.

The graph above summarises the reported walking and cycling distances in different regions and different journey purposes. Perhaps surprisingly, it shows that people walk further in urban areas compared to rural areas, particularly at the 85th percentile level.

There is variation in the mean and 85th percentile walk distance for different journey purposes, with commuting and 'other', including just walk purposes having the longest walking distances.

Walking is mainly used for leisure and 'other' purposes, which together account for 40% of all walking journeys. Education and shopping each account for just under 20% of walking trips, with mean and 85th percentile walking distances of 1,000m and 1,600m respectively. The walking distance for commuting is longer, with an 85th percentile of 2,100m, but only 7% of walking journeys are for commuting.

People cycle much further in rural areas compared with urban areas, particularly at the 85th percentile level. There is variation in the distances cycled at the average and 85th percentile distances for all journey purposes. Cycling is mainly used for commuting and leisure, accounting for 68.3% of all trips, and the longest distances of 8,050m and 9,650m respectively at the 85th percentile.

Shopping and education account for 11.6% and 10.6% of all trips and have the lowest cycled distances of 4,000m at the 85th percentile.

What does this mean, particularly for the accessibility of development sites? Based on our research, the catchment for accessibility to a range of facilities should be based on the 85th percentile for the relevant journey purpose, e.g. an employment development should use the commuter distance of 2,100m, a new school should use 1,600m (education/escort education), whilst a residential development should use 1,950m (all journey purposes). Likewise for cycling, an employment development should use a catchment of 9,150m; a new school should use 4,000m; whilst a residential development should use 7,250m.

Our other research on walking distances to public transport stops has shown the mean walking distance to a bus stop is 580m and 810m at the 85th percentile, notably longer than CIHT's 400m maximum distance. The average walk distance to a railway station is 1,000m and 1,600m is the 85th percentile, again notably longer than CIHT's guidance of 800m.

From our research, it is clear that current guidance distances do not reflect those which people are prepared to walk and cycle to different facilities. That is why we believe there should be new distances, taking into account journey purpose using up-to-date information. LTT

Nick Bunn and Gareth Wakenshaw are transport planners at professional services firm WYG

In Passing

LTT This month marks the 50th anniversary of the introduction of the maximum legal blood alcohol drink-driving limit in the UK (80mg of alcohol per 100ml of blood, then and now) and official statistics on alcohol-related road deaths, which began in 1979, indicate that the number of fatalities caused by drink-driving has fallen from 1,640 in that year to 200 in 2015 – a drop of 88%. It hardly feels like a cause for celebration when more than 1,800 people are still being killed on or roads each year. Nevertheless, it would seem churlish not to raise a small glass in honour of the DfT's 50-year plus THINK! campaign to drastically reduce the amount of drink-driving, given its manifest success. But please give us your car keys first.

LTT The phrase 'replacement bus service' is one that will chill the blood of any regular user of our nation's railways but *The Daily Mail*, which never knowingly passes up an opportunity to terrify its readers, recently warned said readers that, due to the recent shenanigans at Ryanair, the phrase could soon become all too familiar to airline passengers. "Ryanair could replace flights with buses as it offers 'comparable transport' in order to limit its £1bn compensation bill," the paper warned. "The airline has promised to ensure refunds to 750,000 passengers after cancelling 20,000 flights, which means that customers stranded after their flights were cancelled can fly for free with rivals if there are no Ryanair seats available. However, rules dictate that if this is impossible then they could also offer to pay for trains, car hire or even buses." Oh, the horror.

LTT News that a city of close to a million people is planning to start handing out free public transport passes to every city centre worker, regardless of income or intent to actually use the things, in order to reduce road traffic congestion and pressure on inner city parking spaces, might cause some readers to speculate on where this city might me. Sweden, perhaps? Or maybe the Netherlands? Nope – the city in question is Columbus, Ohio, in the good ol' car-loving US of A. So is this move a game changer for car use across the Atlantic? We'll have to wait and see, unfortunately, as a two-year trial of the scheme isn't due to begin until the summer of 2018. So watch this (parking) space.

LTT When is a bus not a bus? When it's art, at least according to Reading Buses, which is supporting a local artist's plans to turn one of its double-deckers into a mobile art gallery. Local artists are being invited to contribute ideas exploring the theme of public mobility and how it relates to the sense of place and community by October 16, which is next Monday, so any Reading residents who fancy getting involved had better get their skates on. Once galleried up, the bus in question will be operational on regular routes operated by Reading Buses, according to the company, although it doesn't say where the passengers are going to go to make room for the art.

APPENDIX C: TAG UNIT M5.2 MODELLING SMARTER CHOICES

TAG UNIT M5.2

Modelling Smarter Choices

January 2014

Department for Transport

Transport Analysis Guidance (TAG)

https://www.gov.uk/transport-analysis-guidance-tag

This TAG Unit is guidance for the **MODELLING PRACTITIONER**

This TAG Unit is part of the family **M5 – ADVANCED MODELLING TECHNIQUES**

Technical queries and comments on this TAG Unit should be referred to:

Transport Appraisal and Strategic Modelling (TASM) Division
Department for Transport
Zone 2/25 Great Minster House
33 Horseferry Road
London
SW1P 4DR
tasm@dft.gov.uk

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1.2 Classification of Smarter Choice Initiatives 2
1.3 General Approach to Modelling Smarter Choice Initiatives 3
1.4 Benchmarking Expected Impacts of Smarter Choice Initiatives 4
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B1.6 Although the Möser and Bamberg analysis shows that Smarter Choice measures may be successful in reducing travel by car, there are some important caveats that need to be borne in mind. These include all the issues noted earlier, along with the following:

- The indicator of modal shift used in this work is the modal share expressed in terms of trips made by people directly targeted by the Smarter Choice measures, and there is no indication of changes in either trip-km or the vehicle-km of road traffic;
- The average non-car mode shares before application of Smarter Choices measures in the meta-analysis may differ from the existing non-car mode shares in the model study area. This would need to be borne in mind when extrapolating the results to the wider population. It should be noted that the base non-car mode share for targeted marketing measures is similar to the average Great Britain level for all trips; and
- It is well known that meta-analysis is likely to overstate the effects because studies with no significant or negative effects are much less likely to be published or to become accessible for retrieval. The effects revealed by Möser and Bamberg are therefore likely to be close to the upper limit in the possible range of impacts.

B1.7 However, even bearing in mind the above caveats, the results still give some idea about the average levels of impact.

- For **workplace travel plans**, the effects are the combined effects of both ‘soft’ and associated ‘hard’ measures (e.g. public transport improvements and parking measures). The analysis suggests that workplace travel plans would increase the overall non-car mode share by 12 percentage points. Given the base mode share, this implies an increase in the number of non-car trips by 34%, or a reduction in the number of car trips by 18% on the assumption that the total number of trips stays unchanged.
- For **school travel plans**, the sample reviewed by Möser and Bamberg could be divided into a small group of six best-practice schools where a lot had been achieved, and the rest, where the impacts were marginal, perhaps due to the lack of intensity of application or coordination with the ‘hard’ measures involved (in those cases the ‘hard’ measures were ‘Yellow’ buses). This means that the average increase in the number of non-car trips of 7% (as suggested in Table B1), or the implied reduction in the number of car trips of 10%, would have under-estimated the best-practice examples, but over-estimated the others in the school travel sample.
- For **targeted marketing**, the analysis suggests that predominantly information and promotional campaigns would increase the overall non-car mode share by 5 percentage points. Given the base mode share, this implies an increase in the number of non-car trips by 14%, or a reduction in the number of car trips by 8%.

B1.8 The Möser and Bamberg paper does not provide any information about effects on traffic or induced traffic. Indeed, it has been a common feature of the Smarter Choice studies to examine the impacts on a limited group of the targeted travellers, rather than the road network as a whole.

APPENDIX D: DRAWINGS BY OTHERS

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Subject to statutory approvals and survey.

Building areas are liable to adjustment over the course of the design process due to the ongoing construction detailing developments.

Please note the information contained within this drawing is solely for the benefit of the employer and should not be relied upon by third parties.

The CDM hazard management procedures for the Chetwoods aspects of the design of this project are to be found on the "Chetwoods - Hazard Analysis and Design Risk Assessment" and/or drawings. The full project design teams comprehensive set of hazard management procedures are available from the Principle Designer appointed for the project.

Rev	Revision Description	Date	Author/ Reviewer
[redacted]			

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www.chetwoods.com

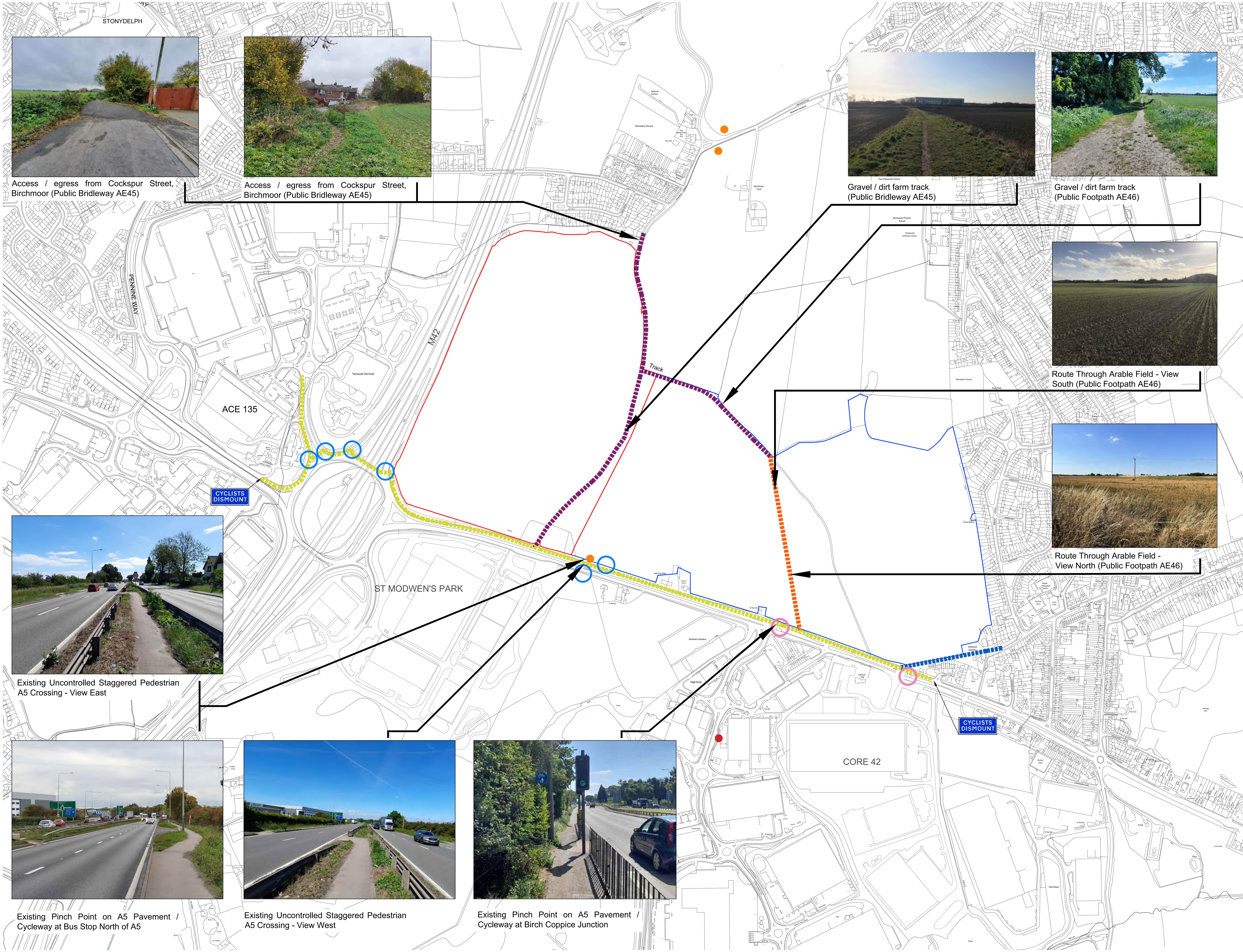
Project
LAND NORTH EAST OF J10 M42, DORDON

Client
HODGETTS ESTATES

Drawing Title
EXISTING CONNECTIVITY PLAN
ROUTE TYPE

Scale	Size	Drawn	Checked	Date
1:3000	A1	mb	NH	27.07.2022

Project	Originator	Zone	Level	Type	Role	Number	Rev.
4263	CA	00	00	DR	A	00801	P3



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North

N.B.

- **EXISTING PAVEMENT/CYCLEWAY ALONG THE A5 DOES NOT MEET THE RELEVANT DESIGN STANDARD AND IS THEREFORE DANGEROUS AND UNAPPEALING TO PROSPECTIVE USERS**

SITE BOUNDARY
79.97 acres / 32.36 Ha

OTHER LAND UNDER THE CONTROL OF THE APPLICANT
102.94 acres / 41.66 Ha

GRAVEL / DIRT FARM TRACK

TARMAC PAVEMENT / CYCLEWAY ALONG THE A5 - NOT COMPLIANT WITH DESIGN STANDARDS

ROUTE THROUGH ARABLE FIELD

TARMAC PUBLIC FOOTPATH

BUS STOP - ONE WAY

BUS STOP - TWO WAYS

KEY UNCONTROLLED CROSSING POINT

KEY CONTROLLED CROSSING POINT

Rev	Revision Description	Date	Author/ Reviewer
[redacted]			

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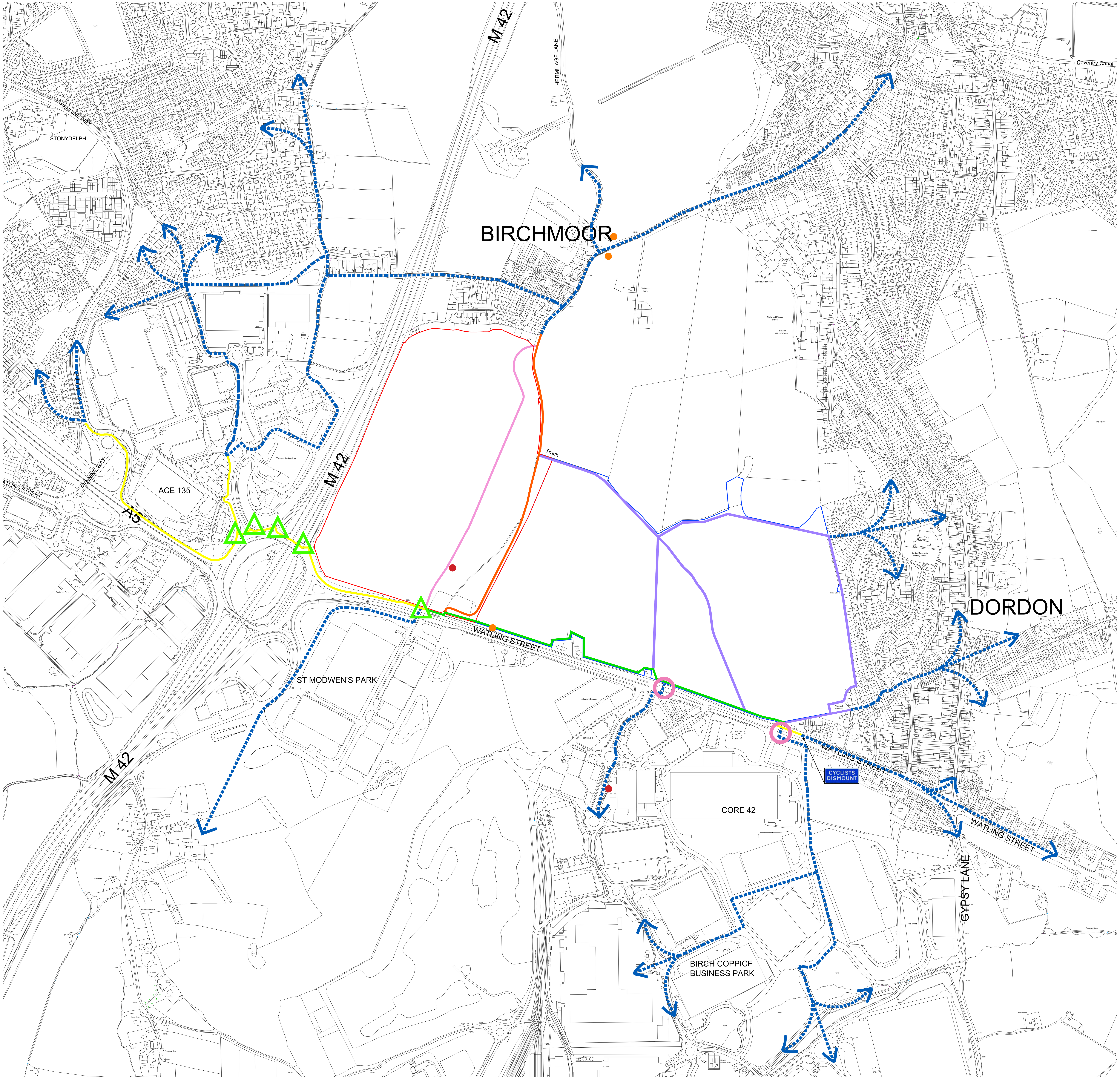
Project
LAND NORTH EAST OF J10 M42, DORDON

Client
HODGETTS ESTATES

Drawing Title
EXISTING CONNECTIVITY PLAN
ROUTE SURFACE

Scale	Size	Drawn	Checked	Date
1:4000	A1	mb	NH	27.07.2022

Project	Originator	Zone	Level	Type	Role	Number	Rev.
4263	CA	00	00	DR	A	00802	P3




Dual 3m wide tarmacked footway/cycleways for the new pedestrian/ cycle routes


Part Tarmac, Part Grass/Sand Public Bridleway


Tarmac Public Footpath


All Routes to Be Lined With Trees / Hedgerows to Enhance Rural Quality, Biodiversity and Wayfinding


Tarmac cycling route

NOTES:

Contractors must verify all dimensions on site before commencing any work or shop drawings. This drawing is not to be scaled. Use figured dimensions only.

Subject to statutory approvals and survey.

Building areas are liable to adjustment over the course of the design process due to the ongoing construction detailing developments.

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0m 50m 100m 200m

North

SITE BOUNDARY
79.97 acres / 32.36 Ha

OTHER LAND UNDER THE CONTROL OF THE APPLICANT
102.94 acres / 41.66 Ha

3M WIDE TARMAC SHARED PAVEMENT / CYCLEWAY ALONG SITE ROAD AND NORTH TO BIRCHMOOR

PART TARMAC, PART GRASS/SAND PUBLIC BRIDLEWAY (AE45)

3M WIDE TARMAC OFFLINE SHARED FOOT / CYCLEWAY

3M WIDE TARMAC SHARED FOOT / CYCLEWAY ALONG ROUTE OF EXISITING AND PROPOSED PUBLIC RIGHTS OF WAY NETWORK

ENHANCED TARMAC PAVEMENT / CYCLEWAY ALONG A5

POSSIBLE INBOUND / ONWARD JOURNEY ROUTE OPTIONS

BUS STOP - ONE WAY

BUS STOP - TWO WAYS

KEY CROSSING POINT UPGRADED TO SIGNAL CONTROLLED

KEY CONTROLLED CROSSING POINT

Rev	Revision Description	Date	Author/ Reviewer
[redacted]			

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Project
LAND NORTH EAST OF J10 M42, DORDON

Client
HODGETTS ESTATES

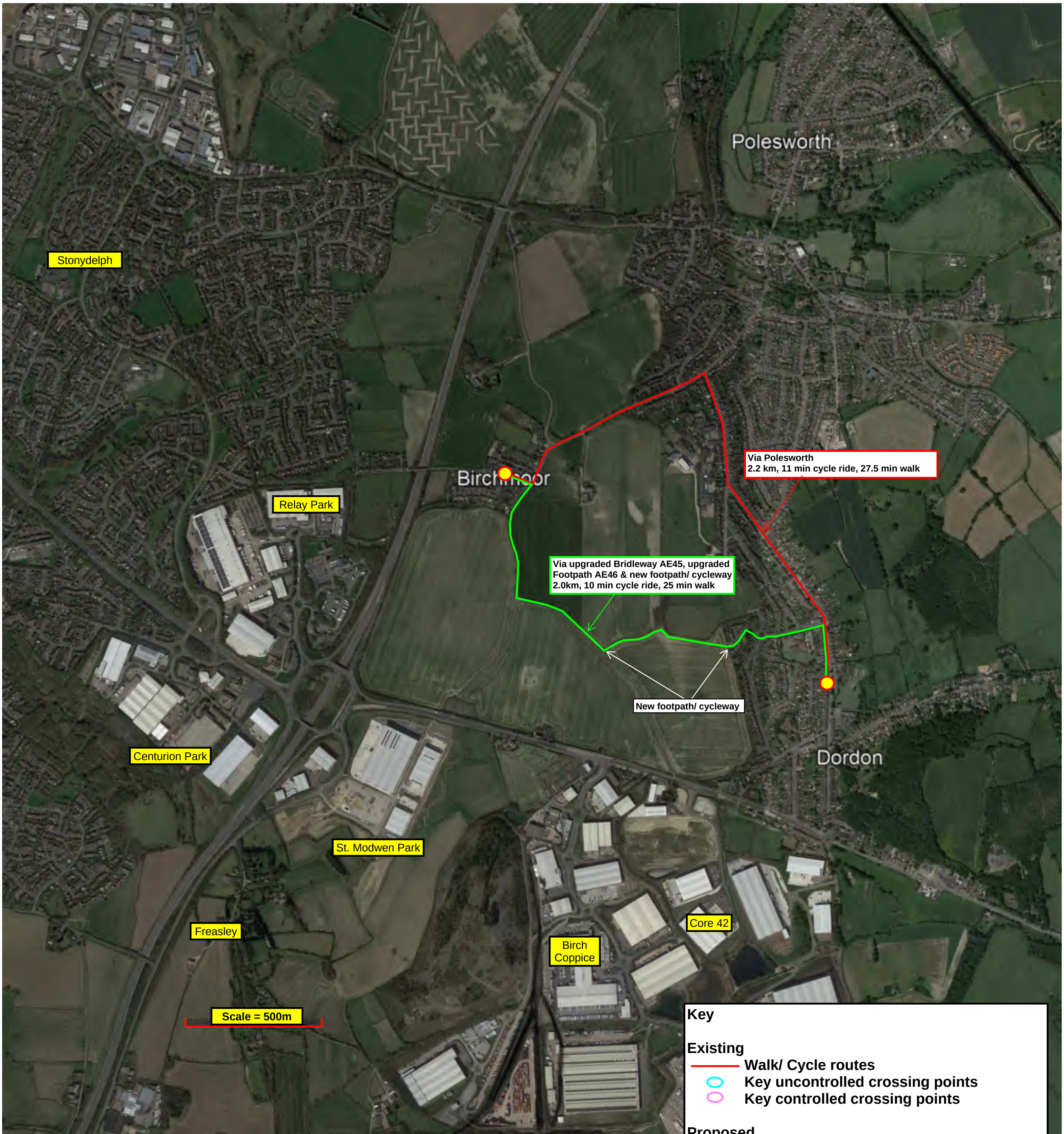
Drawing Title
PROPOSED CONNECTIVITY PLAN - ROUTE TYPE & SURFACE

Scale	Size	Drawn	Checked	Date
1:5000	A1	mb	NH	27.07.2022

Project	Originator	Zone	Level	Type	Role	Number	Rev.
4263	CA	00	00	DR	A	00803	P6

APPENDIX E: TT CONNECTIVITY PLANS

Community Integration Route Plan: Birchmoor to Dordon



Key

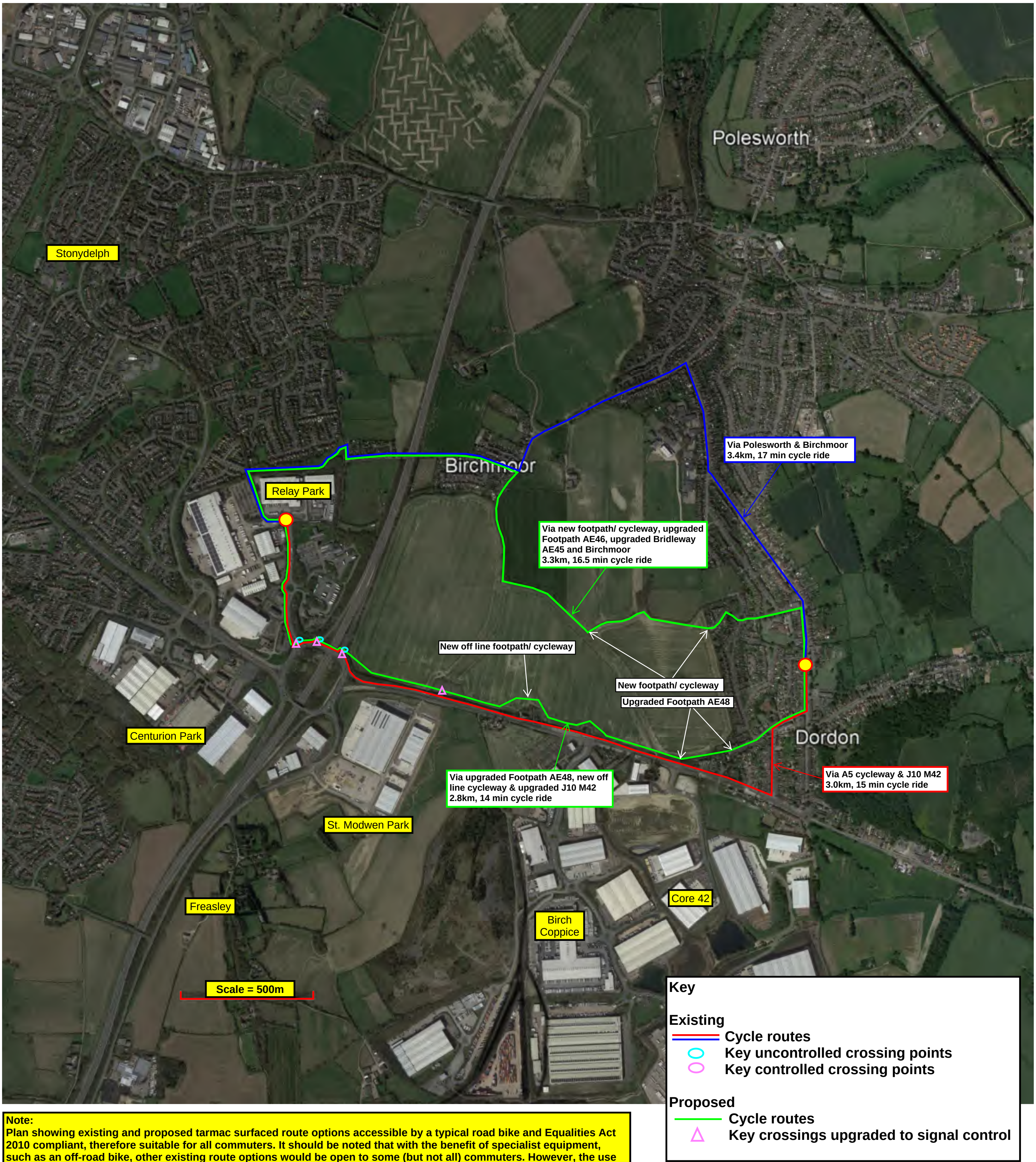
Existing
- Walk/ Cycle routes
- Key uncontrolled crossing points
- Key controlled crossing points

Proposed
- Walk/ Cycle routes
- Key crossings upgraded to signal control

Note:
Plan showing existing and proposed tarmac surfaced route options accessible by a typical road bike and Equalities Act 2010 compliant, therefore suitable for all residents/ visitors. It should be noted that with the benefit of specialist equipment, such as an off-road bike, other existing route options would be open to some (but not all). However, the use of these existing routes is not practicable for all residents/ visitors (such as those with physical and mobility impairments).

TETRA TECH

Commuter Point-to-Point Plan: Dordon to Relay Park

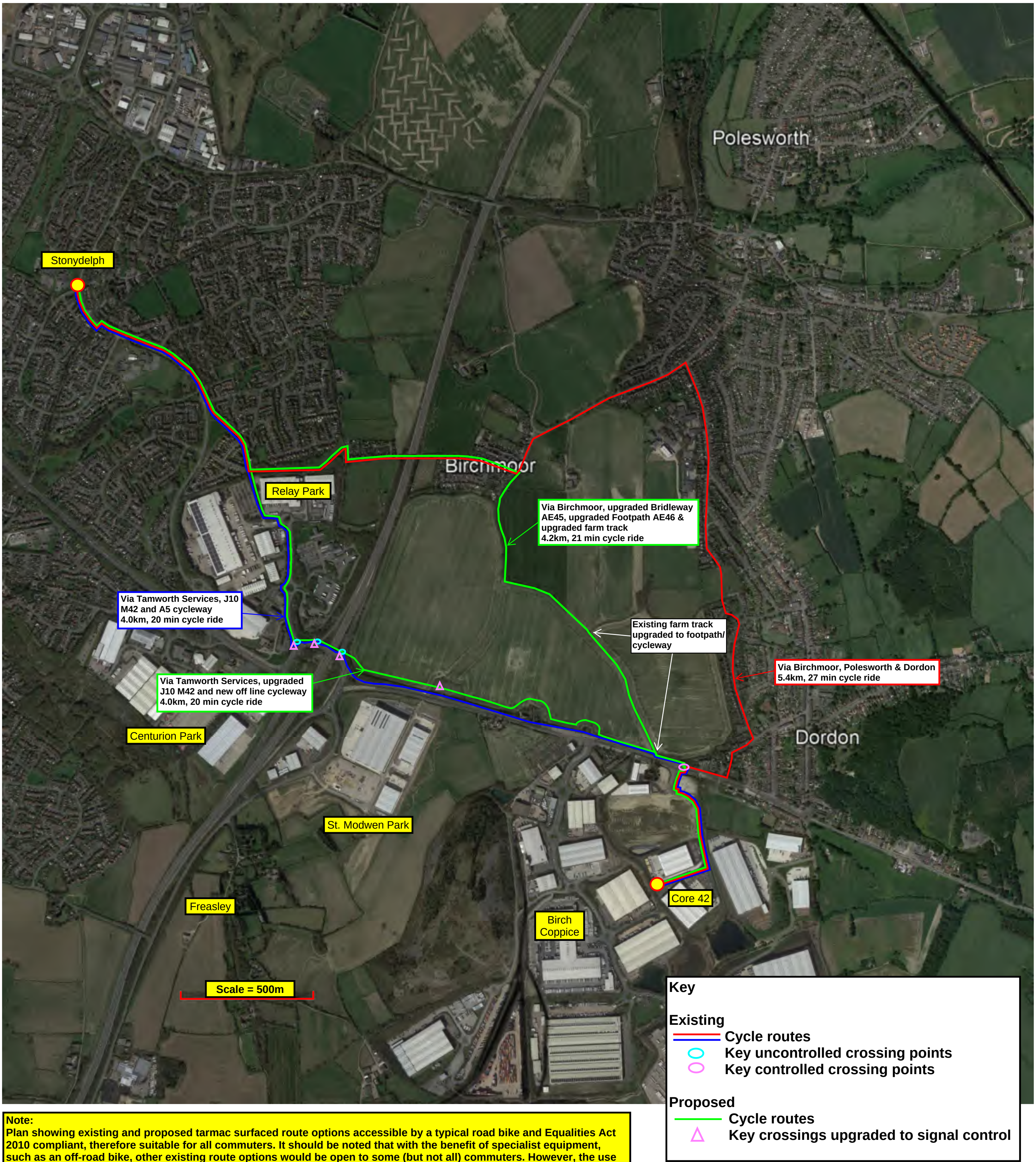


Note:
Plan showing existing and proposed tarmac surfaced route options accessible by a typical road bike and Equalities Act 2010 compliant, therefore suitable for all commuters. It should be noted that with the benefit of specialist equipment, such as an off-road bike, other existing route options would be open to some (but not all) commuters. However, the use of these existing routes is not practicable for all commuters (such as those with physical and mobility impairments) or certain jobs/positions where there is an imperative to arrive clean and/or shower facilities are not readily available.

The existing and proposed routes shown are in excess of the typical 2km maximum walking distance for commuters, so possible walking routes are therefore not shown on this plan.

TETRA TECH

Commuter Point-to-Point Plan: Stonydelph to Core 42



Note:
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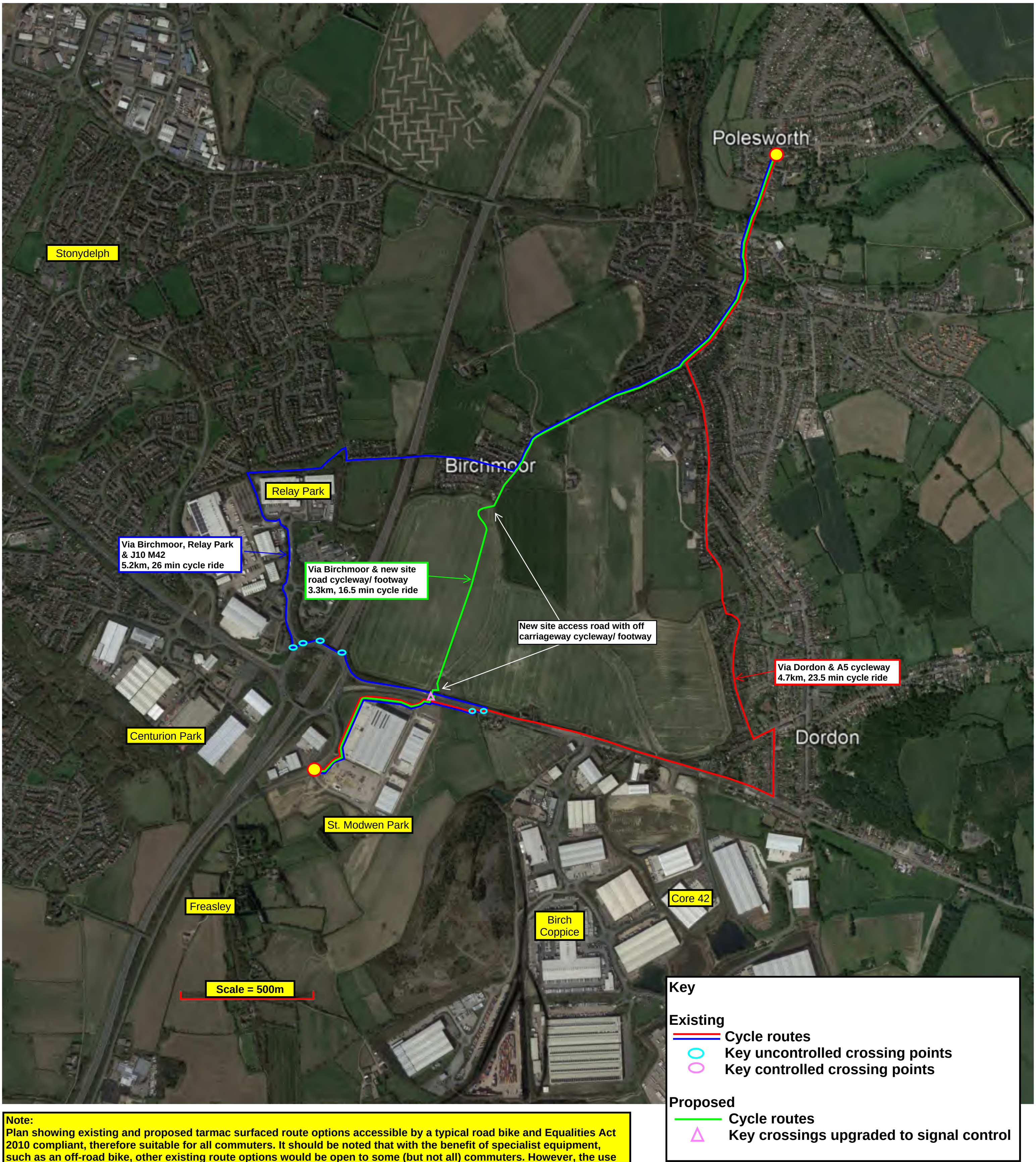
TETRA TECH

Commuter Point-to-Point Plan: Polesworth to St. Modwen Park



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TETRA TECH