

NOMA Plots 2 & 3 Angel Square

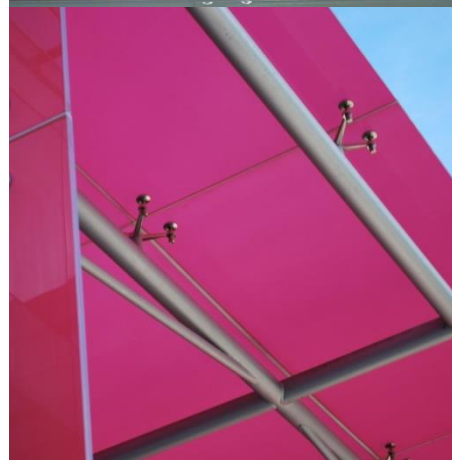
Transport Statement

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Merchant Exchange
17 – 19 Whitworth Street West
Manchester. M1 5WG.
Tel: 0161 236 2394
www.curtins.com

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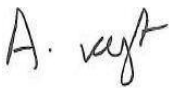


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Author	Signature	Date
Lynnie Ler MEng (Hons) Transport Planner		28 June 2022

Reviewed	Signature	Date
Alex Vogt BSc (Hons) MSc FCIHT TPP Board Director		28 June 2022

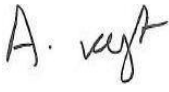
Authorised	Signature	Date
Alex Vogt BSc (Hons) MSc FCIHT TPP Board Director		28 June 2022

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Drawing 81536-CUR-XX-00-D-TP-05001 – (Swept Path Analysis) 11.2m Large Refuse Vehicle

Drawing 81536-CUR-XX-00-D-TP-05002 – (Swept Path Analysis) 7.7m Fire Tender

Appendices

Appendix A – Development Proposals

Appendix B – TRICS Outputs

1.0 Introduction

1.1 Background

1.1.1 Curtins has been appointed on behalf of NOMA (GP) Ltd to provide traffic and transportation advice in relation to the redevelopment of 2 & 3 Angel Square.

1.1.2 The proposed development comprises plots M and N of the adopted NOMA Masterplan, known as 2 and 3 Angel Square, with the following development description:

“An application for full planning permission comprising:

Erection of 2 Angel Square, a 14 storey building (excluding roof top plant) to form a mixed use office development (Use Class Egi) with two flexible commercial units at Upper Ground floor Level (Use Classes Ea, b, c, e, f, and / or Use Class Sui Generis (p) and (q)), and with a flexible office (Use Class Egi) and/or restaurant (Use Class Eb) space at Level 12, along with Lower Ground Level car and cycle parking, hard and soft landscaping and other associated works;

Erection of 3 Angel Square, a 13 storey building (excluding roof top plant) to form a mixed use office development (Use Class Egi) with two flexible commercial units provided over Lower and Upper Ground Floor Levels (Use Classes Ea, b, c, e, f, and / or Use Class Sui Generis (p) and (q)), a further flexible commercial unit at Upper Ground Floor Level only allowing for ancillary seminar space and / or Sui Generis Use Class (t) Cinema space, together with an ancillary gym space at Upper Ground Floor, as well as Lower Ground Level car and cycle parking, hard and soft landscaping and other associated works.”

1.1.3 The development summary is as follows:

Element	Plot 2	Plot 3
Overall Gross Internal Area (GIA) (sqm)	25,803	30,938
• Office (Use Class Egi), including:	25,237	29,841
○ Flexible office (Use Class Egi) and / or restaurant (Use Class Eb) space at Level 12	1,129	N/A
○ Ancillary gym	N/A	176
○ Flexible office and / or Sui Generis Use Class (t) Cinema Space	N/A	592
• Commercial retail (Use Classes Ea, b, c, e, f, and / or Use Class Sui Generis (p) and (q))	566	1,097
Car Parking Spaces	15	15
Cycle Parking Spaces and Lockers	122	148
Cycle Showers	13	17

Table 1.1 – Development Summary

- 1.1.4 The proposed landscape masterplan and upper and lower ground floor plans are included in **Appendix A**.

1.2 Planning History

Previous Approval

- 1.2.1 The site has previously received consent for a similar development (application reference: 109865/FO/2015/N1). Curtins prepared a Transport Assessment and Travel Plan to support the application, and consent was granted in November 2015 for the following:

“Erection of a part 10 / part 11 storey, and a part 12 / part 13 storey building with plant rooms above to form a mixed use development comprising Class B1 office use (maximum of 49,622sqm) and commercial units maximum of 1,591sqm (Use Classes A1, A2, A3, B1 and D1) along with associated basement car parking, hard and soft landscaping and associated works, including the creation of a new pedestrian route between Angel Street and Miller Street.”

- 1.2.2 In 2019, NOMA (GP) Limited revisited the consents for 2 & 3 Angel Square, made modifications to the proposals, and subsequently submitted a new planning application (application reference: 124973/FO/2019), which was approved in 2020. From a traffic and transport perspective, the changes predominantly related to access and parking as follows:

2 Angel Square (Plot M)

- Basement level omitted – as a result, car parking numbers were reduced (from 49 to 22);
- Revised car and servicing / delivery access from Angel Square; and
- Improved cycle storage and shower facilities.

3 Angel Square (Plot N)

- Basement level omitted – as a result, car parking numbers were reduced (from 96 to 28);
- Improved cycle storage and shower facilities.

- 1.2.3 Additionally, in 2021, NOMA (GP) Limited obtained planning permission for a temporary marketing suite for NOMA (up to 5 years) within the southern portion of Plot 3 (application reference: 129631/FO/2021). At the time of writing, the marketing suite is undergoing construction.

- 1.2.4 The new proposals are being brought forward in the interests of delivering a more sustainable development. From a traffic and transport perspective, the number of car parking spaces have been reduced further (from 50 to 30) considering the highly accessible nature of the proposed development, and to encourage future staff and visitors to reduce travel by car.

1.3 Purpose of this Report

- 1.3.1 This Transport Statement (TS) has been written in order to consider the development proposals and their potential impact on the surrounding area from a traffic and transportation perspective. The document provides an update to the approved schemes from 2015 and 2019.

1.4 Scope of the Report

- 1.4.1 On this basis, this TS contains the following:

- A description of the highway network in the vicinity of the site;
- A review of the accident record in the immediate vicinity of the site for a five-year period;
- A summary of the development proposals;
- A summary of relevant transport planning policy;
- A review of accessibility by all sustainable modes of travel;
- Information regarding traffic generation and trip rates; and
- Commentary on the highway impact associated with the development proposals.

1.5 Structure of the Report

- 1.5.1 Following this introduction, **Section 2** of the report provides a comprehensive description of the existing site and its location. This includes the local highway network and facilities for pedestrians, cyclists and public transport users.
- 1.5.2 **Section 2** also reviews the local area in terms of highways safety by way of obtaining records of accidents adjacent to the site over the most recent five-year period available.
- 1.5.3 The development proposals are summarised in **Section 3**, including the proposed parking provision and access arrangements.
- 1.5.4 The accessibility of the site by sustainable modes of travel is assessed in **Section 4**.
- 1.5.5 **Section 5** outlines the traffic forecasting methodology used to establish the likely traffic generation associated with the development proposals.
- 1.5.6 Relevant local and national transport policy is summarised in **Section 6**, and the report is summarised and concluded in **Section 7**.

2.0 Site Location and Highway Layout

2.1 Introduction

2.1.1 The site measures approximately 0.8 hectares of previously developed land. The site is bound by Angel Street to the north, 1 Angel Square (the Co-operative Group headquarters) and the Angel Square turning circle (for taxis / drop-offs) to the west, Miller Street to the south, and Moda Living's Angel Gardens residential scheme to the east.

2.1.2 The site is located on the northern edge of Manchester City Centre, and is in close proximity of the wide range of retail, office, leisure, residential, and transport infrastructure associated with the city. The following **Figure 2.1** illustrates the site in relation to the local highway network:

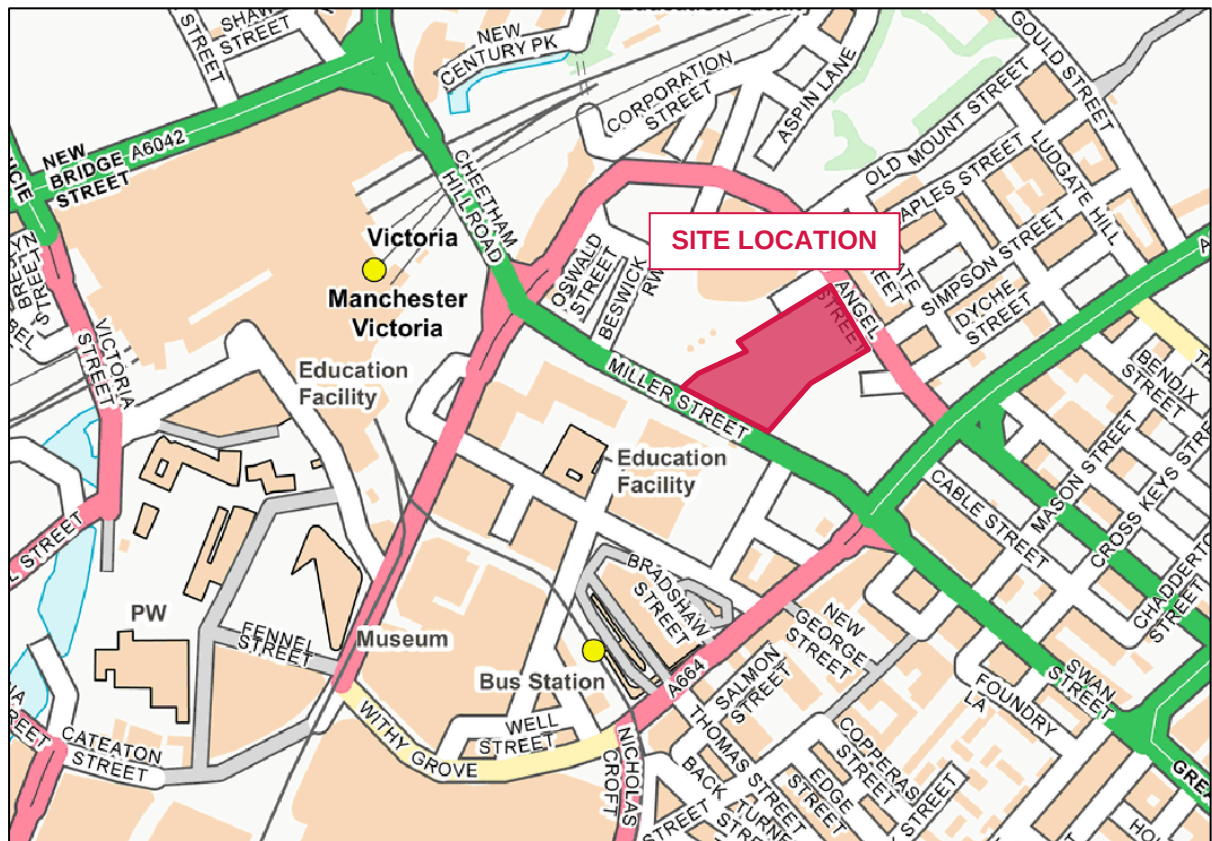


Figure 2.1 – Location Plan in Relation to Manchester City Centre
(Source: OS Maps, 2018)

2.2 Existing Use and Access Arrangements

2.2.1 The site currently comprises two development plots, identified as Plots M & N of the NOMA Masterplan as defined in the NOMA Strategic Regeneration Framework Update 2020 (SRF). The site is currently in use as surface car parking, with c. 100 spaces (excluding former space for parking within the footprint of the marketing suite, as this is currently undergoing construction and the spaces are no longer usable). There are also small pockets of informal and formal areas of shrubbery and trees within the site.

- 2.2.2 There is a significant change in levels across the site, with the lowest part being in the west corner, rising to the north and east towards Angel Street. The difference in level across the site between Angel Street and Miller Street is typically a storey, creating a lower and upper ground floor.
- 2.2.3 Following a review of the Definitive Records, there are no Public Rights of Way (PRoW) extending through the site. Notwithstanding, there is a wide public realm to the south of 1 Angel Square / to the west of the site which accommodates pedestrian and cycle movement between Angel Street and Miller Street. From this public realm, there is subsequently a wide Toucan crossing across Miller Street towards Dantzic Street, which is also pedestrianised for a certain extent.
- 2.2.4 Vehicular access to the existing car park is currently provided from Angel Street. The access takes the form of a priority-controlled T-junction, with dropped kerbs and tactile paving across the access to facilitate pedestrian crossing. Pedestrian and cycle access can be undertaken in a similar manner to the vehicular access.

2.3 Surrounding Highway Network

A665 Miller Street / Ring Road

- 2.3.1 The A665 Miller Street runs along the southern boundary of the site. The A665 comprises a two-lane carriageway, and forms part of the arterial route circling the city centre. The A665 Ring Road commences at a signalised junction with the A665 Cheetham Hill Road near the Green Quarter (north-west of the site) and continues for a length of c. 2.3km towards the south-east of Manchester city centre, terminating at the Pin Mill Brow (a fork in the road where it diverges into the A635 Ring Road and A665 Chancellor Lane) in Ardwick.
- 2.3.2 Miller Street comprises approximately 300m of this whole length and is one-way in a westerly direction. The highway extends for approximately 300m between a signalised junction with Rochdale Road, Shudehill and Swan Street in the east, to a signalised junction with Cheetham Hill Road and Corporation Street in the west. Both signalised junctions have pedestrian crossing facilities, complete with dropped kerbs and tactile paving.
- 2.3.3 The carriageway along Miller Street itself is typically 8m wide and has up to three lanes. There are well-maintained footways on both sides of the carriageway which are approximately 3m in width. The road is well-lit with street lighting.
- 2.3.4 There is also a Toucan crossing facility located adjacent to Dantzic Street, which is complete with dropped kerbs and tactile paving. Most of the junctions along the A665 also have controlled crossing points, pedestrian refuge islands and advanced cycle stop lanes to facilitate pedestrian and cycle movement in a safe manner.
- 2.3.5 In the vicinity of the site, the A665 is subject to Traffic Regulation Orders (TROs) in the form of single (no loading between 08:00 – 09:30 Mon – Sat and 16:30 – 18:00 Mon – Fri) and double yellow (no

waiting at any time) parking restrictions throughout its entire length. There are also “SLOW” markings on the road to enforce the speed limit of 30mph.

A664 Ring Road / Angel Street

- 2.3.6 The A664 runs adjacent to the north of the site. The road commences at the signalised junction with the A665 Ring Road to the west of the site and extends in a north-easterly direction for c. 120m, where this stretch is known as the A664 Ring Road. To the north of the site, the road then widens into three lanes and continues as Angel Street for c. 320m prior to terminating at a signalised four-arm junction with the A664 Rochdale Road and A665 Ring Road. The roads provide vehicular and pedestrian access to the Co-Op building at One Angel Square and are both one-way in an easterly direction, with an additional advisory cycle lane along Angel Street.
- 2.3.7 The junctions along the A664 have shared pedestrian and cycle crossing facilities complete with dropped kerbs and tactile paving, and advance cycle stop lines. There are also well-maintained footways along both sides of the road of up to 4m wide, street lighting at regular intervals, and it can be observed that there are high levels of pedestrian footfall in the area due to the proximity of employment opportunities and car parks.
- 2.3.8 Towards the north-west of the site, the footway is separated from the road by a large grass verge and also links pedestrians to Corporation Street and Red Bank which run parallel and perpendicular to the railway lines respectively.
- 2.3.9 The A664 is subject to a speed limit of 30mph throughout and has TROs in the form of double yellow parking restrictions.

Corporation Street

- 2.3.10 Corporation Street extends south-westwards from the junction with the A665 Ring Road for a length of circa 575m in total (albeit the usable length of the carriageway for vehicles terminates at a signalised junction with Withy Grove after 310m, where vehicles must then turn left). The remainder of the road is only accessible by the Metrolink trams and pedestrians / cyclists.
- 2.3.11 The carriageway is two-way and typically 8m wide, but much of the road is shared between vehicles and tram lines entering / exiting the Victoria station. There are footways on both sides of the road which are approximately 3m in width, together with segregated and advisory cycle lanes approaching the city centre. There are also advanced cycle stop lanes at the signalised junctions.
- 2.3.12 Pedestrian infrastructure is excellent, comprising wide footways with an average width of 4m on both sides of the road which are complete with dropped kerbs and tactile paving. Some parts of the footway are also designated as shared use between pedestrian and cyclists. Corporation Street also has many signalised crossing points at major junctions and is also well-lit with street lighting.

- 2.3.13 Corporation Street is subject to a speed limit of 20mph. The majority of the road is subject to TROs in the form of double yellow parking restrictions, however there is a loading bay adjacent to the National Football Museum, where goods vehicles are allowed to load and unload between 04:00 and 22:00 from Mondays to Sundays. The road is also signed as a no stopping zone between 22:00 and 04:00.
- 2.3.14 There are a number of bus stops along Corporation Street which host services to Stockport, Oldham, and Bury (detailed in **Section 4.4** below). In the wider vicinity of the site, the bus stops are in good condition and are complete with a shelter, seating, flag and pole, and timetable information.

A664 Rochdale Road

- 2.3.15 Further to the east of the site, the A664 Rochdale Road extends north from a signalised junction at the A665 Ring Road and Shudehill, then extends towards the north-east for c. 5.5km through Collyhurst, Harpurhey, and Blackley, where it meets the M56 Junction 20 and continues as the A664 Manchester New Road.
- 2.3.16 In the vicinity of the site, the highway comprises a two-way carriageway measuring c. 15m in width, with two lanes in both directions. Additionally, the road widens at some signalised junctions to accommodate turning lanes and / or central reserves.
- 2.3.17 There are footways on both sides of the carriageway which range between c. 2.5m wide and c. 5m wide. At the signalised junctions with the A665 Ring Road / Shudehill and A664 Angel Street / A665 Ring Road, there are pedestrian crossing facilities complete with dropped kerbs, tactile paving, advance cycle stop lanes and some pedestrian guard rails. The road is well-lit with street lighting at regular intervals.
- 2.3.18 There are many bus stops along the A664 Rochdale Road, which host services to areas such as Higher Blackley, Bury, Oldham, Crumpsall, Rochdale, Shudehill, Manchester Royal Infirmary, and Piccadilly Gardens amongst other locations (detailed in **Section 4.4** below). The bus stops in the vicinity of the site have a good level of infrastructure, such as a shelter, seating, notice boards with timetable information, and a flag and pole.
- 2.3.19 The A664 Rochdale Road is subject to a speed limit of 30mph. There are TROs along the road in the form of single and double yellow line parking restrictions. At some signalised junctions, there are also yellow box junctions to prevent congestion.

2.4 Access for Mobility and Visually Impaired Users

- 2.4.1 The site benefits from its location on the edge of Manchester City Centre and recent improvements to facilities obtained through the wider NOMA development. There are a number of existing features which ensure safe, convenient and aided access for those site users who are disabled and / or visually impaired.

- 2.4.2 There are wide footways and areas of public realm surrounding the site. Dropped kerbs and tactile paving are present at every crossing in the vicinity of the site, including at controlled pedestrian crossing points.

2.5 2014 Surveyed Baseline Conditions

- 2.5.1 As part of the previously approved application (application reference: 109865/FO/2015/N1), Curtins commissioned a car park survey of the existing parking facilities on site on Wednesday 17th December 2014, between 07:00 – 19:00 with occupancy recorded at 15-minute intervals. Further details of the survey are included within the approved Transport Assessment.
- 2.5.2 At the time of surveying, the car park area consisted of land within the proposed development site boundary, along with land currently occupied by the completed Moda Living Angel Gardens development. The wider plot of land comprised a capacity of c. 312 vehicles. Notwithstanding, it was estimated that the number of spaces occupied within the area surveyed could be split evenly between the neighbouring development and the proposed development (i.e. approximately 156 car parking spaces on each site).
- 2.5.3 The approved Transport Assessment concluded that the following vehicular movements were observed across the entire car park across the AM and PM peak times as shown in **Table 2.1**:

Time Period	Total Car Park Vehicular Trips		
	Arrivals	Departures	Two-Way
07:00 - 08:00	75	5	80
08:00 - 09:00	105	1	<u>106</u>
09:00 - 10:00	64	6	70
10:00 - 11:00	36	8	44
11:00 - 12:00	39	21	60
12:00 - 13:00	22	14	36
13:00 - 14:00	21	24	45
14:00 - 15:00	22	34	56
15:00 - 16:00	14	34	48
16:00 - 17:00	7	69	76
17:00 - 18:00	8	78	<u>86</u>
18:00 - 19:00	8	58	66

Table 2.1 – Total Car Park Vehicular Trips

(Source: 2015 Approved Transport Assessment, Survey undertaken in 2014)

- 2.5.4 The above table demonstrates that, in the peak periods of 08:00 – 09:00 and 17:00 – 18:00, there were 106 and 86 two-way vehicular movements respectively associated with car park uses.

- 2.5.5 Disregarding the area of car parking to the east of the site (as this is now occupied by the completed Moda Living Angel Gardens development), it can be considered that the existing car park within the proposed development site boundary exhibits the following number of vehicular movements across the AM and PM peak times in **Table 2.2**:

Time Period	Car Park Vehicular Trips (within Proposed Development Site Boundary)		
	Arrivals	Departures	Two-Way
07:00 - 08:00	38	3	41
08:00 - 09:00	53	1	<u>54</u>
09:00 - 10:00	32	3	35
10:00 - 11:00	18	4	22
11:00 - 12:00	20	11	31
12:00 - 13:00	11	7	18
13:00 - 14:00	11	12	23
14:00 - 15:00	11	17	28
15:00 - 16:00	7	17	24
16:00 - 17:00	4	35	39
17:00 - 18:00	4	39	<u>43</u>
18:00 - 19:00	4	29	33

Table 2.2 – Car Park Vehicular Trips (within Proposed Development Site Boundary)

(Source: 2015 Approved Transport Assessment, Survey undertaken in 2014)

- 2.5.6 The above table demonstrates that, in the peak periods of 08:00 – 09:00 and 17:00 – 18:00, there are approximately 53 and 43 two-way vehicular movements respectively, that are associated with the car park uses on land within the proposed development site boundary.
- 2.5.7 It is noted that the survey data and consented methodology is dated, however it merely serves to provide an indication and background on the existing uses onsite as the proposed development would comprise fewer parking spaces than that of the existing situation, therefore the proposed vehicular trip generation onsite would be lower than that of the existing situation in any case.

2.6 Alternative Parking Solutions

- 2.6.1 Excluding the car park onsite, a review of nearby public car parks and associated provision has been undertaken in order to understand parking levels in the surrounding area. There are many publicly available car parks situated within a 750m walking catchment, equating to a walking time of approximately 10 minutes when walking at an average speed of 1.2m/s. Nearby car parking is summarised in **Table 2.3**:

Car Park	Car Park Location	Walking Distance from Site	No. of Spaces	Disabled Parking	Electric Vehicle Parking
1	Euro Car Parks, Miller Street, M4 4DY	150m	64	0	0
2	RCP Parking, Shudehill, Riga Street, M4 4AF	150m	84	0	0
3	Total Car Parks, 87 Dantzic Street, M4 4DW	200m	17	0	0
4	RCP Parking, Hanover Street, M4 4BB	250m	145	14	0
5	APCOA, Manchester Printworks, 77 Shudehill, M4 2AF	250m	777	Unknown*	0
6	Total Car Parks, 10 Dantzic Street, M4 2AD	250m	24	0	0
7	Total Car Parks, 41 Rochdale Road, M4 4HT	250m	45	0	0
8	Euro Car Parks, Rochdale Road, M4 4HT	250m	23	0	0
9	Euro Car Parks, Rochdale Road, M4 5FT	250m	65	0	0
10	SIP Car Parks, 25 Mason Street, M4 5FX	300m	15	0	0
11	NCP, Gould Street, M4 4HU	350m	10	0	0
12	Xtra Parking, 19 Cross Keys Street, M4 5ET	400m	39	0	0
13	SIP Car Parks, Cross Keys Street, M4 5JQ	400m	13	0	0
14	Euro Car Parks, 34 Goulden Street, M4 5EZ	400m	33	0	0
15	SIP Car Parks, Goulden Street, M4 5EY	400m	25	0	0
16	Euro Car Parks, 77 Thompson Street, M4 5FY	450m	67	0	0
17	Euro Car Parks, Cable Street, M4 5EQ	450m	32	0	0
18	Regent Parking, 73 Rochdale Road, M4 4HY	450m	14	0	0
19	CitiPark, Manchester Arena, New Bridge Street, M3 1AR	450m	978	Unknown*	0
20	Manchester City Council, Arndale, M4 1AZ	450m	1,487	Unknown*	0
21	Total Car Parks, 87 Rochdale Road, M4 4HY	500m	120	0	0
22	ES Parking, Red Bank Car Park, 17 Faber Street M4 4HF	500m	220	0	0
23	SIP Car Parks, Shaw Street, M3 1LD	500m	95	0	0
24	NCP, 7 Park Street, M3 1EU	500m	87	0	0

Car Park	Car Park Location	Walking Distance from Site	No. of Spaces	Disabled Parking	Electric Vehicle Parking
25	SIP Car Parks, 10 Dutton Street, M3 1LE	550m	45	0	0
26	Euro Car Parks, Hinton Street, M4 4HZ	550m	44	0	0
27	Total Car Parks, Park Place, M4 4EY	550m	75	0	0
28	SIP Car Parks, Park Place, M4 4EZ	550m	17	0	0
29	Thompson Street, M4 5FS	600m	65	0	0
30	NCP, 22-24 Cheetham Hill Road, M4 4FY	600m	11	0	0
31	Total Car Parks, Dutton Street, M3 1LF	600m	161	0	0
32	SIP Car Parks, 5 Edgehill Street, M4 1BB	600m	13	0	0
33	Total Car Parks, Mirabel Street, M3 1PJ	700m	32	0	0
34	SIP Car Parks, 27 Gun Street, M4 5DN	700m	140	Unknown*	0
35	Manchester City Council, Church Street, M4 1LX	700m	685	Unknown*	6
Total:			5,767	14*	6

Table 2.3 – Existing Off-site Car Parking Provision

*Denotes where there is disabled parking provision, however the number of spaces is not known.

2.6.2 The above table demonstrates 35 car parks were found within an approximate 10-minute walk of the site, providing car parking provision for approximately 5,767 vehicles, of which there are at least 14 disabled parking spaces and 6 electric vehicle (EV) charging spaces.

2.6.3 It is therefore considered there is adequate opportunity for off-site parking should future users chose to commute by car.

2.7 Highway Safety

2.7.1 Personal Injury Accident (PIA) data for the highway network adjacent to the site has been obtained from the Transport for Greater Manchester (TfGM) reported road accidents database for the most recent five years (2017 – 2021 inclusive). The details of the search are contained in **Figure 2.2** and include local roads in the immediate vicinity of the site. A breakdown of the information is contained in **Table 2.4**:

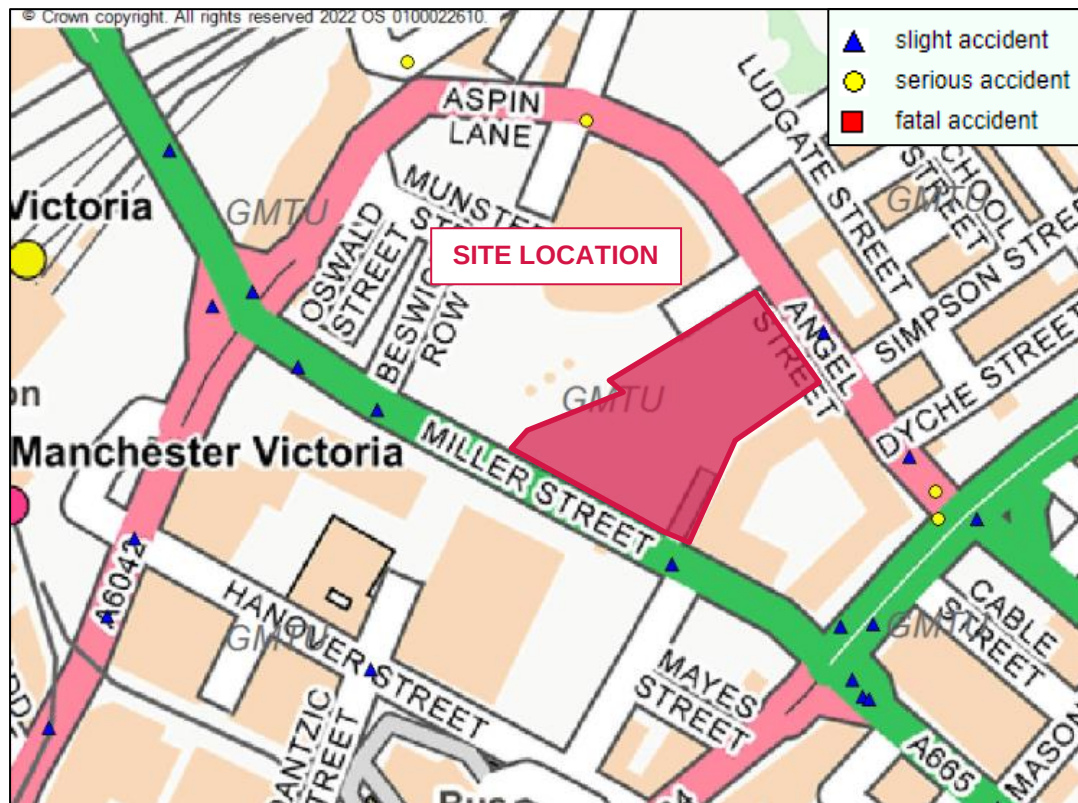


Figure 2.2 – Extents of Search Area

(Source: Transport for Greater Manchester, 2022)

Junction / Link	Slight	Serious	Fatal	Totals
A664 Angel Street / Dantzic Street	0	1	0	1
Corporation Street / Red Bank	0	1	0	1
A664 Angel Street	1	0	0	1
A664 Angel Street / Dyche Street	1	0	0	1
A664 Angel Street / Rochdale Road / A665 Ring Road	1	2	0	3
A665 Ring Road / A664 Rochdale Road / Shudehill	5	0	0	5
A665 Miller Street	1	0	0	1
A665 Miller Street / Riga Street	1	0	0	1
A665 Miller Street / Beswick Row	1	0	0	1
A665 Miller Street / A664 Ring Road / Corporation Street	2	0	0	2
A665 Ring Road	1	0	0	1
Corporation Street	2	0	0	2
Corporation Street / Hanover Street	1	0	0	1
Total	17	4	0	21

Table 2.4 – Personal Injury Accident Data Summary

- 2.7.2 There has been a total of 21 accidents in the latest five-year period available, comprising 17 'slight' and 4 'serious' incidents. No fatal accidents have been recorded in the study area and period.
- 2.7.3 This review does not highlight any clusters of collisions which would warrant further investigation, and there are no concentrations of vehicle collisions or irregular casualties that would suggest an existing safety issue that would be exacerbated by the proposed development.

3.0 Development Proposals

3.1 Introduction

- 3.1.1 The proposed development involves Plots 2 & 3 of the adopted NOMA Masterplan (in which the site is denoted as Plots M & N), with the following development description:

“An application for full planning permission comprising:

Erection of 2 Angel Square, a 14 storey building (excluding roof top plant) to form a mixed use office development (Use Class Egi) with two flexible commercial units at Upper Ground floor Level (Use Classes Ea, b, c, e, f, and / or Use Class Sui Generis (p) and (q)), and with a flexible office (Use Class Egi) and/or restaurant (Use Class Eb) space at Level 12, along with Lower Ground Level car and cycle parking, hard and soft landscaping and other associated works;

Erection of 3 Angel Square, a 13 storey building (excluding roof top plant) to form a mixed use office development (Use Class Egi) with two flexible commercial units provided over Lower and Upper Ground Floor Levels (Use Classes Ea, b, c, e, f, and / or Use Class Sui Generis (p) and (q)), a further flexible commercial unit at Upper Ground Floor Level only allowing for ancillary seminar space and / or Sui Generis Use Class (t) Cinema space, together with an ancillary gym space at Upper Ground Floor, as well as Lower Ground Level car and cycle parking, hard and soft landscaping and other associated works.”

- 3.1.2 The development summary is provided in **Table 1.1** above.
- 3.1.3 The proposed landscape masterplan and upper and lower ground floor plans are included in **Appendix A**.

3.2 Proposed Access Arrangements

Plot 2

- 3.2.1 It is proposed that Plot 2 is accessed from the A664 Angel Street and subsequently the existing the Angel Square turning circle (currently used for taxis / drop-offs to 1 Angel Square). **Drawing 81536-CUR-XX-00-D-TP-05003** to the rear of the report demonstrates that a large car can safely enter and exit from the Plot 2 car park, whereby the entrance is located to the north of the building.
- 3.2.2 Cyclists can enter the building in a similar manner to vehicles in order to access the secure cycle store located to the south of the building. There is a door at the end of the car park leading to the cycle store and subsequently the lockers, changing rooms, and showers. The cycle store also connects directly towards the lift and stairways within the building.
- 3.2.3 Pedestrian access can be taken from the western side of the building, where the main entrance is located. This part of the building can be accessed directly from the Angel Square public realm.

Plot 3

- 3.2.4 It is proposed that Plot 3 is accessed from the A665 Miller Street, where there will be a ramp leading towards the car park located on the lower ground floor of the building. **Drawing 81536-CUR-XX-00-D-TP-05003** demonstrates that a large car can safely enter and exit from the Plot 3 car park.
- 3.2.5 The ramp is only wide enough for one-way access, as such there will be a traffic light located prior to the ramp entrance, where vehicles have sufficient off-carriageway space to wait for the light to turn green before entering the car park.
- 3.2.6 Cyclists can enter the building in a similar manner to vehicles in order to access the secure cycle store located to the south of the building. There is a door at the end of the car park leading to the cycle store and subsequently the lockers, changing rooms, and showers. The cycle store also connects directly towards the lift and stairways within the building.
- 3.2.7 Alternatively, cyclists can also access the cycle store from a dedicated access off the A665 Miller Street, which leads towards a ramp to the cycle store.
- 3.2.8 Pedestrian access can be taken from the western side of the building, where the main entrance is located. This part of the building can be accessed directly from the Angel Square public realm.

3.3 Parking Provision

- 3.3.1 Car and cycle parking for the development is provided in accordance with Manchester City Council (MCC)'s Parking Standards, provided in Appendix B of the Manchester Core Strategy, adopted in 2012. Parking standards relevant to the land use of the proposed development are reproduced in **Table 3.1** below.

Land Use	Maximum number of car parking spaces		Minimum number of spaces required for:		
	District Centres	Areas not within the City Centre or District Centres	Disabled people's parking as percentage of total (Citywide)		Cycles (Citywide)
			Up to 200 in total	Over 200 in total	
Business: Stand Alone Offices	1 space per 35sqm	1 space per 30sqm	Individual bays for each disabled employee plus 2 bays or 5% of total capacity whichever is greater	6 bays plus 2% of total capacity	1 space per 200sqm minimum of 2 spaces

Table 3.1 – MCC Parking Standards

Car Parking

- 3.3.2 It is proposed that there will be 15 car parking spaces in both Plots 2 and Plots 3 respectively (totalling 30 car parking spaces), of which 2 bays in each plot would be accessible bays (total 13% provision),

and 3 bays in each plot would be equipped with electric vehicle (EV) charging infrastructure (total 20% provision).

- 3.3.3 The provision of 30 parking spaces across approximately 54,902 sqm of office use (minus the ancillary gym) represents circa 2% of provision levels for areas not within the city centre, however it is noted that the standards are merely guidelines for the maximum number of car parking spaces.
- 3.3.4 MCC consider parking provision near the city centre on a case-by-case basis, and it is noted that MCC have recently accepted new developments with low or no parking provision in areas that have high levels of public transport in the vicinity and proximity to major city centre areas.
- 3.3.5 It is considered that this parking provision is in accordance with the transport policies set out in the Manchester Core Strategy, with respect to the nature of the site and realistic needs of the end users, and the proximity of the site to sustainable modes of transport.

Cycle Parking

- 3.3.6 Secure cycle parking for c. 122 spaces is provided in Plot 2, in the form of two-tier racks and Sheffield stands. There will also be 122 lockers (1:1 ratio) and 13 showers (12 provided in segregated male / female showers, with 1 accessible shower / WC) located within the cycle store.
- 3.3.7 In Plot 3, there will be 148 cycle spaces in the form of two-tier racks, 148 lockers, and 17 showers (16 provided in segregated male / female showers, with 1 accessible shower / WC) located within the cycle store.
- 3.3.8 This is one of the many initiatives to encourage more people to travel by sustainable modes (in addition to other measures outlined in the accompanying Framework Travel Plan (Document Reference: **81536-CUR-XX-XX-T-TP-00002**)).

3.4 Proposed Servicing Arrangements

Servicing

- 3.4.1 Cleaners would be appointed by NOMA to transfer waste from the office floors and ground floor areas to the bin stores, whereas staff at the amenity / retail units would transfer waste from within their units to the main bin store after closing time at the end of each day. The management company / staff on-site would be responsible for moving the bins from the bin store to the collection point on collection day.
- 3.4.2 The waste operators will collect the bins and load them into the refuse vehicle. Once the bins have been emptied, containers would be wheeled immediately back to the bin stores by the management team. As a result, the bins will await collection along the public realm for a limited amount of time.

3.4.3 **Drawing 81536-CUR-XX-00-D-TP-05001** to the rear of the report demonstrates that a 11.2m large refuse vehicle can safely service Plots 2 and 3 from the Angel Square turning circle and from the service road between Plot 3 and Angel Gardens respectively.

3.4.4 More details on the waste collection schedule and number of bins proposed are provided in a Waste Management Strategy prepared by Curtins (Document Reference: **81536-CUR-XX-XX-T-TP-00003**).

Emergency Vehicles

3.4.5 In the event that an emergency vehicle requires access to the building, **Drawing 81536-CUR-XX-00-D-TP-05002** to the rear of the report demonstrates that a 7.7m fire tender can safely access both buildings from all directions (north, south, east, and west).

4.0 Accessibility by Sustainable Modes of Travel

4.1 Introduction

4.1.1 A key element of national and local policy is to ensure that developments are located in areas where alternative modes of travel are available. This supports the aims of integrating planning and transport, providing more sustainable transport choices, and reducing overall travel and car use.

4.1.2 The accessibility of the proposed development is considered in this context for the following modes of travel:

- Pedestrian Accessibility;
- Cycle Accessibility; and
- Public Transport Accessibility.

4.2 Pedestrian Accessibility

4.2.1 Research has indicated that acceptable walking distances depend on a number of factors, including the quality of the development, the type of amenity offered, the surrounding area, and other local facilities. The Chartered Institution for Highways and Transportation (CIHT) document entitled '*Providing for Journeys on Foot*' suggests walking distances which are relevant to this planning application. These are reproduced in **Table 4.1**.

CIHT Category	Town Centres (m)	Commuting / School / Sightseeing (m)	Elsewhere/Local Services (m)
Desirable	200	500	400
Acceptable	400	1,000	800
Preferred Maximum	800	2,000	1,200

Table 4.1 – CIHT Recommended Walking Distances

4.2.2 To assist in summarising the accessibility of the school by foot, distances of 500m, 1,000m and 2,000m have been considered. These are termed 'Desirable', 'Acceptable' and the 'Preferred Maximum' by the CIHT for commuting trips; which are considered a good approximation for pedestrian trips associated with the development.

4.2.3 The Department for Transport's National Travel Survey (from Tables NTS0308a and NTS0601) shows that walking is the most frequent mode used for short trips: 80% of all trips and 74% of walking trips were under 1 mile (1.6km) in 2019 – with the 1.6km distance broadly comparable with the CIHT's 2.0km 'Preferred Maximum'. The average distance for walking trips was 1.5km and 96% of walking trips were under 2 miles (3.2km) in 2019.

- 4.2.4 Within the 500m desirable walking distance catchment area there are a number of residential properties such as the Moda Living – Angel Gardens development, those within the Green Quarter (approximately 500m north-west of the site), and apartments fronting Rochdale Road at approximately 200m south-east of the site. The development also includes ancillary commercial uses at ground floor level, which would be within immediate reach of end users.
- 4.2.5 The Manchester Victoria rail / Metrolink station and Shudehill Metrolink / bus station are also within this walking catchment of the site. These locations allow for easy access for future staff of the site which commute to work from Greater Manchester and beyond.
- 4.2.6 Most notably, within 500m south of the site is the Northern Quarter, the Printworks, and Arndale Centre. The Northern Quarter comprises many artisan cafes, bars and restaurants along with a vibrant nightlife, the Printworks contains leisure outlets and restaurants / bars and a cinema, whereas the Arndale centre is one of the largest city-centre shopping malls in Europe and houses over 200 shops as well as several food and drink establishments. The National Football Museum, Corn Exchange, and Manchester Arena also lie within this catchment.
- 4.2.7 The site is also well connected to the NOMA estate, with One Angel Square (the head office of the Co-Operative Group) situated directly east of the site, Sadler's Yard (a public square) and New Century House (office space and conference facilities) towards the south of the site. The NOMA estate towards the south of the site can be accessed via the existing Toucan crossing along Miller Street (south-east of the site).
- 4.2.8 In addition, Angel Meadow, a green space located approximately 100m north of the site, provides an open area for recreation purposes. There are also hotels, gyms, and fitness centres around the north and north-west of the site.
- 4.2.9 Within the wider 1,000m – 2,000m catchments, there are a great number of residential properties in all directions. Additional leisure, food, retail, employment, high street banks, health clubs, and convenience stores are accessible along Market Street, St Ann's Square, and Piccadilly Gardens. The vast majority of Manchester City Centre is within a 2,000m walk of the site.
- 4.2.10 The surrounding roads have footways available for pedestrian use, and the carriageways are well lit by street lighting. There are signalised crossing points, pedestrian refuge islands, dropped kerbs and tactile paving to aid pedestrians at all major junctions in the vicinity. There is already a high pedestrian footfall in the area, and so high-quality pedestrian facilities exist. The site is considered highly accessible by foot.

4.3 Cycle Accessibility

- 4.3.1 In order to assist in assessing the accessibility of the site by cycle, an 8km cycle catchment for the site has been considered. The 8km (5-mile) cycling distance refers to a recommendation by Cycling England in the document *'Integrating Cycling into Development Proposals'* (2009), which states: *"most cycle journeys for non-work purposes and those to rail stations are between 0.5 and 2 miles, but many cyclists are willing to cycle much further (i.e. for work, a distance of 5 miles should be assumed)"*.
- 4.3.2 The 8km catchment encompasses all of Manchester City Centre, including all major transport links, shopping centres, bars, restaurants, leisure centres, tourist attractions and places of worship. The catchment also extends as far as Heaton Park to the north, Fairfield to the east, Fallowfield to the south, and Old Trafford to the west.
- 4.3.3 Existing cycle infrastructure on Corporation Street and Dantzic Street allows cycle access into Manchester City Centre, with direct access to Manchester Victoria Station and the Printworks. All major train and bus stations within Manchester City Centre are within 8km of the site and are accessible following Sustrans cycle routes. Additionally, low speed limits along the surrounding streets are part of the city's high-quality cycle infrastructure to improve cyclist safety. The local cycle network within the vicinity of the site is reproduced in **Figure 4.1** overleaf.

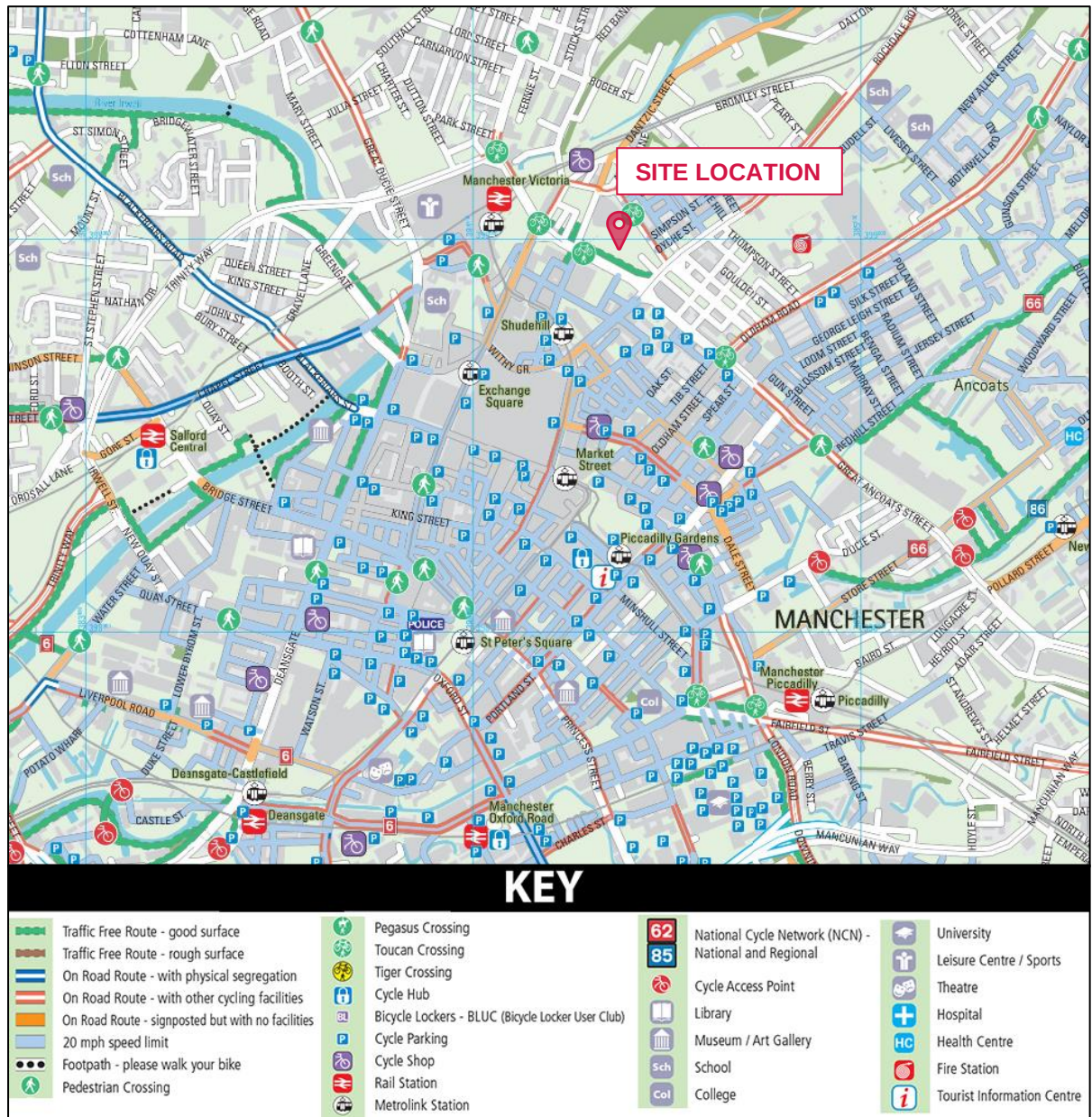


Figure 4.1 – Local Cycle Network

(Source: TfGM, 2022)

- 4.3.4 The local cycle network shown above is also a part of Greater Manchester's cycling and walking infrastructure proposal, named the "Bee Network". The Bee Network comprises signed routes that mark the most direct and pleasant way to navigate an area on foot or by bike.
- 4.3.5 The site is located directly north of Bee Network improvements as part of the Manchester Northern / Eastern Gateway to the north of the site, and improved crossing facilities adjacent to tramlines along Corporation Street and Shudehill as illustrated in **Figure 4.2**, allowing staff and visitors that cycle to benefit from better safety and quality of commute.

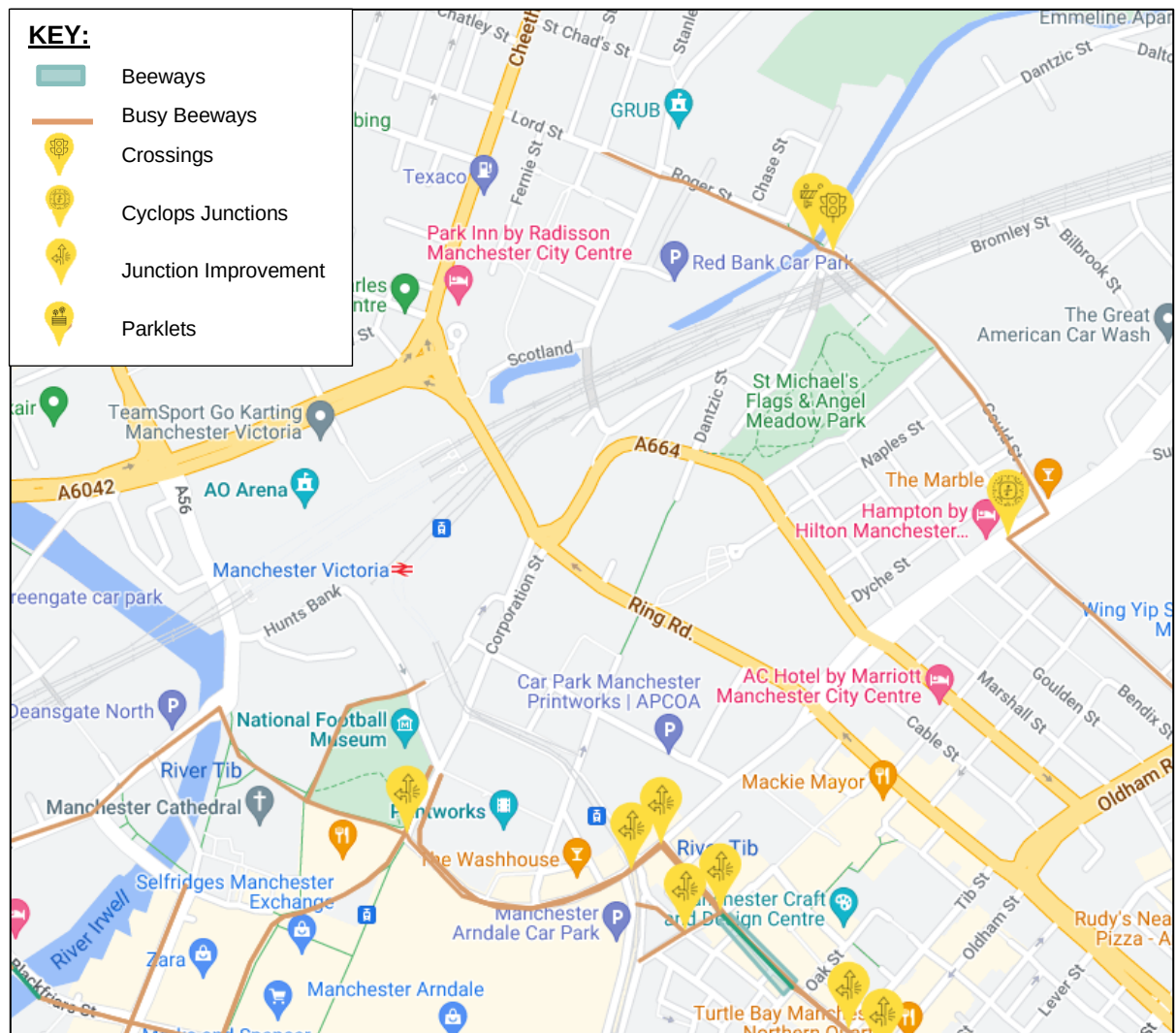


Figure 4.2 – Bee Network Map

(Source: Bee Active and Google Maps, 2022)

- 4.3.6 Also as part of the Bee Network, a Bike Hire Scheme is being rolled out in Manchester as part of a public trial. There are currently no docking stations at NOMA, however it is envisaged that in summer 2022, there will be more than 200 stations, 1,200 pedal bikes and 300 e-bikes across Manchester, Salford and Trafford.
- 4.3.7 These bikes are available on a Pay as You Ride (PAYR) basis where those interested would be required to download a mobile app which shows the location of their nearest docking stations. The Bike Hire Scheme will operate within the following zone:

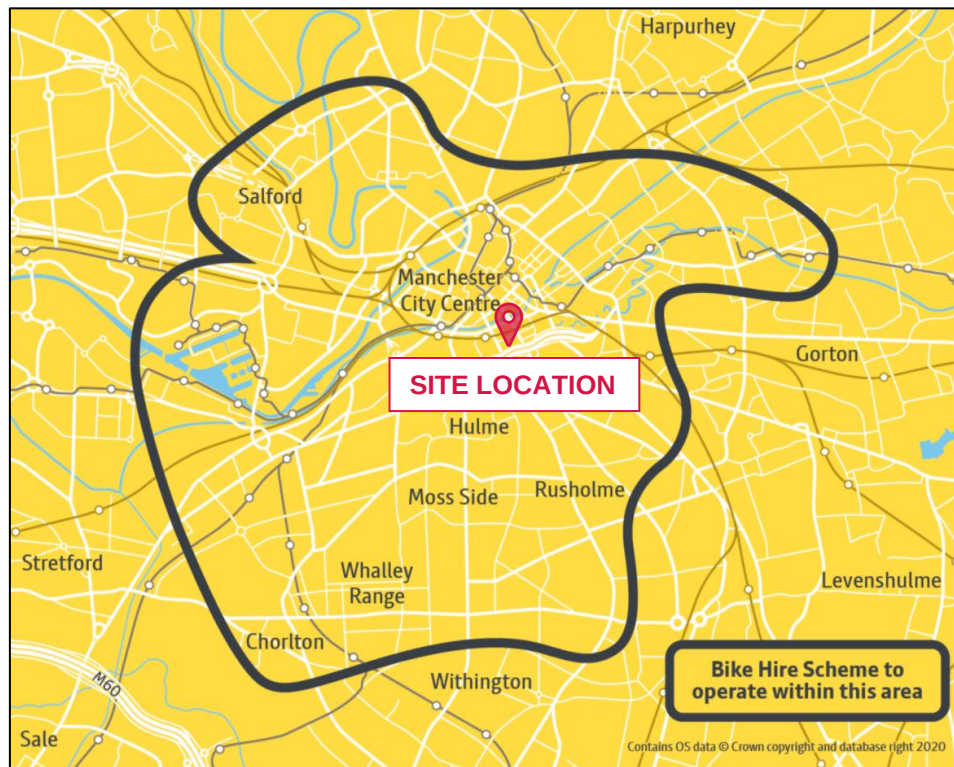


Figure 4.3 – Bike Hire Scheme in the Vicinity of the Site
(Source: TfGM, 2020)

- 4.3.8 There are a number of examples of Toucan crossings, local on / off road provision and advance stop cycle lanes in the immediate vicinity of the site along roads such as Miller Street, Angel Street, Rochdale Road and Corporation Street. The site is therefore ideally placed to take advantage of the cycle connections in the vicinity of the site and across Manchester City Centre and beyond. Furthermore, the development will provide secure cycle parking spaces to encourage cycling.
- 4.3.9 This accessibility review demonstrates that key destinations and local amenities are within walking and cycling distance of the site, including health (including a dental surgery to the west of the site), retail (supermarkets located within the City Centre core and a supermarket situated to the north-west within the Green Quarter), leisure and employment facilities and services, together with major public transport interchanges and the residential quarters of Manchester City Centre.

4.4 Public Transport Accessibility

- 4.4.1 Developed by Transport for Greater Manchester (TfGM), Greater Manchester Accessibility Levels (GMAL) are a measure of the accessibility of a point to both the conventional public transport network (i.e. bus, Metrolink, and rail) and Greater Manchester's Local Link (flexible transport service), considering walk access time, service availability, and average waiting time. The method is essentially a way of measuring the density of the public transport provision at any location within the Greater Manchester region.

Transport Statement

4.4.2 The accessibility index score is categorised into eight levels (1 to 8), where level 8 represents a high level of accessibility (described as ‘excellent’) and level 1 a low level of accessibility (described as ‘very poor’). The site is located in an area with a GMAL rating of 8 and is considered appropriately situated to take advantage of existing public transport infrastructure within Manchester City Centre.

4.4.3 Accessibility by bus, rail and Metrolink are considered further below, with a local public transport network map included in **Figure 4.4** below:

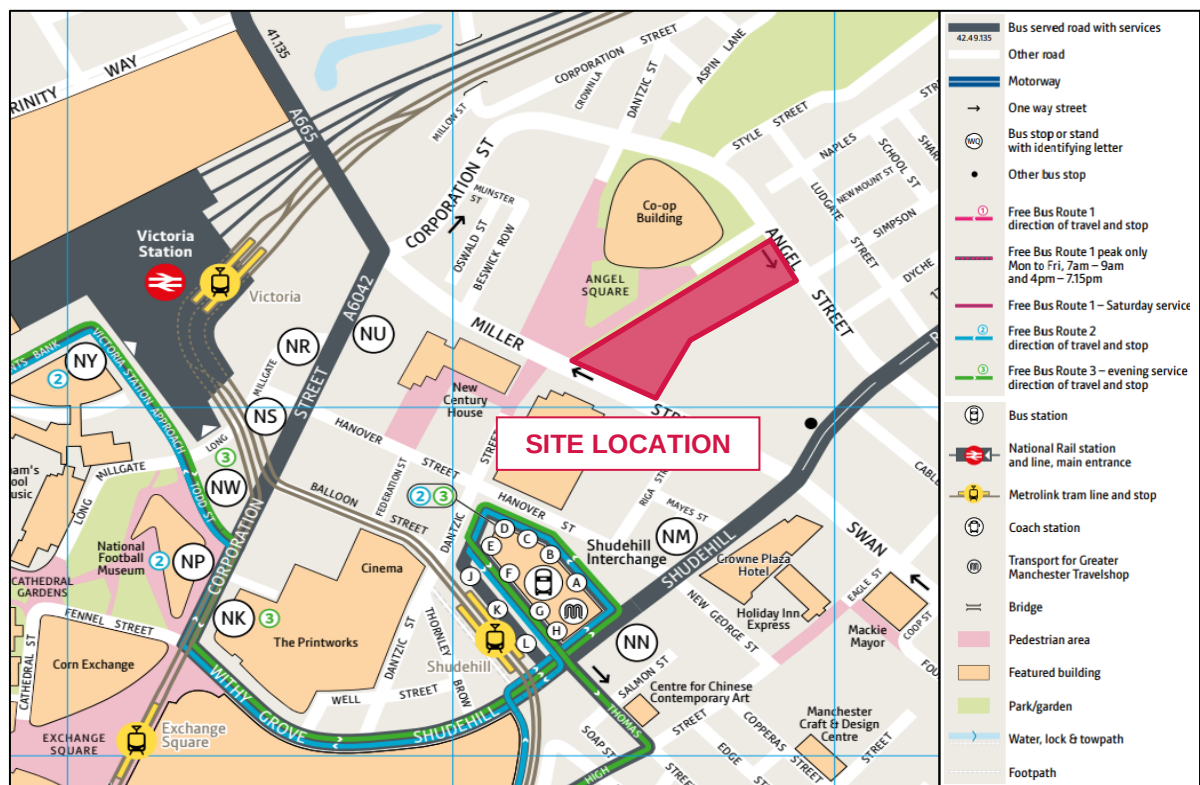


Figure 4.4 – Public Transport Network in the Vicinity of the Site

(Source: TfGM, 2022)

Bus Accessibility

4.4.4 Guidance from the Chartered Institution of Highways and Transportation (CIHT) document ‘*Buses in Urban Developments*’ (2018) indicates that ideally, a bus stop should be located within the following from a new development based on its location and the number of services:

Situation	Maximum Walking Distance (m)
Core bus corridors with two or more high-frequency services	500
Single high-frequency routes (every 12 minutes or better)	400
Less frequent routes	300
Town / city centres	250

Table 4.2 – CIHT Maximum Suggested Walking Distances to Bus Stops

- 4.4.5 A distance of 400m, which equates to an approximate 5-minute walk, is also commonly cited as a benchmark for access to local bus services.
- 4.4.6 There are a number of bus stops comfortably within a 400m walk of the site, with the closest being located at Shudehill Interchange (c. 300m south of the site), Rochdale Road (c. 300m east of the site), Corporation Street (c. 450m south-west of the site), and the Victoria Station Approach (c. 450m to the south-west of the site). **Table 4.3** details the services that call at these stops, and their associated frequencies.

Bus Service	Route	Peak Hourly Frequency		
		Mon – Fri	Sat	Sun / Hols
From Shudehill:				
8	Shudehill – Salford – Pendlebury – Farnworth – Bolton	12 mins	30 mins	20 mins
10	Shudehill – Salford – Pendleton – Brookhouse Estate	12 mins	20 mins	20 mins
17	Shudehill – Blackley – Middleton – Trub – Sudden – Rochdale	10 mins	12 mins	15 mins
17A	Shudehill – Blackley – Middleton – Stakehill Industrial Estate – Trub – Sudden – Rochdale	1 in the AM	No Service	No Service
18	Manchester Royal Infirmary – Blackley – Middleton – Langley	10 mins	12 mins	15 mins
33	Shudehill – Ordsall – Weaste – Eccles – Winton – Worsley	15 mins	30 mins	Hourly
56	Shudehill – Higher Crumpsall – Higher Blackley circular	30 mins	30 mins	No Service
67	Shudehill – Salford – Pendleton – Eccles – Glaze Estate	15 mins	15 mins	30 mins
67A	Shudehill – Salford – Pendleton – Eccles – Glaze Estate	2 in the AM	2 in the AM	Every 30 mins in the AM
81	Piccadilly Gardens – Moston – Oldham – Greenacres – Derker	30 mins	Hourly	Hourly
93	Shudehill – Salford – Lower Broughton – Carr Clough	20 mins	20 mins	30 mins
97	Shudehill – Salford – Lower Broughton – Hollins – Bury	30 mins	30 mins	30 mins
98	Shudehill – Salford – Whitefield – Radcliffe – Elton – Bury	10 mins	10 mins	30 mins
100	Shudehill – Salford – The Trafford Centre – Warrington	15 mins	15 mins	15 mins
112	Piccadilly Gardens – Moston – Greengate – Middleton	15 mins	15 mins	30 mins

Bus Service	Route	Peak Hourly Frequency		
		Mon – Fri	Sat	Sun / Hols
113	Middleton – Greengate – Moston – Piccadilly Gardens	2 in the AM	No Service	No Service
117	Piccadilly Gardens – Moston – New Moston – Greengate	30 mins	30 mins	Hourly
118	Piccadilly Gardens – Harpurhey – Moston – Higher Crumpsall	15 mins	15 mins	30 mins
119	Piccadilly Gardens – Moston – Charlestown – Higher Blackley	30 mins	30 mins	Hourly
156	Shudehill – Blackley – Higher Blackley – Rhodes – Middleton	30 mins	30 mins	30 mins
162	Piccadilly Gardens – Middleton – Langley – Heywood – Norden	3 in the AM	No Service	No Service
163	Piccadilly Gardens – Middleton – Langley – Heywood – Bury	12 mins	12 mins	15 mins
From Rochdale Road: Services 17, 17A, 18, 56, 81, 112, 114, 117, 118, 119, 156, 162 and 163 as above.				
From Corporation Street: Service 113 as above, with the addition of:				
41	Middleton – Higher Blackley – Bowker Vale – Didsbury – Sale	20 mins	30 mins	30 mins
59	Piccadilly Gardens – Middleton – Chadderton – Oldham Mumps	10 mins	10 mins	20 mins
135	Piccadilly Gardens – Cheetham Hill – Whitefield – Bury	10 mins	10 mins	10 mins
From Manchester Victoria: 8, 10, 59, 67, 67A, 93, 97, 98, 100 and 113 as above.				

Table 4.3 – Summary of Bus Service Frequencies in the Vicinity of the Site

4.4.7 The above services primarily link the site to Greater Manchester. Shudehill Interchange also has bus and coach services that run to all areas of Manchester and further afield. For example, services from Shudehill provide access to:

- Accrington
- Birmingham
- Burnley
- Coventry
- Glasgow
- Liverpool
- Preston
- Prestwich
- Skipton

4.4.8 Furthermore, the National Football Museum bus stop and Shudehill Bus Interchange are calling points of Routes 2 and 3 respectively of the Manchester City Centre free bus. The free bus is a service providing direct access to the Deansgate, Oxford Road, Piccadilly, Victoria and Salford Central railway

stations along with key city centre locations. The free bus routes and frequencies are detailed in **Figure 4.5** below:

free bus routes around the city centre

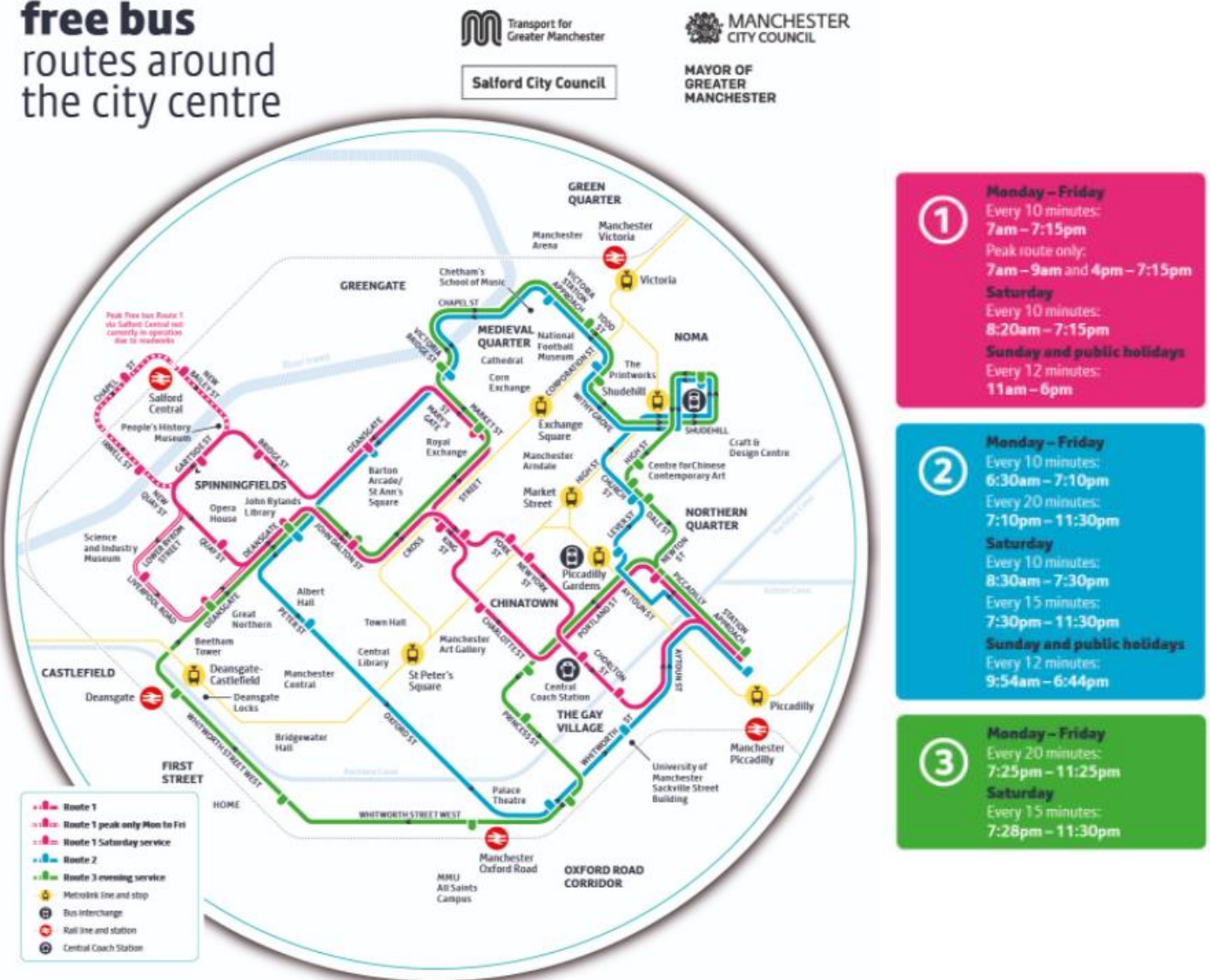


Figure 4.5 – Free Bus Route and Timetable
(Source: TfGM, 2022)

4.4.9 Overall, the site is well served by bus. The site also benefits from the free bus service.

Rail Accessibility

4.4.10 The Chartered Institution of Highways and Transportation (CIHT) document, *'Planning for Public Transport in Developments'* notes that those travelling to a site by rail will typically be prepared to walk further to the site than those travelling by bus, with a preferred distance of 800m.

4.4.11 The closest rail station to the development is Manchester Victoria, located c. 450m to the west of the site. **Table 4.4** shows the frequencies of regular trains that run from Manchester Victoria:

Service	Service Frequency per Hour		
	Peak Weekday	Peak Saturday	Peak Sunday
Northern Rail services:			
York, Leeds and Colne to Preston and Blackpool Calling at, but not limited to: Manchester Victoria, Rochdale, Todmorden, Burnley, Rose Grove, Accrington and Blackburn. Change at other stations to access additional stops	Every 3 hours each way	Every 3 hours each way	No service
Bolton to Manchester and Manchester Airport Calling at: Bolton, Salford Crescent, Salford Central, Manchester Victoria. Change at other stations to access additional stops	4 per hour each way	4 per hour each way	Hourly each way
Manchester to Blackburn and Clitheroe Calling at, but not limited to: Manchester Victoria, Salford Central, Bolton, Bromley Cross, Blackburn, Ramsgrave & Wilpshire, Clitheroe	Hourly each way	Hourly each way	Hourly each way
Manchester and Manchester Airport to Southport and Kirkby Calling at, but not limited to: Rochdale, Manchester Victoria, Salford Crescent, Kearsley, Bolton, Wigan Wallgate, Gathurst, Burscough Bridge, Southport. Change at other stations to access additional stops	2 per hour each way	2 per hour each way	Hourly each way
Liverpool to Manchester Airport and Warrington Bank Quay via Earlestown Calling at, but not limited to: Chester, Warrington Bank Quay, Earlestown, Newton-le-Willows, Eccles, Manchester Victoria. Change at other stations to access additional stops	Every 2 hours each way	Every 2 hours each way	No service
Manchester to Stalybridge and Huddersfield Calling at: Manchester Victoria, Ashton-under-Lyne, Stalybridge	Hourly each way	Hourly each way	No service
Blackpool North to Manchester Victoria, Preston to Hazel Grove Calling at, but not limited to: Preston, Leyland, Chorley, Horwich Parkway, Bolton, Salford Crescent, Salford Central, Manchester Victoria. Change at other stations to access additional stops	Every 2 hours each way	Every 2 hours each way	No service
Leeds to Manchester Victoria via Bradford Interchange / Brighouse and Manchester to Blackburn Calling at, but not limited to: Leeds, Bradford Interchange, Halifax, Hebden Bridge, Todmorden, Rochdale, Manchester Victoria. Change at other stations to access additional stops	4 per hour each way	4 per hour each way	2 per hour each way

Service	Service Frequency per Hour		
	Peak Weekday	Peak Saturday	Peak Sunday
Chester to Leeds Calling at, but not limited to: Chester, Runcorn East, Warrington Bank Quay, Newton-le-Willows, Manchester Victoria, Rochdale, Halifax, Bradford Interchange, Leeds	5 per day, 2 hours apart each way	5 per day, 2 hours apart each way	No service
Transpennine Express services:			
Manchester Airport to Leeds, Hull, York, Scarborough, Middlesbrough, Newcastle and Edinburgh Calling at: Manchester Airport, Gatley, Manchester Piccadilly, Manchester Oxford Road, Manchester Victoria, Huddersfield, Dewsbury, Leeds, York, Thirsk, Northallerton, Yarm, Thornaby, Middlesbrough, and Redcar Central.	2 per hour each way	2 per hour each way	2 per hour each way

Table 4.4 – Summary of Rail Services Calling at Manchester Victoria

- 4.4.12 Manchester Victoria rail station has step-free access across the whole station via level accesses onto platforms and lifts at footbridge. The station is staffed during regular opening hours and has a concourse / ticket machines from which all tickets must be purchased. The station is sheltered and there are payphones present for passenger use, along with facilities such as toilets and shops. Train running information is offered via Customer Information Services (CIS) screens, and there are cycle stands for 38 bicycles on the platform and approach.
- 4.4.13 Journey times have also been reduced and improved following the Ordsall Chord bridge which was completed in 2017 and links Manchester's three main railway stations (Victoria, Oxford Road and Piccadilly) to allow more trains to run across the whole of the north. There are also direct links to Manchester Airport from across the north of England.
- 4.4.14 It is noted that the provision of rail services will change over time in response to current circumstances. The rail frequencies are accurate at the time of writing, whereas up-to-date rail times can be found on the respective train operators' websites:
- Northern Rail: [northernrailway.co.uk/travel/timetables](https://www.northernrailway.co.uk/travel/timetables); and
 - TransPennine Express: www.tpexpress.co.uk/travel-updates/timetables.
- 4.4.15 Overall, the site is highly accessible via rail.

Metrolink (Light Rail) Accessibility

4.4.16 Figure 4.6 below shows the Greater Manchester Metrolink network:

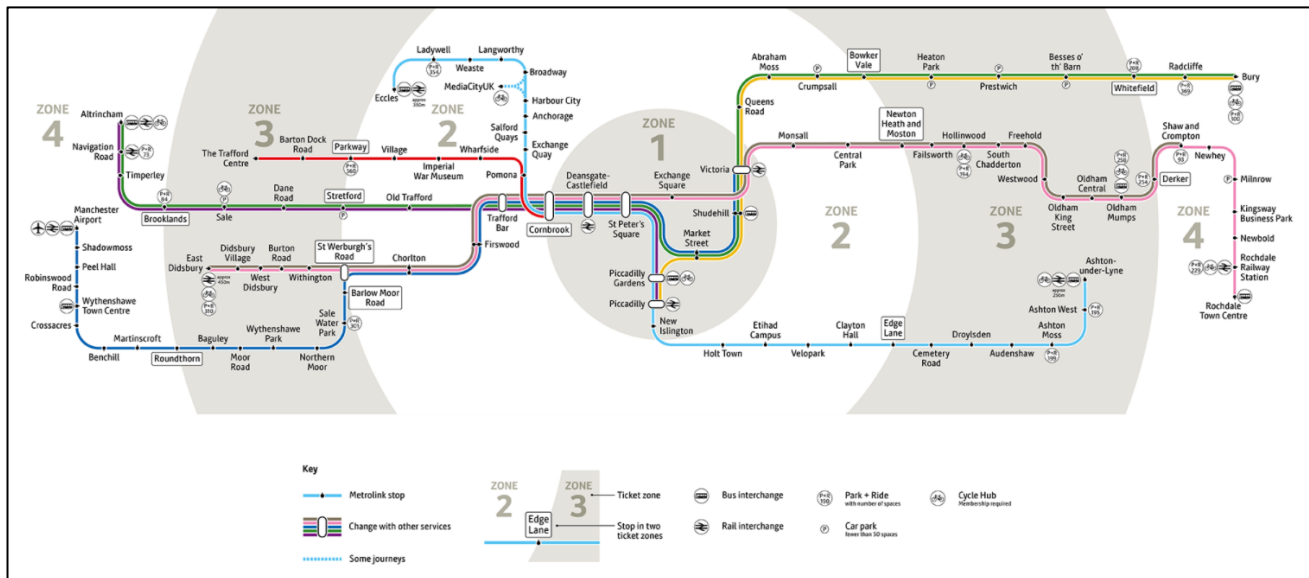


Figure 4.6 – Greater Manchester Metrolink Network

(Source: TfGM, 2022)

4.4.17 Future staff and visitors can also board the Metrolink at Shudehill or Manchester Victoria, which are c. 300m south and 450m west of the site respectively. The following services call at these stations:

- **Navy Line** – Manchester Airport to Manchester Victoria;
- **Green Line** – Altrincham to Bury;
- **Yellow Line** – Piccadilly to Bury;
- **Brown Line** – East Didsbury to Shaw and Crompton (Victoria only); and
- **Pink Line** – East Didsbury to Rochdale Town Centre (Victoria only).

4.4.18 All lines run at a frequency of every 12 minutes between 06:00 – 00:00 on Mondays to Saturdays, and 07:00 – 00:00 on Sundays. Some lines only operate during peak hours, for example:

- **Green Line** (Altrincham to Bury) – 07:00 – 20:00 on Mondays to Fridays and 09:00 – 18:30 on Saturdays. Outside these hours, use the Purple (Altrincham to Piccadilly) and Yellow (Piccadilly to Bury) Lines;
- **Brown Line** (Shaw and Crompton to East Didsbury) – 07:00 – 20:00 on Mondays to Fridays and 09:00 – 18:30 on Saturdays. Outside these hours, use the Pink (Rochdale Town Centre to East Didsbury) Line.

4.4.19 The start and end times for specific stations will change during different seasons in the year and over time in response to current circumstances. The Metrolink frequencies are accurate at the time of writing,

whereas up-to-date times can be found on the Metrolink website at: tfgm.com/public-transport/tram/tram-times.

4.4.20 Metrolink services provide access to the site seven days a week with trams running from a variety of locations across Greater Manchester, including key interchanges at St Peter's Square.

4.4.21 Overall, the site is highly accessible via tram.

4.5 Summary

4.5.1 It is considered the site is highly accessible by sustainable modes of transport, which are also usable by those with limited mobility and are wheelchair accessible. The surrounding area exhibits good levels of pedestrian and cycling infrastructure, and there are a number of public transport opportunities within acceptable walking distance of the site.

5.0 Traffic Forecasting

5.1 Introduction

- 5.1.1 This section of the report contains trip generation analysis based on the proposed development during the weekday AM and PM peak hours. In order to undertake the assessment, existing travel survey data and the TRICS database have been used for the forecast trip generation.
- 5.1.2 Whilst TRICS is the industry recognised tool for calculating the anticipated future trip demand of a proposed development, it must be noted that many of the office sites are in no way comparable to modern offices located in highly sustainable areas of Manchester City Centre.
- 5.1.3 As such, TRICS person trip rates have been used in combination with the most recent Census dataset (2011) which demonstrates methods of travel to work at a local level. 2011 Census data should also be referenced with discretion on the basis that travel patterns have shifted significantly in Manchester City Centre (i.e. expansion of Metrolink network and Ordsall Chord bridge) and across the whole of the UK since then (i.e. COVID-19 pandemic resulting in the transition to remote / flexible working).

5.2 Existing Trip Generation

- 5.2.1 As stated in **Section 2.5** above, the car park was surveyed in 2014 as part of the previous planning applications. **Table 2.1** demonstrated that the existing trip generation at the Plot 2 & 3 car parks amount to c. 54 and 43 two-way vehicular trips in the AM and PM peak periods of 08:00 – 09:00 and 17:00 – 18:00 respectively.
- 5.2.2 It is noted that the survey data and consented methodology is dated, however it merely serves to provide an indication and background on the existing uses onsite as the proposed development would comprise fewer parking spaces than that of the existing situation, therefore the proposed vehicular trip generation onsite would be lower than that of the existing situation in any case.

5.3 Forecasted Trip Generation

- 5.3.1 The proposed development involves c. 54,902 sqm Gross Internal Area (GIA) of office uses and 1,663 sqm GIA of commercial retail uses.
- 5.3.2 The level of trips generated by the existing uses of the site have been estimated using multi-modal peak hour trip rates obtained from surveys of sites of a similar size and nature. The full search criteria used in the TRICS database are presented in **Appendix B. Table 5.1** below summarises this. All trip rates are per 100m² GFA:

Uses	AM (08:00 – 09:00)			PM (17:00 – 18:00)		
	Arrive	Depart	Total	Arrive	Depart	Total
Office						
Person Trip Rate	2.262	0.185	2.447	0.220	2.187	2.407
Person Trips for c. 54,902 sqm	1,242	102	1,343	121	1,201	1,321
Commercial Retail						
Person Trip Rate	16.778	15.442	32.220	34.725	34.307	69.032
Person Trips for c. 1,663 sqm	279	257	536	577	571	1,148
Development Total						
Total Person Trips	1,521	358	1,879	698	1,771	2,469

Table 5.1 – Proposed Person Trips

- 5.3.3 **Table 5.1** demonstrates that the development could generate an additional 1,879 and 2,469 two-way person trips in the AM and PM peaks respectively.
- 5.3.4 Subsequently, data based on the 2011 Census dataset ‘WU03EW – Location of usual residence and place of work by method of travel to work (MSOA level)’ has been used. The middle super output area (MSOA) of Manchester 054 where the site is located has been used as the place of work.
- 5.3.5 The mode of travel to work data extracted from the output areas is summarised in **Table 5.2**:

Mode of Travel to Work	Manchester 054	Total
Work mainly at or from home	0	0%
Underground, metro, light rail or tram	3,045	6%
Train	7,857	15%
Bus, minibus, or coach	12,876	25%
Taxi	164	0%
Motorcycle, scooter or moped	213	0%
Driving a car or van	17,234	34%
Passenger in a car or van	1,914	4%
Bicycle	1,250	2%
On foot	6,131	12%
Other method of travel to work	100	0%
Total	50,784	100%

Table 5.2 – 2011 Census Data: Method of Travel to Work

- 5.3.6 **Table 5.2** demonstrates that the mode share for car drivers is 34%. The multi-modal trip generation for the development is summarised in **Table 5.3**:

Mode of Travel to Work	AM (08:00 – 09:00)			PM (17:00 – 18:00)		
	Arrive	Depart	Total	Arrive	Depart	Total
Work mainly at or from home	0	0	0	0	0	0
Underground, metro, light rail or tram	91	21	113	42	106	148
Train	235	55	291	108	274	382
Bus, minibus, or coach	386	91	476	177	449	626
Taxi	5	1	6	2	6	8
Motorcycle, scooter or moped	6	2	8	3	7	10
Driving a car or van	516	122	638	237	601	838
Passenger in a car or van	57	14	71	26	67	93
Bicycle	37	9	46	17	44	61
On foot	184	43	227	84	214	298
Other method of travel to work	3	1	4	1	3	5
Total	1,521	358	1,879	698	1,771	2,469

Table 5.3 – Proposed Trip Generation

- 5.3.7 **Table 5.3** demonstrates that there could be an additional 638 two-way vehicle movements in the AM peak and 838 two-way vehicle movements in the PM peak as a result of the proposed development.
- 5.3.8 It is considered that this is still a significant overestimation of the number of trips likely to take place by car. This is primarily on the basis that the figures were derived by using 2011 Census data, which should be referenced with discretion on the basis that travel patterns have shifted significantly in Manchester City Centre and across the whole of the UK since then. Public transport and cycle infrastructure in Greater Manchester has also improved significantly since 2011, with the expansion of the Metrolink network and the Ordsall Chord bridge, all of which allow for more trams / trains to run across the whole of Greater Manchester and the North.
- 5.3.9 To further support this, reference is also made to a guidance note produced by TRICS in July 2019, titled 'Guidance Note on Changes in Travel Behaviour', which cautions against over estimating trip demand. The guidance note provides compelling evidence suggesting that there has been a significant decline in car trip rates in recent years (from c. 58% of trips to employment / office sites nationwide made by car between 2009 – 2013, to c. 50% between 2014 – 2018). It is noted that these are pre-COVID-19 statistics, indicating that people were already travelling less prior to the COVID-19 pandemic.
- 5.3.10 There has also been a significant increase in pedestrian trips and public transport trips (from c. 33% of trips to employment / office sites nationwide made on foot and by public transport between 2009 – 2013, to c. 41% between 2014 – 2018). These figures are national averages in a mixture of locations and do not reflect the highly accessibility of the proposed development in the vicinity of the city centre, which is likely to demonstrate greater uptake of public transport and sustainable modes of travel.

- 5.3.11 **Section 4** above has also demonstrated that the site is highly accessible by sustainable modes of transport, which are also usable by those with limited mobility and are wheelchair accessible. The surrounding area exhibits excellent levels of pedestrian and cycling infrastructure, and there are a number of public transport opportunities within acceptable walking distance of the site.
- 5.3.12 Secure and sheltered cycle parking, showers, lockers, and changing facilities will also be provided as part of the development, which is one of the many initiatives to encourage more staff and visitors to travel by sustainable modes.
- 5.3.13 Additionally, there has been a significant increase in residential accommodation within Central Manchester in recent years, as such many more workers are able to walk / cycle / travel by sustainable modes to work within the city centre. From the Manchester Crane Survey undertaken by Deloitte in between January 2021 and January 2022, it was found that the overall number of residential units under construction in Central Manchester was c. 10,717 across 40 developments, and that 19,548 residential units have completed between the start of 2016 and the end of 2021, with 5,549 delivered in the last year.
- 5.3.14 The Crane Survey also utilised data from the Office of National Statistics' article, titled 'Business and individual attitudes towards the future of homeworking, UK: April to May 2021', which states that:
- "85% of individuals currently working from home have indicated that they would like to use a 'hybrid' approach in the future, combining both home and office working. The number of days in the office or at home will vary greatly from employee to employee, however. Evidently, the way in which office space is used has changed and is likely to continue to change, requiring office buildings to be as flexible as possible."*
- 5.3.15 Considering the above, the highly accessible nature of the proposed development, the low number of on-site parking and the high level of cycle parking provision, the number of vehicular journeys is a worst-case assessment as less people would be motivated to travel by car in the future.
- 5.3.16 Finally, the vehicular impact of any trips that are generated by the site would be diluted and dissipated across a wider network depending on the location of car parks utilised (detailed in **Section 2.6** above). These car parks are spread out across Manchester City Centre, and therefore impacts at any particular junction are likely to be negligible.

5.4 Consented First Principles Approach

- 5.4.1 Effects from the COVID-19 pandemic and changing travel patterns were not considered in the Transport Statements provided as part of the consented applications in 2015 and 2019; however, it was recognised at that time that there is an absence of suitably representative TRICS sites available to forecast the likely office development traffic due to the low levels of parking proposed at the site and the site's exceptionally high accessibility in comparison to other sites across the UK.

- 5.4.2 The consented methodology used comprised first principles trip generation based on a TRICS arrival and departure profile. It was assumed that all parking spaces would be occupied throughout the day by office staff, and therefore all arrivals and departures would occur during the mornings and afternoons of a normal working day respectively. As such, departures were not considered in the AM peak period, and arrivals were not considered in the PM peak period, on the basis that these movements are considered to be insignificant in comparison to the primary movements in each period.
- 5.4.3 To generate an appropriate arrival and departure profile, the TRICS database was interrogated to understand usual office traffic patterns, and to derive percentages for arrivals and departures in the wider AM and PM peak periods of 07:00 – 10:00 and 16:00 – 19:00 respectively. This methodology has been updated with the latest TRICS findings, and are as follows:

Time Period		TRICS Analysis	
		Vehicular Trip Rates	% of Trips
AM Peak (arrivals)	07:00 - 08:00	0.440	16%
	08:00 - 09:00	1.248	45%
	09:00 - 10:00	1.059	39%
	Total AM Peak	2.747	100%
PM Peak (departures)	16:00 - 17:00	0.813	34%
	17:00 - 18:00	1.155	48%
	18:00 - 19:00	0.430	18%
	Total PM Peak	2,398	100%

Table 5.4 – TRICS Arrival and Departure Profile

- 5.4.4 The above table shows that, according to the TRICS database, approximately 45% of office AM peak arrivals would occur between 08:00 – 09:00 and 48% of PM peak departures would occur between 17:00 – 18:00.
- 5.4.5 Therefore, with the assumption that all parking spaces (30 provided as part of the proposed development) are utilised throughout the day, the arrival and departure profile deduces that there will be 14 arrivals and 15 departures in the AM and PM peak hour respectively.
- 5.4.6 This results in a net reduction in vehicles associated with the proposed development when comparing the existing and proposed parking numbers.

5.5 Highway Impact Summary

- 5.5.1 On the above basis, Curtins do not believe that capacity assessments would be required, and that the highway network would not experience any adverse traffic impact resulting from the proposed development.

6.0 Transport Planning Policy

6.1 Introduction

6.1.1 When developing the scheme proposals, it is important to understand the national and local transport related planning policies. This section aims to outline the key policies throughout relevant policy and guidance documents.

6.2 National Planning Policy Framework (NPPF) (2021)

6.2.1 The National Planning Policy Framework sets out the current national transport planning policy and outlines the important role that transport policies have to play in facilitating sustainable development.

6.2.2 Paragraph 11 states that:

“Plans and decisions should apply a presumption in favour of sustainable development.”

6.2.3 For decision taking this means granting permission unless:

“...any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies.”

6.2.4 Section 9 of the NPPF is entitled *Promoting Sustainable Transport* and outlines the important role that transport policies have to play in facilitating sustainable development. The section states that:

“The planning system should actively manage patterns of growth ...Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes.”

6.2.5 The document emphasises the need for developments to offer a choice of sustainable modes of transport to *“reduce congestion and emissions, and improve air quality and public health”* and provide *“safe and suitable access”* for all users.

6.2.6 Paragraph 110 of the NPPF states that in assessing sites that may be allocated for development in plans, or specific applications in development, it should be ensured that:

- a) *“appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
- b) *safe and suitable access to the Site can be achieved for all users;*
- c) *the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and*
- d) *any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.”*

6.2.7 The development proposals have shown that safe and suitable access to the site will be achieved. Additionally, it is not anticipated that the proposals would result in any significant impacts on the highway network.

6.2.8 Paragraph 111 of the NPPF states that:

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

6.2.9 Sensitivity tests using TRICS and Census data have demonstrated that any vehicular impact would be negligible on the surrounding area in terms of highways, traffic and transportation. It is considered the proposed development is likely to reduce the number of vehicles on the adjacent highway network.

6.2.10 Paragraph 112 of the NPPF states that applications for development should:

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

6.2.11 The proposed development is situated in an accessible location. There is good walking and cycling infrastructure adjacent to the site, and public transport is accessible within an acceptable walking distance.

6.2.12 The proposed development accords with the general principles of the NPPF.

6.3 National Planning Policy Guidance (NPPG)

6.3.1 In addition to the NPPF, a National Planning Practice Guidance (NPPG) document has also been developed by the Ministry of Housing, Communities & Local Government in 2012, with a revised version in 2014. It brings together planning practice guidance for England and sits alongside the NPPF. Within this document there is a specific section that clarifies the over-arching principles on Travel Plans, Transport Assessments and Transport Statements. The guidance states that:

“Travel Plans, Transport Assessments and Statements can positively contribute to:

- *Encouraging sustainable travel;*
- *Lessening traffic generation and its detrimental impacts;*
- *Reducing carbon emissions and climate impacts;*
- *Creating accessible, connected, inclusive communities;*
- *Improving health outcomes and quality of life;*
- *Improving road safety; and*
- *Reducing the need for new development to increase existing road capacity or provide new roads.”*

6.3.2 The guidance on Transport Assessments and Statements re-iterates the circumstances in which either document would usually be required. It is clear that a development of the size and nature of this development requires a Transport Statement. It also clarifies the process for establishing a scope for what the documents should contain. The NPPG has been considered in the production of this TS and the accompanying Framework Travel Plan (FTP) (Document Reference: **81536-CUR-XX-XX-T-TP-00002**).

6.3.3 As outlined above, this TS demonstrates that the site is accessible by active and sustainable modes of travel, and that safe and suitable access can be gained to the development. The development proposals therefore apply the principles set out in the NPPG and will seek to create a sustainable development.

6.4 Manchester Core Strategy (2012 – 2027)

6.4.1 The Manchester Core Strategy promotes similar principles to the NPPF. It contains three specific “Transport” policies, comprising:

- Policy T1 – Sustainable Transport;
- Policy T2 – Accessible areas of opportunity and need; and
- Policy T3 – Strategic Integration.

6.4.2 Policy T1 focuses on sustainable transport and access for all. The accessibility of the site would encourage users of the proposed development to travel by sustainable modes.

6.4.3 Policy T2 of the Manchester Core Strategy states:

“The Council will actively manage the pattern of development to ensure that new development...Within the City Centre, provides a level of car parking which reflects the highly accessible nature of the location, as well as the realistic requirements of the users of the development.”

6.4.4 It is considered the proposed parking provision is reflective of the highly accessible nature of the development, whilst considering the realistic requirements of the users. The development would benefit from sustainable transport links across the city centre.

- 6.4.5 Policy T3 is in relation to strategic integration of developments with the sustainable transport network. The proposed development would not prejudice the implementation of any of the strategic integration projects.

6.5 Greater Manchester Transport Strategy 2040

- 6.5.1 In January 2021, TfGM published a 2040 Vision for Transport to develop flexible and customer-focused travel choices, supported by smart information, ticketing and payment systems, across a truly integrated Greater Manchester transport network. The Transport Strategy states an ambition for a well-connected, zero carbon Regional Centre at the heart of the North.

- 6.5.2 Under Policy 3, the Transport Strategy states that TfGM will “maintain a programme of interventions encouraging people to make sustainable journeys, supported through journey planning tools, and information to encourage travel behaviour change and mode shift, in order to make the most efficient use of available capacity (particularly during peak periods)”. Such interventions comprise:

- *“Reducing the carbon and environmental cost of journeys;*
- *New ways of working which make the best use of the transport network;*
- *Delivering public health benefits through enabling more active travel;*
- *Improving access to key services and jobs;*
- *Maximising sustainable travel in new developments; and*
- *Becoming more resilient to disruption.”*

- 6.5.3 Under Policy 4, TfGM will also “work with developers to ensure that new developments are accessible by sustainable modes, and to reduce transport emissions and impacts on the highway network”. This will be in accordance with the principles of:

- *“Reducing the need to travel;*
- *Reducing the need to travel by car, and the distance travelled;*
- *Maximising accessibility by sustainable modes;*
- *Making the best use of existing infrastructure, particularly through increasing the density of development close to public transport nodes;*
- *Maximising opportunities to provide additional public transport; and*
- *Designing to encourage active travel.”*

- 6.5.4 It is considered that the above principles are reflected in the TS, and the accompanying FTP that seeks to promote active and sustainable travel. It is also considered that the development proposals would not adversely impact the transport network, and instead would support the Transport Strategy by enhancing opportunities for sustainable travel by integrating into existing infrastructure.

- 6.5.5 The Transport Strategy notes that “attitudes to owning and using a car are also evolving. Many younger people no longer see car ownership, or indeed a driving licence, as essential.” It continues that “our

approach also opens the way for a future where car ownership is not considered essential, and residents can choose from a range of sustainable and efficient travel options – public transport, ride sharing, car sharing / hire, walking, cycling or taxi” This supports the reduced level of car parking proposed at the development based on a highly accessible site by active and sustainable modes of transport.

6.6 Conclusions

- 6.6.1 It is considered that the proposed development is in line with national and local transport policies and guidance. The site is located within an area which has a range of existing local facilities and plenty of sustainable travel choices within walking distance.

7.0 Summary and Conclusions

7.1 Summary

7.1.1 Curtins has been appointed on behalf of NOMA (GP) Ltd to provide traffic and transportation advice in relation to the redevelopment of 2 & 3 Angel Square.

7.1.2 The proposed development comprises plots M and N of the adopted NOMA Masterplan, known as 2 and 3 Angel Square, with the following development description:

“An application for full planning permission comprising:

Erection of 2 Angel Square, a 14 storey building (excluding roof top plant) to form a mixed use office development (Use Class Egi) with two flexible commercial units at Upper Ground floor Level (Use Classes Ea, b, c, e, f, and / or Use Class Sui Generis (p) and (q)), and with a flexible office (Use Class Egi) and/or restaurant (Use Class Eb) space at Level 12, along with Lower Ground Level car and cycle parking, hard and soft landscaping and other associated works;

Erection of 3 Angel Square, a 13 storey building (excluding roof top plant) to form a mixed use office development (Use Class Egi) with two flexible commercial units provided over Lower and Upper Ground Floor Levels (Use Classes Ea, b, c, e, f, and / or Use Class Sui Generis (p) and (q)), a further flexible commercial unit at Upper Ground Floor Level only allowing for ancillary seminar space and / or Sui Generis Use Class (t) Cinema space, together with an ancillary gym space at Upper Ground Floor, as well as Lower Ground Level car and cycle parking, hard and soft landscaping and other associated works.”

7.1.3 The site has previously received consents for similar developments (application reference: 109865/FO/2015/N1 and 124973/FO/2019). Additionally, in 2021, NOMA (GP) Limited obtained planning permission for a temporary marketing suite for NOMA (up to 5 years) within the southern portion of Plot 3 (application reference: 129631/FO/2021). At the time of writing, the marketing suite is undergoing construction. This document provides an update to the approved schemes from 2015 and 2019.

7.1.4 A review of baseline conditions and highway safety in the vicinity of the site has been undertaken. It is concluded that there is no existing safety issue in the study area that is likely to be exacerbated by the proposed development.

7.1.5 It is considered the site is highly accessible by sustainable modes of transport, which are also usable by those with limited mobility and are wheelchair accessible. The surrounding area exhibits good levels of pedestrian and cycling infrastructure, and there are a number of public transport opportunities within acceptable walking distance of the site.

- 7.1.6 Relevant details of the proposed development quanta, site layout, access and parking facilities, and servicing arrangements have been provided.
- 7.1.7 Sensitivity tests using TRICS and Census data have demonstrated that any vehicular impact would be negligible on the surrounding area in terms of highways, traffic and transportation. Furthermore, it has been demonstrated there are alternative off-site parking options for the few users that would choose to drive / existing drivers that currently frequent the car park, and that the impact on car parking throughout the city centre would be insignificant.
- 7.1.8 Measures outlined in the accompanying Framework Travel Plan (Document Reference: **81536-CUR-XX-XX-T-TP-00002**) will be implemented to encourage more staff and visitors to travel by sustainable modes, reduce reliance on the private car, and further reduce the number of vehicular trips associated with the development.
- 7.1.9 A review of relevant local and national transport planning guidance has been undertaken. It is considered that the proposed development conforms with such policy.

7.2 Conclusions

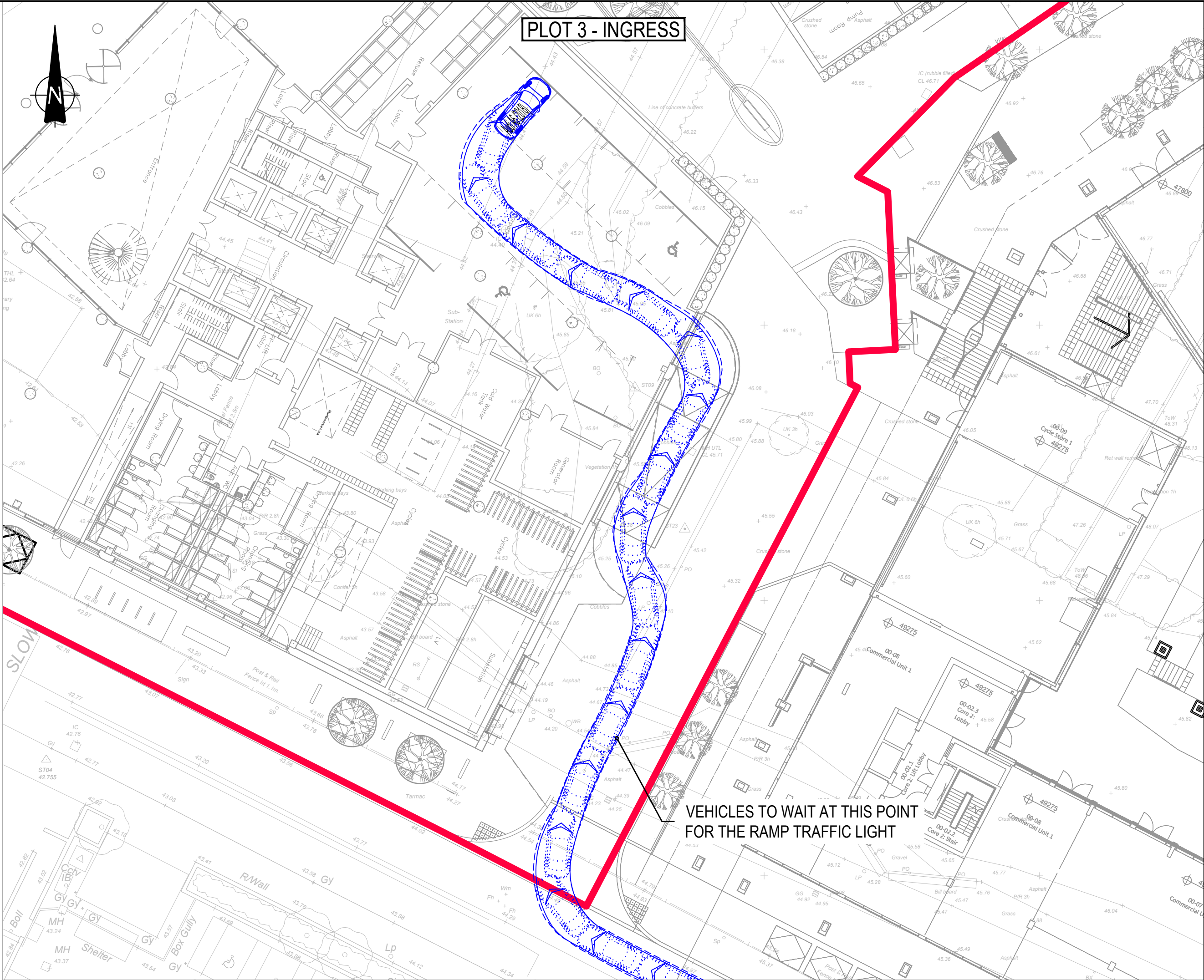
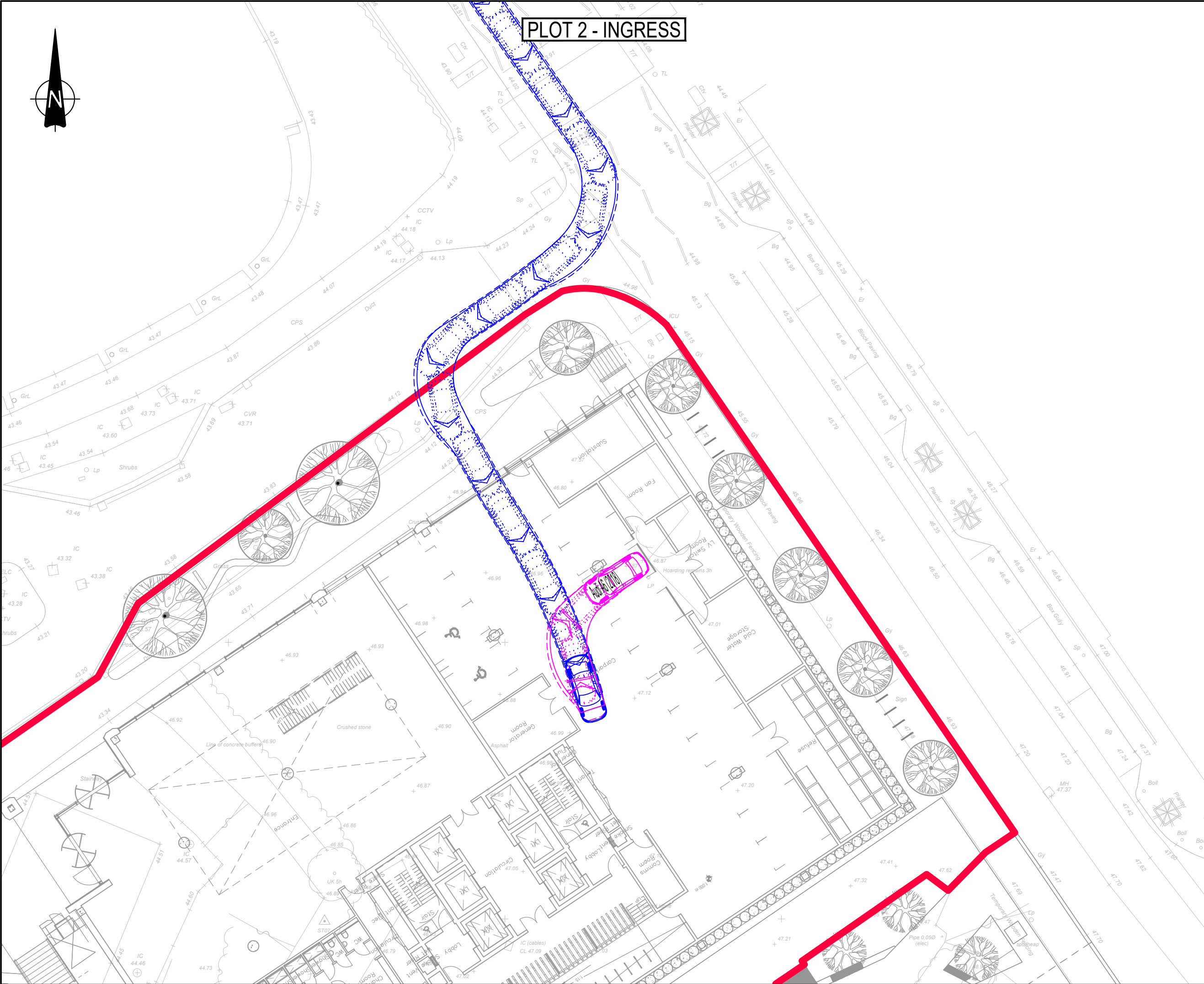
- 7.2.1 It is reasonable to conclude that the proposed development is in accordance with Paragraph 111 of the NPPF, as it would not have an unacceptable impact on highway safety, nor would there be a severe residual cumulative impact on the surrounding highway network.
- 7.2.2 From a traffic and transportation perspective, there are no reasons why the development proposals should not be granted planning approval.

Drawings

Drawing 81536-CUR-XX-00-D-TP-05003 – (Swept Path Analysis) Large Car

Drawing 81536-CUR-XX-00-D-TP-05001 – (Swept Path Analysis) 11.2m Large Refuse Vehicle

Drawing 81536-CUR-XX-00-D-TP-05002 – (Swept Path Analysis) 7.7m Fire Tender



- GENERAL NOTES:
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
 2. DO NOT SCALE THIS DRAWING. ANY AMBIGUITIES, OMISSIONS AND ERRORS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE.
 3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
 4. FOR GENERAL NOTES REFER TO DRAWING.
 5. THE CONTENT OF THIS DRAWING IS FOR INDICATIVE INFORMATION ONLY AND NOT SUITABLE FOR CONSTRUCTION PURPOSES
 6. LAYOUT BASED ON CARTWRIGHT PICKARD'S DRAWING REF.: '947-CPA-P3-00-DR-A-0200-P01' AND '947-CPA-P2-00-DR-A-0200-P01'
 7. LANDSCAPE LAYOUT BASED ON PLANIT'S DRAWING REF.: 'PL2190.1-PLA-XX-XX-DR-L-1000-P05'

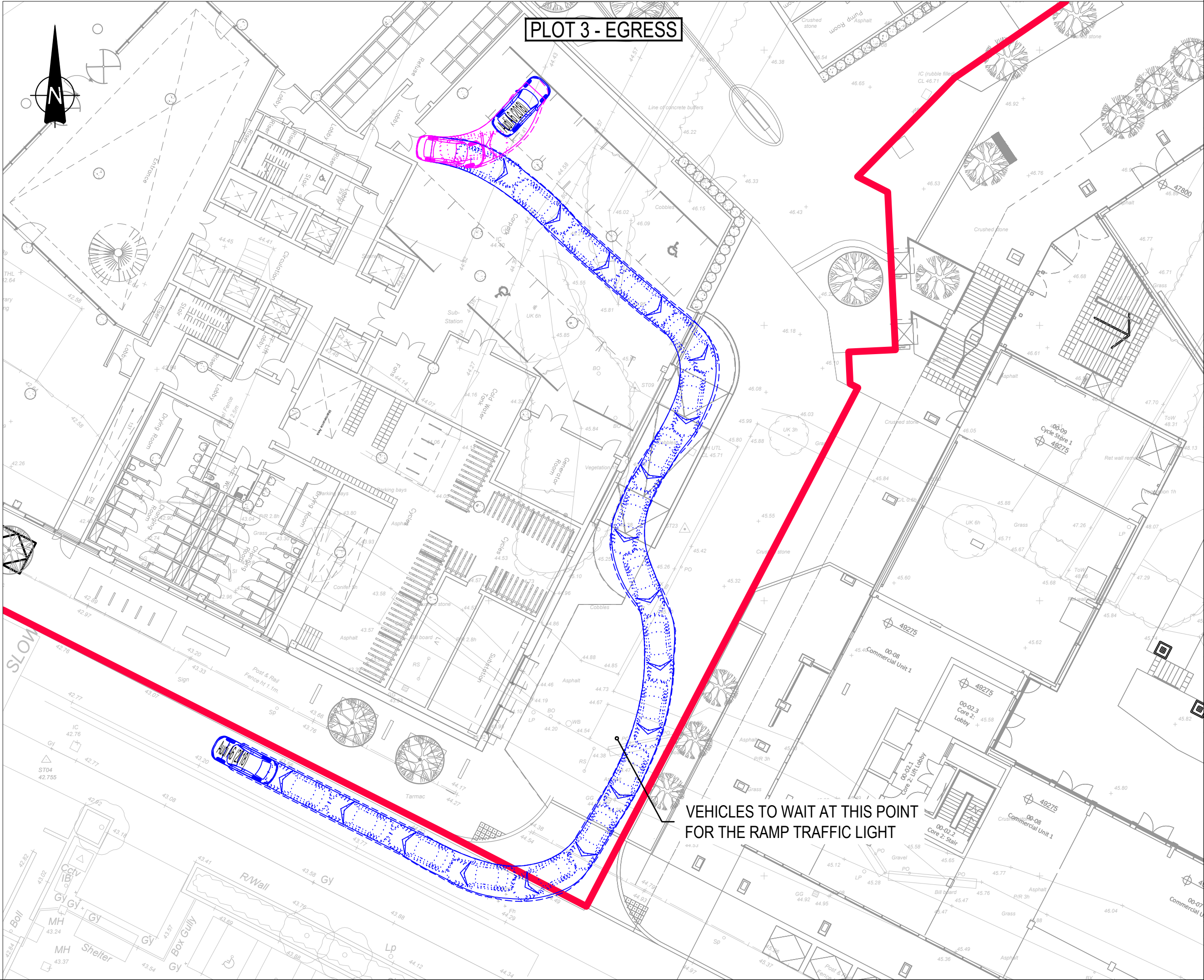
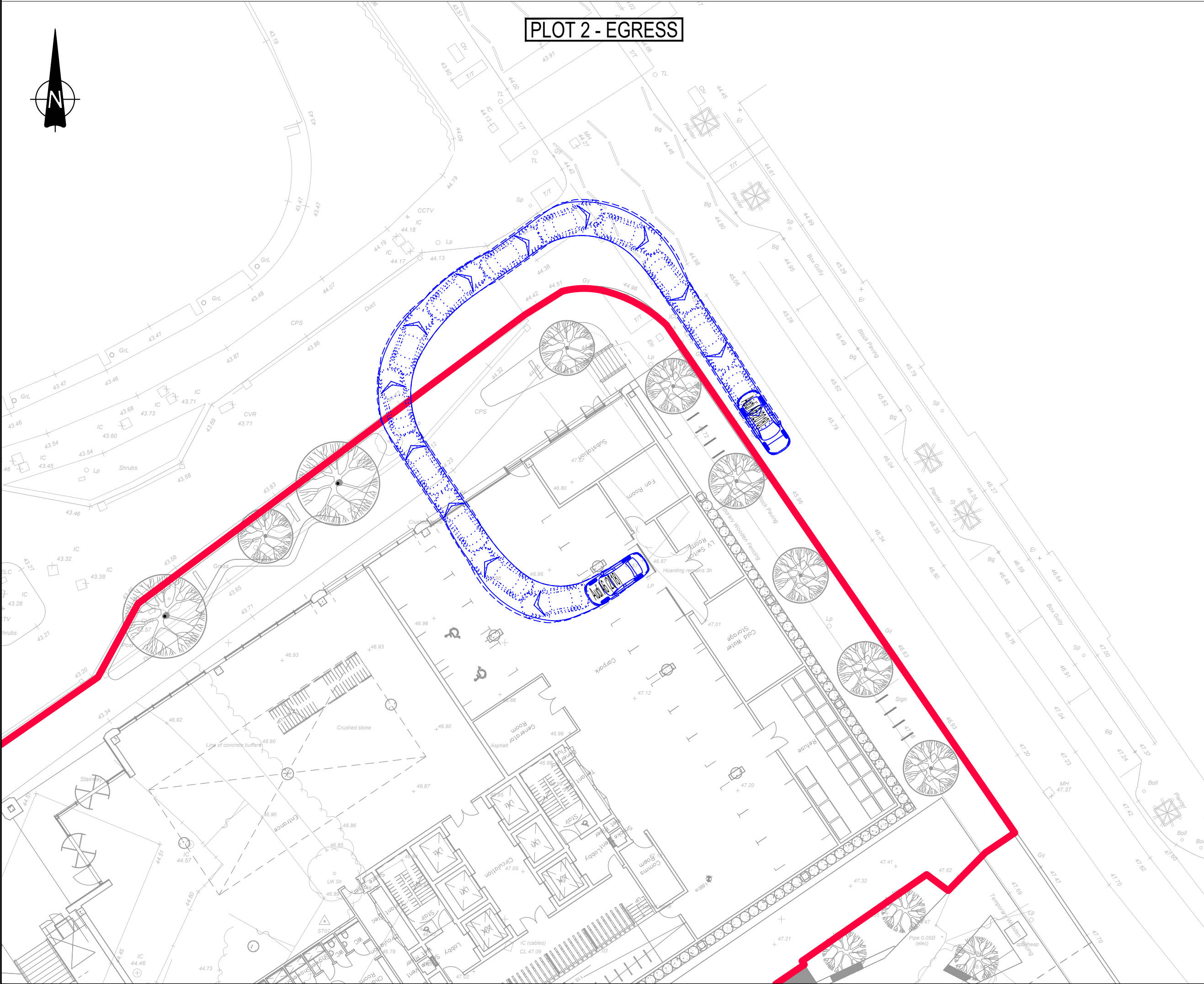
KEY: — RED LINE BOUNDARY

VEHICLE PROFILE:



Aus A6 (2018)
Overall Length
Overall Width
Overall Height
Min. Ground Clearance
Max. Tyre Width
Lock to Lock
Kerb to Kerb Turning Radius

4.59m
2.14m
1.42m
0.142m
1.87m
4.09m
3.50m



P03	Layout updated	23/06/22	DD	AV
P02	Layout updated	06/05/22	DD	AV
Rev:	Description:	Date:	By:	Chkd:



Merchant Exchange, 17-19 Whitworth Street West, Manchester, M1 5WG
0161 236 2394
manchester@curtins.com
www.curtins.com

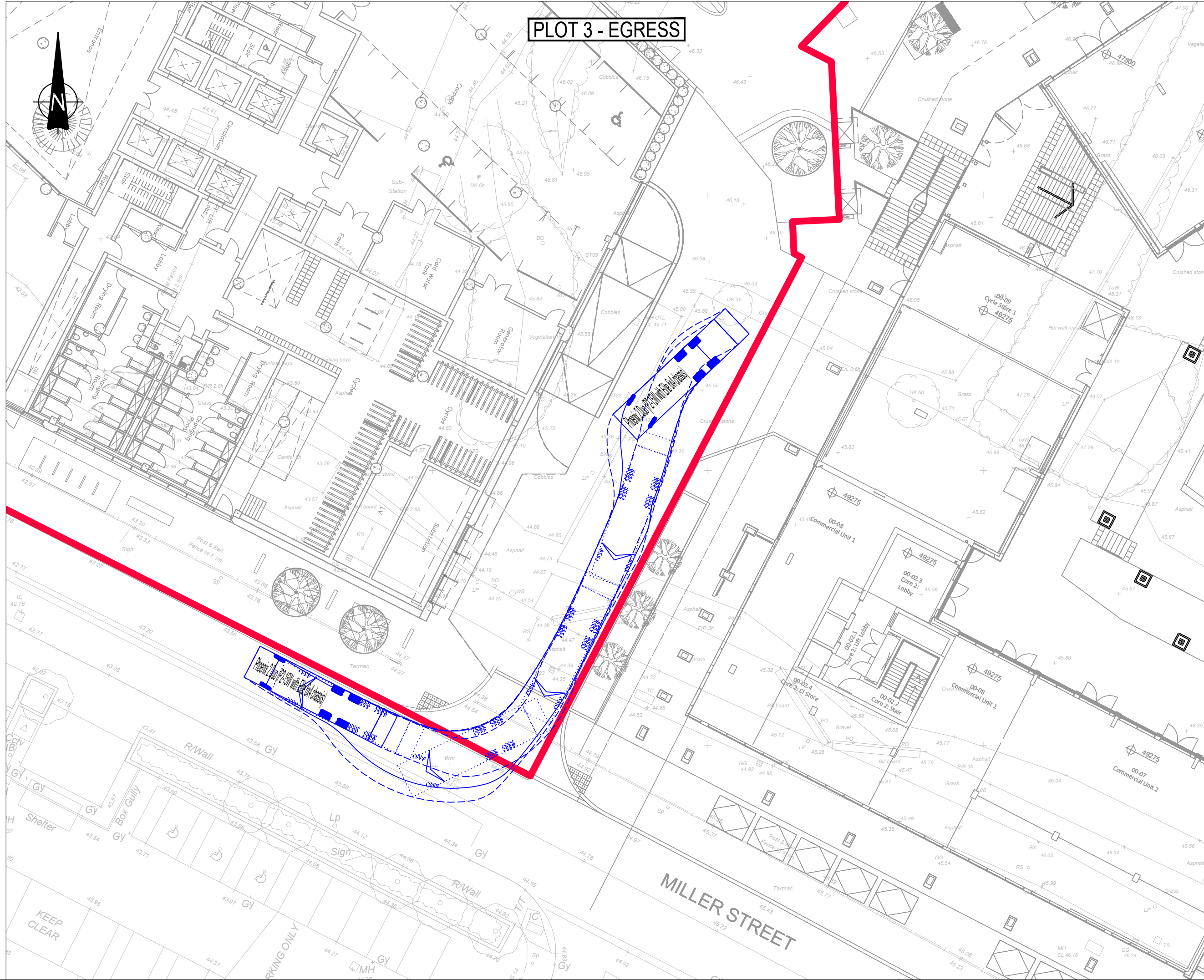
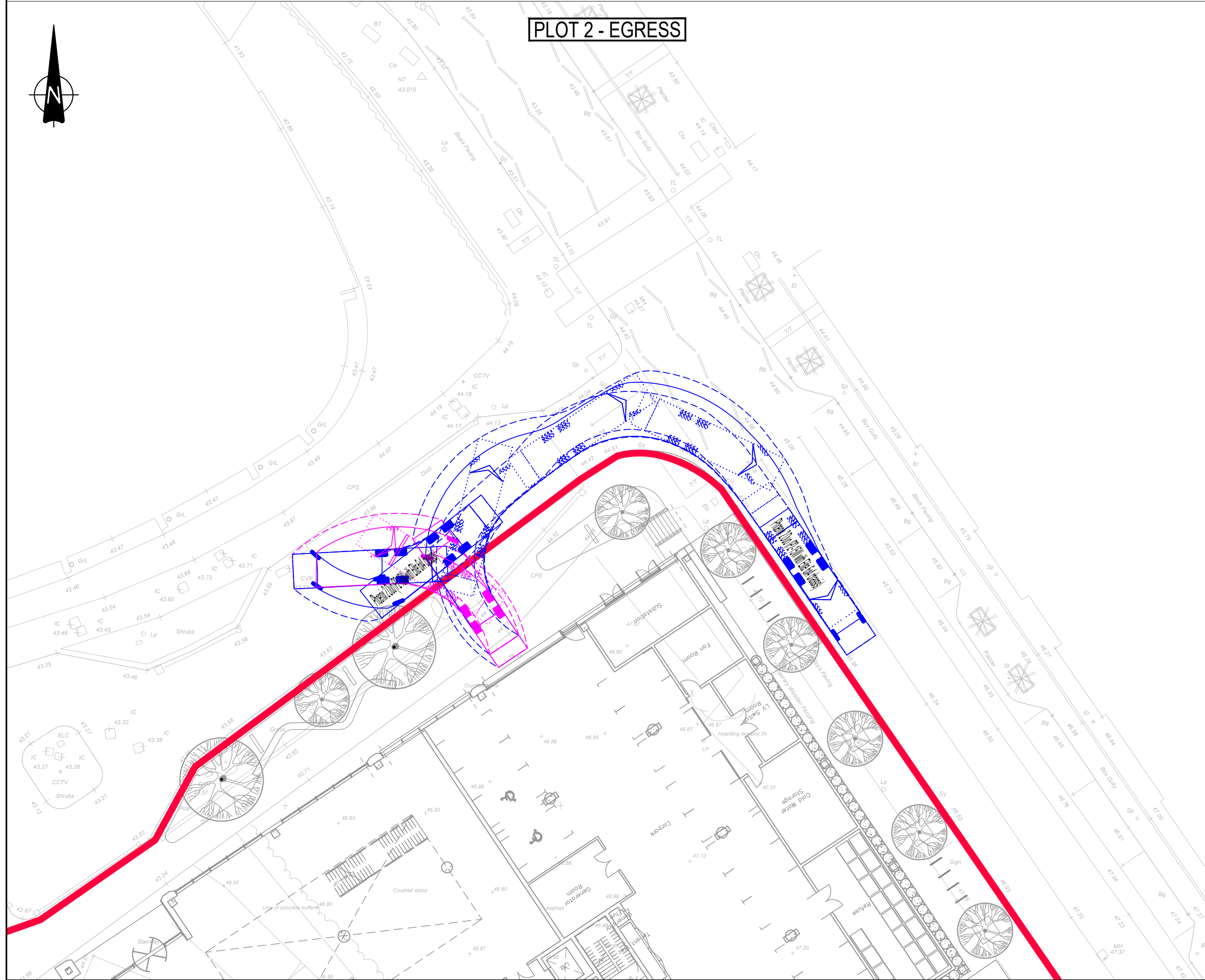
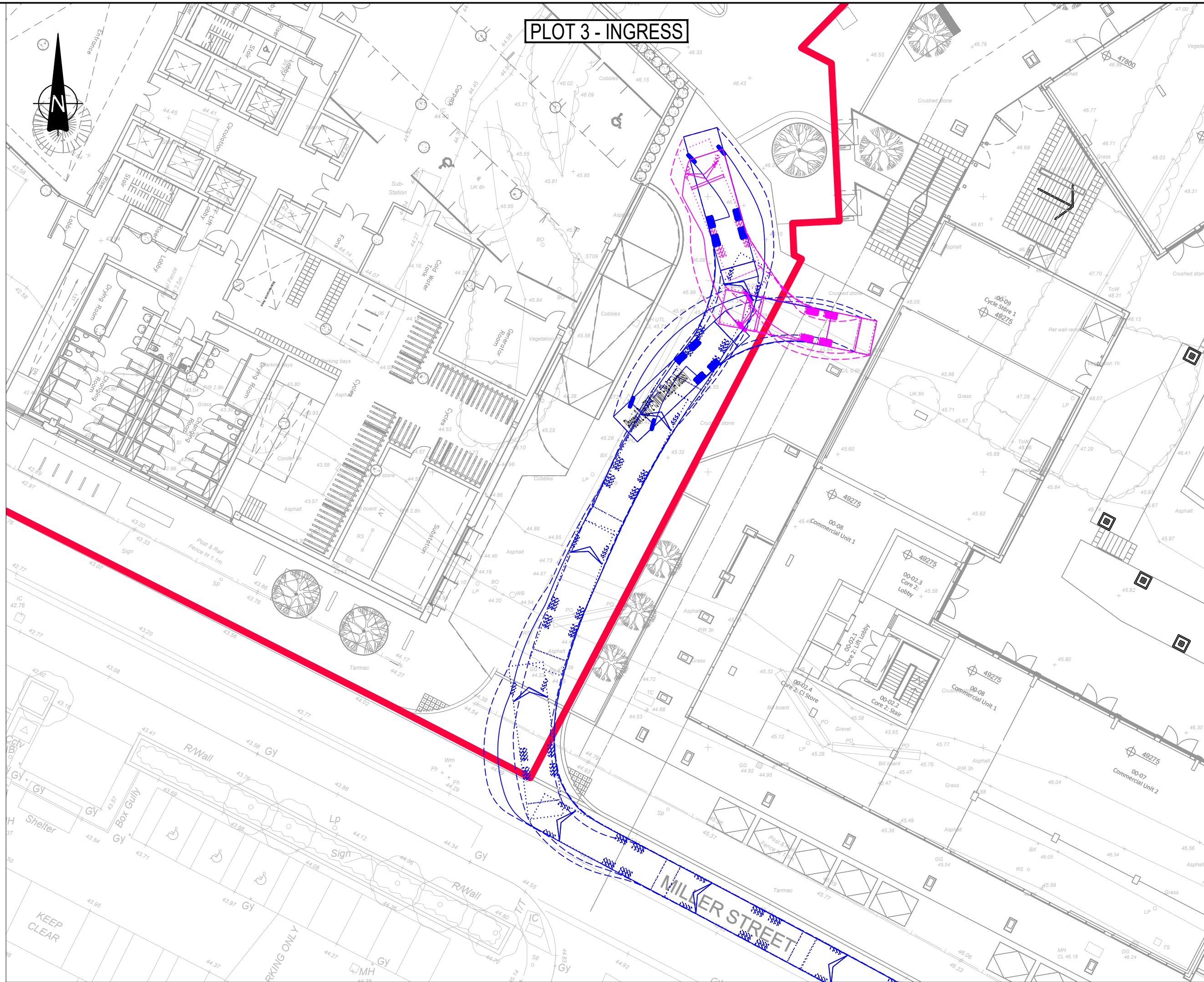
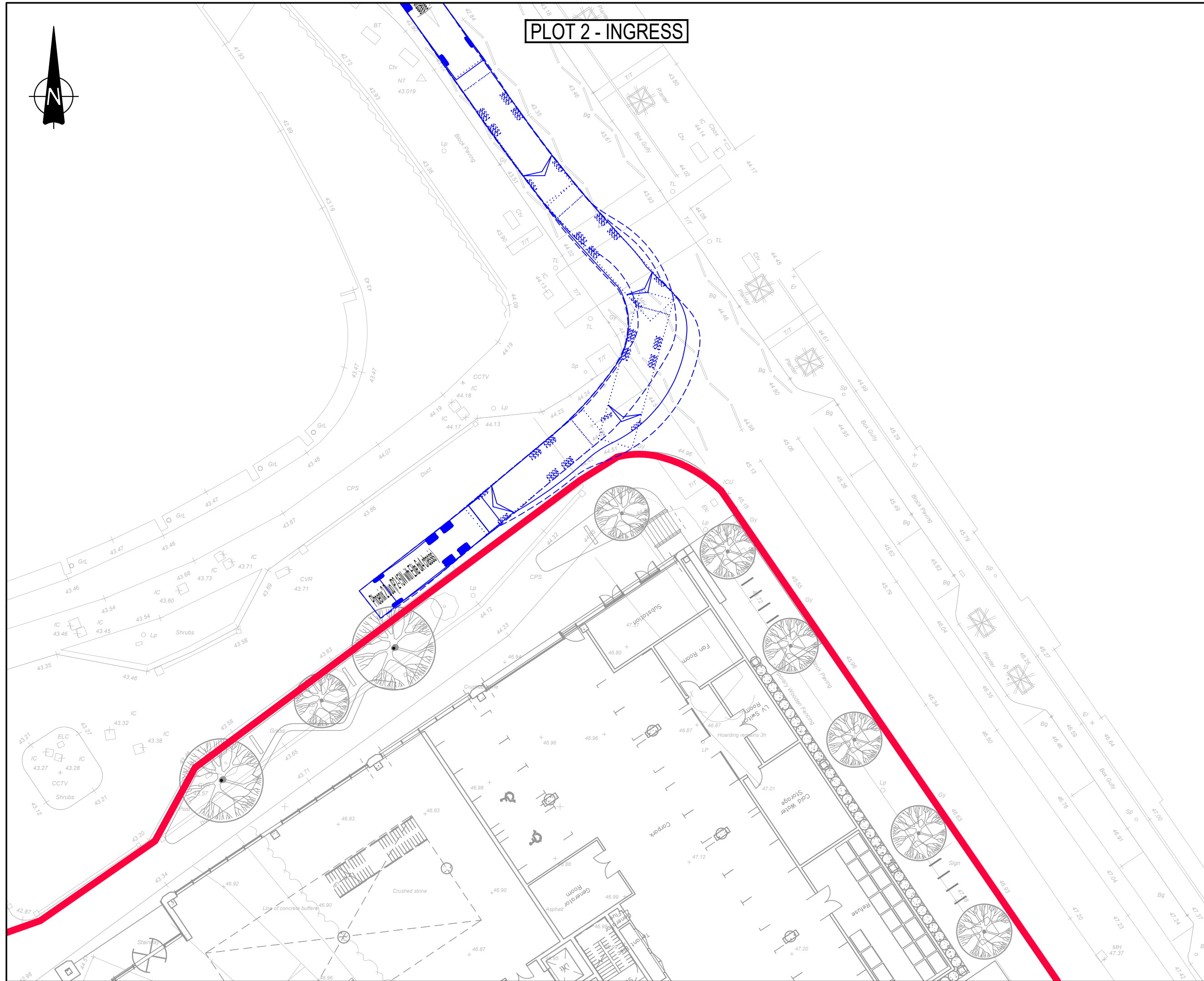
Civils & Structures • Transport Planning • Environmental • Infrastructure • Geotechnical • Conservation & Heritage • Principal Designer
Birmingham • Bristol • Cambridge • Cardiff • Douglas • Dublin • Edinburgh • Glasgow • Kentish • Leeds • Liverpool • London • Manchester • Nottingham

Status: **PLANNING**

Project: **NOMA PLOTS 2 & 3 - MANCHESTER**

Orig Title: **SWEPT PATH ANALYSIS
LARGE CAR**

Size:	A1	Date:	21/04/22	Drawn By:	DD	Designed By:	DD	Checked By:	AV
Scale:	1:250	Project No:	081536	Originator:	CUR	Volume:	XX	Level:	XX
		Type:	D	Role:	TP	Category/Number:	05003		P03

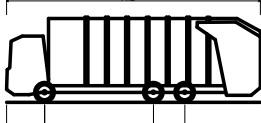


GENERAL NOTES:

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- LAYOUT BASED ON CARTWRIGHT PICKARD'S DRAWING REFS.: '947-CPA-P3-00-DR-A-0200-P01' AND '947-CPA-P2-00-DR-A-0200-P01'
- LANDSCAPE LAYOUT BASED ON PLANIT'S DRAWING REF.: 'PL2190.1-PLA-XX-XX-DR-L-1000-P05'

KEY: — RED LINE BOUNDARY

VEHICLE PROFILE:



Phoenix 2 Duo (P2-10W with Elite 6x4 chassis)
Overall Length: 11.200m
Overall Width: 2.550m
Overall Body Height: 3.300m
Min Body Ground Clearance: 2.500m
Track Width: 2.500m
Lock to lock turn: 4.000m
Kerb to Kerb Turning Radius: 9.500m

P03	Layout updated	23/06/22	DD	AV
P02	Layout updated	06/05/22	DD	AV
Rev:	Description:	Date:	By:	Chkd:



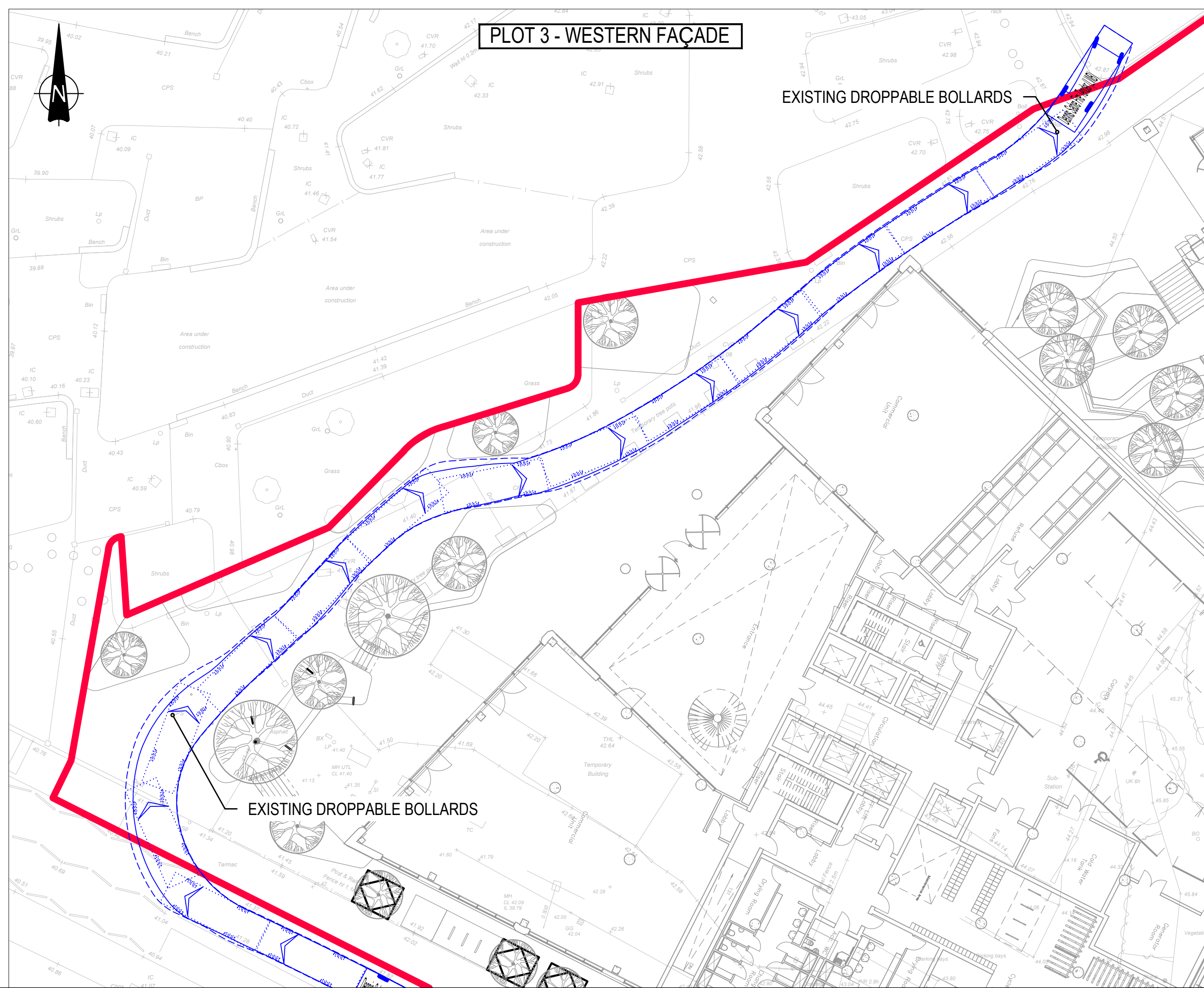
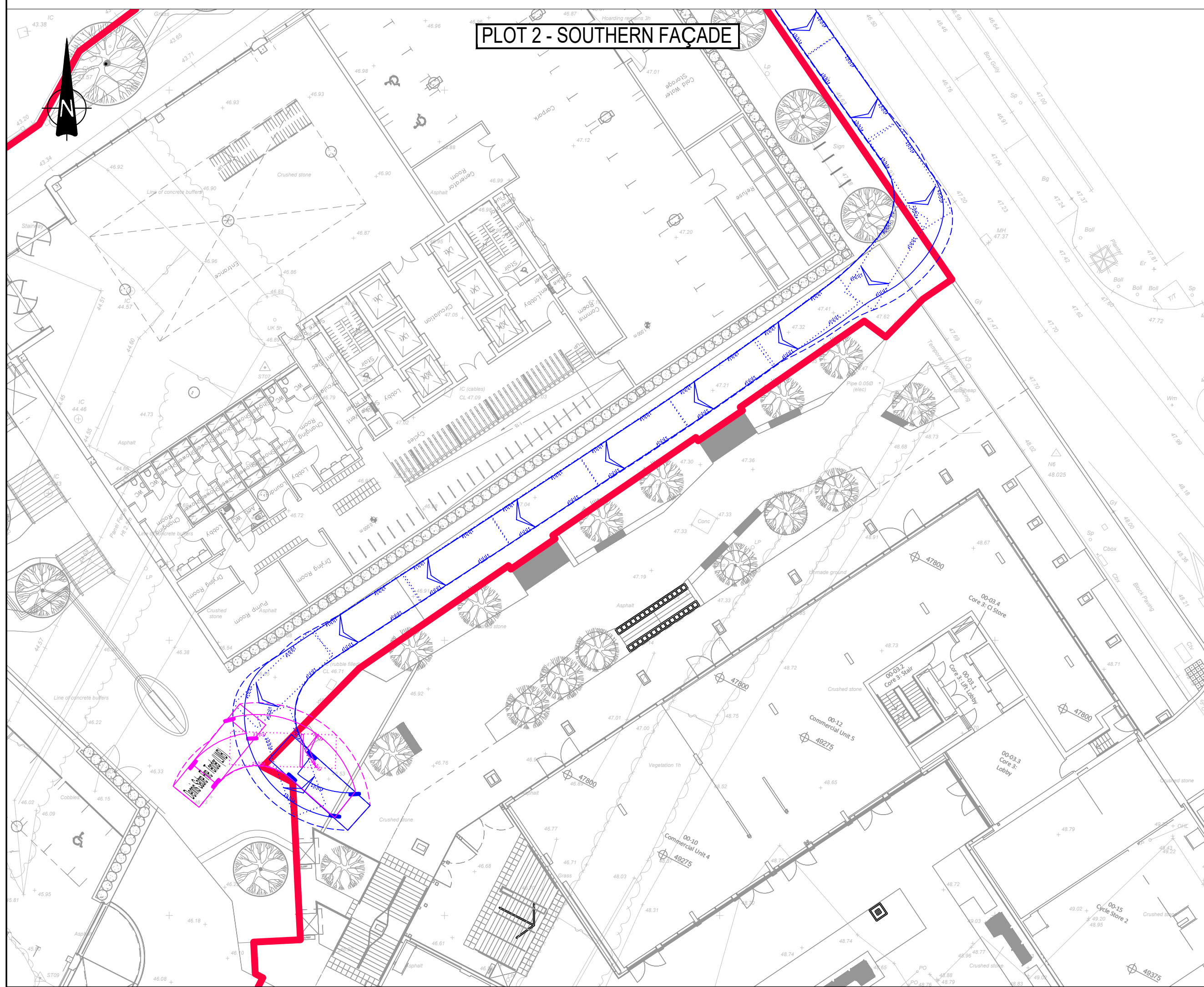
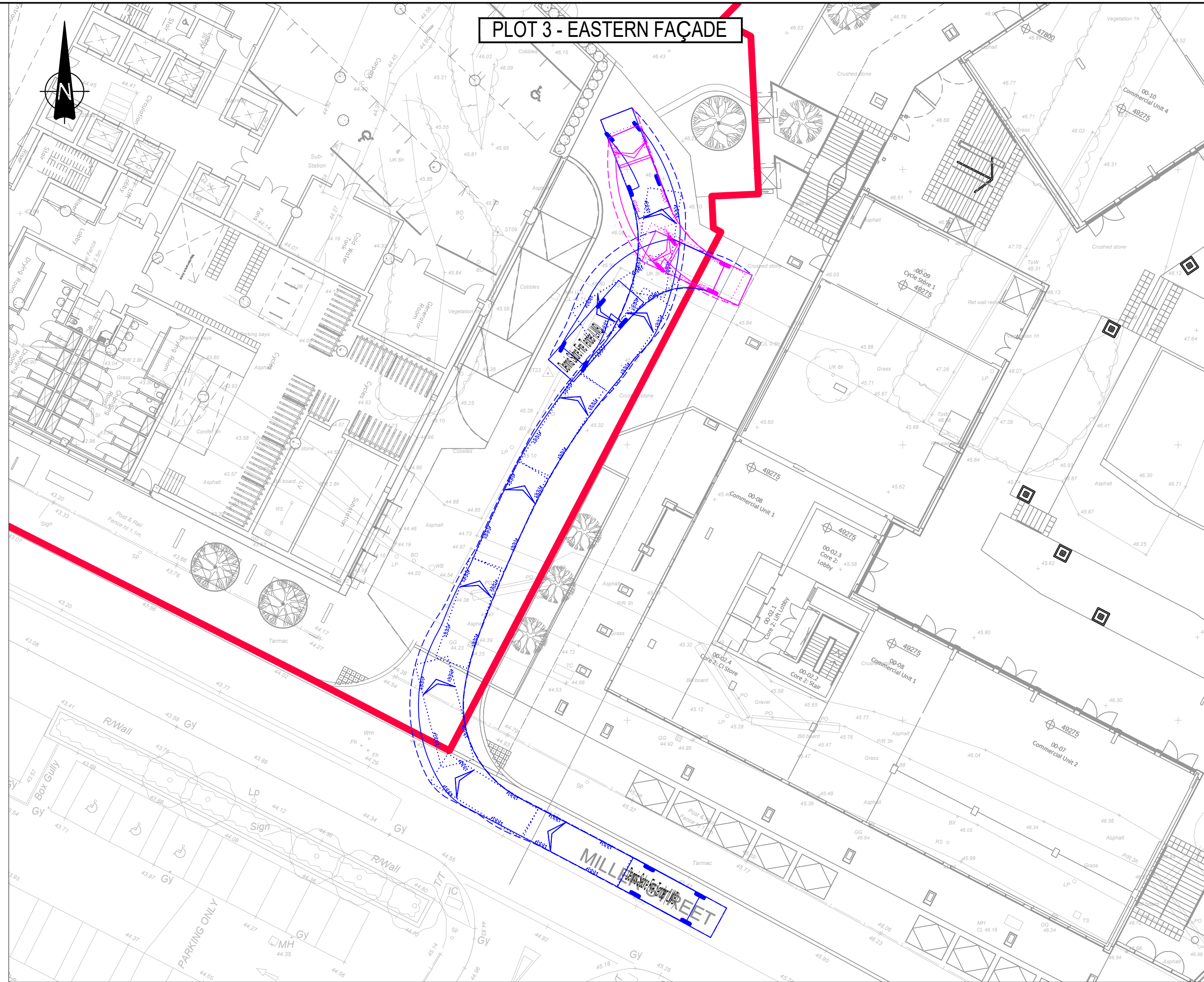
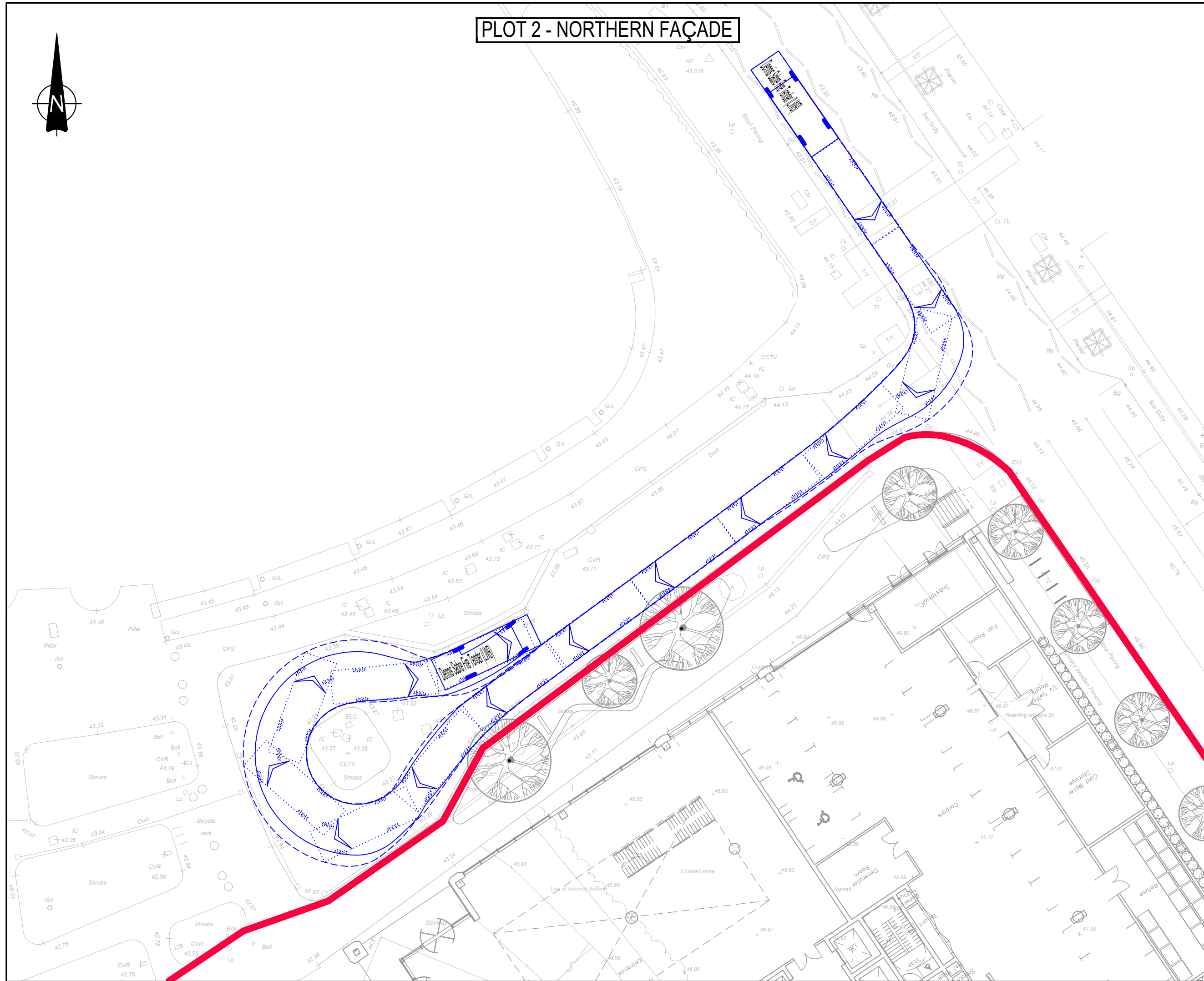
Merchant Exchange, 17-19 Whitworth Street West, Manchester, M1 5WG
0161 236 2394
manchester@curtins.com
www.curtins.com

Status: **PLANNING**

Project: **NOMA PLOTS 2 & 3 - MANCHESTER**

Orig Title: **SWEPT PATH ANALYSIS
11.2m REFUSE VEHICLE**

Size:	A1	Date:	21/04/22	Drawn By:	DD	Designed By:	DD	Checked By:	AV
Scale:	1:250								
Project No:	081536	Originator:	CUR	Volume:	XX	Level:	XX	Type:	D
								Role:	TP
								Category / Number:	05001 - P03



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- LAYOUT BASED ON CARTWRIGHT PICKARD'S DRAWING REF.: '947-CPA-P3-00-DR-A-0200-P01' AND '947-CPA-P2-00-DR-A-0200-P01
- LANDSCAPE LAYOUT BASED ON PLANIT'S DRAWING REF.: 'PL2190.1-PLA-XX-XX-DR-L-1000-P05'

KEY: — RED LINE BOUNDARY

VEHICLE PROFILE:

Denix Sabre Fire Tender (LWB)
Overall Length: 7.700m
Overall Width: 2.500m
Overall Body Height: 3.500m
Min. Body Ground Clearance: 2.300m
Track Width: 2.300m
Lock to lock time: 15.00s
Kerb to Kerb Turning Radius: 7.400m

P03	Layout updated	23/06/22	DD	AV
P02	Layout updated	06/05/22	DD	AV
Rev:	Description:	Date:	By:	Chkd:

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Status: **PLANNING**

Project: **NOMA PLOTS 2 & 3 - MANCHESTER**

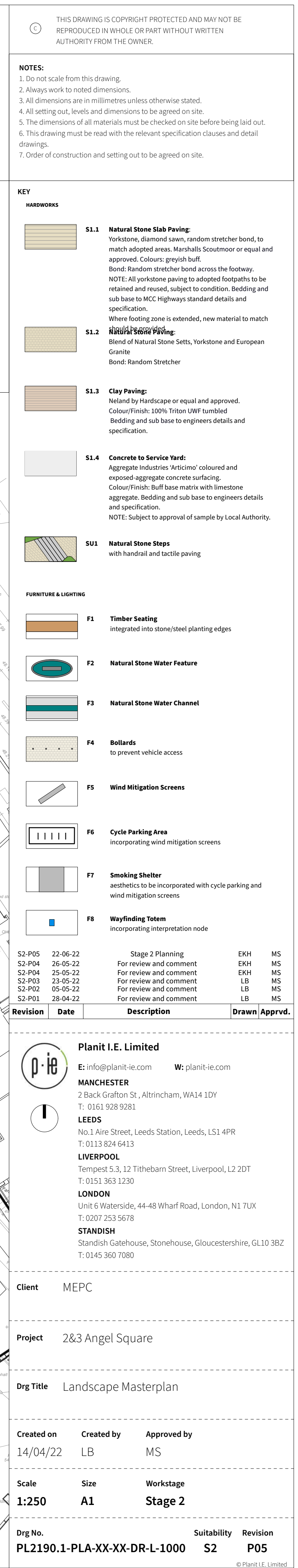
Orig Title: **SWEPT PATH ANALYSIS
7.7m FIRE TENDER**

Size:	Date:	Drawn By:	Designed By:	Checked By:
A1	21/04/22	DD	DD	AV

Scale: 1:250

Project No:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
081536	CUR	XX	XX	D	TP	05002	P03

Appendix A – Development Proposals



Drawing Original Size
A1

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Drawing Revisions

Date:	Rev:	Note:	Check:
08.06.22	P01	Draft Planning Application	RO
21.06.22	P02	Planning Issue	RO

Client

MEPC

Project

947 | Angel Square Plots 2 & 3

Building Name

Plot 2

Drawing Title

GA Plan - Level LG

Scale

1:100 @ A1

Drawing Created

03/21/22

Revision

P02

Drawing No.

947-CPA-P2-00-DR-A-0200

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1 Canal Side Studios
8-14 St Pancras Way
London NW1 0QG
Tel 020 7554 3500

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Drawing Original Size
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Drawing Revisions

Date:	Rev:	Note:	Check:
08.06.22	P01	Draft Planning Application	RO
21.06.22	P02	Planning Issue	RO

CARTWRIGHT
PICKARD

Client

MEPC

Project

947 | Angel Square Plots 2 & 3

Building Name

Plot 2

Drawing Title

GA Plan - Level UG

Scale

1:100 @ A1

Drawing Created

03/21/22

Revision

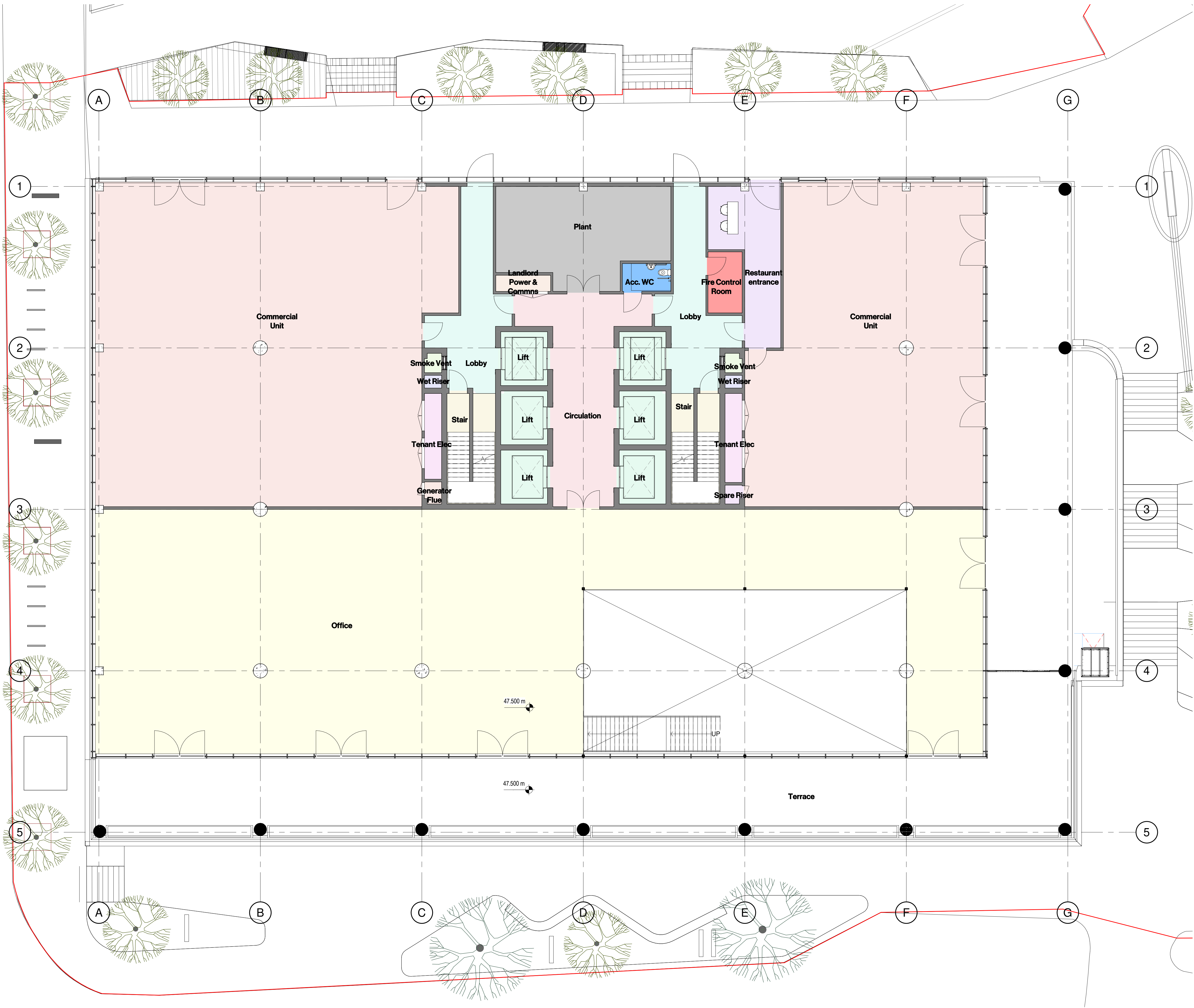
P02

Drawing No.

947-CPA-P2-01-DR-A-0201

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Drawing Revisions				Check:
Date:	Rev:	Note:		RO
08.06.22	P01	Draft Planning Application		RO
21.06.22	P02	Planning Issue		RO

CARTWRIGHT
PICKARD

Client
MEPC

Project
947 | Angel Square Plots 2 & 3

Building Name
Plot 3

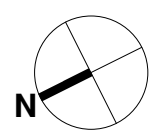
Drawing Title
GA Plan - Level LG

Scale
1:100 @ A0

Drawing Created
June 2022

Revision
P02

Drawing No.
947-CPA-P3-00-DR-A-0200



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Drawing Revisions				Check: RO RO
Date:	Rev:	Note:		
08.06.22	P01	Draft Planning Application		
21.06.22	P02	Planning Issue		

CARTWRIGHT
PICKARD

Client
MEPC

Project
947 | Angel Square Plots 2 & 3

Building Name
Plot 3

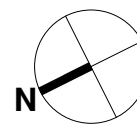
Drawing Title
GA Plan - Level UG

Scale
1:100 @ A0

Drawing Created
June 2022

Revision
P02

Drawing No.
947-CPA-P3-01-DR-A-0201



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24-25 Finsbury Way
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Appendix B – TRICS Outputs

Calculation Reference: AUDIT-148301-220428-0454

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT

Category : A - OFFICE

MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	2 days
	HF HERTFORDSHIRE	1 days
	SO SLOUGH	2 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	2 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	2 days
08	NORTH WEST	
	GM GREATER MANCHESTER	2 days
	MS MERSEYSIDE	1 days
09	NORTH	
	CB CUMBRIA	1 days
	TW TYNE & WEAR	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 178 to 11250 (units: sqm)
 Range Selected by User: 178 to 70291 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 21/10/21

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

Selected survey days:

Monday	4 days
Tuesday	3 days
Wednesday	1 days
Thursday	7 days
Friday	1 days

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

Selected survey types:

Manual count	16 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	4
Edge of Town Centre	12

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

Selected Location Sub Categories:

Industrial Zone	1
Commercial Zone	2
Residential Zone	2

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

Secondary Filtering selection:

Use Class:

Not Known 16 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000	1 days
15,001 to 20,000	3 days
20,001 to 25,000	3 days
25,001 to 50,000	9 days

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

Population within 5 miles:

25,001 to 50,000	3 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	4 days
250,001 to 500,000	2 days
500,001 or More	4 days

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

Car ownership within 5 miles:

0.6 to 1.0	8 days
1.1 to 1.5	6 days
1.6 to 2.0	2 days

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

Travel Plan:

Yes	3 days
No	13 days

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

PTAL Rating:

No PTAL Present	16 days
-----------------	---------

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

LIST OF SITES relevant to selection parameters

1	CA-02-A-05 NEW ROAD PETERBOROUGH	OFFICES		CAMBRIDGESHIRE
	Town Centre Built-Up Zone Total Gross floor area:		8793 sqm	
	Survey date: TUESDAY		16/12/14	Survey Type: MANUAL
2	CB-02-A-02 PORT ROAD CARLISLE	OFFICE		CUMBRIA
	Edge of Town Centre Industrial Zone Total Gross floor area:		925 sqm	
	Survey date: FRIDAY		24/06/16	Survey Type: MANUAL
3	DS-02-A-02 PRIME PARKWAY DERBY	REAL ESTATE DEVELOPERS		DERBYSHIRE
	Edge of Town Centre No Sub Category Total Gross floor area:		594 sqm	
	Survey date: THURSDAY		21/10/21	Survey Type: MANUAL
4	ES-02-A-12 VICARAGE LANE HAILSHAM	COUNCIL OFFICES		EAST SUSSEX
	Edge of Town Centre Built-Up Zone Total Gross floor area:		3640 sqm	
	Survey date: THURSDAY		26/11/15	Survey Type: MANUAL
5	ES-02-A-13 ROMAN ROAD HOVE	OFFICES		EAST SUSSEX
	Edge of Town Centre Residential Zone Total Gross floor area:		280 sqm	
	Survey date: WEDNESDAY		04/07/18	Survey Type: MANUAL
6	GM-02-A-08 FOUNTAIN STREET MANCHESTER	REGUS		GREATER MANCHESTER
	Town Centre Built-Up Zone Total Gross floor area:		3960 sqm	
	Survey date: MONDAY		26/09/16	Survey Type: MANUAL
7	GM-02-A-09 NEW MOUNT STREET MANCHESTER	LEASED OFFICES		GREATER MANCHESTER
	Edge of Town Centre Built-Up Zone Total Gross floor area:		2500 sqm	
	Survey date: MONDAY		26/09/16	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	HF-02-A-04 STATION WAY ST ALBANS	OFFICES		HERTFORDSHIRE
	Edge of Town Centre Residential Zone Total Gross floor area:	5000 sqm		
	Survey date:	THURSDAY 02/10/14	Survey Type:	MANUAL
9	MS-02-A-02 MOUNT PLEASANT LIVERPOOL	SCIENCE PARK OFFICES		MERSEYSIDE
	Edge of Town Centre Built-Up Zone Total Gross floor area:	11250 sqm		
	Survey date:	TUESDAY 13/11/18	Survey Type:	MANUAL
10	NF-02-A-02 NORTH QUAY GREAT YARMOUTH	FINANCIAL PLANNERS		NORFOLK
	Edge of Town Centre Commercial Zone Total Gross floor area:	894 sqm		
	Survey date:	MONDAY 11/09/17	Survey Type:	MANUAL
11	NF-02-A-03 NORTH QUAY GREAT YARMOUTH	OFFICES		NORFOLK
	Edge of Town Centre Commercial Zone Total Gross floor area:	5500 sqm		
	Survey date:	TUESDAY 12/09/17	Survey Type:	MANUAL
12	NY-02-A-01 NORTH PARK ROAD HARROGATE	SOLICITORS		NORTH YORKSHIRE
	Edge of Town Centre Built-Up Zone Total Gross floor area:	178 sqm		
	Survey date:	THURSDAY 04/10/18	Survey Type:	MANUAL
13	NY-02-A-02 STATION ROAD RICHMOND	DISTRICT COUNCIL OFFICES		NORTH YORKSHIRE
	Edge of Town Centre No Sub Category Total Gross floor area:	1930 sqm		
	Survey date:	THURSDAY 14/03/19	Survey Type:	MANUAL
14	SO-02-A-01 HIGH STREET SLOUGH	COUNCIL OFFICES		SLOUGH
	Town Centre High Street Total Gross floor area:	1800 sqm		
	Survey date:	THURSDAY 27/02/14	Survey Type:	MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

15	SO-02-A-02 BATH ROAD SLOUGH	COUNCIL OFFICES	SLOUGH
	Edge of Town Centre Built-Up Zone		
	Total Gross floor area:	5050 sqm	
	Survey date: THURSDAY	27/02/14	Survey Type: MANUAL
16	TW-02-A-07 MULGRAVE TERRACE GATESHEAD	OFFICES	TYNE & WEAR
	Town Centre Built-Up Zone		
	Total Gross floor area:	2090 sqm	
	Survey date: MONDAY	13/06/16	Survey Type: MANUAL

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 2.25

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	3439	0.440	15	3439	0.058	15	3439	0.498
08:00 - 09:00	16	3235	1.248	16	3235	0.160	16	3235	1.408
09:00 - 10:00	16	3235	1.059	16	3235	0.342	16	3235	1.401
10:00 - 11:00	16	3235	0.471	16	3235	0.371	16	3235	0.842
11:00 - 12:00	16	3235	0.325	16	3235	0.307	16	3235	0.632
12:00 - 13:00	16	3235	0.388	16	3235	0.469	16	3235	0.857
13:00 - 14:00	16	3235	0.506	16	3235	0.400	16	3235	0.906
14:00 - 15:00	16	3235	0.328	16	3235	0.390	16	3235	0.718
15:00 - 16:00	16	3235	0.290	16	3235	0.491	16	3235	0.781
16:00 - 17:00	16	3235	0.236	16	3235	0.813	16	3235	1.049
17:00 - 18:00	16	3235	0.166	16	3235	1.155	16	3235	1.321
18:00 - 19:00	15	3439	0.064	15	3439	0.430	15	3439	0.494
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			5.521			5.386			10.907

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

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

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Parameter summary

Trip rate parameter range selected:	178 - 11250 (units: sqm)
Survey date range:	01/01/14 - 21/10/21
Number of weekdays (Monday-Friday):	16
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	3439	0.014	15	3439	0.000	15	3439	0.014
08:00 - 09:00	16	3235	0.073	16	3235	0.000	16	3235	0.073
09:00 - 10:00	16	3235	0.017	16	3235	0.000	16	3235	0.017
10:00 - 11:00	16	3235	0.014	16	3235	0.014	16	3235	0.028
11:00 - 12:00	16	3235	0.012	16	3235	0.006	16	3235	0.018
12:00 - 13:00	16	3235	0.012	16	3235	0.017	16	3235	0.029
13:00 - 14:00	16	3235	0.012	16	3235	0.014	16	3235	0.026
14:00 - 15:00	16	3235	0.004	16	3235	0.012	16	3235	0.016
15:00 - 16:00	16	3235	0.012	16	3235	0.015	16	3235	0.027
16:00 - 17:00	16	3235	0.006	16	3235	0.021	16	3235	0.027
17:00 - 18:00	16	3235	0.000	16	3235	0.058	16	3235	0.058
18:00 - 19:00	15	3439	0.002	15	3439	0.023	15	3439	0.025
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.178			0.180			0.358

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
 MULTI-MODAL PEDESTRIANS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	3439	0.105	15	3439	0.010	15	3439	0.115
08:00 - 09:00	16	3235	0.350	16	3235	0.031	16	3235	0.381
09:00 - 10:00	16	3235	0.269	16	3235	0.126	16	3235	0.395
10:00 - 11:00	16	3235	0.421	16	3235	0.303	16	3235	0.724
11:00 - 12:00	16	3235	0.371	16	3235	0.464	16	3235	0.835
12:00 - 13:00	16	3235	0.661	16	3235	1.045	16	3235	1.706
13:00 - 14:00	16	3235	0.997	16	3235	0.858	16	3235	1.855
14:00 - 15:00	16	3235	0.558	16	3235	0.336	16	3235	0.894
15:00 - 16:00	16	3235	0.249	16	3235	0.251	16	3235	0.500
16:00 - 17:00	16	3235	0.145	16	3235	0.350	16	3235	0.495
17:00 - 18:00	16	3235	0.043	16	3235	0.361	16	3235	0.404
18:00 - 19:00	15	3439	0.016	15	3439	0.105	15	3439	0.121
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.185			4.240			8.425

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
 MULTI-MODAL PUBLIC TRANSPORT USERS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	3439	0.085	15	3439	0.008	15	3439	0.093
08:00 - 09:00	16	3235	0.450	16	3235	0.021	16	3235	0.471
09:00 - 10:00	16	3235	0.377	16	3235	0.037	16	3235	0.414
10:00 - 11:00	16	3235	0.137	16	3235	0.066	16	3235	0.203
11:00 - 12:00	16	3235	0.108	16	3235	0.100	16	3235	0.208
12:00 - 13:00	16	3235	0.120	16	3235	0.251	16	3235	0.371
13:00 - 14:00	16	3235	0.164	16	3235	0.205	16	3235	0.369
14:00 - 15:00	16	3235	0.131	16	3235	0.097	16	3235	0.228
15:00 - 16:00	16	3235	0.079	16	3235	0.122	16	3235	0.201
16:00 - 17:00	16	3235	0.070	16	3235	0.209	16	3235	0.279
17:00 - 18:00	16	3235	0.027	16	3235	0.448	16	3235	0.475
18:00 - 19:00	15	3439	0.012	15	3439	0.167	15	3439	0.179
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.760			1.731			3.491

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 2.25

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	3439	0.677	15	3439	0.079	15	3439	0.756
08:00 - 09:00	16	3235	2.262	16	3235	0.185	16	3235	2.447
09:00 - 10:00	16	3235	1.861	16	3235	0.502	16	3235	2.363
10:00 - 11:00	16	3235	1.094	16	3235	0.748	16	3235	1.842
11:00 - 12:00	16	3235	0.881	16	3235	0.904	16	3235	1.785
12:00 - 13:00	16	3235	1.267	16	3235	1.880	16	3235	3.147
13:00 - 14:00	16	3235	1.789	16	3235	1.540	16	3235	3.329
14:00 - 15:00	16	3235	1.063	16	3235	0.902	16	3235	1.965
15:00 - 16:00	16	3235	0.676	16	3235	0.956	16	3235	1.632
16:00 - 17:00	16	3235	0.464	16	3235	1.507	16	3235	1.971
17:00 - 18:00	16	3235	0.220	16	3235	2.187	16	3235	2.407
18:00 - 19:00	15	3439	0.078	15	3439	0.785	15	3439	0.863
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			12.332			12.175			24.507

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

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

Calculation Reference: AUDIT-148301-220623-0642

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
 Category : O - CONVENIENCE STORE
 MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	1 days
08	NORTH WEST	
	GM GREATER MANCHESTER	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 204 to 539 (units: sqm)
 Range Selected by User: 70 to 1200 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 25/09/19

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

Selected survey days:

Monday	1 days
Wednesday	1 days
Sunday	1 days

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

Selected survey types:

Manual count	3 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	1
Edge of Town Centre	1
Neighbourhood Centre (PPS6 Local Centre)	1

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

Selected Location Sub Categories:

Residential Zone	1
Built-Up Zone	1
High Street	1

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

Secondary Filtering selection:

Use Class:

Not Known	1 days
E(a)	2 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

10,001 to 15,000	1 days
25,001 to 50,000	2 days

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

Population within 5 miles:

25,001 to 50,000	1 days
250,001 to 500,000	1 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	1 days

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

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	3 days

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

Travel Plan:

No	3 days
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This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	3 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	DS-01-O-01 NUNS STREET DERBY	SAINSBURY'S LOCAL	DERBYSHIRE
	Edge of Town Centre Built-Up Zone		
	Total Gross floor area:	204 sqm	
	Survey date: WEDNESDAY	25/09/19	Survey Type: MANUAL
2	GM-01-O-01 BRIDGE STREET MANCHESTER	LITTLE WAITROSE	GREATER MANCHESTER
	Town Centre High Street		
	Total Gross floor area:	455 sqm	
	Survey date: SUNDAY	25/09/16	Survey Type: MANUAL
3	WY-01-O-02 AINSTY ROAD WETHERBY	CO-OPERATIVE	WEST YORKSHIRE
	Neighbourhood Centre (PPS6 Local Centre) Residential Zone		
	Total Gross floor area:	539 sqm	
	Survey date: MONDAY	26/09/16	Survey Type: MANUAL

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

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 4.51

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	204	0.490	1	204	0.000	1	204	0.490
06:00 - 07:00	2	372	4.711	2	372	4.711	2	372	9.422
07:00 - 08:00	3	399	3.673	3	399	3.673	3	399	7.346
08:00 - 09:00	3	399	4.758	3	399	4.341	3	399	9.099
09:00 - 10:00	3	399	3.172	3	399	3.088	3	399	6.260
10:00 - 11:00	3	399	4.508	3	399	3.840	3	399	8.348
11:00 - 12:00	3	399	3.339	3	399	3.589	3	399	6.928
12:00 - 13:00	3	399	5.008	3	399	4.925	3	399	9.933
13:00 - 14:00	3	399	4.674	3	399	5.175	3	399	9.849
14:00 - 15:00	3	399	6.177	3	399	5.927	3	399	12.104
15:00 - 16:00	3	399	7.179	3	399	7.095	3	399	14.274
16:00 - 17:00	3	399	5.676	3	399	5.593	3	399	11.269
17:00 - 18:00	3	399	8.180	3	399	8.264	3	399	16.444
18:00 - 19:00	3	399	7.346	3	399	7.262	3	399	14.608
19:00 - 20:00	3	399	6.260	3	399	6.511	3	399	12.771
20:00 - 21:00	3	399	3.255	3	399	3.589	3	399	6.844
21:00 - 22:00	3	399	2.254	3	399	2.671	3	399	4.925
22:00 - 23:00	1	204	3.922	1	204	3.431	1	204	7.353
23:00 - 24:00	1	204	1.961	1	204	2.451	1	204	4.412
Total Rates:			86.543			86.136			172.679

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

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

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Parameter summary

Trip rate parameter range selected: 204 - 539 (units: sqm)
 Survey date range: 01/01/14 - 25/09/19
 Number of weekdays (Monday-Friday): 2
 Number of Saturdays: 0
 Number of Sundays: 1
 Surveys automatically removed from selection: 0
 Surveys manually removed from selection: 0

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

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
 MULTI-MODAL CYCLISTS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	204	0.000	1	204	0.000	1	204	0.000
06:00 - 07:00	2	372	0.000	2	372	0.000	2	372	0.000
07:00 - 08:00	3	399	0.000	3	399	0.000	3	399	0.000
08:00 - 09:00	3	399	0.167	3	399	0.167	3	399	0.334
09:00 - 10:00	3	399	0.250	3	399	0.250	3	399	0.500
10:00 - 11:00	3	399	0.000	3	399	0.000	3	399	0.000
11:00 - 12:00	3	399	0.167	3	399	0.167	3	399	0.334
12:00 - 13:00	3	399	0.083	3	399	0.083	3	399	0.166
13:00 - 14:00	3	399	0.000	3	399	0.000	3	399	0.000
14:00 - 15:00	3	399	0.083	3	399	0.083	3	399	0.166
15:00 - 16:00	3	399	0.083	3	399	0.083	3	399	0.166
16:00 - 17:00	3	399	0.167	3	399	0.167	3	399	0.334
17:00 - 18:00	3	399	0.250	3	399	0.250	3	399	0.500
18:00 - 19:00	3	399	0.000	3	399	0.000	3	399	0.000
19:00 - 20:00	3	399	0.000	3	399	0.000	3	399	0.000
20:00 - 21:00	3	399	0.000	3	399	0.000	3	399	0.000
21:00 - 22:00	3	399	0.000	3	399	0.000	3	399	0.000
22:00 - 23:00	1	204	0.000	1	204	0.000	1	204	0.000
23:00 - 24:00	1	204	0.000	1	204	0.000	1	204	0.000
Total Rates:			1.250			1.250			2.500

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

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

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	204	0.980	1	204	0.000	1	204	0.980
06:00 - 07:00	2	372	5.384	2	372	5.114	2	372	10.498
07:00 - 08:00	3	399	4.508	3	399	3.339	3	399	7.847
08:00 - 09:00	3	399	8.932	3	399	8.264	3	399	17.196
09:00 - 10:00	3	399	8.431	3	399	8.180	3	399	16.611
10:00 - 11:00	3	399	8.681	3	399	7.763	3	399	16.444
11:00 - 12:00	3	399	8.347	3	399	8.013	3	399	16.360
12:00 - 13:00	3	399	13.439	3	399	13.773	3	399	27.212
13:00 - 14:00	3	399	14.524	3	399	14.524	3	399	29.048
14:00 - 15:00	3	399	15.609	3	399	14.608	3	399	30.217
15:00 - 16:00	3	399	15.860	3	399	14.775	3	399	30.635
16:00 - 17:00	3	399	16.110	3	399	15.776	3	399	31.886
17:00 - 18:00	3	399	19.783	3	399	19.366	3	399	39.149
18:00 - 19:00	3	399	18.865	3	399	18.447	3	399	37.312
19:00 - 20:00	3	399	15.526	3	399	17.279	3	399	32.805
20:00 - 21:00	3	399	16.444	3	399	16.444	3	399	32.888
21:00 - 22:00	3	399	14.190	3	399	15.943	3	399	30.133
22:00 - 23:00	1	204	60.294	1	204	69.608	1	204	129.902
23:00 - 24:00	1	204	25.490	1	204	31.373	1	204	56.863
Total Rates:			291.397				302.589		
							593.986		

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

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

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
 MULTI-MODAL PUBLIC TRANSPORT USERS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	204	0.000	1	204	0.000	1	204	0.000
06:00 - 07:00	2	372	1.346	2	372	1.346	2	372	2.692
07:00 - 08:00	3	399	1.669	3	399	1.669	3	399	3.338
08:00 - 09:00	3	399	2.504	3	399	2.421	3	399	4.925
09:00 - 10:00	3	399	1.586	3	399	1.503	3	399	3.089
10:00 - 11:00	3	399	1.503	3	399	1.169	3	399	2.672
11:00 - 12:00	3	399	1.503	3	399	1.419	3	399	2.922
12:00 - 13:00	3	399	3.840	3	399	3.840	3	399	7.680
13:00 - 14:00	3	399	3.255	3	399	3.339	3	399	6.594
14:00 - 15:00	3	399	4.007	3	399	4.007	3	399	8.014
15:00 - 16:00	3	399	3.088	3	399	3.172	3	399	6.260
16:00 - 17:00	3	399	4.090	3	399	4.174	3	399	8.264
17:00 - 18:00	3	399	4.674	3	399	4.674	3	399	9.348
18:00 - 19:00	3	399	5.008	3	399	5.342	3	399	10.350
19:00 - 20:00	3	399	2.838	3	399	2.755	3	399	5.593
20:00 - 21:00	3	399	2.170	3	399	2.504	3	399	4.674
21:00 - 22:00	3	399	2.003	3	399	2.087	3	399	4.090
22:00 - 23:00	1	204	2.941	1	204	2.941	1	204	5.882
23:00 - 24:00	1	204	0.490	1	204	0.980	1	204	1.470
Total Rates:			48.515			49.342			97.857

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

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

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 4.51

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	204	1.471	1	204	0.000	1	204	1.471
06:00 - 07:00	2	372	11.844	2	372	12.113	2	372	23.957
07:00 - 08:00	3	399	10.267	3	399	9.098	3	399	19.365
08:00 - 09:00	3	399	16.778	3	399	15.442	3	399	32.220
09:00 - 10:00	3	399	14.190	3	399	13.523	3	399	27.713
10:00 - 11:00	3	399	15.109	3	399	13.356	3	399	28.465
11:00 - 12:00	3	399	13.773	3	399	13.356	3	399	27.129
12:00 - 13:00	3	399	22.955	3	399	23.456	3	399	46.411
13:00 - 14:00	3	399	23.372	3	399	23.873	3	399	47.245
14:00 - 15:00	3	399	26.962	3	399	26.127	3	399	53.089
15:00 - 16:00	3	399	27.713	3	399	26.377	3	399	54.090
16:00 - 17:00	3	399	27.295	3	399	27.045	3	399	54.340
17:00 - 18:00	3	399	34.725	3	399	34.307	3	399	69.032
18:00 - 19:00	3	399	32.638	3	399	33.055	3	399	65.693
19:00 - 20:00	3	399	26.878	3	399	27.880	3	399	54.758
20:00 - 21:00	3	399	22.454	3	399	23.790	3	399	46.244
21:00 - 22:00	3	399	18.698	3	399	21.035	3	399	39.733
22:00 - 23:00	1	204	68.137	1	204	77.451	1	204	145.588
23:00 - 24:00	1	204	28.431	1	204	35.784	1	204	64.215
Total Rates:			443.690			457.068			900.758

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

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

Our Locations

Birmingham

2 The Wharf
Bridge Street
Birmingham
B1 2JS
T. 0121 643 4694
birmingham@curtins.com

Bristol

Quayside
40-58 Hotwell Road
Bristol
BS8 4UQ
T. 0117 302 7560
bristol@curtins.com

Cambridge

50 Cambridge Place
Cambridge
CB2 1NS
T. 01223 631 799
cambridge@curtins.com

Cardiff

3 Cwrt-y-Parc
Earlswood Road
Cardiff
CF14 5GH
T. 029 2068 0900
cardiff@curtins.com

Douglas

Varley House
29-31 Duke Street
Douglas
Isle of Man
IM1 2AZ
T. 01624 624 585
douglas@curtins.com

Dublin

11 Pembroke Lane
Dublin 2
D02 CX82
Ireland
T. +353 1 507 9447
dublin@curtins.com

Edinburgh

1a Belford Road
Edinburgh
EH4 3BL
T. 0131 225 2175
edinburgh@curtins.com

Glasgow

Queens House
29 St Vincent Place
Glasgow
G1 2DT
T. 0141 319 8777
glasgow@curtins.com

Kendal

Units 24 & 25 Riverside Place
K Village
Lound Road
Kendal
LA9 7FH
T. 01539 724 823
kendal@curtins.com

Leeds

Ground Floor
Rose Wharf
78-80 East Street
Leeds
LS9 8EE
T. 0113 274 8509
leeds@curtins.com

Liverpool

51-55 Tithebarn Street
Liverpool
L2 2SB
T. 0151 726 2000
liverpool@curtins.com

London

40 Compton Street
London
EC1V 0BD
T. 020 7324 2240
london@curtins.com

Manchester

Merchant Exchange
17-19 Whitworth Street West
Manchester
M1 5WG
T. 0161 236 2394
manchester@curtins.com

Nottingham

32-34 Stoney Street
Nottingham
NG1 1LL
T. 0115 941 5551
nottingham@curtins.com