ttp consulting

transport planning specialists

Cinnamond House, Croxley Green

Transport Statement

November 2023

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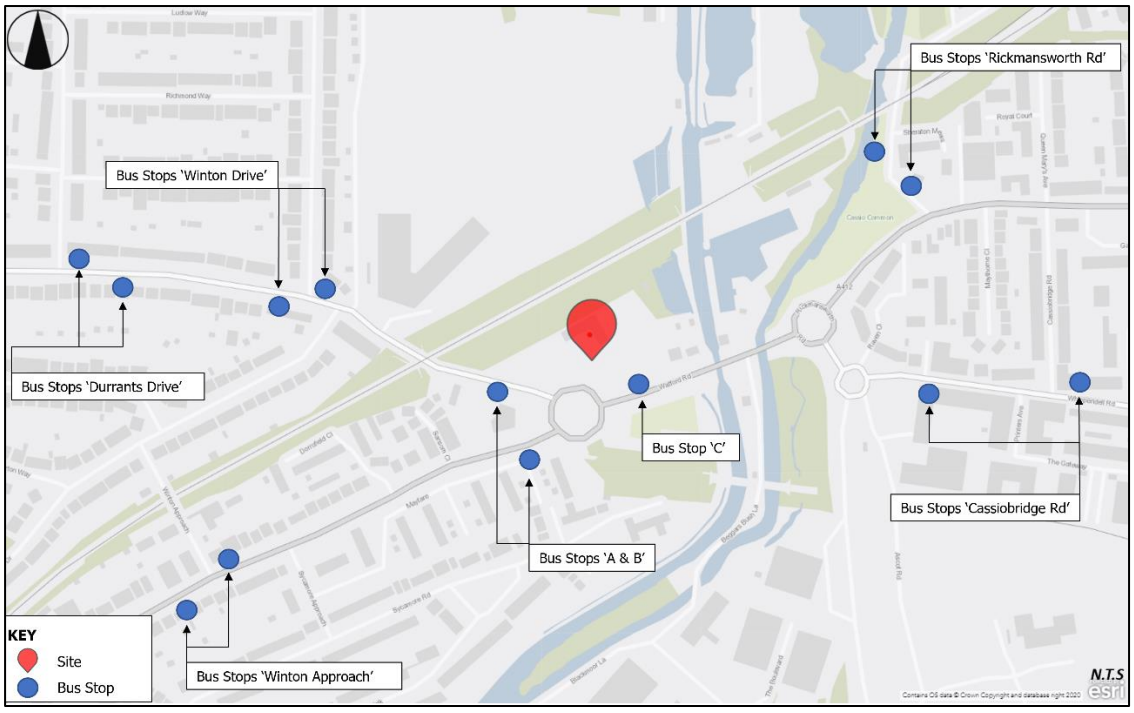
1 INTRODUCTION

1.1 TTP Consulting has been appointed to provide traffic and transport advice in relation to the proposed change of use development at Cinnamond House, Croxley Green, Hertfordshire.

1.2 The site is located north of Baldwins Lane and Watford Road roundabout, with an existing vehicular access taken off the roundabout. The site lies approximately 1.1km north-east of Croxley Station and is located 60 – 100m away from local bus stops. A site location is shown at **Figure 1.1**.

Figure 1.1 – Site Location Plan



1.3 The site comprises a two-storey office building serving as the head office and main back office operations for Car Planet and associated hardstanding/forecourt area that is used to park cars for online sales, as well as a small element of staff and customer car parking. At maximum capacity, the hardstanding/forecourt area can accommodate approximately 175 cars.

1.4 The proposed development seeks retrospective temporary planning permission for the change of use of the existing (Class E) office use, to provide a mixed-use development comprising office (Class E) and car sales (Sui Generis) and the erection of two existing carport structures. Dedicated car and cycle parking will also be provided on-site. The proposed site layout plan is included at **Appendix A**.

1.5 This report considers the effect of development in transport terms including accessibility, trip generation, car parking, cycle parking, deliveries and servicing. The remainder of the report is as follows:

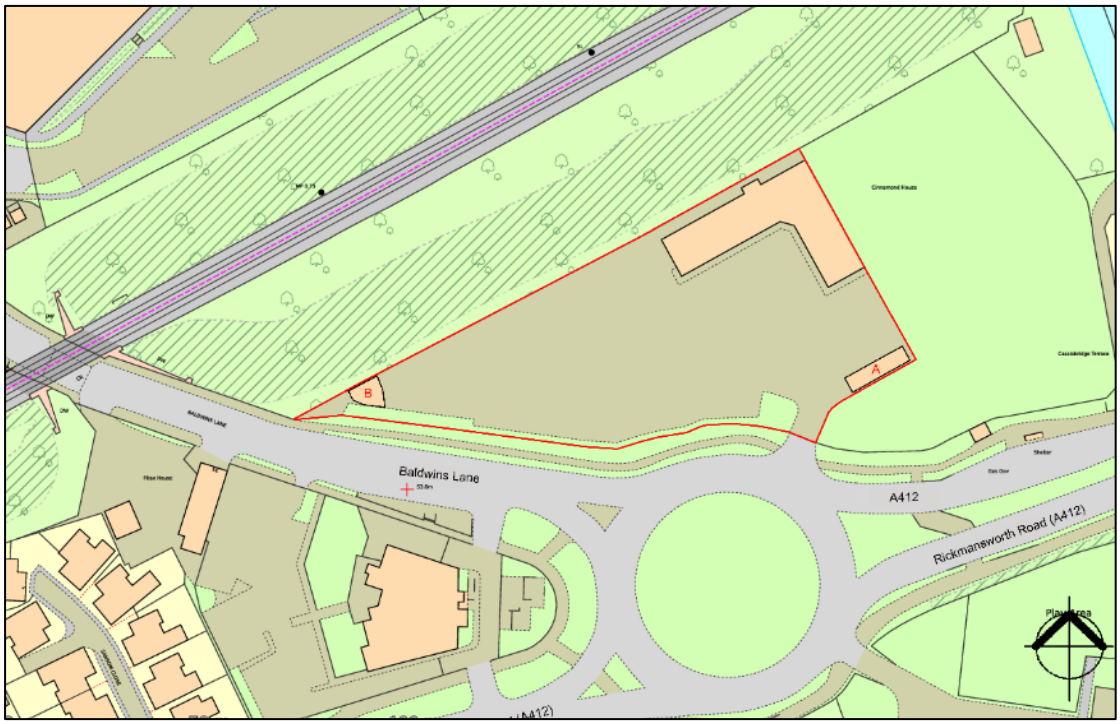
- Section 2 describes the existing situation;
- Section 3 sets out the development proposals and effects;
- Section 4 provides a summary and conclusion.

2 THE EXISTING SITUATION

The Site

2.1 The application site is located north of the Baldwins Lane and Watford Road roundabout and lies to the south of the Metropolitan Line rail tracks, and west of the Grand Union Canal. A cluster of trees is located immediately north of the site providing a level of separation from the edge of the site boundary and the nearby rail tracks/canal. An Existing Site Plan is shown at **Figure 2.1**.

Figure 2.1 – Existing Site Plan



2.2 The existing office building is used as Car Planet's head office, main back office operations, as well as the company's online sales and support services. In addition to this, the site also includes a small workshop space at ground floor level accessed via a large roller door, utilised for the servicing of cars. The building is occupied by approximately 20 – 25 members of staff on a daily basis.

2.3 At maximum capacity, the area of hardstanding/forecourt can accommodate up to 175 cars, with the vast majority in fixed locations/storage and would only be moved as/when customers book an appointment to view them. Customer visits to the site are on an appointment basis only, with approximately 8 scheduled appointments per day. There would then be the occasional walk-in viewing, with approximately 2 per day. Access to the site is provided via the existing

vehicle access from the Baldwins Lane/Watford Road roundabout, with entry/exit strictly managed by site operatives/stewards located at the main entrance gate.

Surrounding Area

2.4 The surrounding area comprises a mix of residential, commercial/retail parks. The surrounding residential area of Croxley Green is predominantly characterised by a number of semi-detached/detached residential dwellings, with some flatted developments located south of the site. Croxley Park & Watford Business Park are located 750m south of the site, and provide access to a number of commercial/retail uses such as Morrisons Superstore, and a number of car dealerships. West Herts Golf Club is located further north of the site, which leads to areas of green pasture towards Cassiobury and Chandler's Cross.

Local Highway Network

2.5 The site is located north of the 3-arm roundabout that connects Baldwins Lane, Watford Road (east and west). Baldwin Lane is a two-way road that runs in an east to west orientation, forming the north-west arm of the roundabout with Watford Road. On the eastern approach to the roundabout, Baldwins Lane provides two lanes for traffic, whilst the westbound exit provides one lane for traffic and a layby which is utilised as a bus stop and an area of unrestricted on-street half-on/half-off car parking. There are additional areas of unrestricted parking at intermittent locations on both sides of the carriageway further west along Baldwins Lane.

2.6 Watford Road (A412) forms the south-west arm of the roundabout and is a two-way road that runs in an east to west orientation between the built-up residential areas of Croxley Green to the west and the roundabout with Baldwins Lane to the east. The road provides one lane for traffic in each direction, and a cycle lane is provided on both sides of the carriageway. Watford Road continues east through the roundabout.

2.7 Watford Road (A412) also forms the north-east arm of the roundabout, and is a two-way road that runs in an east to west orientation between the roundabout with Baldwins Lane to the west and the Rickmansworth Road / Ascot Road roundabout to the east.

Accessibility

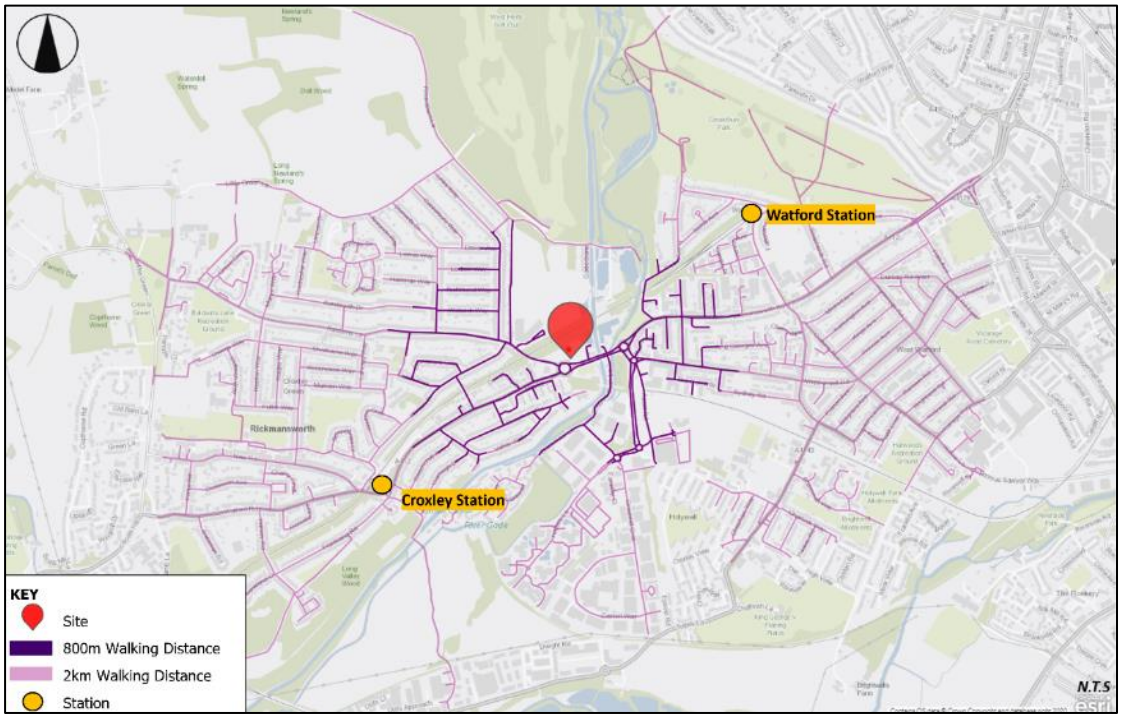
2.8 The site is accessible by public transport, bicycle and foot with a number of amenities within a reasonable walking distance. The following paragraphs summarise the site's accessibility by non-car modes.

Walking

2.9 There are footways provided on Baldwins Lane and Watford Road. A shared footway/cycle is provided on the Baldwins Lane/Watford Road roundabout to ease cyclist journeys through the roundabout. The crossing point in front of the site is provided with a dropped kerb and tactile paving, and the footway connects the site to the main public transport facilities and amenities in the vicinity of the site.

2.10 **Figure 2.2** provides details of an 800m (10-minute walk) and 2km (25-minute walk) catchment zone surrounding the site. Within the 800m walking catchment, much of the residential area of Croxley Green can be reached, as well as much of Croxley Park & Watford Business Park, and a Morrisons Superstore. The map also shows that Watford Station and Croxley Station can be reached within the 2km walking catchment from the site.

Figure 2.2 – Walking Isochrone Map



2.11 The nearest signal-controlled crossing is located approximately 30m east of the site and is equipped with dropped kerbs, tactile paving and green-man, push-button facilities. The crossing provides access to walking and cycling routes to the south of the roundabout and westbound bus services available on Watford Road.

2.12 **Table 2.1** sets out details of distances between the site and public transport opportunities. This illustrates that there are a number of public transport facilities within a short walking distance, based on an average walking speed of 80m per minute.

Table 2.1 – Approximate Distances to Local Public Transport Opportunities			
Stop / Station	**Location**	**Distance**	**Approximate Walking Time***
Bus Stops			
Two Bridges (Stop A)	Watford Road	50m	<1 minute
Two Bridges (Stop B)	Baldwins Lane	100m	1 – 2 minutes
Two Bridges (Stop C)	Watford Road	150m	1 – 2 minutes
Underground / Rail Stations			
Croxley Station	Watford Road	1.1km	13 – 14 minutes
Watford Station	Metropolitan Station Approach	1.2km	15 minutes
*Based on 80m per minute			

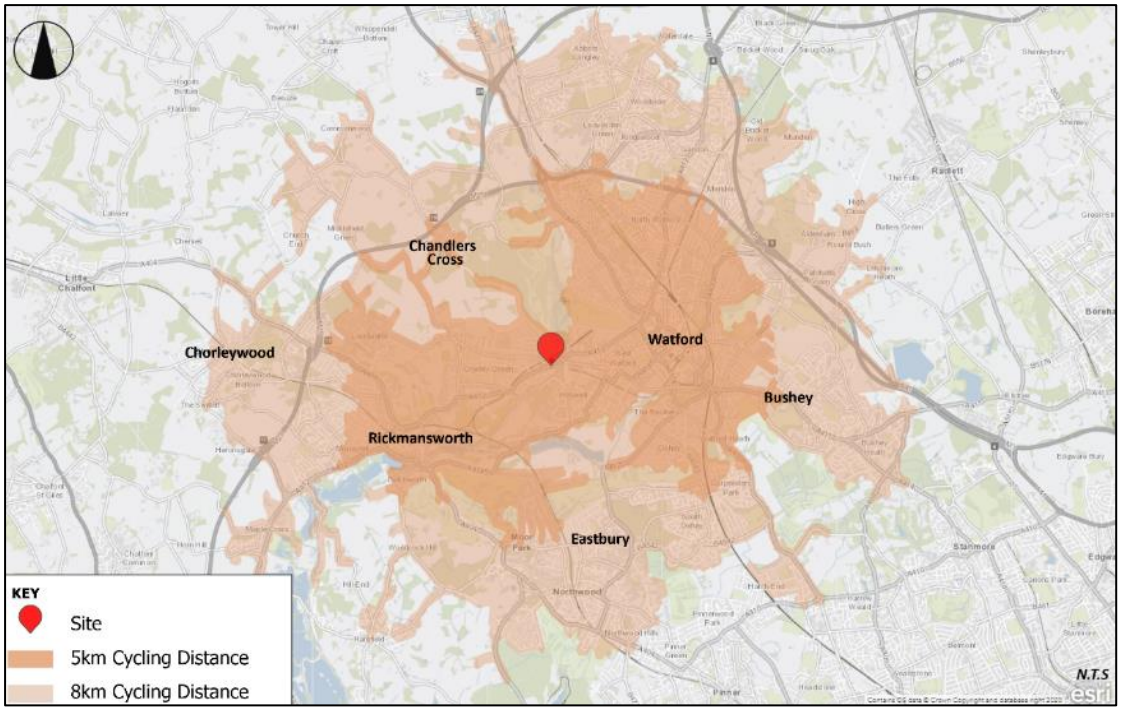
2.13 Local facilities and amenities including a primary school, ATM, convenience stores and cafes are located a short walking distance from the site, a summary of which is shown in **Table 2.2.**

Table 2.2 – Approximate Distances to Local Facilities			
Amenity	**Location**	**Distance**	**Approximate Walking Time***
Harvester	Baldwins Lane	80m	1 minute
Cassiobridge Recreation Ground	Watford Road	120m	1 – 2 minutes
Grand Union Canal	Grand Union Canal	120m	1 – 2 minutes
Croxley Danes School	Baldwins Lane	250m	3 – 4 minutes
Café	Baldwins Lane	280m	3 – 4 minutes
Budgens Supermarket	Whippendell Road	560m	7 minutes
ATM	Whippendell Road	580m	7 – 8 minutes
Morrisons Superstore	Ascot Road	810m	10 – 11 minutes
Ascott Primary School	Ascot Road	900m	11 – 12 minutes
*Based on 80m per minute			

Cycling

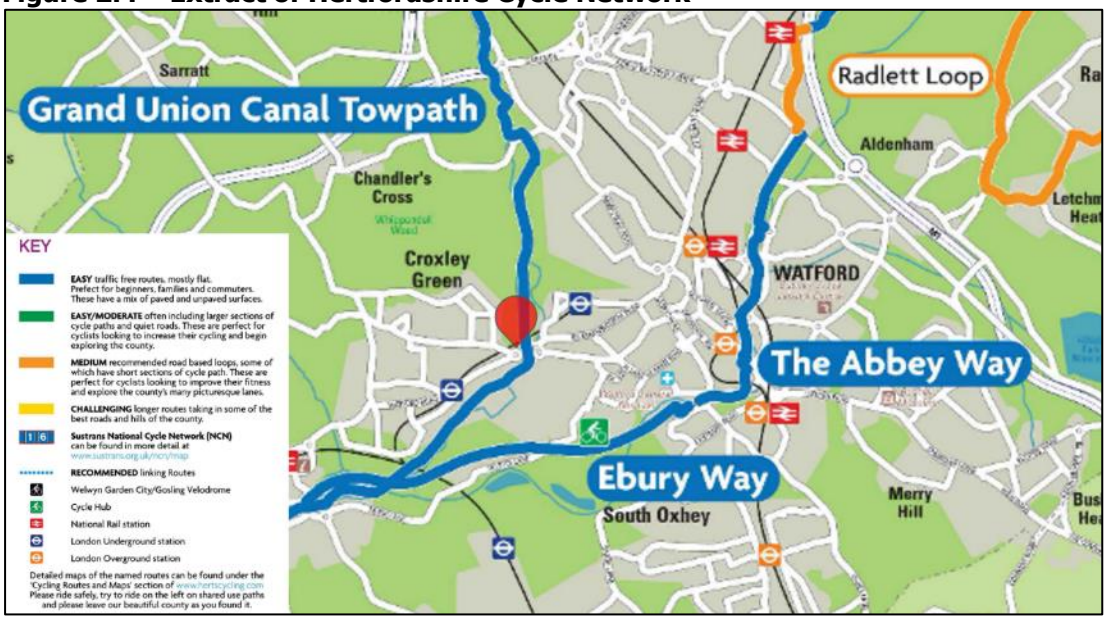
2.14 It is generally accepted that cycling is a sustainable mode of travel for journeys up to 8km in length, although in London, longer journeys are more commonplace. **Figure 2.3** shows a 5km and 8km cycling catchment from the site. The map shows that a number of residential areas are within a 5km cycle of the site including Watford, Chandlers Cross, and Rickmansworth, whilst areas such as Bushey, Chorleywood and Eastbury can be reached within an 8km distance from the site.

Figure 2.3 – Cycling Catchment Map



2.15 A shared walking/cycling route is available in the vicinity of the site and provides a dedicated route to navigate around the nearby roundabout. Upon departure from the roundabout, the cycle route transitions into an on-road advisory cycle route along Watford Road, and provides a route eastwards, towards Croxley Station. The site also benefits from being in close proximity to the Grand Union Canal Townpath which provides cycle routes north towards Watford and St Albans and south towards Rickmansworth and Harefield. An extract of the Hertfordshire Cycle Network is shown below at **Figure 2.4**.

Figure 2.4 – Extract of Hertfordshire Cycle Network



Bus Services

2.16 The closest bus stop to the site, Two Bridges (Stop A), is located 50m east of the site and provides access to bus 321, 335, 336, 352, 724, 821, 951 and R2, with services running towards Watford, Chorley, Heathrow Airport and Borehamwood. Bus routes in the opposite direction can be found at Two Bridges (Stop B) or (Stop C), located to the west of the roundabout on Watford Road or Baldwins Lane, respectively. **Table 2.3** provides a summary of the local bus routes.

Table 2.3 – Summary of Local Bus Services

Bus Stop	No.	Route	Frequency (every 'x' minutes)		
			Mon-Fri	Saturday	Sunday
Two Bridges (Stop A)	321	Luton – Watford	20	20	60
	335	Watford – Chorleywood	Departure at 10:46*	Departure at 10:33*	N/A
	336	Watford – Amersham	130 – 170	60 – 120	N/A
	352	Hemel Hempstead – Watford	120	120	N/A
	724	Harlow – Heathrow Airport	60 – 75	60 – 75	60 – 120
	821	Reach Free School – Watford	Departure at 15:57*	N/A	
	951	Thrope Park - Borehamwood	Departure at 20:03*		N/A
	R2	Maple Cross/Chorleywood – Mount Vernon Hospital/Watford	Departure at 10:54*	N/A	
	*Bus routes in the opposite direction can be accessed at Two Bridges (Stop B) or (Stop C)				

Rail Services

2.17 The nearest station to the site, Croxley Station, is located approximately 1.1km south-west of the site and provides access to Metropolitan Line services between Watford and Aldgate. The station provides 32 sheltered cycle parking spaces, as well as a 96-space car park at the rear. Watford Station is located 1.2km north-east of the site and also provides access to Metropolitan Line services towards Aldgate.

3 DEVELOPMENT PROPOSALS AND EFFECTS

Proposal Overview

3.1 The proposals seek retrospective temporary planning permission for the change of use of the existing (Class E) office use, to provide a mixed-use development comprising office (Class E) and car sales (Sui Generis) and erection of structures. As a result of the change of use application, the internal uses of the existing building would comprise 329 sqm of office floorspace, and 385 sqm used for sales/workshop purposes. The proposal will also provide a total of 26 car parking spaces, with 20 allocated for staff and 6 allocated for customers. Cycle parking will also be provided to the rear of the existing building. The proposed site plan is included at **Appendix A.**

Site Operation

3.2 The site currently operates as Car Planet's head office and houses the company's main back office operations, such as management, finance and HR teams. The site also incorporates the company's online sales team which supports the customer operations which occur onsite. In total, the site is occupied by 20-25 staff on a daily basis, of which approximately 7 – 9 staff are associated with online vehicle sales, and the remainder solely carrying out office/desktop-based roles.

3.3 The site is operational between Monday to Saturday 9am – 8pm and Sundays, 10am – 5pm. Alongside the daily back office staff operations, customer-based activities including sales, test drives and viewings also take place. The car park/forecourt occupies up to 175 cars, of which the vast majority are in fixed locations and would only be moved by site operatives as and when necessary for customer appointments.

3.4 The car park also includes two car ports which are used to store vehicles for customers prior to collections. The site also contains a workshop area, within the existing building, which is used for general repairs/modification to cars either being viewed or purchased by customers. On average, there are up to 8 scheduled appointments per day, with an additional 2 walk-in viewing appointments.

3.5 The above description outlines the typical day-to-day operation of the site and thus the purpose of this application is to obtain retrospective temporary planning permission for a mixed-use development comprising office (Class E) and car sales (Sui Generis).

Access

3.6 There will be no change to the existing pedestrian and vehicular access arrangements as part of the proposals. Access to the site is currently provided via the entry point off the Baldwins Way / Watford Road roundabout. Entry and exit will be strictly managed by site operatives.

Trip Generation

Existing Staff Trips

3.7 In order to quantify the level of trips associated with the existing use, reference has been made to the TRICS database. Emphasis has been placed on the typical morning peak hour (8am – 9am) and evening peak hour (5pm – 6pm), and also the number of daily trips (7am – 7pm). The trip rates are based upon available data, taking into account the characteristics of the site. A summary of the vehicle trip rates is shown at **Table 3.1** and the TRICS output report is included at **Appendix B**.

Table 3.1 –Total Vehicle Trip Rates and Resultant Travel Demand

Time Period	Trip Rate (per 100 sqm)		Total Vehicle Trips*	
	In	Out	In	Out
Morning Peak (8am – 9am)	2.307	0.207	16	1
Evening Peak (5pm – 6pm)	0.080	2.296	1	16
Total (7am – 7pm)	7.923	7.955	57	57
*Based on 714 sqm of office floorspace				

3.8 **Table 3.1** shows that the existing site would generate 17 two-way vehicle trips in the morning peak hour (8am – 9am) and 17 two-way vehicle trips in the evening peak hour (5pm – 6pm).

Proposed Staff Trips

3.9 In order to understand the level of vehicle trips associated with the proposed site, a first principles approach has been adopted using information provided by the current occupier. The proposed site would employ up to 25 employees. As a worst-case scenario, if we assume that all 25 staff arrive during the morning peak hour (8am – 9am) and depart during the evening peak hour (5pm – 6pm), there could be an increase of 8 vehicle trips in the morning and evening peak hour. This level of increase is not expected to materially impact on the safe operation of the local highway network, and in practice, it is likely that employee arrivals and departures would be further spread across the morning and evening peaks given the varying shift patterns and operational hours of the site.

Proposed Customer Trips

3.10 In regard to the number of vehicle trips associated with online sales and customer activity, a first principles approach has also been adopted using information provided by the current occupier. On a typical day, there are on average 8 scheduled appointments per day. Access to the site is strictly managed, and customers can typically only visit the site by booking an appointment online, via the online booking system. This allows the number of customer visits to the site to be controlled. Furthermore, a small number of appointments are available via walk-ins, where there are on average 2 walk-in appointments per day. Based on this information, there could be approximately 20 two-way trips associated with online sales/customer activity per day.

3.11 It is pertinent to note that customer appointments are scheduled and staggered throughout the day, with customers provided with a dedicated time slot in which to arrive to view, purchase/test drive cars. Therefore, it is considered that the number of customer vehicle trips to the site would be spread across the day and the impact on the operation of the local highway network would be negligible.

Car Parking

3.12 Staff car parking provision should be provided in accordance with the Three Rivers District Council parking standards, which require 1 space per 30 sqm for office uses (Class E), and based on the most relevant use class (Motor Trade Related Uses), would require 3 spaces per 4 employees for car sales (Sui Generis) aspect of the site. Based on the quantum of office floorspace, and number of employees, the proposals would require a total of 18 car parking spaces. The Council's parking standards also allow for a zonal-based reduction based on which zone the proposed development falls in, however for the purpose of this application, no zonal-based reduction has been applied.

3.13 The Council's parking standards also require additional car parking for customers depending on the type of use. Given the proposed site would operate as a mix of office/sales/workshop uses, the provision of 5 customer car parking spaces is considered appropriate.

3.14 Furthermore, in regards to disabled car parking, Appendix 5 of the Development Management Policies states that disabled car parking should be met in full, with no zonal-based reductions. The standards require employment-generating developments (up to 200 space car park) to provide individual spaces for each disabled employee plus 2 spaces or 5% of total capacity, whichever is greater.

3.15 The proposals will provide a total of 23 car parking spaces, plus 3 disabled car parking spaces. Car parking will be allocated separately for staff and customers, with 20 spaces including 2

disabled car parking spaces for staff in line with Council's parking standards, and 6 spaces including one disabled car parking space allocated for customers. The location of staff and customer car parking is shown on the proposed layout included at **Appendix A**, and swept path analysis showing a Large Car accessing the disbaled parking spaces is shown at **Appenidix C**.

Cycle Parking

3.16 There is no cycle parking associated with the existing site. The proposed site seeks to introduce 4 cycle parking spaces in line with the relevant cycle parking standards which require:

- Office cycle parking: 1 long-term space per 10 full time employees, and 1 short-term space per 500 sqm;
- Motor Trade cycle parking: 1 long term space per 10 full time employees.

3.17 Cycle parking will be located to the rear of the site, with the location shown on the proposed layout plans included at **Appendix A**.

Delivery and Servicing Activity

3.18 All delivery and servicing activity would take place on-site, as per the existing situation. Access to the site will be strictly managed by site operatives, who will coordinate entry and exit movements at the site access point. Deliveries associated with the office would stop on-site, near the entrance of the main building. Deliveries associated with any sales/storage or workshop purposes would stop on-site within the desired location e.g., outside the main building, near to the workshop area or within the vehicle storage area.

3.19 Information obtained from the current occupier states that the office would generate up to 1 – 2 deliveries per day, whilst the sales/workshop purposes would generate 2 – 3 deliveries per day (not including display/sale vehicles). Deliveries are typically undertaken by Cars or Light Goods Vehicles (LGV), such as a Transit-style van. Swept path analysis showing a Transit-style van servicing the site is included at **Appendix D**. In addition to this, there on average 6 – 8 new vehicles delivered to the site per day, to refresh and update the display/sales vehicles on site. These deliveries would be carried out by trade plate drivers.

Waste Storage and Collections

3.20 Waste will be stored on-site within the bin storage location, as indicated on the proposed site layout plans included at **Appendix A**. Waste will be collected via a private waste collection service, and collection vehicles would stop on-site, collect waste, turn, and depart the site in forward gear. Swept path analysis showing a Large Refuse Vehicle attending the site in included at **Appendix E**.

4 SUMMARY AND CONCLUSION

Summary

4.1 TTP Consulting has been appointed to provide traffic and transport advice in relation to the proposed Change of Use development at Cinnamond House, Croxley Green, located in Three Rivers District Council (TRDC), Hertfordshire. In summary:

- The site is located north of Baldwins Lane and Watford Road roundabout. Vehicular access is taken to the north of the Baldwins Lane/Watford Road roundabout;
- The existing site comprises a two-storey office building serving as the head office and main back office operations for 'Car Planet' and associated hardstanding/forecourt area that is used to park cars for online sales, as well as a small element of staff and customer car parking;
- The proposed development seeks retrospective temporary planning permission for the change of use of the existing (Class E) office use, to allow for a mixed-use development comprising office (Class E) and car sales (Sui Generis) and the erection of two existing car port structures;
- Car parking will be provided for staff and customers, with 20 spaces including 2 disabled car parking spaces allocated for staff, and 6 spaces including 1 disabled car parking space for customers;
- Cycle parking will be provided in line with the relevant standards, located to the rear of the site;
- A trip generation analysis using the TRICS database and information provided by the occupier suggests that the expected level of vehicle trips generated by the proposed site is not considered to be detrimental to the safe operation of the local highway network, and in overall terms is likely to be negligible given the existing office and ancillary vehicle uses at the site;
- All delivery and servicing activity will take place on-site, as per the existing situation; and
- Waste storage will be provided on-site, and collected by a private waste collection service, with collections typically taking place at a specific time each week, or as and when required to meet the needs of the business.

Conclusion

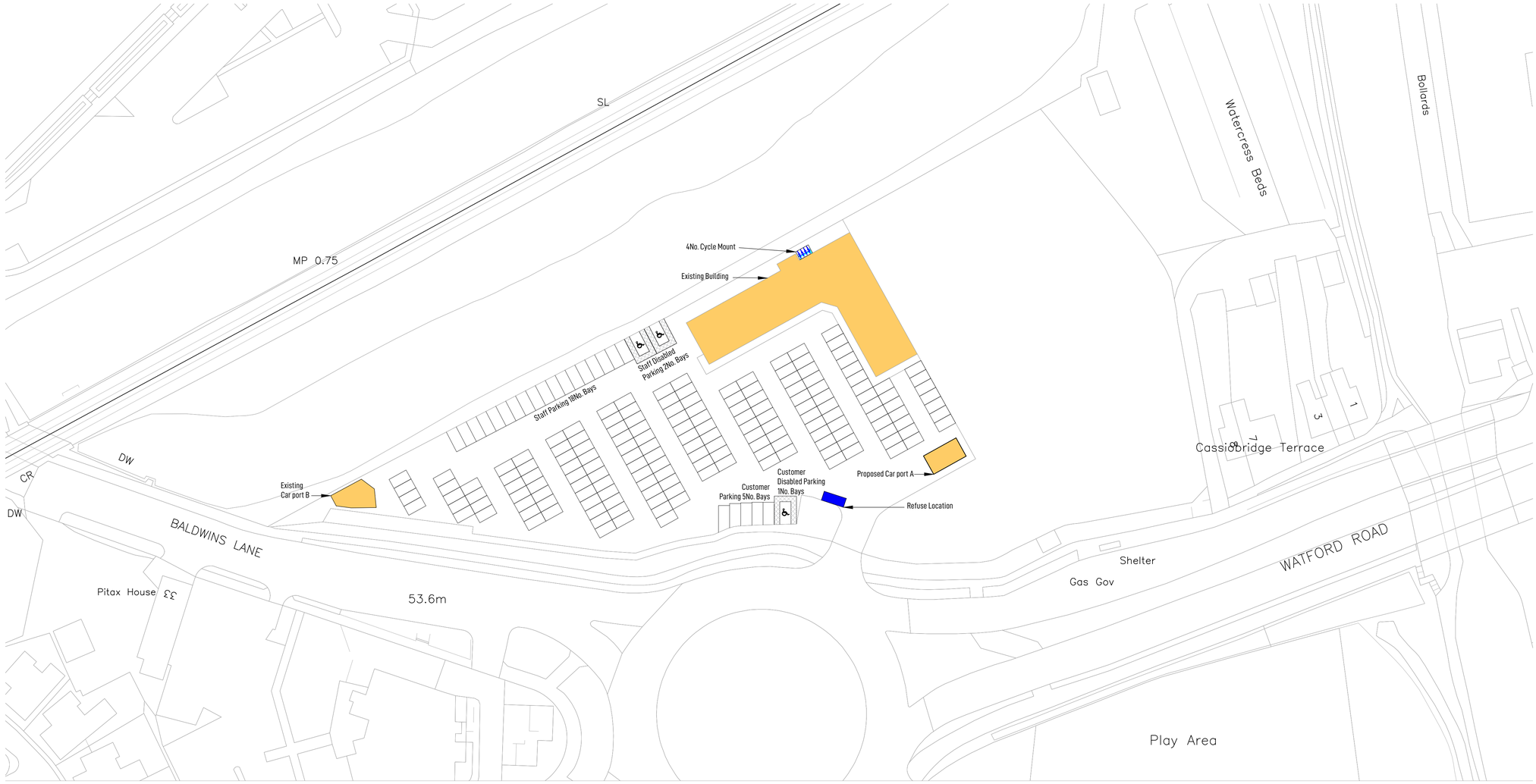
4.2 The proposed scheme is consistent with relevant transport planning policy guidance and will not rise to any material transport-related impacts. It therefore meets the test of the NPPF and paragraph 111, which states that:

"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."

Appendix A

Status
S0

A1



10 m 50 m 100 m

Scale Bar 1:500 @A1

Legend

Hard Landscaping

Building Footprints

Rev.	Date	Description	By	Chk
P05	06/11/2023	Customer Bays Updated	SKRS	-
P04	19/10/2023	Car Parking Updated	SKRS	-
P03	10/10/2023	Car Parking Updated	SKRS	-
P02	07/09/2023	Final Issue	SKRS	-
P01	04/09/2023	Initial submission	SKRS	-

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Project
Cinnamond House, Baldwins Lane, Croxley Green

Section
Proposed Site Plan

Drawing No.	Project	Originator	Zone	Level	Type	Role	Doc. No.	Rev.
	CMND	TEC	ZZ	ZZ	DR	-	0003	P05

Drawn	Check	Scale	Date
SKRS	-	1:500 @ A1	04/09/2023

Appendix B

TTP Consulting 111-113 Great Portland Street London Licence No: 752101

Calculation Reference: AUDIT-752101-231103-1138

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : A - OFFICE
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	1 days
03	SOUTH WEST		
	WL	WILTSHIRE	1 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
06	WEST MIDLANDS		
	WK	WARWICKSHIRE	1 days
	WM	WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	AK	WAKEFIELD	1 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	1 days
	MS	MERSEYSIDE	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:	186 to 2500 (units: sqm)
Range Selected by User:	118 to 2500 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/15 to 23/11/22

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

Selected survey days:

Monday	1 days
Tuesday	5 days
Wednesday	2 days

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

Selected survey types:

Manual count	8 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	4
Edge of Town	4

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	1
Development Zone	1
Residential Zone	3
No Sub Category	2

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	3 days - Selected
Servicing vehicles Excluded	5 days - Selected

Secondary Filtering selection:

Use Class:

Not Known	8 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 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

Secondary Filtering selection (Cont.):

Population within 1 mile:

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

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

Car ownership within 5 miles:

0.6 to 1.0	7 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.

Travel Plan:

Yes	1 days
No	7 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	8 days

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

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1 AK-02-A-01 OFFICES WAKEFIELD
PIONEER WAY
CASTLEFORD
WHITWOOD
Edge of Town
No Sub Category
Total Gross floor area: 1230 sqm
Survey date: TUESDAY 23/05/17 Survey Type: MANUAL

2 ES-02-A-11 HOUSING COMPANY EAST SUSSEX
THE SIDINGS
HASTINGS
ORE VALLEY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 186 sqm
Survey date: TUESDAY 17/11/15 Survey Type: MANUAL

3 GM-02-A-10 ACCOUNTANTS GREATER MANCHESTER
CHORLEY NEW ROAD
BOLTON
HEATON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 500 sqm
Survey date: MONDAY 19/04/21 Survey Type: MANUAL

4 MS-02-A-03 HOMES DEVELOPER MERSEYSIDE
ALDERMAN ROAD
LIVERPOOL

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Gross floor area: 1200 sqm
Survey date: TUESDAY 20/04/21 Survey Type: MANUAL

5 NF-02-A-04 BUILDING CONSULTANT NORFOLK
WHITING ROAD
NORWICH

Edge of Town
Commercial Zone
Total Gross floor area: 500 sqm
Survey date: WEDNESDAY 13/11/19 Survey Type: MANUAL

6 WK-02-A-03 ENGINEERING CONSULTANTS WARWICKSHIRE
BUDBROOKE ROAD
WARWICK

Edge of Town
Industrial Zone
Total Gross floor area: 796 sqm
Survey date: WEDNESDAY 23/11/22 Survey Type: MANUAL

7 WL-02-A-01 PET INSURANCE COMPANY WILTSHIRE
THE CRESCENT
AMESBURY
SUNRISE WAY
Edge of Town
Development Zone
Total Gross floor area: 2500 sqm
Survey date: TUESDAY 18/09/18 Survey Type: MANUAL

8 WM-02-A-04 OFFICE WEST MIDLANDS
BOURNVILLE LANE
BIRMINGHAM

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 1800 sqm
Survey date: TUESDAY 10/11/15 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.

TTP Consulting 111-113 Great Portland Street London Licence No: 752101

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

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	8	1089	0.620	8	1089	0.080	8	1089	0.700
08:00 - 09:00	8	1089	2.307	8	1089	0.207	8	1089	2.514
09:00 - 10:00	8	1089	1.699	8	1089	0.253	8	1089	1.952
10:00 - 11:00	8	1089	0.574	8	1089	0.218	8	1089	0.792
11:00 - 12:00	8	1089	0.298	8	1089	0.287	8	1089	0.585
12:00 - 13:00	8	1089	0.448	8	1089	0.803	8	1089	1.251
13:00 - 14:00	8	1089	0.677	8	1089	0.551	8	1089	1.228
14:00 - 15:00	8	1089	0.482	8	1089	0.402	8	1089	0.884
15:00 - 16:00	8	1089	0.310	8	1089	0.551	8	1089	0.861
16:00 - 17:00	8	1089	0.321	8	1089	1.492	8	1089	1.813
17:00 - 18:00	8	1089	0.080	8	1089	2.296	8	1089	2.376
18:00 - 19:00	7	1069	0.107	7	1069	0.815	7	1069	0.922
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			7.923			7.955			15.878

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.

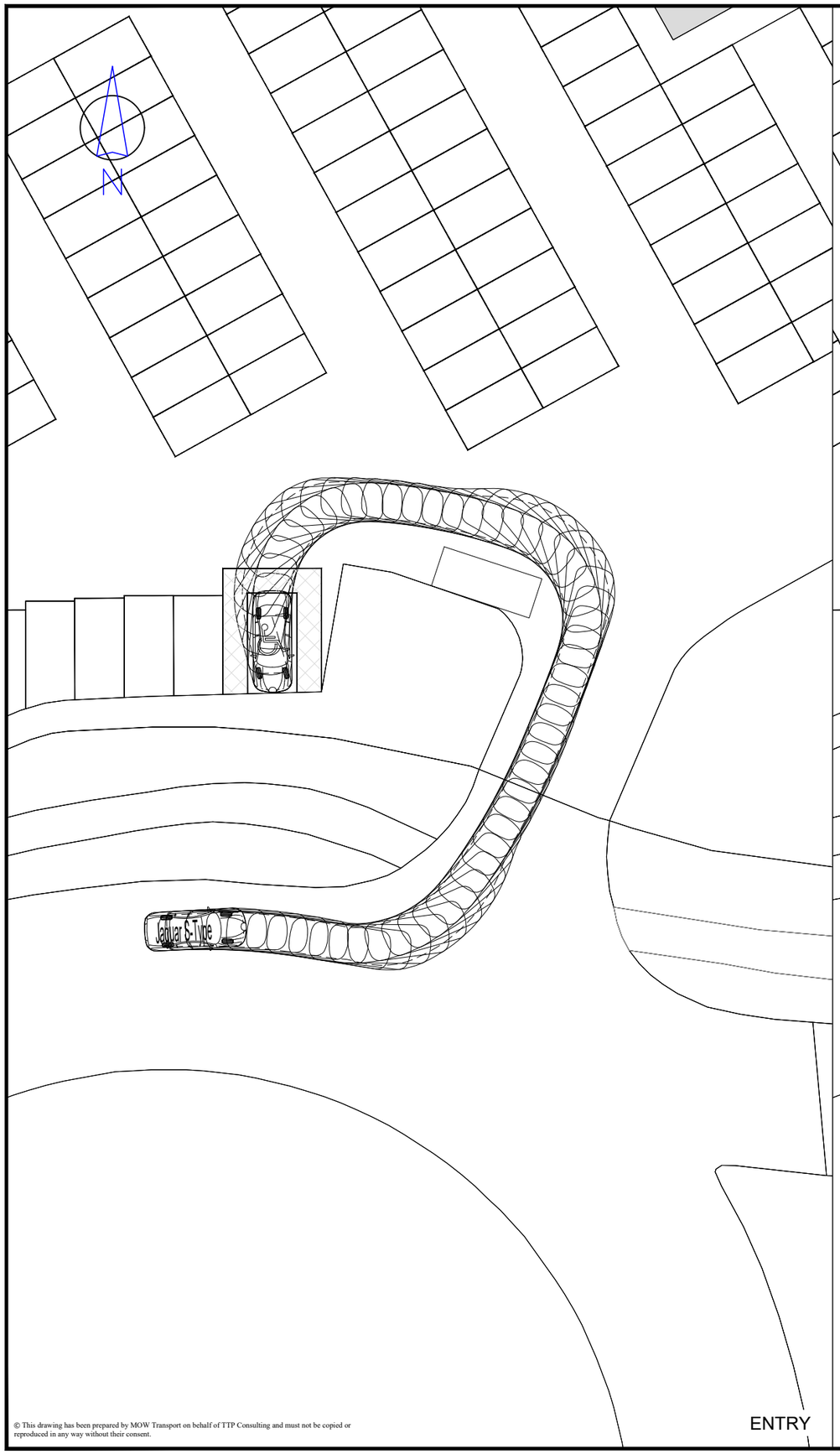
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected 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.*

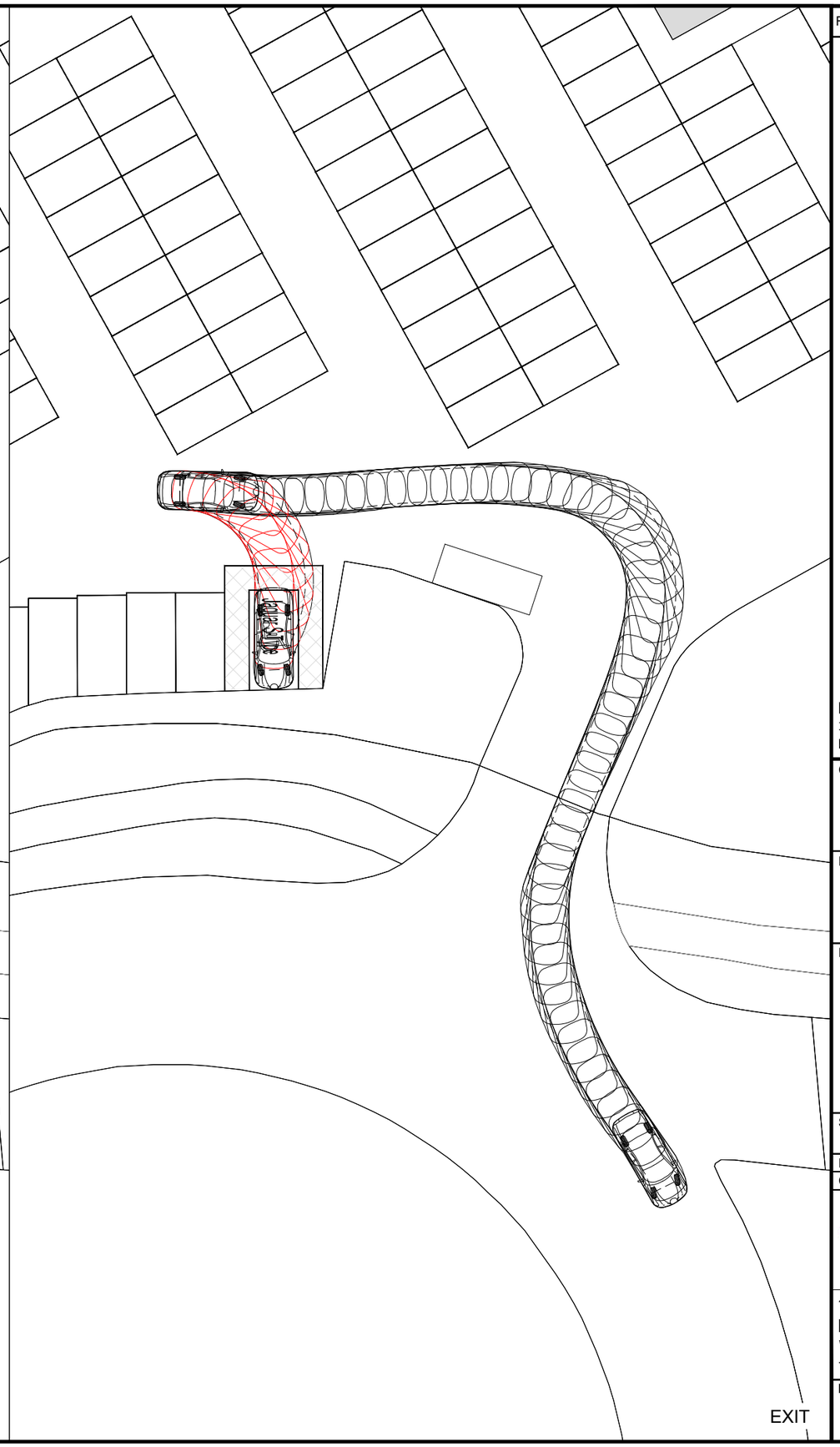
Parameter summary

Trip rate parameter range selected:	186 - 2500 (units: sqm)
Survey date date range:	01/01/15 - 23/11/22
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

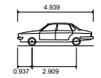
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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

Appendix C





Rev	Details	Drawn	Checked	Date
A	Scheme updated	MW	KM	13.11.23



Jaguar S-Type

Overall Length	4.939m
Overall Width	1.878m
Overall Body Height	1.474m
Min Body Ground Clearance	0.259m
Max Track Width	1.544m
Lock to Lock Time	4.00 sec
Kerb to Kerb Turning Radius	6.000m

Notes:
1. This is not a construction drawing and is intended for illustrative purposes only.

Client
-

Project
Cinnamond House,
Croxley Green

Drawing Title
Swept Path Analysis using a Large Car

Scale
1:250 at A3

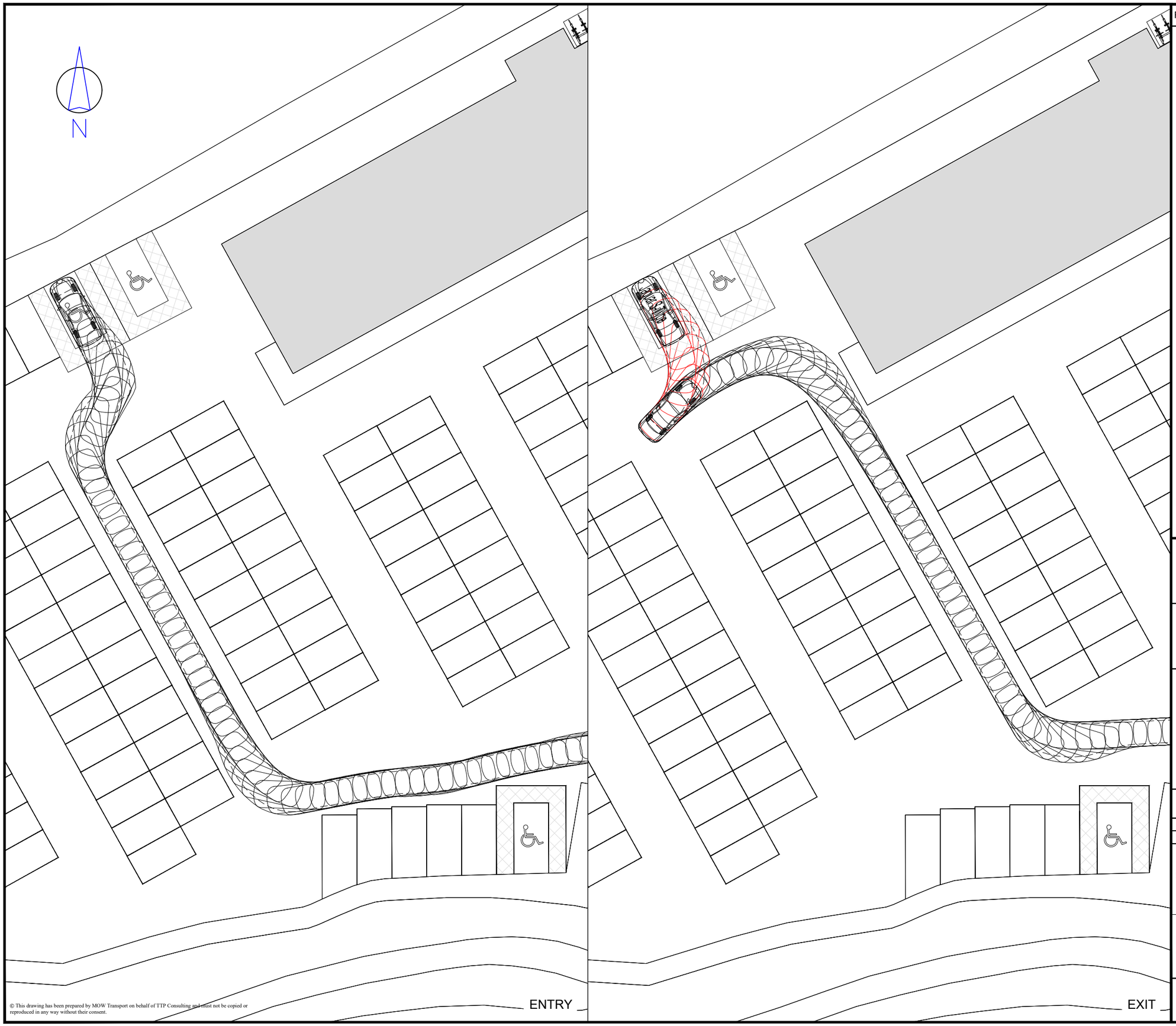
Drawn	MW	26.10.23
Checked	KM	26.10.23

ttp consulting
transport planning specialists

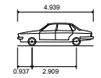
111 - 113 Great Portland Street
London
W1W 6QQ
Tel. No. 0207 1000 753

Drawing Number
2023-4878-AT-101(1)

Rev
A



Rev	Details	Drawn	Checked	Date
A	Scheme updated	MW	KM	13.11.23



Jaguar S-Type

Overall Length	4.939m
Overall Width	1.878m
Overall Body Height	1.474m
Min Body Ground Clearance	0.259m
Max Track Width	1.544m
Lock to Lock Time	4.00 sec
Kerb to Kerb Turning Radius	6.000m

Notes:
1. This is not a construction drawing and is intended for illustrative purposes only.

Client

-

Project

Cinnamond House,
Croxley Green

Drawing Title

Swept Path Analysis using a Large Car

Scale

1:250 at A3

Drawn	MW	26.10.23
Checked	KM	26.10.23

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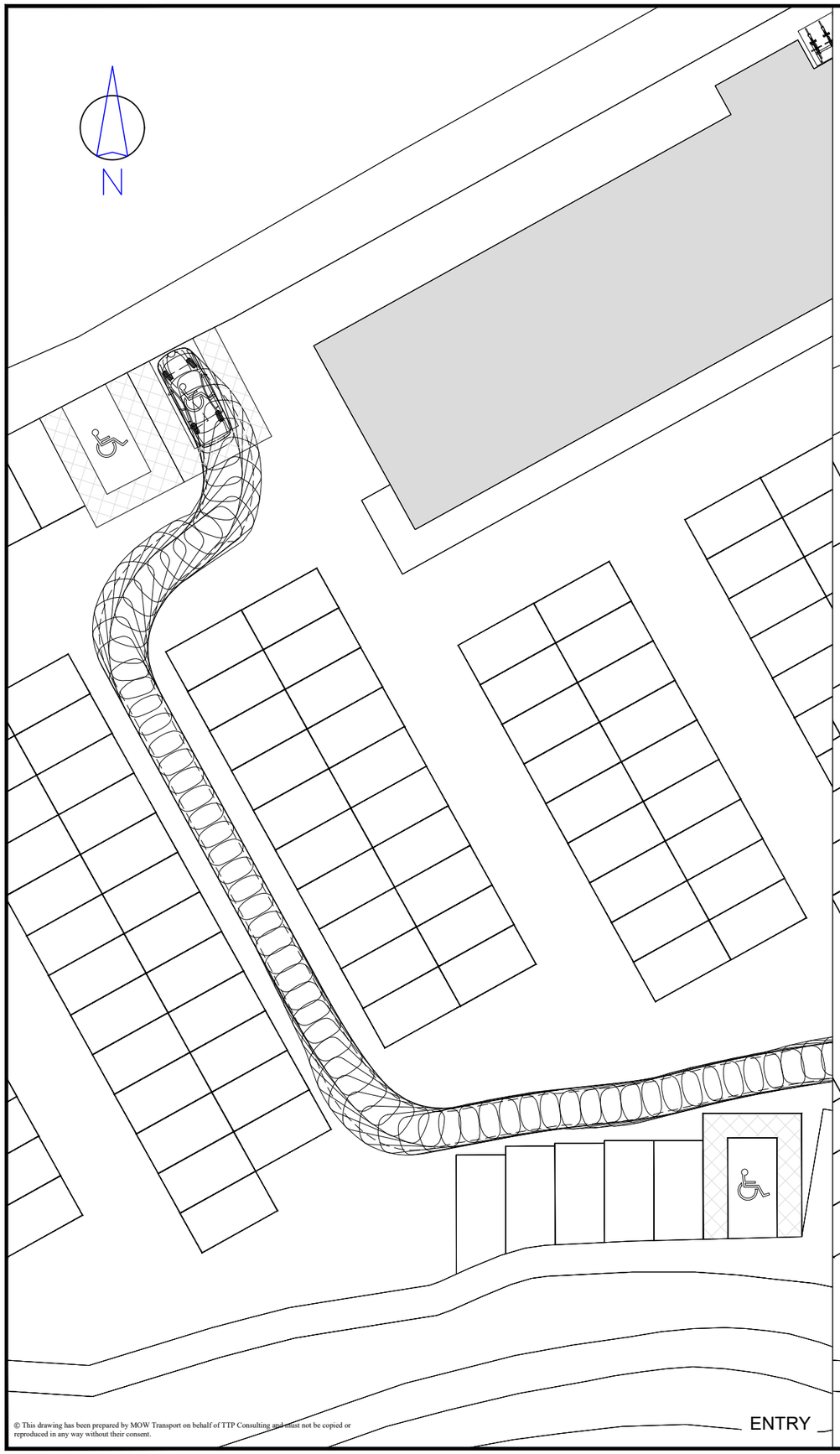
Tel. No. 0207 1000 753

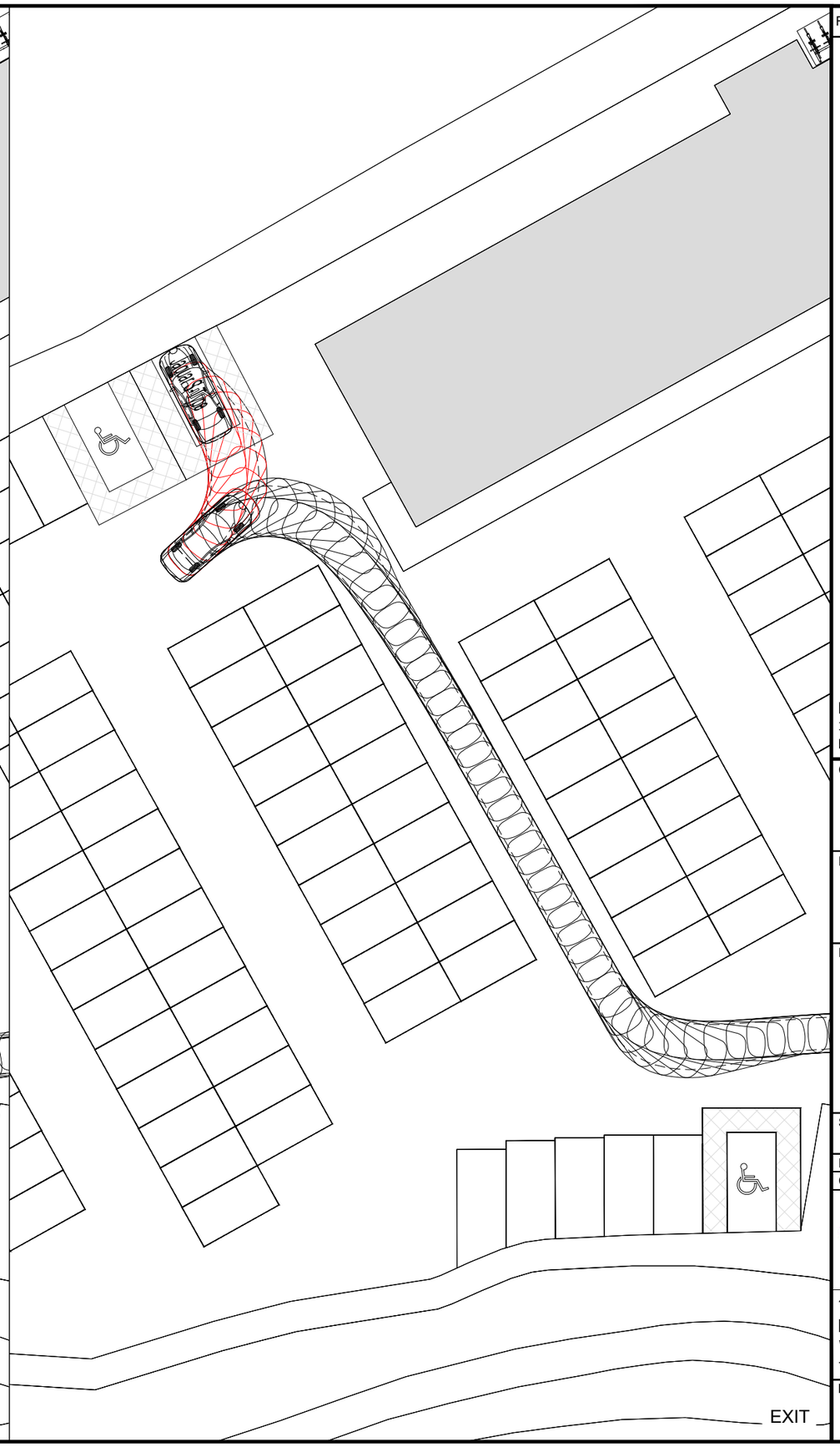
Drawing Number

2023-4878-AT-101(2)

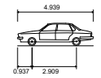
Rev

A





Rev	Details	Drawn	Checked	Date
A	Scheme updated	MW	KM	13.11.23



Jaguar S-Type

Overall Length	4.939m
Overall Width	1.878m
Overall Body Height	1.474m
Min Body Ground Clearance	0.259m
Max Track Width	1.544m
Lock to Lock Time	4.00 sec
Kerb to Kerb Turning Radius	6.000m

Notes:
1. This is not a construction drawing and is intended for illustrative purposes only.

Client
-

Project
Cinnamond House,
Croxley Green

Drawing Title
Swept Path Analysis using a Large Car

Scale
1:250 at A3

Drawn	MW	26.10.23
Checked	KM	26.10.23

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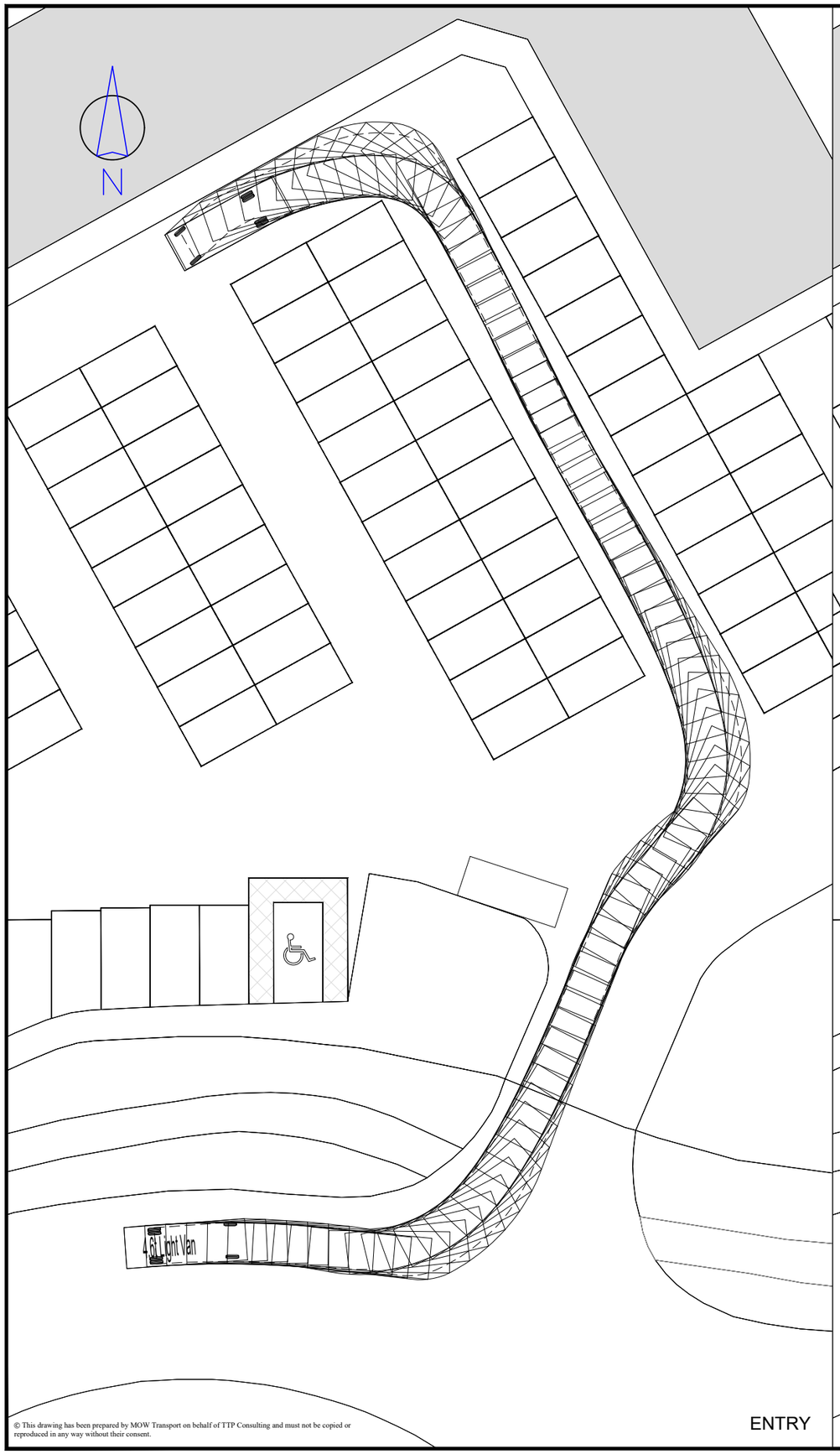
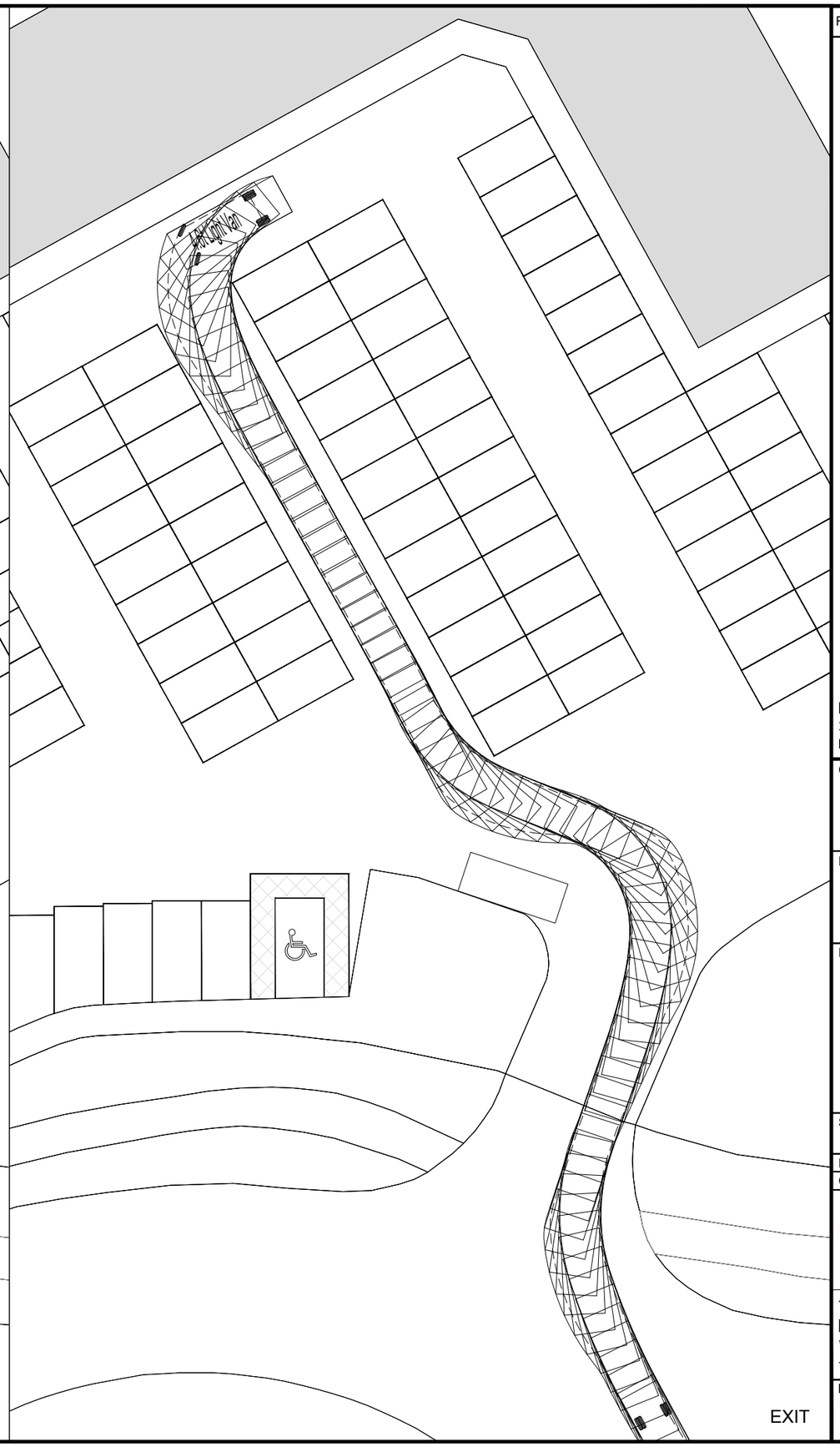
Tel. No. 0207 1000 753

Drawing Number
2023-4878-AT-101(3)

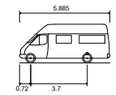
Rev
A

Appendix D





Rev	Details	Drawn	Checked	Date
A	Scheme updated	MW	KM	13.11.23



4.6t Light Van

Overall Length	5.885m
Overall Width	2.000m
Overall Body Height	2.526m
Min Body Ground Clearance	0.299m
Track Width	1.765m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	6.000m

Notes:
1. This is not a construction drawing and is intended for illustrative purposes only.

Client
-

Project
Cinnamond House,
Croxley Green

Drawing Title
Swept Path Analysis Using a 4.6t Panel Van

Scale
1:250 at A3

Drawn	MW	26.10.23
Checked	KM	26.10.23

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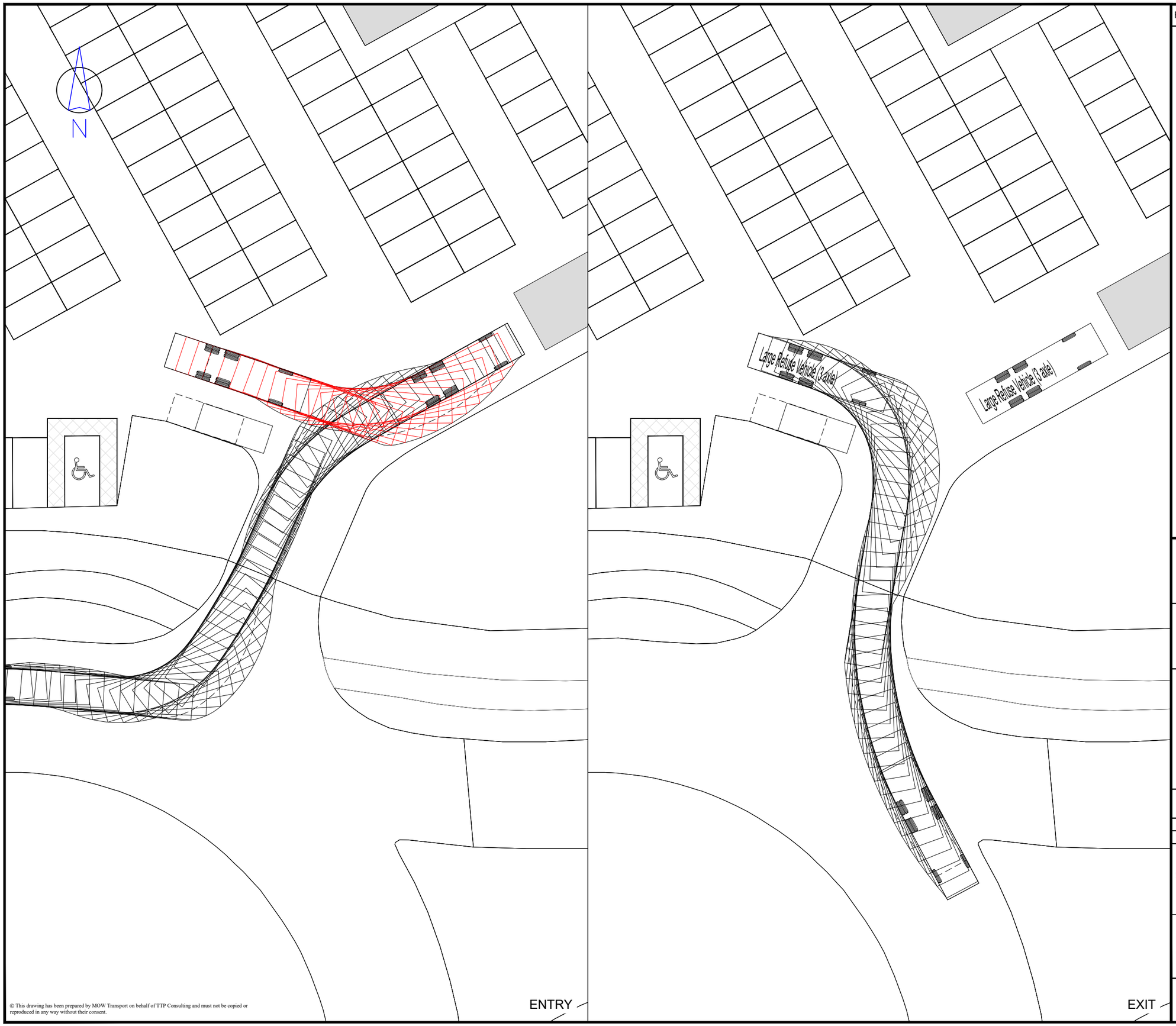
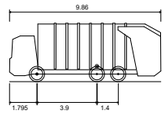
Drawing Number
2023-4878-AT-102

Rev
A

Appendix E



Rev	Details	Drawn	Checked	Date
A	Scheme updated	MW	KM	13.11.23



Large Refuse Vehicle (3 axle)

Overall Length	9.860m
Overall Width	2.450m
Overall Body Height	3.814m
Min Body Ground Clearance	0.366m
Track Width	2.450m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	9.500m

Notes:
1. This is not a construction drawing and is intended for illustrative purposes only.

Client
-

Project
Cinnamond House,
Croxley Green

Drawing Title
Swept Path Analysis Using a Large Refuse Vehicle

Scale
1:250 at A3

Drawn	MW	26.10.23
Checked	KM	26.10.23

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transport planning specialists

111 - 113 Great Portland Street
London
W1W 6QQ
Tel. No. 0207 1000 753

Drawing Number
2023-4878-AT-103

Rev
A