

Queens Road, Cheetham Hill
Warehouse with Trade Counter
Transport Statement
230314/SK222111/TS01(-01)

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- E Road Safety Audit
- F TRICS Output

Project	Document	Rev	Description	Authorised by	Signed	Date
SK222111	TS	00	Draft	L Speers	LGS	09/03/2023
SK222111	TS	01	Submission	L Speers	LGS	14/03/2023

1 Introduction

1.1 SK has been appointed to prepare a Transport Statement (TS) that assesses the implications of constructing a warehouse unit with trade counter (Sui Generis) on a site off Queens Road (A6010) in Cheetham Hill. The unit has a total floor area of 255sqm.

1.2 The assessment has been undertaken in line with the following policy guidance:

- Chartered Institution of Highways & Transportation (2019), Better planning, better transport, better places
- Manchester City Council (2012), Manchester's Local Development Framework: Core Strategy Development Plan
- Ministry of Housing, Communities & Local Government (2016), Planning Practice Guidance
- Ministry of Housing, Communities & Local Government (2021), National Planning Policy Framework
- Transport for Greater Manchester (2013), Transport for Sustainable Communities

1.3 The proposal has been discussed with the Local Highway Authority, Manchester City Council (MCC), and it has been agreed that a Road Safety Audit (RSA1) and draft Construction Traffic Management Plan be included in the TS. The minutes of the scoping discussion attached as Appendix B.

2 Baseline Situation

Site Location & Baseline Use

2.1 Figure 2.1 shows that the site is located to the east of Cheetham Hill and west of Monsall. The site is bounded to the north by an alleyway associated with properties Wythburn Avenue and to the south by Queens Road.

2.2 There is no active use currently on the site.



Figure 2.1: Site Location
[source: [IS04](#)]

Local Highway Network

2.3 Queens Road is an A class road that is 9.5m wide with 2m+ footways on both sides of the carriageway. The road is subject to a 30mph speed limit and street lighting is present. Traffic Regulation Orders in the vicinity of the site include double yellow line controls on both sides of the

road prohibiting parking at any time, loading is not permitted during peak periods (07.30-09.30 and 16.00-18.30).

- 2.4 To the east of the site, Queens Road meets Smedley Road at a signalised cross-road arrangement. Uncontrolled crossings (pedestrian refuge with dropped kerb) are in place on the Queens Road (W) and Smedley Road (N) approaches.
- 2.5 To the west of the site near to Eckford Street, a controlled (signal) crossing is provided. Continuing west provides access to Cheetham Hill Road (A665).

Queens Road Traffic Flows

- 2.6 Transport for Greater Manchester's (TfGM) accident database provides details of existing daily traffic flows on Queens Road, just to the west of the site. Table 2.1 provides a summary of the existing traffic flows.

Annual Average Daily Traffic Flows	18,093
Annual Average Weekday Traffic Flows	19,494

Table 2.1: Daily Traffic Flows (in vehs)
[source: [TfGM](#)]

Road Safety Record

- 2.7 TfGM's accident database has been used to establish the road collision patterns surrounding the site. The data presents all personal injury accidents occurring for the most recent five-year period available (to December 2022).
- 2.8 The data shows that there have been no accidents on the site frontage during the period assessed.
- 2.9 There have been six accidents at the junction of Queens Road / Smedley Road during the five-year period. Four of the accidents occurred in 2017, one accident occurred in 2020 and one accident in 2022. All of the accidents were classified as slight.
- 2.10 The data shows that four of the accidents at the junction occurred in 2017, since this time the accident rate at the junction has reduced to circa one accident every two years. Based on this the data does not indicate a prevalent accident issue or hotspot.

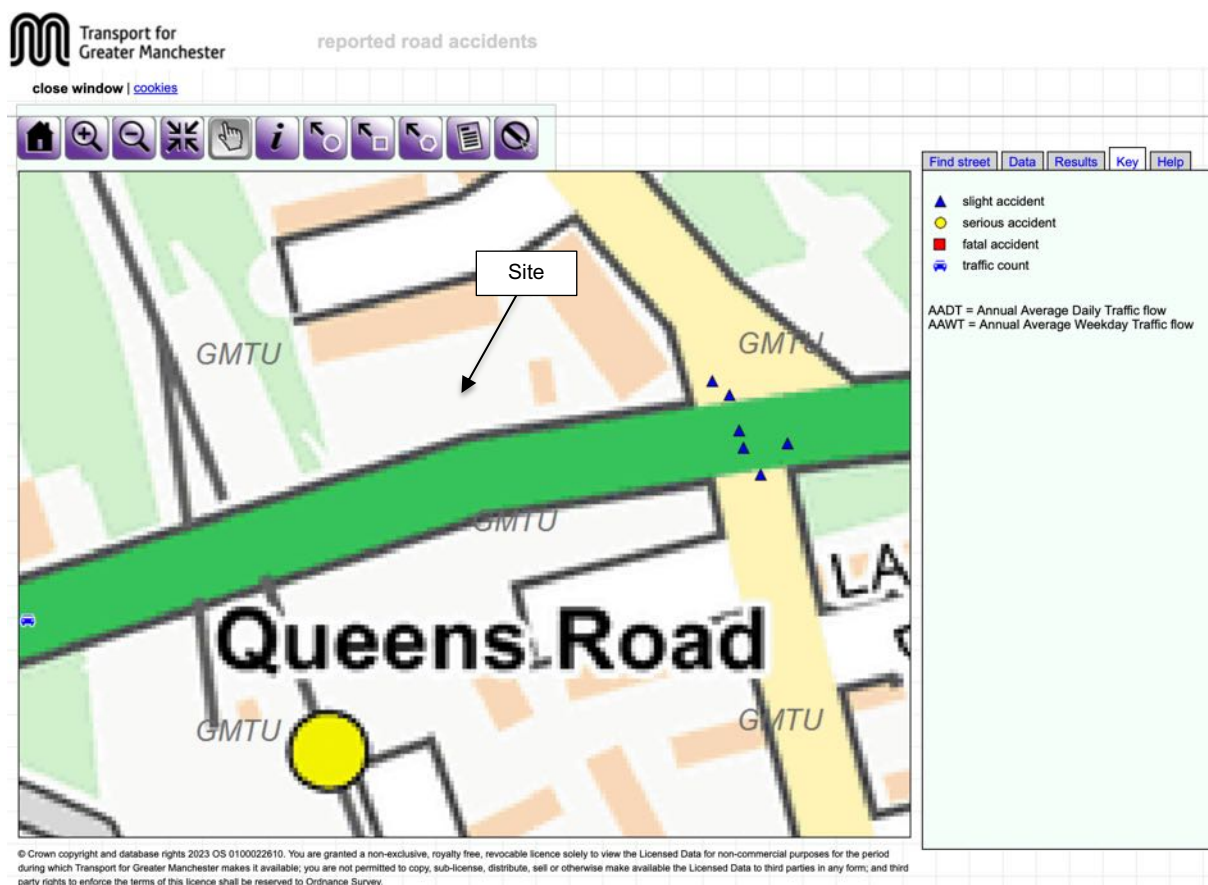


Figure 2.2: Accident Data
[source: TfGM]

3 Proposed Development

Overview

- 3.1 The proposal will construct a warehouse unit with trade counter (Sui Generis) at the site. Table 3.1 provides a summary of the size of the unit.

	Floor Area (sqm)
Warehouse	200
Front of House (Trade Counter)	55
Total	255

Table 3.1: Development Floor Area

Site Access Arrangements

- 3.2 Vehicle access to the site is provided from a new kerbed bellmouth entrance on Queens Road. The new entrance will provide a 6m width access to the site with 3m radius kerbs on either side. Visibility splays commensurate with the prevailing speed restriction on Queens Road can readily be achieved. Provision of 'keep clear' markings on Queens Road is proposed to reduce the potential for a vehicle waiting to turn into the site interfering with movement on Queens Road. There is also a bus stop (eastbound) on the western side of the proposed access location that may require relocation, subject to consultation with TfGM. The proposed access arrangement is shown in Appendix C.
- 3.3 Dropped kerbs and tactile paving will be provided at the access junction. In addition, a segregated pedestrian access is provided to the west of the access junction that connects directly to the trade counter and building entrance.

- 3.4 The access will be delivered by Section 278 Agreement.

Car Parking

- 3.5 MCC's parking standards are set out in the Core Strategy. There is no specific adopted standard for a warehouse unit with trade counter (Sui Generis) and so a combined approach has been adopted that seeks to allow for the retail and warehouse elements at the site by using the warehouse and non-food retail parking standard.

	Floor Area (sqm)	Standard	Parking Level
Warehouse	200	1 per 100sqm	2
Non-Food Retail	55	1 per 20sqm	3

Table 3.2: Parking Standards

- 3.6 The application of a combined standard shows a requirement for five parking spaces. The proposed development accords with this and includes an additional disabled space. 20% of the parking spaces will be to EV charging standard. The appropriateness of the proposed parking level is considered in Section 4.
- 3.7 The cycle parking standards for warehouse uses is 1 space per 850sqm or a minimum of two spaces and for non-food retail is 1 space per 200sqm or a minimum of two spaces. The proposal provides four long-stay cycle parking spaces for staff within the building and two short-stay cycle parking spaces for visitors externally. The level of cycle parking provided is in excess of the adopted standards.

Service Access Arrangements

- 3.8 A roller shutter is provided adjacent to the car park. Service activity will be organised to occur outside trade counter opening times.
- 3.9 Vehicles expected to require regular access to the site for deliveries will be transit-type vans and box van (8m rigid truck) up to 7.5T. Tracking for a long wheelbase transit type van and box van are shown in Appendix D.
- 3.10 Servicing arrangements will be undertaken in line with the Service Management Plan that will be prepared and submitted for agreement with MCC. The requirement to submit a Service Management Plan will be dealt with by a suitably worded planning condition.

Road Safety Audit – Designer's Response

- 3.11 A Road Safety Audit (RSA1) has been undertaken by Waterman and is attached as Appendix E.
- 3.12 The RSA1 raises two issues and recommendations, as set out below.
- 3.13 Issue 1 states that a bus stop requires locating to accommodate the new vehicle access. The RSA1 recommends that this is relocated outside the vicinity of the proposed development. This is agreed and the new location of the bus stop will be set out as part of the Section 278 Works for the vehicle access.
- 3.14 Issue 2 states that service access relies on occurring when the car park is not in use and it recommends that a Service Management Plan is prepared setting out how this will be managed and to reduce conflicts during service activity periods. This is agreed and will be dealt with via a suitably worded planning condition.

Construction Traffic Management Plan

- 3.15 A full Construction Management Plan will be prepared once a contractor has been appointed and the requirement to prepare and submit a full version will be dealt with by a suitably worded planning condition. In the meantime, a draft version has been prepared and is set out below.
- 3.16 It is anticipated that, for the majority of the construction period, activity will be confined to the site with the front part of the site, including the future parking area, serving as a compound whilst the building is constructed. Goods will be handled within the site and banksmen used for vehicle manoeuvring to and from Queens Road.
- 3.17 The final plan will identify any requirement to extend the working area and hoardings beyond the site boundary for any part of the construction period.
- 3.18 Other measures will be introduced to reduce the effects on the highway network and consideration will be given to the following:
 - Construction hours and delivery hours will be agreed with MCC to reduce amenity effects and impact on the peak hour highway network
 - Measures will be used to control the emission of dust and dirt, including wheel washing before going out of the site
 - All contractors will park in identified locations either in the site or other locations by arrangement of the contractor
 - Appropriate hoarding and signage will be used at the site
 - All storage, loading and unloading of plant and materials will occur within the site, with appropriate turning space provided for large vehicles
 - An appropriate scheme will be put in place for recycling / disposing of waste resulting from the construction works
 - The site set up will include appropriate facilities for the work force, including health & safety
 - Site lighting will be used to provide sufficient illumination for the site construction, but not providing any glare to nearby road users

4 Traffic & Parking Assessment

Development Trip Generation

- 4.1 The development trip generation forecast has been undertaken using the TRICS database. TRICS now maintains a land use class that provides a suitable proxy for a warehouse with trade counter. This is TRICS use class: 01 – Retail – R – Trade Shop. The use class is relatively new and limited data is only available from 2014.
- 4.2 The assessment has been undertaken using survey sites in Edge of Town and Suburban Areas only to replicate the location of the site.
- 4.3 The TRICS sample has an average floor area of 396sqm, which is larger than the proposal site. Given the nature of the use type it can be expected that the larger the floor area could result in greater trips per sqm due to the potential for more goods to be offered for sale thereby encouraging greater trip attraction than a smaller floor area. The use of the data therefore provides a robust means of assessing the impact of the development.
- 4.4 The TRICS output is attached as Appendix E, with a summary provided in the tables below.

	Vehicle Trip Rates (per 100sqm GFA)		
	In	Out	Total
AM Peak Hour	2.86	2.439	5.299
PM Peak Hour	1.682	2.019	3.701

Table 4.1: Trip Rates

	Total Vehicles		
	In	Out	Total
AM Peak Hour	7	6	14
PM Peak Hour	4	5	9

Table 4.2: Traffic Flows

Traffic Impact

- 4.5 Table 4.2 shows that the proposal will generate a maximum of 14 vehicles in the peak hours. This level of traffic is not significant and will not have an impact on highway operation or road safety. The level of traffic will be imperceptible to other road users.

Parking Assessment

- 4.6 The TRICS sample has an average parking provision of 0.025 spaces per sqm. This is comparable to the proposal site that provides 0.024 spaces per sqm and shows that the level of parking is appropriate for the land use proposed.
- 4.7 A parking accumulation has been undertaken based on the trip generation and this shows that there is sufficient parking at the site to meet the operational needs of the development.

	Total Vehicles			
	In	Out	Total	Accumulation
06:00-07:00	1	0	1	1
07:00-08:00	6	5	11	1
08:00-09:00	7	6	14	2
09:00-10:00	8	8	15	2
10:00-11:00	7	7	14	1
11:00-12:00	8	6	14	3
12:00-13:00	9	9	18	2
13:00-14:00	7	8	15	2
14:00-15:00	8	7	15	2
15:00-16:00	7	7	14	1
16:00-17:00	9	8	17	2
17:00-18:00	4	5	9	1
18:00-19:00	5	5	10	1
19:00-20:00	4	4	8	1
20:00-21:00	0	0	1	0

Table 4.3: Parking Accumulation

5 Accessibility Assessment

Pedestrian & Cycle Infrastructure

- 5.1 Pedestrian access to the site is provided from a segregated location on Queens Road. Tactile paving and dropped kerbs are provided at the proposed vehicle access junction.
- 5.2 The footways on Queens Road are 2m+ on both sides of the carriageway. A pedestrian refuge crossing is provided to the east of the site at the junction of Queens Road / Smedley Road and a signalised crossings is provided to the west of the site.
- 5.3 Two-thirds of all journeys in the UK are under-five miles and short distance trips offer the greatest opportunity for changes in travel behaviour. DfT best practice guidance states that walking has the potential to substitute for car trips under 2km.
- 5.4 Figure 5.1 shows a 2km walking catchment from the site. This shows that the site is within 100m of the Queens Road Tram Station and bus stops. It also shows that the site is within 1km of the centre of Cheetham Hill and residential areas to the east of the site. The site is within 2km of Cheetham Hill, Harpurhey, Moston, Crumpsall, Monsall and Collyhurst. The site could legitimately draw pedestrian staff and customer trips from these locations.

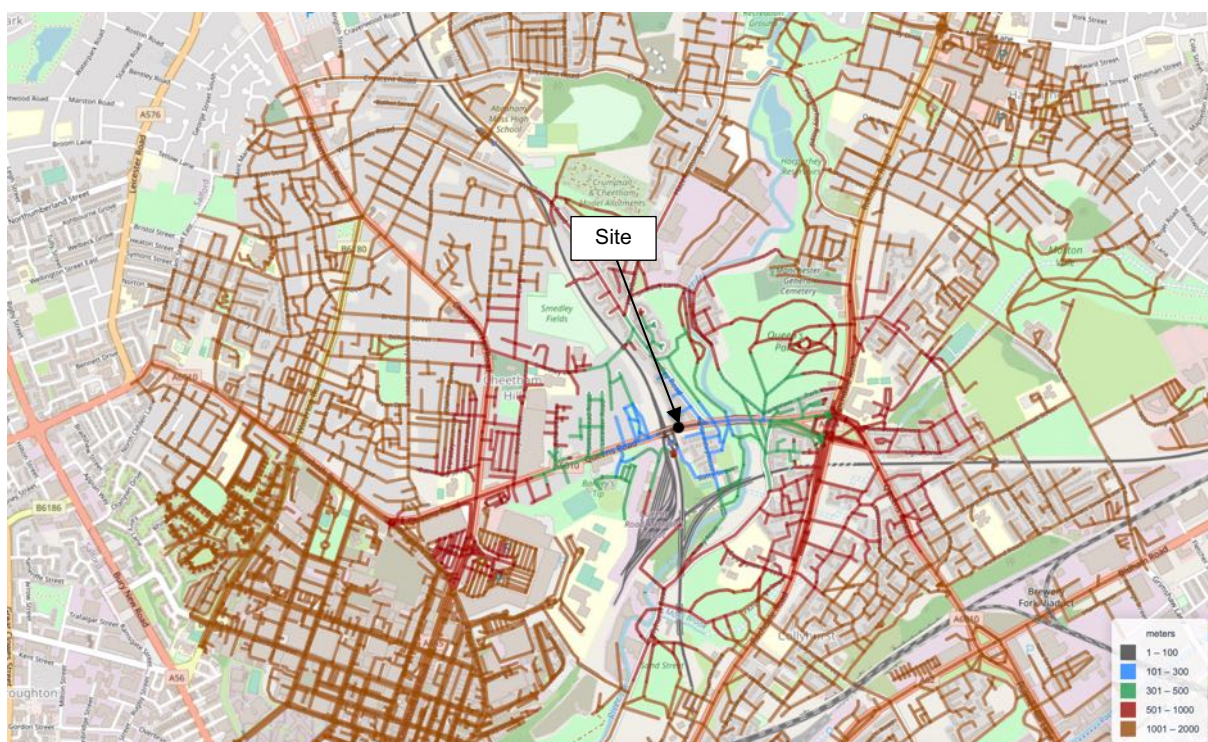


Figure 5.1: 2km Walk Catchment
[source: [IS04](#)]

- 5.5 The development includes a high level of cycle parking for staff and visitors.
- 5.6 Figure 5.2 shows the cycle network serving the site. This shows that local streets, such as Smedley Road, can be used to access routes on Cheetham Hill Road, Woodlands Road and Route 60 of the National Cycle Network.

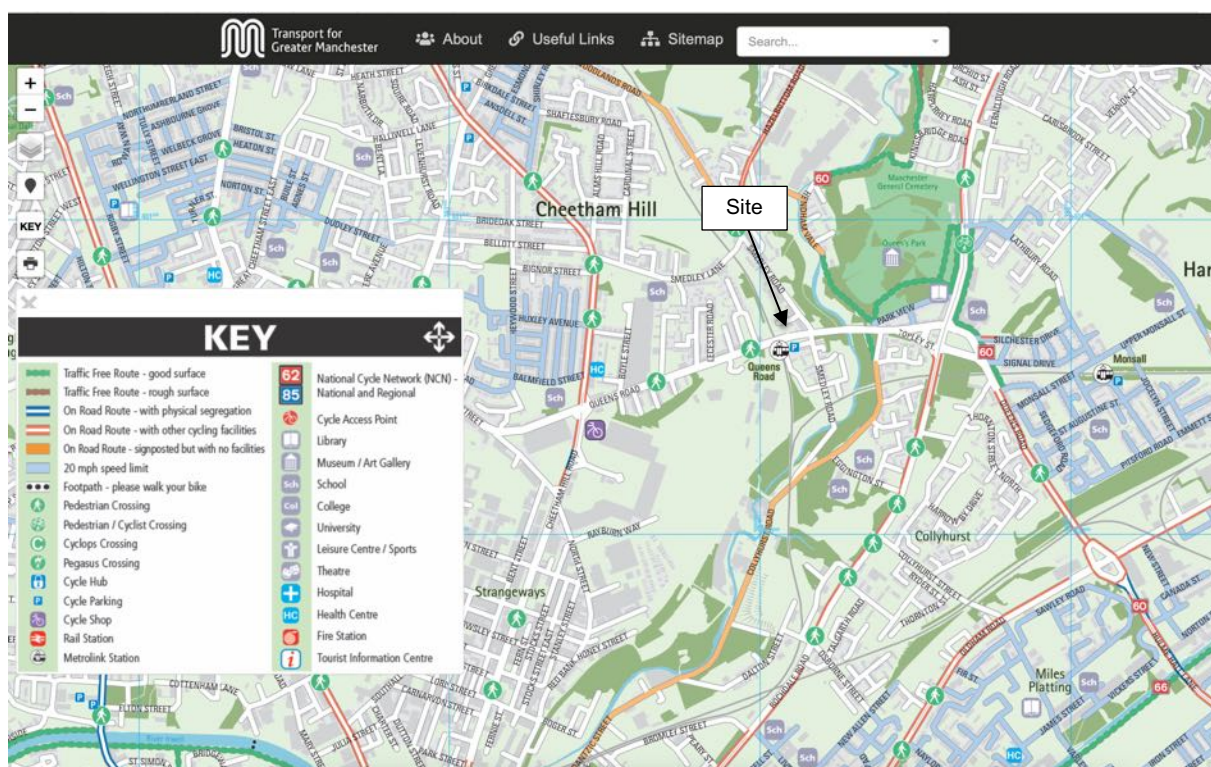


Figure 5.2: Cycle Network
[source: TGM]

- 5.7 The assessment shows that opportunities exist for access on foot and by cycle.
- Public Transport Infrastructure
- 5.8 Figure 5.3 shows the public transport network serving the site. The nearest bus stops to the site are located on Queens Road and the site is opposite the Queens Road Tram Station.
- 5.9 Queens Road is served by Route 151 which routes between Ashton-under-Lyne and Higher Crumpsall and operates with an hourly frequency (each way). Services operate seven days a week.
- 5.10 Queens Road Tram Station sits on the Bury to Manchester and Bury to Altrincham tram lines and is served by frequent tram services throughout the week.
- 5.11 A Greater Manchester Accessibility Level (GMAL) calculation has been undertaken for the site. A GMAL is calculated using the interactive tool managed and maintained by TfGM. This tool measures accessibility by public transport of a point of interest and provides a score between 1 and 8, where 1 is a low level of accessibility and 8 is the highest level of accessibility. Figure 5.3 shows that the site has a GMAL of index of 7, which is a very high level of accessibility.
- 5.12 The assessment shows that the site is well placed for public transport trips.

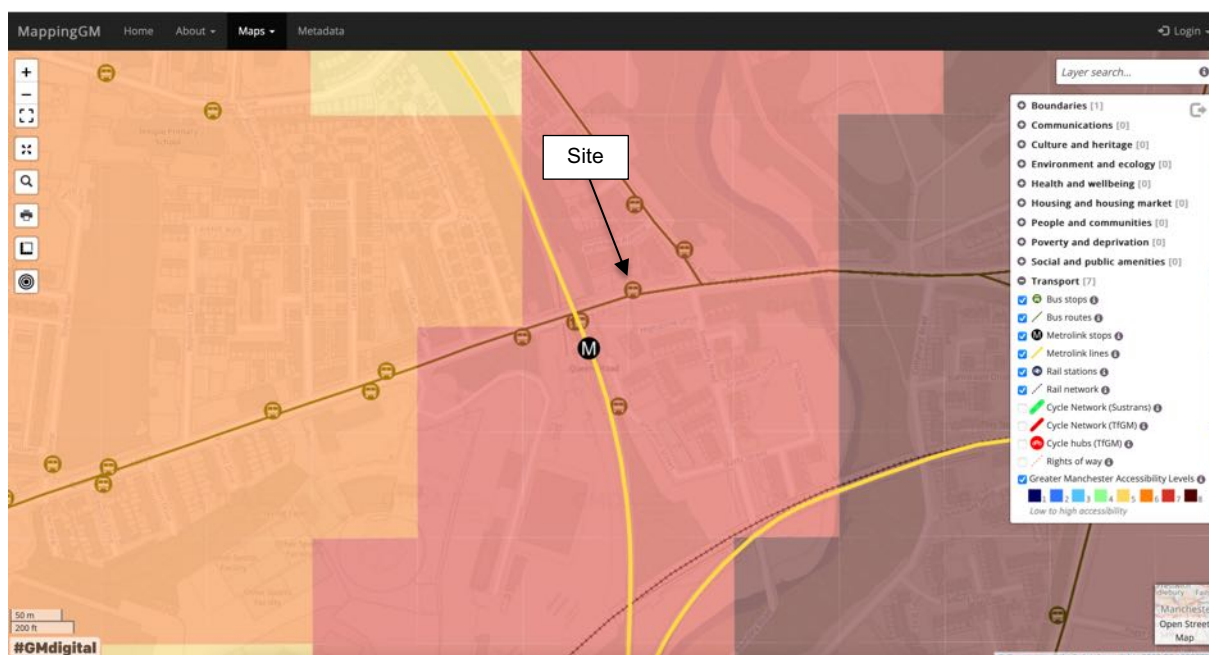


Figure 5.3: Public Transport Network & GMAL
[source: [MappingGM](https://mappinggm.com/)]

6 Conclusions

- 6.1 SK has been appointed to prepare a TS that examines the impact of constructing a warehouse unit with trade counter (Sui Generis) on a site off Queens Road in Cheetham Hill.
- 6.2 The scope of the assessment has been undertaken in line with standard appraisal methods and in line with local and national guidelines. Pre-application discussions have been held with the Local Highway Authority (MCC).
- 6.3 The proposal will be served by a new vehicle access created onto Queens Road. Appropriate levels of car and cycle parking is provided. Provision is made of pedestrian access. Service access arrangements will be accommodated on site and will be governed by a Service Management Plan.
- 6.4 A RSA1 has been undertaken and this raises two issues with the proposal and suggests recommendations for resolving these issues. The recommendations are agreed in the Designer's Response.
- 6.5 A full accessibility assessment has been undertaken that shows that the site is well located with opportunities for walking, cycling and public transport access. The site has a GMAL of 7, which is a very high level of accessibility.
- 6.6 A traffic assessment has been undertaken and this shows that the proposal will be associated with an insignificant level of trips during the peak hours. It is also shown that there is no accident hotspots on the site frontage. A parking accumulation has been undertaken that confirms the level of parking is appropriate for the use.

Appendix A



Project no. 3300	Type	Seed drawing no. A-DWG-GF-100	Rev. B
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Appendix B

Meeting Note

Date: 20 January 2023

Project: Queens Road, Cheetham Hill

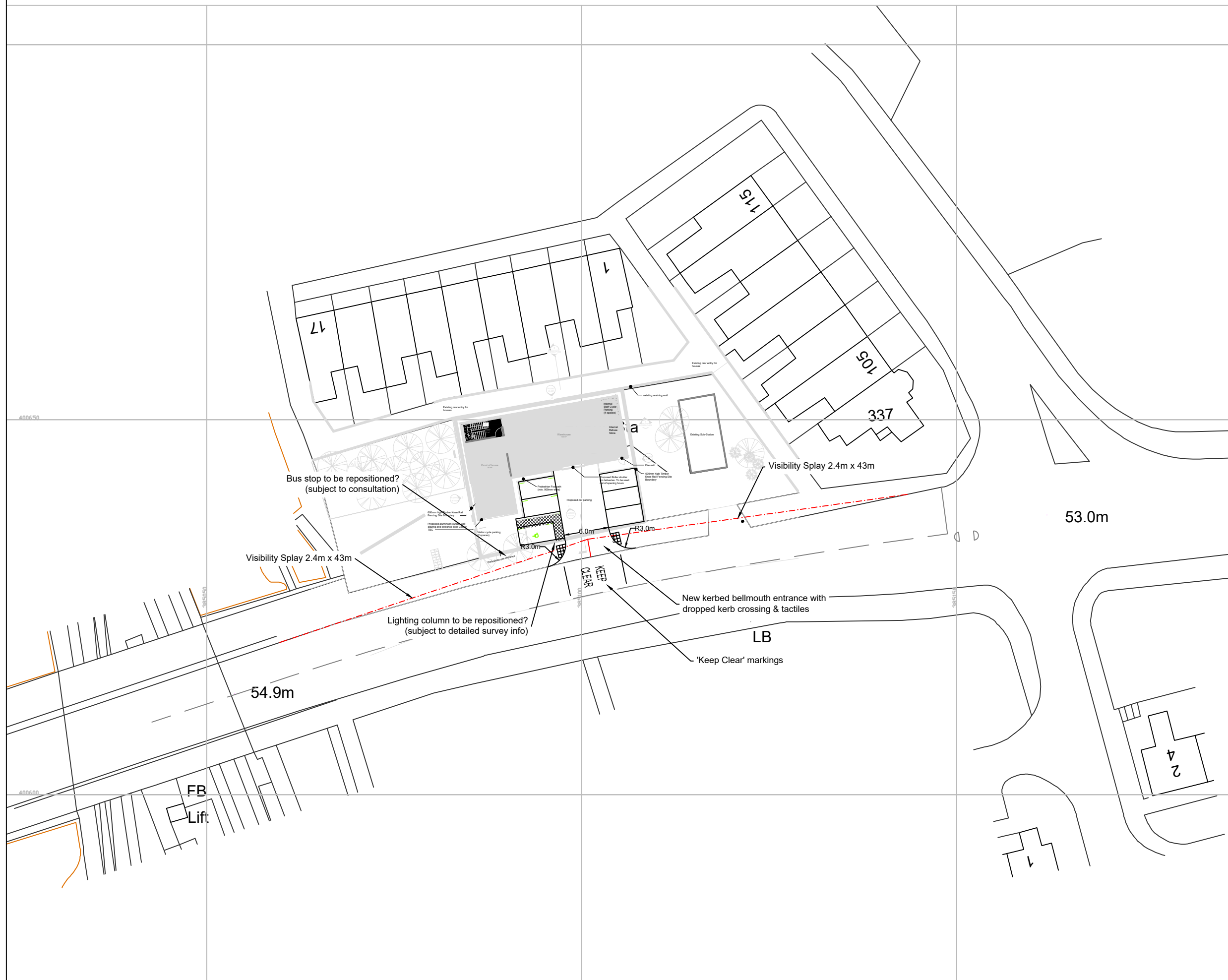
Attendees: John Thompson – SK
 Monty Dobney – Seed Architects
 Rob Hotchkiss – Seed Architects
 Abdul Khan – Mainstay Money
 Rebecca Hesketh – MCC Highways DC
 Laura Wareing – MCC Highways DC

Topic	Discussion	Actions
Parking Provision	Noted current provision shown as six parking spaces including one accessible parking bay. JT advised equivalent maximum standard level for non-food retail use would be eight spaces based on floor area, nature of proposed use generally expected to have short duration visits compared with typical retail and parking provision therefore considered to be in line with this. RH(MCC) requested justification to be provided as part of planning submission eg. via TRICS or other comparison data, parking accumulation to support proposed level of provision. Query arose regarding use class and controls – RH(Seed) advised use comes under B8 – JT noted that controls relating to building use would need to be addressed by planning officers (not present in meeting)	SK
Servicing Arrangements	JT noted that managed approach to servicing would be necessary in order to control shared use of the parking area which will need to be available for parking during opening times and that servicing would need to take place outside these times. JT noted MCC initial feedback that servicing from kerbside on Queens Road would not be supported. Advised that initial suggestion in relation to this was more to note that there are existing loading controls on Queens Road that would need to be complied with. However, taking account of MCC position on this, service management strategy would need to ensure all servicing activity is accommodated within the site. Proposed that this should be covered as part of Service Management Plan (SMP) for the site that can be secured – and enforced if necessary – via planning condition. This will provide separate enforcement route other than that associated with the existing TRO. RH(MCC) confirmed SMP would need to include appropriate strategy to ensure servicing is contained within the site and would be subject of planning condition. Vehicle tracking to be updated as necessary and provided as part of application package.	SK
Site Access	RH(MCC) noted visibility splay shown is acceptable and welcomed provision of dropped kerbs/tactile paving to provide crossing point at access. Advised that RSA (Stage 1) required for planning.	SK – note independent audit company to be used

Cycle Parking	RH(MCC) noted cycle parking provision for staff likely to be most relevant, needs to be covered and secure. If additional Sheffield stand for visitor use can be provided this would be welcome.	Seed
Site Layout	RH(MCC) expressed concern regarding pedestrian route provision, more thought and appropriate changes expected in respect of pedestrian access routes within the site.	Seed
AOB	Notes to be shared with TfGM	MCC
Post-Meeting Note (MCC)	MCC will require a Construction Management Plan as a condition of any planning permission. Summary of construction activities requested within application documents including substation and other utility connections.	Relevant specialist input required

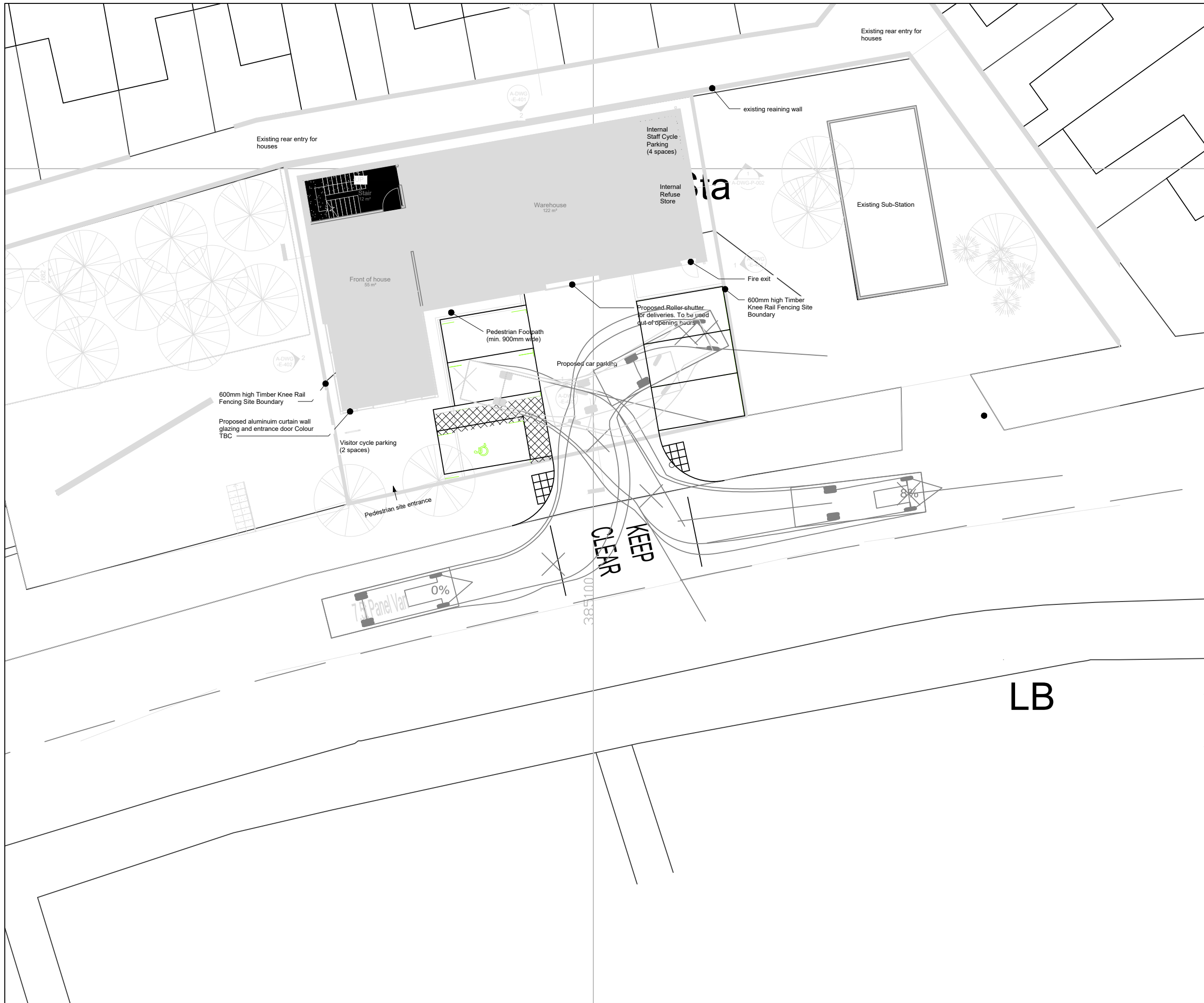
Appendix C

Layout subject to detailed design and confirmation of statutory undertakers' equipment.



Revision Details		By	Date
		Check	Suffix
Drawing Number SK222111-001			
Queens Rd, Cheetham Hill Proposed Site Access General Arrangement			
Scale at A3 1:500			
Drawn JAT		Approved LGS	
Check LGS		Date 02.02.23	
 SK Transport Planning Ltd Albion Wharf Manchester M1 5LN www.sktransport.co.uk 0161 234 6509			

Appendix D



THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

NOTES

Vehicle Profile

7.5t Panel Van	7.210m
Overall Length	2.192m
Overall Width	2.544m
Overall Body Height	0.316m
Min Body Ground Clearance	1.865m
Track Width	4.00 sec
Lock to Lock Time	7.400m
Kerb to Kerb Turning Radius	

Revision Details	By	Date	Suffix
	Check		

Drawing Number

SK222111-002

Queens Rd, Cheetham Hill

Drawing Title

Swept Path Analysis
LWB Transit-Type Van (7.5T)

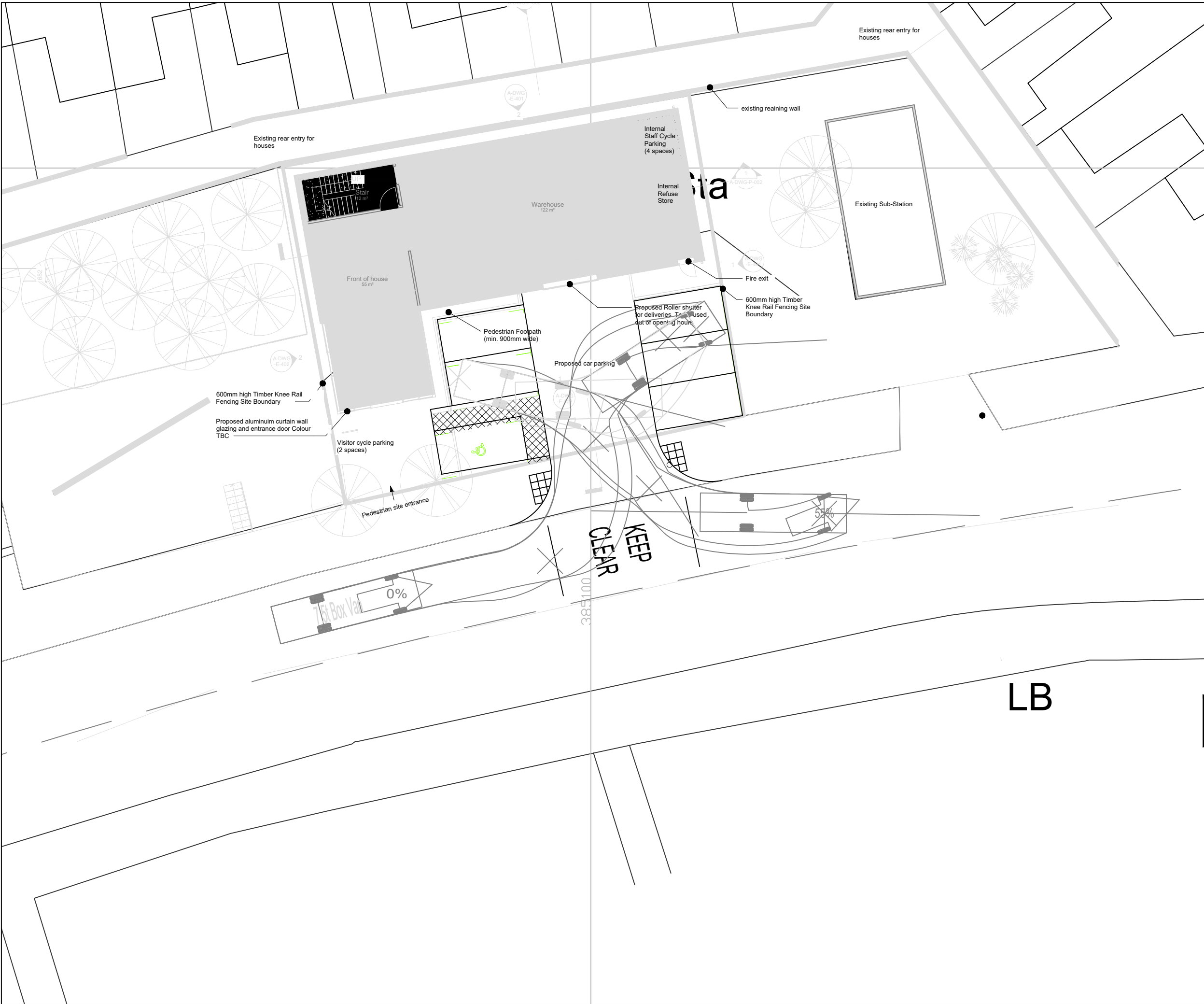
Scale at A3

1:200

Drawn	Approved
JAT	LGS

Check	Date
LGS	02.02.23

SK Transport Planning Ltd
Albion Wharf | Manchester | M1 5LN
www.sktransport.co.uk
0161 234 6509



THIS DRAWING MAY BE USED ONLY FOR THE PURPOSE INTENDED AND ONLY WRITTEN DIMENSIONS SHALL BE USED

NOTES

Vehicle Profile

7.5t Box Van
Overall Length 8.010m
Overall Width 2.100m
Overall Body Height 3.556m
Min Body Ground Clearance 0.351m
Track Width 2.064m
Lock to Lock Time 4.00 sec
Kerb to Kerb Turning Radius 7.400m

Revision Details	By	Date	Suffix
	Check		

Drawing Number

SK222111-003

Queens Rd, Cheetham Hill

Drawing Title

Swept Path Analysis
Box Van (7.5T)

Scale at A3

1:200

Drawn	Approved
JAT	LGS
Check	Date
LGS	02.02.23

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Appendix E

**QUEENS ROAD, CHEETHAM HILL
MANCHESTER
SECTION 278 WORKS
STAGE 1 ROAD SAFETY AUDIT**

SA 4012
March 2023



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REV	ISSUE STATUS	PREPARED BY/DATE	CHECKED BY/DATE	APPROVED BY/DATE
1	DRAFT	AT 02 March 2023	JC 02 March 2023	
2	FINAL	AT 04 March 2023	JC 04 March 2023	ASD 13 March 2023

Disclaimer notes

The client has confirmed that it is entering into the agreement under which this report is being prepared on its own behalf and not on behalf of, or for the benefit of any other party and has agreed that in any event of any claim arising out of or in connection with that agreement and/or the report itself it shall be entitled to recover from Waterman Aspen Limited only the losses, if any, it has itself suffered.

This report therefore is for the private and confidential use of the client for whom it was prepared solely for the purposes requested by the client. It should not be reproduced in whole or in part or relied upon by any third party for any use whatsoever without the express written authority of Waterman Aspen Limited.

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AUDITOR'S EVALUATION

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1.0 INTRODUCTION

1.1 This report results from a Stage 1 Road Safety Audit carried out on the proposed priority junction associated with a new industrial unit on land to the north of Queens Road, Cheetham Hill, Manchester.

1.2 The RSA team, staff members from Waterman Aspen, present at the RSA were:

Andrew Tunnacliffe
Audit Team Leader

Joe Clarbourn
Audit Team Member

We confirm that no member of the Audit Team has been involved with the design process and that at least one member of the Audit Team holds the National Highways Certificate of Competency.

1.3 The Audit Team visited the site together on the afternoon of Tuesday, 28 February 2023. The weather during the site visit was dry with a dry carriageway surface.

1.4 The RSA brief issued to the team comprised of various elements listed at Appendix Two.

1.5 The scheme has been examined and this report compiled only with regard to the safety implications for road users of the scheme as presented. It has not been examined or verified for compliance with any other Standards or criteria. However, in order to clearly explain a safety problem or the recommendation to resolve a problem, the Audit Team may on occasion have referred to a design standard for information only. Any audit comments should not be construed as implying that a technical audit has been undertaken in any respect.

1.6 All of the problems described in this report are considered by the RSA team to require action in order to improve the safety of the scheme and minimise collision occurrence. However, if any of the problems or recommendations within this Road Safety Audit report is not accepted, a copy of the signed exception report from the Overseeing Organisation should be sent to the Road Safety Audit Team Leader.

1.7 Any recommendations included within this report should not be regarded as being prescriptive design solutions to the problems raised. They are intended only to indicate a proportionate and viable means of eliminating or mitigating the identified problem, in accordance with GG119, and in no way imply that a formal design process has been undertaken. There may be alternative methods of addressing a problem which would be equally acceptable in achieving the desired elimination or mitigation and these should be considered when responding to this report.

2.0 PROPOSALS

- 2.1 The scheme consists of introducing a new priority junction onto Queens Road providing access to and from a proposed 177m² industrial unit. To facilitate parking, the proposals also include a six bay car park to the front of the development which is accessed from the new priority junction.

3.0 RECORDED INJURY ACCIDENT HISTORY

- 3.1 The Audit Team were supplied with a copy of the Draft Transport Statement, produced by SK Transport and dated March 2023.
- 3.2 The statement concludes, having analysed Transport for Greater Manchester's accident database for the five-year period up to December 2022, that there have been no recorded injury accidents in the vicinity of the site frontage during this period.

4.0 DEPARTURES FROM STANDARD

- 4.1 No departures from standard have been highlighted within the Audit Brief

5.0 DOCUMENTS AND INFORMATION NOT PROVIDED

- 5.1 The following information was not provided within the audit brief and therefore has not been considered with the audit:
- Site clearance
 - Drainage design
 - Street lighting provision

6.0 MATTERS ARISING FROM THIS STAGE 1 ROAD SAFETY AUDIT

6.1 Problem

Location: Queens Road eastbound bus stop

Summary: **No information provided on possible relocation of bus stop.**

An existing eastbound bus stop is located in the immediate vicinity of the proposed junction mouth/pedestrian access to the site. The Audit Team have not been provided with information relating to its relocation, although a comment is made on drawing No. SK222111-001 which states *"Bus stop to be repositioned? (subject to consultation)"*.

The Audit Team is unsure of the status of this consultation and, as such, should adequate provision not be made for bus passengers alighting eastbound buses, there will be a risk of conflict between these passengers and vehicles using the new junction or between passengers and those pedestrians wishing to access the industrial development.

Recommendation

It is recommended that the bus stop be relocated outside the vicinity of the proposed development.

6.2 Problem

Location: Queens Road – Proposed car park

Summary: **Insufficient space for goods vehicles to turn.**

The development includes a six bay car park at the front accessed directly from Queens Road. No other vehicle access is proposed, including any for goods vehicles performing deliveries. The Audit Team have been provided with information on vehicle swept paths, which indicates that delivery vehicles would be required to perform turning manoeuvres utilising the parking bay space.

If the parking bays are occupied during delivery times, including by staff, then there will be a risk of delivery vehicles being involved in a collision with vehicles on the A6010 Queens Road if they are forced to reverse from the car park via the proposed junction.

Recommendation

It is recommended that the design is such that large vehicles likely to use the area frequently have sufficient space to perform turning manoeuvres before re-entering the A6010 Queens Road in forward gear.

Alternatively, a Service Management Plan could be produced to minimise the risk during delivery times.

APPENDIX ONE

7.0 AUDIT TEAM STATEMENT

AUDIT TEAM STATEMENT

We certify that the audit has been carried out in accordance with the requirements set out in GG119. The problems identified have been noted in this report together with associated safety improvement suggestions which we recommend should be studied for implementation.

AUDIT TEAM LEADER

Andrew Tunnacliffe IEng, BSc (Hons), FIHE
Principal Traffic Engineer
Waterman Aspen
5th Floor
1 Cornwall Street
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Signed...



Date: 04 March 2023

AUDIT TEAM MEMBER

Joe Clarbour MSc, BA (Hons)
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Signed...



Date: 04 March 2023

APPENDIX TWO

8.0 LIST OF DRAWINGS AND DOCUMENTS PROVIDED TO THE AUDIT TEAM

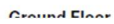
LIST OF DRAWINGS AND DOCUMENTS PROVIDED TO THE AUDIT TEAM

Drawings

- Draft Transport Assessment - March 2023
- A-DWG-GF-100 Rev B - Ground Floor Plan
- SK222111-001 - Site Access
- SK222111-002 - Swept Path Analysis - LWB Transit-Type Van (7.5T)
- SK222111-003 - Swept Path Analysis - Box Van (7.5T)
- SK222111-004 - Site Location

APPENDIX THREE

9.0 PROBLEM LOCATION PLAN





Appendix F

Calculation Reference: AUDIT-443201-230308-0343

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
 Category : R - TRADE SHOP
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	SC SURREY	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	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: 275 to 500 (units: sqm)
 Range Selected by User: 275 to 900 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 10/05/22

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:

Tuesday	2 days
Friday	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:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	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:

Industrial Zone	3
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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	X days - Selected
Servicing vehicles Excluded	4 days - Selected

Secondary Filtering selection:

Use Class:

E(a) 3 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®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

15,001 to 20,000 2 days

20,001 to 25,000 1 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

125,001 to 250,000 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 1 days

1.1 to 1.5 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.

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

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

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

LIST OF SITES relevant to selection parameters

- | | | | |
|---|--|-----------------|---------------------|
| 1 | NY-01-R-01 TOOLSTATION
OAKNEY WOOD ROAD
SELBY

Edge of Town
Industrial Zone
Total Gross floor area: 275 sqm
Survey date: TUESDAY 10/05/22 | NORTH YORKSHIRE | Survey Type: MANUAL |
| 2 | SC-01-R-01 TOOLSTATION
PRAETORIAN PLACE
REDHILL

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 414 sqm
Survey date: TUESDAY 10/05/22 | SURREY | Survey Type: MANUAL |
| 3 | WM-01-R-01 TOOLSTATION
ALDRIDGE ROAD
BIRMINGHAM
PERRY BAR
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 500 sqm
Survey date: FRIDAY 19/11/21 | WEST MIDLANDS | Survey Type: MANUAL |

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
BP-01-R-01	covid

TRIP RATE for Land Use 01 - RETAIL/R - TRADE SHOP
TOTAL VEHICLES
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	3	396	0.252	3	396	0.000	3	396	0.252
07:00 - 08:00	3	396	2.187	3	396	2.019	3	396	4.206
08:00 - 09:00	3	396	2.860	3	396	2.439	3	396	5.299
09:00 - 10:00	3	396	3.028	3	396	3.028	3	396	6.056
10:00 - 11:00	3	396	2.607	3	396	2.860	3	396	5.467
11:00 - 12:00	3	396	2.944	3	396	2.355	3	396	5.299
12:00 - 13:00	3	396	3.364	3	396	3.616	3	396	6.980
13:00 - 14:00	3	396	2.860	3	396	3.028	3	396	5.888
14:00 - 15:00	3	396	2.944	3	396	2.860	3	396	5.804
15:00 - 16:00	3	396	2.607	3	396	2.860	3	396	5.467
16:00 - 17:00	3	396	3.364	3	396	3.112	3	396	6.476
17:00 - 18:00	3	396	1.682	3	396	2.019	3	396	3.701
18:00 - 19:00	3	396	1.934	3	396	1.934	3	396	3.868
19:00 - 20:00	3	396	1.430	3	396	1.682	3	396	3.112
20:00 - 21:00	3	396	0.084	3	396	0.168	3	396	0.252
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			34.147			33.980			68.127

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:	275 - 500 (units: sqm)
Survey date range:	01/01/14 - 10/05/22
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	1

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

TRIP RATE for Land Use 01 - RETAIL/R - TRADE SHOP
 OGVS
 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	3	396	0.000	3	396	0.000	3	396	0.000
07:00 - 08:00	3	396	0.000	3	396	0.000	3	396	0.000
08:00 - 09:00	3	396	0.000	3	396	0.000	3	396	0.000
09:00 - 10:00	3	396	0.000	3	396	0.000	3	396	0.000
10:00 - 11:00	3	396	0.000	3	396	0.000	3	396	0.000
11:00 - 12:00	3	396	0.084	3	396	0.000	3	396	0.084
12:00 - 13:00	3	396	0.000	3	396	0.000	3	396	0.000
13:00 - 14:00	3	396	0.000	3	396	0.084	3	396	0.084
14:00 - 15:00	3	396	0.000	3	396	0.000	3	396	0.000
15:00 - 16:00	3	396	0.000	3	396	0.000	3	396	0.000
16:00 - 17:00	3	396	0.000	3	396	0.000	3	396	0.000
17:00 - 18:00	3	396	0.000	3	396	0.000	3	396	0.000
18:00 - 19:00	3	396	0.000	3	396	0.000	3	396	0.000
19:00 - 20:00	3	396	0.000	3	396	0.000	3	396	0.000
20:00 - 21:00	3	396	0.000	3	396	0.000	3	396	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.084			0.084			0.168

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/R - TRADE SHOP
CARS
 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	3	396	0.168	3	396	0.000	3	396	0.168
07:00 - 08:00	3	396	1.262	3	396	1.093	3	396	2.355
08:00 - 09:00	3	396	1.766	3	396	1.514	3	396	3.280
09:00 - 10:00	3	396	1.598	3	396	1.598	3	396	3.196
10:00 - 11:00	3	396	1.682	3	396	1.850	3	396	3.532
11:00 - 12:00	3	396	2.103	3	396	1.850	3	396	3.953
12:00 - 13:00	3	396	2.860	3	396	2.860	3	396	5.720
13:00 - 14:00	3	396	1.850	3	396	1.850	3	396	3.700
14:00 - 15:00	3	396	2.103	3	396	2.103	3	396	4.206
15:00 - 16:00	3	396	1.766	3	396	1.850	3	396	3.616
16:00 - 17:00	3	396	2.271	3	396	2.187	3	396	4.458
17:00 - 18:00	3	396	1.430	3	396	1.682	3	396	3.112
18:00 - 19:00	3	396	1.430	3	396	1.430	3	396	2.860
19:00 - 20:00	3	396	1.262	3	396	1.430	3	396	2.692
20:00 - 21:00	3	396	0.084	3	396	0.168	3	396	0.252
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			23.635			23.465			47.100

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/R - TRADE SHOP
 LGVS
 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	3	396	0.084	3	396	0.000	3	396	0.084
07:00 - 08:00	3	396	0.925	3	396	0.925	3	396	1.850
08:00 - 09:00	3	396	1.093	3	396	0.925	3	396	2.018
09:00 - 10:00	3	396	1.430	3	396	1.430	3	396	2.860
10:00 - 11:00	3	396	0.925	3	396	1.009	3	396	1.934
11:00 - 12:00	3	396	0.757	3	396	0.505	3	396	1.262
12:00 - 13:00	3	396	0.421	3	396	0.673	3	396	1.094
13:00 - 14:00	3	396	1.009	3	396	1.093	3	396	2.102
14:00 - 15:00	3	396	0.841	3	396	0.757	3	396	1.598
15:00 - 16:00	3	396	0.841	3	396	1.009	3	396	1.850
16:00 - 17:00	3	396	1.093	3	396	0.925	3	396	2.018
17:00 - 18:00	3	396	0.252	3	396	0.336	3	396	0.588
18:00 - 19:00	3	396	0.505	3	396	0.505	3	396	1.010
19:00 - 20:00	3	396	0.168	3	396	0.252	3	396	0.420
20:00 - 21:00	3	396	0.000	3	396	0.000	3	396	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			10.344			10.344			20.688

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.

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