Mill Road Group SIPP

North Road, Kirkburton, Huddersfield, HD8 0RL

Transport Statement

sanderson associates
consulting engineers

Control Sheet

CLIENT:	Mill Road Group SIPP
PROJECT TITLE:	North Road, Kirkburton, Huddersfield, HD8 0RL
REPORT TITLE:	Transport Statement
PROJECT REFERENCE:	158416
DOCUMENT NUMBER:	001
ISSUE NUMBER:	01
DATE:	December 2023

Issue & Approval Schedule	Issue 01 <Status>	Name		Date
	Prepared by	Elizabeth Theakston		15.12.2023
	Checked by	Carly Pulling		19.12.2023
	Approved by	Karen Smith		19.12.2023

Issue Record	Issue	Date	Status	Description	Signature	
	02				Prepared	
					Checked	
					Approved	
	03				Prepared	
					Checked	
					Approved	

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Acknowledgements

Google My Maps and OpenRouteService has been used to generate figures included in this report for illustrative purposes only.

An extract of Kirklees Councils Public Rights of Way Map has been used for illustrative purposes only.

The Crashmap Pro Collision Analysis System v1.30 has been utilised to carry out a road traffic incident review.

Extract of CIHT 'Planning for Walking' (April 2015) has been included in this report.

An extract from OpenStreetMap has been used in this report for illustrative purposes only https://www.openstreetmap.org/copyright.

Extract of CIHT 'Buses in Urban Developments' (January 2018) has been included in this report.

The TRICS database v7.10.3 has been used in this report to calculate traffic generations.

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1. Introduction

1.1 Sanderson Associates Consulting Engineers has been appointed by Mill Road Group SIPP to provide highways consultancy services in relation to their proposals to construct a convenience store on land at North Road, Kirkburton, Huddersfield, HD8 0RL.

1.2 In accordance with National Guidance, this Transport Statement evaluates the potential transport impacts of the development proposal and contains:

- → Review of national and local planning policies;
- → Information regarding the existing site and an analysis of the injury accident records on the public highway in the vicinity of the sire access for the most recent 3-year period, or 5-year period if the proposed site has been identified as within a high accident area
- → Information regarding the proposed development, site layout, means of access across all modes of transport and parking requirements for the site
- → Data about existing public transport provision, including provision/ frequency of services and ways of encouraging environmental sustainability;
- → Calculation of the number of trips which would be expected to be generated by the existing and proposed site and comment on the transport impacts.

1.3 This Transport Statement seeks to demonstrate that the residual cumulative impacts on the local road network are not severe. As such, there are no transport reasons why planning should not be granted.

2. Planning Policy Context

2.1 National Planning Policy

2.1.1 The National Planning Policy Framework (NPPF), first published on 27 March 2012 and most recently updated on 5th September 2023, provides the most up-to-date national guidance on transport and its role within the planning system.

2.1.2 In considering development proposals, NPPF paragraph 110 states that;

"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

a) appropriate opportunities to promote sustainable transport modes can be – or have been taken up, given the type of development and its location;

b) safe and suitable access to the site can be achieved for all users;

c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and

d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree."

2.1.3 NPPF paragraph 111 states:

"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."

2.1.4 Furthermore, NPPF paragraph 112 states:

'Within this context, applications for development should:

a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;

b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;

c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;

d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and

e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.'

2.2 Kirklees Local Plan

2.2.1 Policy LP21 – Highways and access in the local plan states proposals shall demonstrate that they can accommodate sustainable modes of transport and be accessed effectively and safely by all users. It states *'New development will normally be permitted where safe and suitable access to the site can be achieved for all people and where the residual cumulative impacts of development are not severe.'*

2.2.2 The policy states proposals shall *'be accompanied by a supporting Transport Assessment or Transport Statement where the development would generate significant trip generation, providing detail as to the impact on highway safety, air quality, noise and light restrictions'* and also *'provide on-site safe, secure and convenient cycle parking/storage facilities to encourage sustainable travel modes.'*

2.2.3 Policy LP22 – Parking states provision of parking will be based on a number of principles, the points most relevant to this type of development are:

'e. car parking provision in new developments will be determined by the availability of public transport, the accessibility of the site, location of the development, local car ownership levels and the type, mix and use of the development;'

'g. provision will be made to meet the needs of cyclists for cycling parking in new developments;

h. provision will be made to accommodate the needs of disabled people for the parking of vehicles.'

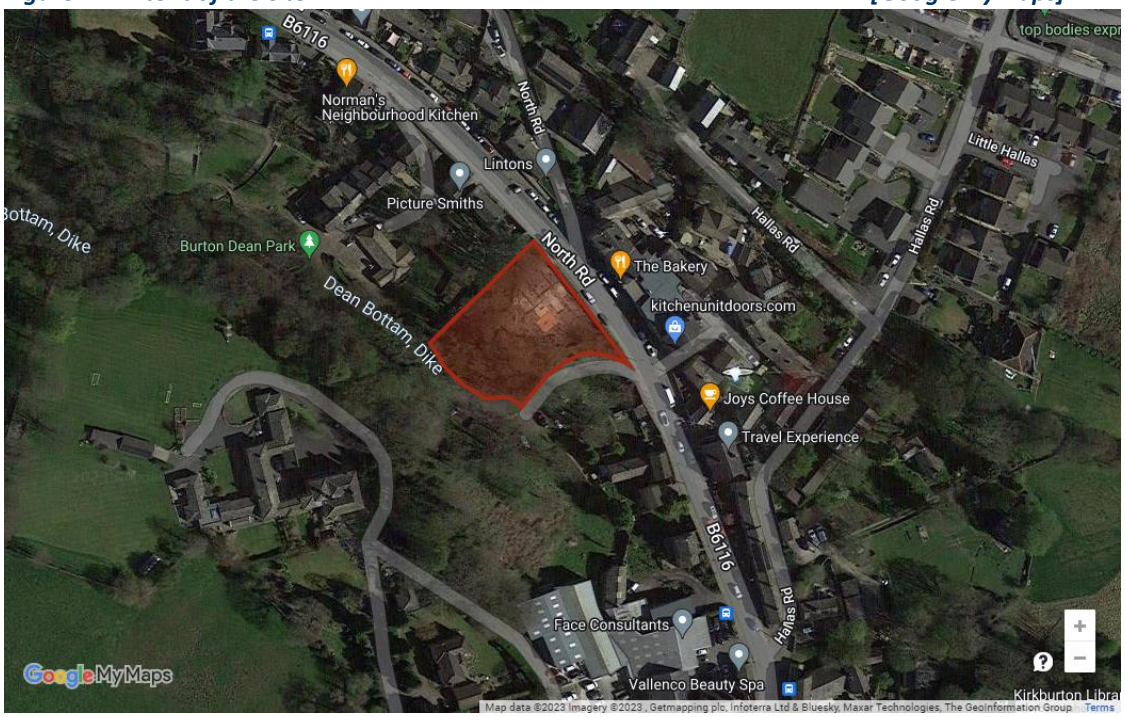
2.2.4 It also states it should be demonstrated how the design and amount of parking proposed is the most efficient use of land within the development as part of encouraging sustainable travel.

3. Existing Situation

3.1 Site and Surrounding Area

3.1.1 The site is located on North Road which is the main road running through the village of Kirkburton. The site is currently vacant after the previous petrol station was demolished. **Figure 1** shows the extent of the site.

Figure 1 – Extent of the site ***[GoogleMyMaps]***



3.1.2 The site is bound by:

- → North: residential properties and a graphic design office
- → South: Burton Dean Park
- → East: North Road/B6116
- → West: Burton Dean Park and residential properties

3.2 Highway Network

3.2.1 The site will take access from the existing two access points on North Road, the B6116, at the northern and southern extents of the site frontage. North Road (B6116) is a single carriageway approximately 6m wide with footways approximately 1.5m on each side of the carriageway.

3.2.2 North Road is subject to a 30mph speed limit and street lighting is present. A Traffic Regulation Order, in the form of a single yellow line, is present for approximately 140m north of the site and 190m south of the site on the western side of the carriageway. Signs indicate parking here is prohibited Monday to Saturday 8am to 6pm.

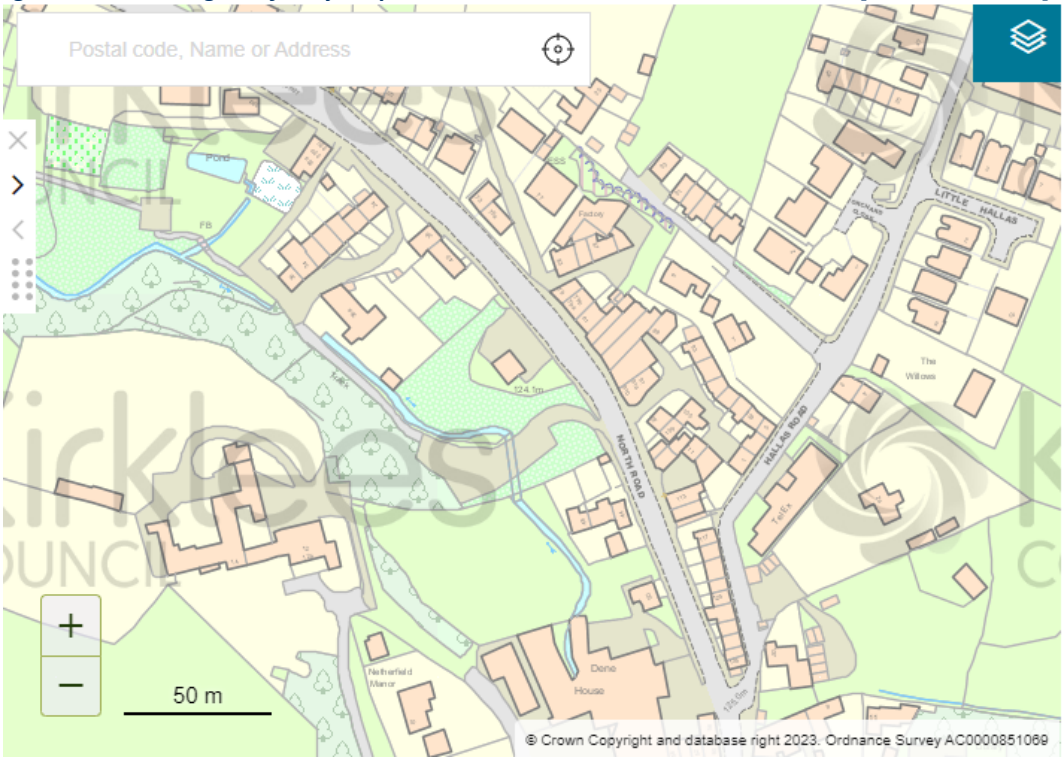
3.2.3 On street parking bays are available on the eastern side of North Road for approximately 225m allowing parking for approximately 37 vehicles.

3.2.4 Travelling north on North Road leads to the A629 Penistone Road, facilitating further travel north and south on the strategic road network.

3.3 Public Rights of Way Map

3.3.1 Details of the Public Rights of Way in the vicinity of the site has been obtained from the Kirklees Council website and are shown in **Figure 2**.

Figure 2 – Public Rights of Way Map ***[Kirklees Council]***

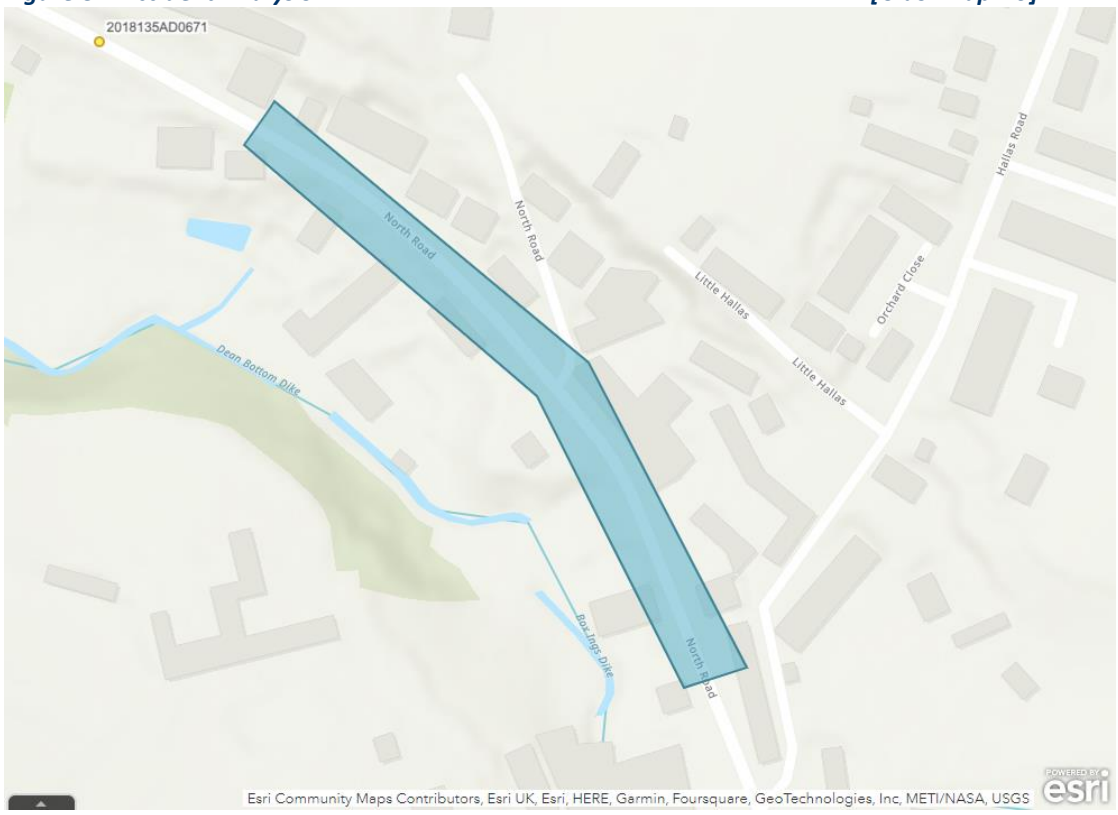


3.3.2 As shown in Figure 2 there are no existing public rights of way within the site.

3.4 Accident Analysis

3.4.1 The Crashmap Pro collision analysis system has been utilised to identify all recorded personal injury accidents that have occurred in relative proximity to the site during the latest available 5-year period (2018-2022). **Figure 3** is an extract from Crashmap Pro which identifies both the location and severity of all recorded incidents in proximity to the site during this time period.

Figure 3 – Accident Analysis *[CrashmapPro]*



3.4.2 Figure 3 shows that in the latest 5 years of available data (2018-2022) no incidents of any severity have occurred within the study area. Therefore, there are no accident trends in close proximity to the site which are likely to be adversely affected by the proposal.

3.5 Previous Use

3.5.1 The site is currently vacant but has previously been occupied by a petrol station and car sales area meaning there has previously been a level of trip generations associated with the site.

3.6 Planning History

3.6.1 From a review of the Kirklees Council planning portal the planning history of the site is summarised in **Table 1** below.

Table 1 – Planning History

Planning Reference	Planning Description	Decision and Date
87/62/03498/C4	Erection of canopy (within Conservation Area)	Granted Conditionally 13 November 1987
88/62/00084/C4	Installation of underground storage tank (Within Conservation Area)	Granted Conditionally 11 March 1988
88/62/02786/C4	Removal of existing timber shop front	Granted Conditionally 1 July 1988
91/62/06622/C4	New shop front and alterations to external appearance	Conditional full permission 5 February 1992

2003/60/90693/E6	Outline application for residential development (within a conservation area)	Conditional outline permission 19 June 2003
2004/62/93629/E3	Demolition of existing service station and erection of 18 no apartments (within a conservation area)	Withdrawn 11 October 2004
2005/62/90704/E3	Demolition of existing service station and erection of 14 no apartments (within a conservation area)	Refused 27 April 2005
2006/69/93332/E3	Conservation area consent for demolition of vacant petrol filling station	Conservation area consent granted 3 October 2006
2006/62/92874/E3	Demolition of existing buildings and erection of local convenience store with associated parking, landscaping and servicing (with a conservation area)	Withdrawn 20 December 2006
2007/62/93725/E3	Erection of local convenience store with associated car parking, landscaping and servicing (with a conservation area)	Withdrawn 29 November 2007
2007/62/94773/E3	Erection of local convenience store with associated car parking, landscaping and servicing	Refused 30 June 2008
2015/62/91943/E	Demolition of existing petrol station and erection of 4no retail and residential units (within a Conservation Area)	Conditional full permission 03 December 2015
2016/62/93935/E	Demolition of existing petrol station and erection of 4 retail and residential units (within a Conservation Area) (modified proposal)	Conditional full permission 17 February 2017
2018/62/92281/E	Erection of 4 dwellings (within a Conservation Area)	Refused 1 April 2019
2019/44/94154/E	Discharge of condition 6. (noise) on previous permission no. 2016/93935 for demolition of Existing Petrol Station and erection of 4 retail and residential units (within a conservation area) (modified proposal)	Discharge of conditions approved 3 March 2020
2020/44/90119/E	Discharge conditions 12-16 on previous permission 2016/93935 for demolition of existing petrol station and erection of 4 retail and residential units (within a Conservation Area) (modified proposal)	Discharge of conditions split decision 9 April 2020
2020/70/90116/E	Variation conditions 8-11 on previous permission 2016/93935 for demolition of existing petrol station and erection of 4 retail and residential units (within a Conservation Area) (modified proposal)	Removal or modification of conditions 2 December 2022

4. Proposed Development

4.1 Overview

4.1.1 The proposals consist of a convenience store with a total floor area of approximately 232m^2 with additional plant area and associated parking located off North Road, Kirkburton, Huddersfield, HD8 0RL. The proposed site layout plan can be found at **Appendix A**.

4.1.2 The convenience store is proposed to be open from 07:00 to 22:00 Monday to Sunday.

4.2 Access

4.2.1 Vehicular access to the site is to be taken from the existing access points on North Road with dropped kerbs at the northern and southern extents of the site frontage.

4.2.2 Pedestrian and cyclist access will be taken from the same access points with footways connecting to the existing footway on North Road and extending into the site.

4.2.3 Visibility splays of 2.4m by 43m are available from both access points into the site which is appropriate for the 30mph speed limit of North Road.

4.3 Parking

4.3.1 Parking at the site is proposed at 11 spaces including one mobility space as shown on the site layout plan at Appendix A.

4.3.2 Electric vehicle charging provision is proposed for one space with passive charging points at a further two spaces to allow for future provision.

4.3.3 Cycle parking is proposed in the form of three Sheffield stands providing space for six cycles to be stored at the site.

4.3.4 The parking layout ensures that all spaces are easily accessible without conflict with other spaces and has enabled the formation of suitable pedestrian links to/from the local highway network.

4.3.5 The level of parking provision is considered appropriate to meet the parking demands of customers. In line with policy LP22 on parking, the site is considered to be accessible by walking and cycling as well as bus services close to the site which are detailed in section 5 of this report. Due to the other shops available on North Road it is likely that there will be a level of shared trips with people visiting other premises and facilities and calling in to the site.

4.4 Servicing and Deliveries

4.4.1 It is expected that the timing of deliveries will be scheduled to occur outside of typical operational peak periods when the demand for customer car parking will be lower.

4.4.2 To assist with the transition of delivery vehicles to/from North Road there are existing dropped kerbs on both of the site access points.

4.4.3 It is estimated that the store will have 2 deliveries per day, the maximum size delivery vehicle for all deliveries will be a 10m rigid heavy goods vehicle.

4.4.4 Vehicle tracking has been undertaken showing the Kirklees 11.85m refuse vehicle accessing and egressing the site in forward gear, this is shown on Drawing 158416-001 at **Appendix B**. Drawing 158416-002 also at **Appendix B** shows swept path analysis using the worst-case delivery vehicle (10m long rigid heavy goods vehicle) accessing and egressing the site in forward gear.

4.4.5 Deliveries will only be permitted within the site and no HGV deliveries will be taken at, or dispatched from, the site outside the hours of 07:00-18:00 on Monday to Saturday and 08:00-16:00 on Sundays and Bank and National Holidays.

4.4.6 Delivery vehicles will be routed where possible using primary classified routes. The A629 is located approximately 800m north of the site which can be reached using North Road meaning vehicles will be performing right in, left out manoeuvres at the site.

4.4.7 All delivery drivers will be provided with a logistic routing plan in advance of arriving at the site. The plan will specify the route that drivers must take to/from the site and the operator of the site will have the means to manage and enforce the delivery vehicle routing plan.

4.4.8 All delivery vehicle times to the store will be known in advance, with regular daily scheduling. At least 10 minutes before the delivery vehicle is due to arrive, staff will use traffic cones to cone off 6 parking spaces required for service deliveries to take place within the site. This will create a clear area within the site required for deliveries to service the site from an off street location. The parking spaces that will be temporarily removed to facilitate servicing can be seen in the drawing within **Appendix B**. Once the delivery vehicle has left the site, staff will immediately remove the traffic cones.

4.4.9 When manoeuvring within the site drivers are required to observe best driving practice set out within the Highway Code. Should any problems occur in the delivery area that are observed by the site management or that are otherwise reported, these will be dealt with immediately and instructions issued when confirming that inappropriate and/or unauthorised practices must cease immediately. Within the site delivery drivers will be required to:

- → Drive carefully and slowly within the site.
- → Use all mirrors, reversing cameras and alarms if fitted to the vehicle.
- → Check the vehicle blind spots whilst manoeuvring.
- → Check there are no pedestrians, cyclists, other road users or obstacles in the road behind the vehicle.
- → Reverse slowly while checking all around and being aware that the front of the vehicle will swing out as the vehicle turns.
- → Give way to pedestrians, cyclists, other road users at all times.
- → Switch off the vehicle engine which the vehicle is stationary.

5. Accessibility by Sustainable Modes

5.1 Overview

5.1.1 This section of the report considers the accessibility of the development by active travel modes (walking and cycling) and public transport (bus and rail) in order to review the opportunities that will exist for staff and visitors to travel to the site sustainably.

5.2 Accessibility on Foot

5.2.1 The Planning for Walking Guidance (2015), published by CIHT highlights that "Across Britain about 80 per cent of journeys shorter than 1 mile are made wholly on foot – something that has changed little in 30 years. For journeys that are 1 to 2 miles long, 26 per cent are made on foot (NTS, 2012)."

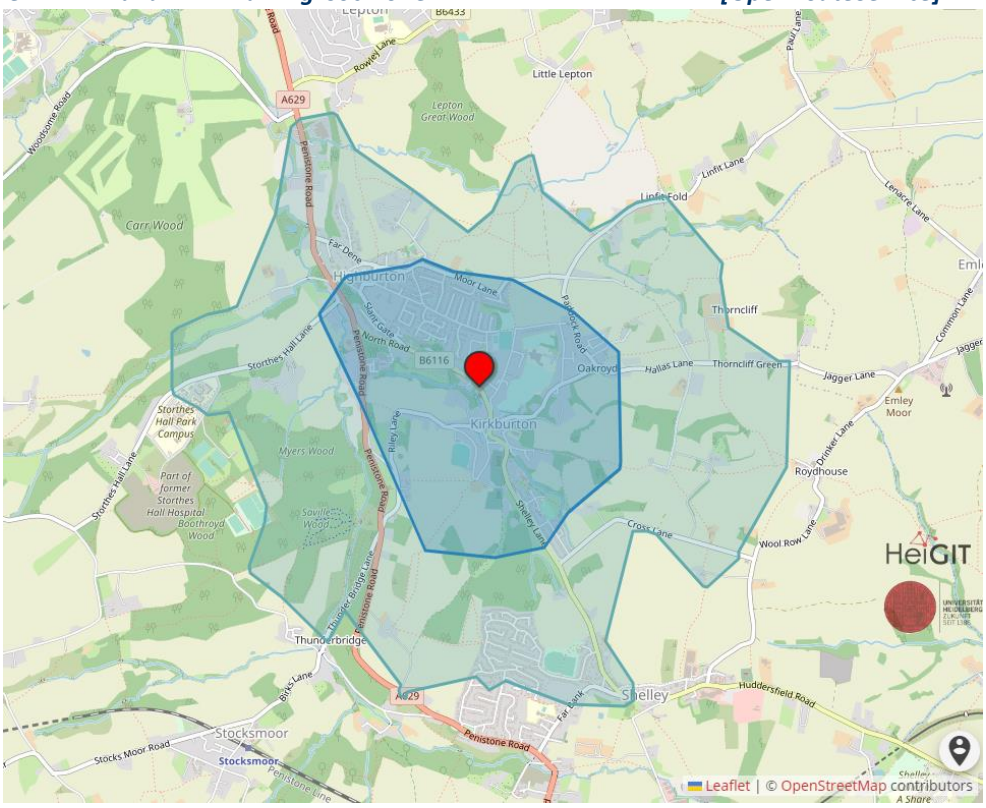
5.2.2 CIHT notes that people will be willing to walk further to reflect a greater perceived quality or importance of a service or amenity, for example rail services. The report does not provide a definitive view on distances, however, the report makes reference to the IHT publication "Providing for Journeys on Foot," (2000) which suggests a maximum walking distance for commuting, school and sightseeing as 2000m (25-minute walk).

5.2.3 It is also important to consider the routes that would be taken to get to these locations. Building Sustainable Transport into New Developments (DfT, 2008) gives the following advice on pedestrian catchment areas:

"Walking neighbourhoods are typically characterised as having a range of facilities within 10 minutes' walking distance (around 800 metres). However, the propensity to walk or cycle is not only influenced by distance but also the quality of the experience; people may be willing to walk or cycle further where their surroundings are more attractive, safe and stimulating."

5.2.4 **Figure 4** identifies the 1000m and 2000m walking isochrone from the site which indicates areas that should be easily accessible to the site on foot.

Figure 4 – 1km and 2km Walking Isochrone *[OpenRouteService]*



5.2.5 As shown in Figure 4 schools, bus stops, residential areas, cricket club, hairdressers and Burton Dean Park are within a 1km walking distance of the site. Therefore, is it likely that staff and customers will be able to walk to the site.

5.2.6 The roads surrounding the site have footways on each side of the carriageway and are street lit meaning pedestrian infrastructure is in place to encourage walking.

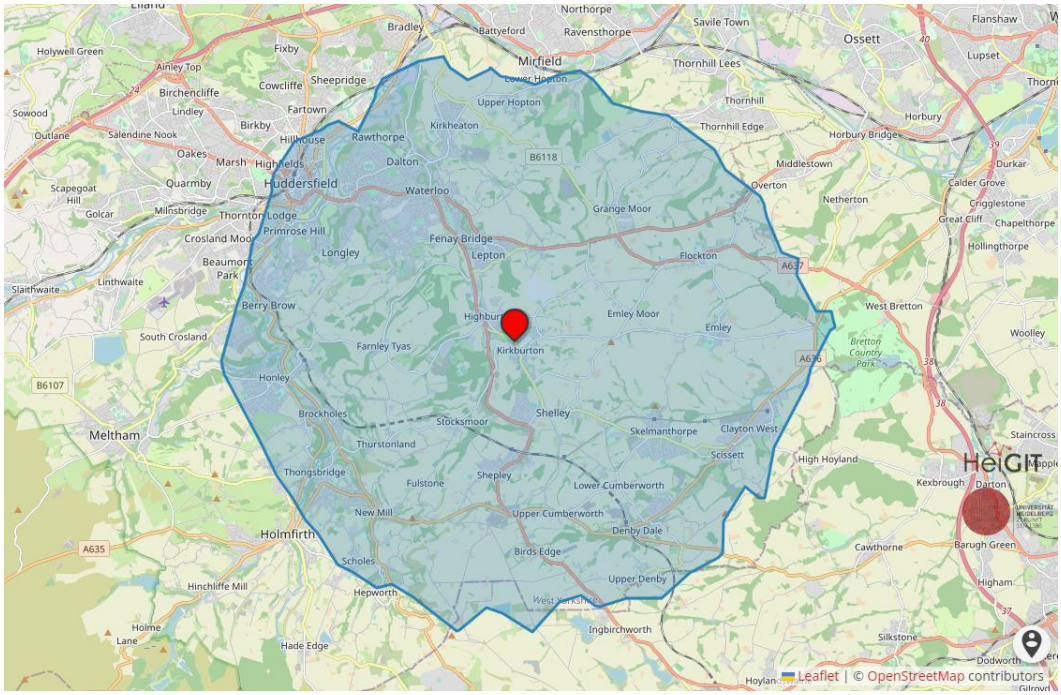
5.3 Accessibility by Cycle

5.3.1 Like walking, cycling has an important part to play in reducing congestion, improving accessibility and reducing pollution. Cycling may also allow people without cars to reach destinations that they may otherwise be unable to reach. CIHT's Planning for Cycling (2014) states that:

"The majority of cycling trips are for short distances, with 80% being less than five miles and with 40% being less than two miles. However, the majority of trips by all modes are also short distances (67% are less than five miles, and 38% are less than two miles); therefore, the bicycle is a potential mode for many of these trips. Electric bicycles extend the range that can be cycled comfortably, and combined cycle-rail or cycle-bus journeys offer an alternative to car travel for many longer trips."

5.3.2 **Figure 5** identifies destinations that lie within an 8km (5 miles) cycling distance of the site.

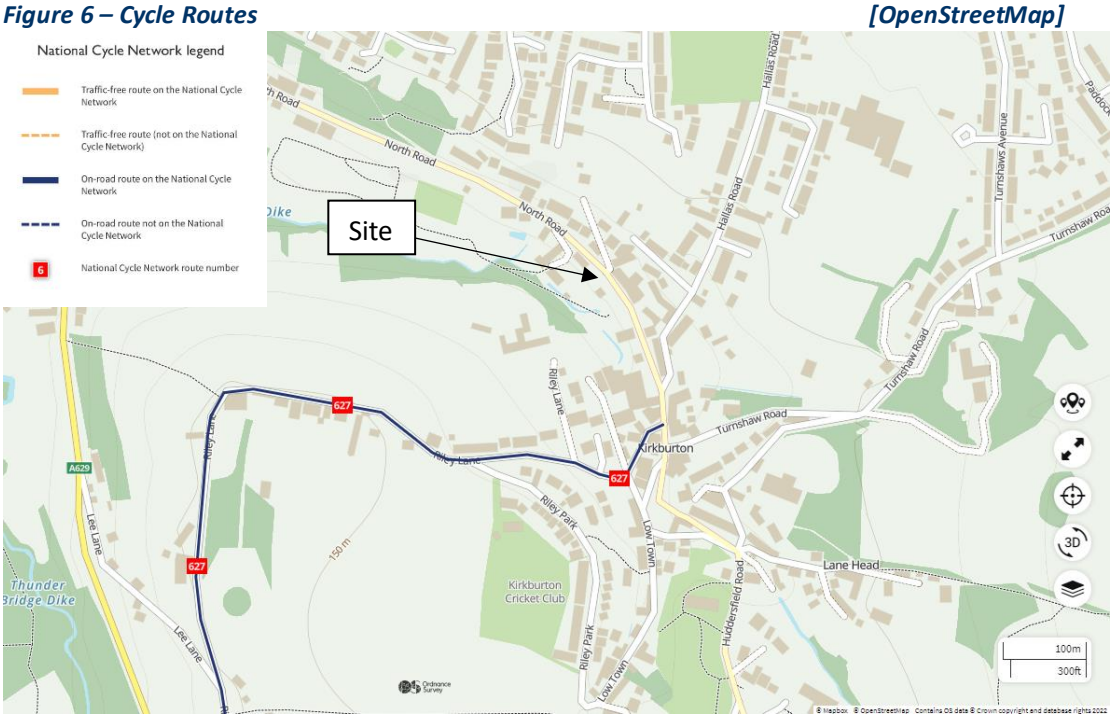
Figure 5 – 8km Cycling Isochrone *[OpenRouteService]*



5.3.3 Within an 8km cycle from the site areas such as the centre of Huddersfield, Thongsbridge, Kirkheaton and Clayton West are all accessible. However, it is unlikely that visitors would travel such distances to visit a convenience store.

5.3.4 As with walking it is also important to look at the infrastructure in place to encourage cycling. **Figure 6** shows the National Cycle Routes in proximity to the site which may be used by staff and visitors to access the site.

Figure 6 – Cycle Routes *[OpenStreetMap]*



5.3.5 National Cycle Route 627 provides an on-road cycle path facilitating travel by cycle for staff and visitors who live to the west of the site.

5.4 Accessibility by Public Transport

Bus Services

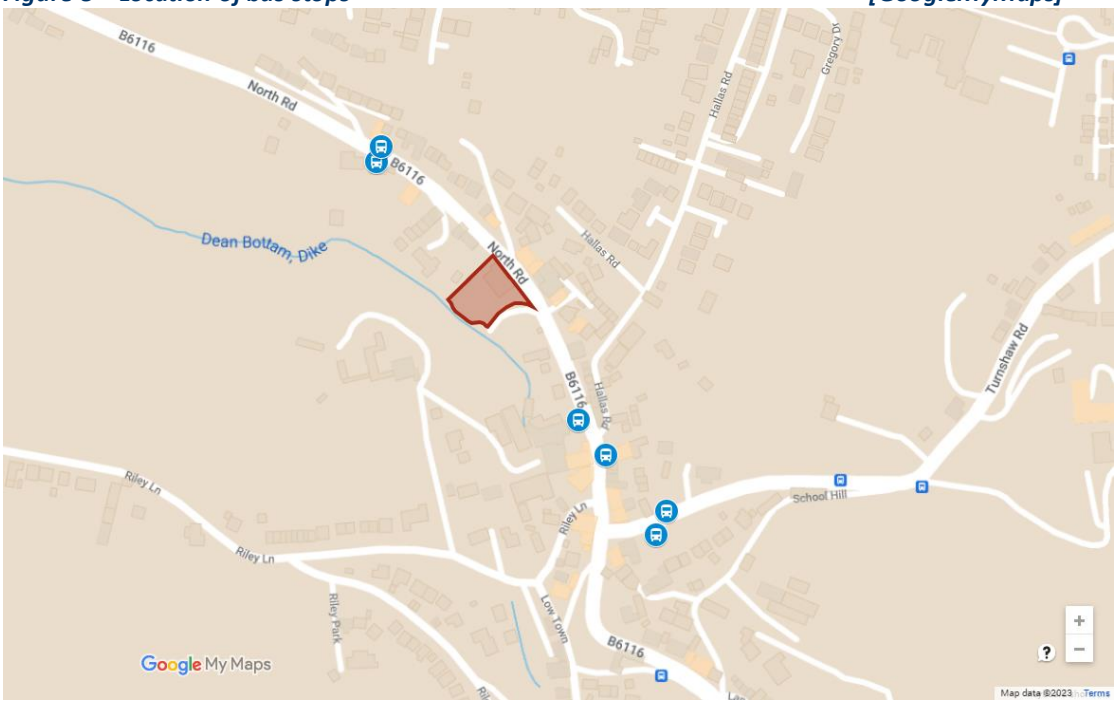
5.4.1 The Buses in Urban Developments Guidance (January 2018), published by CIHT outlines that, *"the planning of development sites should consider the walking distance to bus stops and the corresponding bus catchment areas."* **Figure 7**, an extract from the guidance outlines the maximum walking distance for different situations.

Figure 7 – Recommended Maximum Walking Distances to Bus Stops

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

5.4.2 The closest bus stops to the site are located on North Road, at a distance approximately 130m north from the site. **Figure 8** shows the location of the nearest bus stops. Further bus stops are located on Turnshaw Road approximately 250m south of the site.

Figure 8 – Location of bus stops ***[GoogleMyMaps]***



5.4.3 Bus services from the stops on both North Road and Turnshaw Road are summarised in **Table 2** below.

Table 2 – Summary of Bus Services

Number	Route	Approximate Peak Frequency		
		Mon – Sat Daytime	Mon- Sat Evening	Sunday
North Road				
D2 Denby Darts	Huddersfield – Highburton – Denby Dale	120 mins	No Service	No Service
Turnshaw Road				
D1 Denby Darts	Huddersfield – Clayton West – Denby Dale	30 mins	60 mins	60 mins

5.4.4 It is possible that staff and customers may use services D1 and D2 to access the site.

Rail Services

5.4.5 Stocksmoor station is the closest station to the site located approximately 2.4km south west of the site. Stocksmoor station is managed by Northern rail and has facilities such as a seating area, CCTV, a car park with 6 spaces and 3 cycle lockers with CCTV.

5.4.6 This station provides regular services to places such as Sheffield and Huddersfield.

5.5 Accessibility Summary

5.5.1 It is considered that the site has a good level of accessibility by walking and cycling, due to the nature of the site it is likely that staff and customers will travel from areas close to the site and so will have opportunities to use these sustainable modes of travel.

6. Trip Generations

6.1 Multimodal Trip Generations

6.1.1 Multimodal trip rates for the proposed development have been estimated using the TRICS v7.10.3 database. The search parameters chosen are summarised in **Table 3** below.

Table 3 – TRICS Search Parameters

Land Use	Trip Rate Selection Criteria
Retail	→ Land Use Category: 'Retail – Convenience Store'; → Multimodal trip rate surveys; → Number of units: 306 to 500; → The region of Greater London was excluded; → Saturday and Sunday surveys were excluded; and, → Town centre, edge of town centre, Suburban Area and edge of town sites were excluded.

6.1.2 The multimodal trip generations from the proposed development are summarised at **Table 4** below. The full TRICS report can be found at **Appendix C**.

Table 4 – Multimodal Trip Generations for Convenience Store (232m²)

Time Period	Mode of Travel	Trip Rate	Modal Split	Generations
AM Peak 08:00-09:00	Pedestrians	16.192	54.4%	38
	Cyclists	0.334	1.1%	1
	Public Transport Users	0.795	2.7%	2
	Vehicle Occupants	12.468	41.9%	29
	Total People Trips	29.791	100.0%	70
PM Peak 17:00-18:00	Pedestrians	27.783	57.4%	64
	Cyclists	0.670	1.4%	2
	Public Transport Users	2.218	4.6%	5
	Vehicle Occupants	17.740	36.6%	41
	Total People Trips	48.410	100.0%	112

6.1.3 Based on the TRICS data the development could be expected to generate 58.2% of trips by sustainable modes of travel in the AM peak period and 63.4% in the PM peak period. This estimated demand for walking, cycling and public transport can be easily accommodated within the existing infrastructure provision.

6.2 Vehicle Trip Rates

6.2.1 **Table 5** below shows the estimated vehicle trip rates and generations for the proposed development in the AM and PM peak periods.

Table 5 – Vehicle Trip Generations for Convenience Store (232m²)

Time Period	Trip Rates		Generations		
	Arrivals	Departures	Arrivals	Departures	Total
AM Peak 08:00-09:00	5.523	5.230	13	12	25
PM Peak 17:00-18:00	7.113	8.368	17	19	36

6.2.2 Table 5 shows the proposed development is estimated to generate a total of 25 two-way vehicle trips in the AM peak period and 36 two-way vehicle trips in the PM peak period which is 1 vehicle approximately every 2 minutes in both the peak hours.

6.2.3 It is therefore considered that the predicted level of traffic generation is unlikely to result in any material adverse impacts on the operation of the site access or North Road.

7. Summary and Conclusions

7.1 Sanderson Associates Consulting Engineers has been appointed by Mill Road Group SIPP to provide highways consultancy services in relation to their proposals to construct a convenience store on land at North Road, Kirkburton, Huddersfield, HD8 0RL.

7.2 In the latest 5 years of available data (2018-2022) no incidents of any severity have occurred within the study area. Therefore, there are no accident trends in close proximity to the site which are likely to be adversely affected by the proposal.

7.3 The proposals consist of a convenience store with a total floor area of approximately 232m^2 with additional plant area and associated parking. The convenience store is proposed to be open from 07:00 to 22:00 Monday to Sunday.

7.4 Servicing and deliveries shall be managed so that the space required to accommodate the parking of a servicing vehicle will be temporarily cordoned off in advance of a scheduled delivery.

7.5 The level of parking provision is considered appropriate to meet the parking demands of customers. In line with policy LP22 on parking, the site is considered to be accessible by walking and cycling as well as bus services close to the site. Due to the other shops available on North Road it is likely that there will be a level of shared trips with people visiting other premises and facilities and calling in to the site.

7.6 It is considered that the site has a good level of accessibility by walking and cycling and, due to the nature of the site, it is likely that staff and visitors will travel from areas close to the site and so will have opportunities to use these sustainable modes of travel.

7.7 The proposed development is estimated to generate a total of 25 two-way vehicle trips in the AM peak period and 36 two-way vehicle trips in the PM peak period which is 1 vehicle approximately every 2 minutes in both the peak hours.

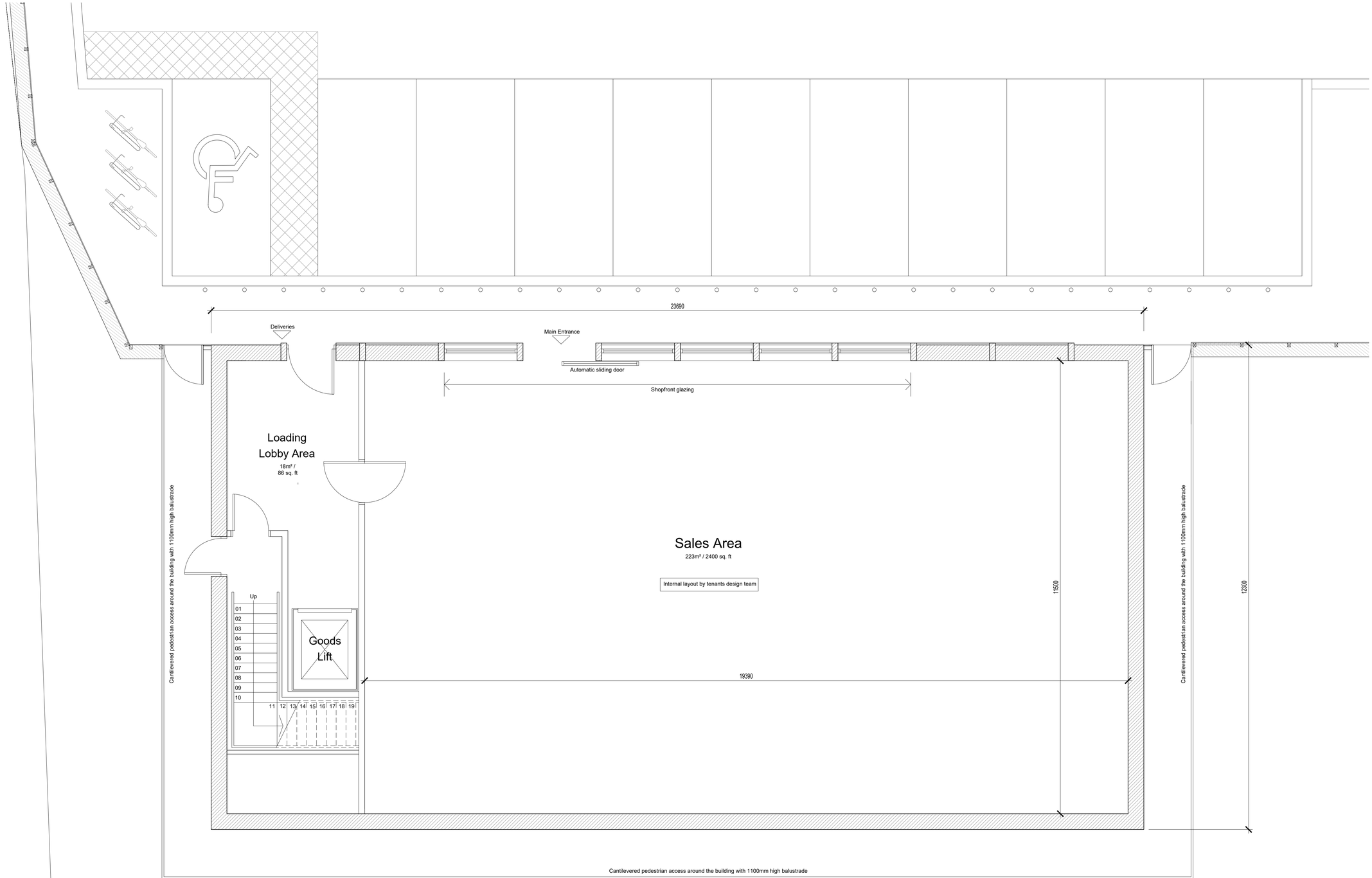
7.8 It is considered that the predicted level of traffic generation is unlikely to result in any material adverse impacts on the operation of the site access or any specific junctions on the local highway network.

7.9 The proposed development is considered to be in line with the Kirklees Local Plan as the site has safe and suitable access points for all people and the residual cumulative impacts of the development are not considered to be severe.

7.10 This Transport Statement demonstrates that the development will not have an unacceptable impact on highway safety and that residual cumulative impacts of the development are not severe in transport terms, consequently the planning application should be supported by the Local Authority on transport grounds.

Appendix A

Site Layout Plan



GA Plan As Proposed
Scale, 1:50 @ A1

AMENDMENTS
-

Scale Bar 1:50

DRAWING TITLE
GA Plan As Proposed

JOB TITLE
Retail Unit
North Road
Kirkburton

DRAWING NUMBER
WA 608 (04) 04

SCALE
1:50@A1

DATE
20.06.23

DRAWN
RG

CHECKED
KW

STATUS
PLANNING DRAWINGS ONLY

CONTACT
0116 254 1830
waltersarchitects.com
info@waltersarchitects.com

Suite 2.21
St. Martins House
7 Peacock Lane
Leicester
LE1 5PZ

Walters
Architects

Appendix B

Drawing 158416-001 Swept Path Analysis of 11.85m Refuse Vehicle

Drawing 158416-002 Swept Path Analysis of 10m Rigid Vehicle

Shed

North Road

Sales Area
232m² / 2507 sq. ft

Approx Ext Ground Level 123.39

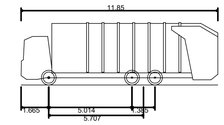
Approx Existing Ground Level 115.03

Wooded Area

Approx Level 118.48

MH

- Sanderson Associates Consulting Engineers ("the consultant"), has not checked or verified, and shall have no liability whatsoever for any inaccuracies which may be attributable to any data, reports, base plan(s) and drawings provided by the client, or purchased by the consultant on the client's behalf, that may have been utilised within this drawing.
- The consultant shall not be liable for the use by any person of any document for any purpose other than that for which the same were provided by the consultant.
- No liability whatsoever is accepted by the consultant for any error or omissions.
- The consultant accepts no liability for any vehicle specification errors within the vehicle track software used and / or it's vehicle libraries.



Copy Of Phoenix 2 Duo Recycler (P2-15W with Elite 6x4 chassis)

Overall Length	11.850m
Overall Width	2.530m
Overall Body Height	3.756m
Min Body Ground Clearance	0.309m
Track Width	2.530m
Lock to lock time	4.00s
Wall to Wall Turning Radius	11.035m

N

Rev	Amendment	Drawn	Date	Checked

sanderson associates consulting engineers
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Client

Mill Road Group SIPP

Project Title

North Road, Kirkburton, Huddersfield

Drawing Title

Swept Path Analysis of 11.85m Refuse Vehicle

Scale: 1:100	Drawn By: ET
Drawing Size: A1	Checked By: KS
Date: December 2023	Approved By: KS

Drawing Number: 158416-001

Rev:

FILE REF:

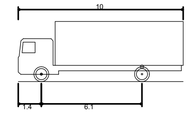
Shed

Sales Area
232m² / 2507 sq. ft

Approx Ext Ground Level 123.39

North Road

- Sanderson Associates Consulting Engineers ("the consultant"), has not checked or verified, and shall have no liability whatsoever for any inaccuracies which may be attributable to any data, reports, base plan(s) and drawings provided by the client, or purchased by the consultant on the client's behalf, that may have been utilised within this drawing.
- The consultant shall not be liable for the use by any person of any document for any purpose other than that for which the same were provided by the consultant.
- No liability whatsoever is accepted by the consultant for any error or omissions.
- The consultant accepts no liability for any vehicle specification errors within the vehicle track software used and / or it's vehicle libraries.



FTA Design 13/18 Tonne Rigid Vehicle (2006)	
Overall Length	10.000m
Overall Width	2.550m
Overall Body Height	3.645m
Min Body Ground Clearance	0.440m
Track Width	2.470m
Lock to lock time	3.00s
Kerb to Kerb Turning Radius	11.000m

N

Rev	Amendment	Drawn	Date	Checked

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Client

Mill Road Group SIPP

Project Title

North Road, Kirkburton, Huddersfield

Drawing Title

Swept Path Analysis of 10m Rigid Vehicle

Scale	Drawn By
1:100	ET
Drawing Size	Checked By
A1	KS
Date	Approved By
December 2023	KS
	Drawing Number: 158416-002 — Rev

FILE REF:

Appendix C

TRICS Output

Sanderson Associates (Consulting Engineers) Ltd Jubilee Way Wakefield Licence No: 109307

Calculation Reference: AUDIT-109307-231201-1245

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST		
	WS	WEST SUSSEX	2 days
04	EAST ANGLIA		
	PB	PETERBOROUGH	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	SE	SHEFFIELD	1 days
10	WALES		
	CF	CARDIFF	2 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:	306 to 500 (units: sqm)
Range Selected by User:	100 to 500 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 17/09/22

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
Wednesday	2 days
Thursday	1 days
Friday	2 days

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

Selected survey types:

Manual count	6 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:

Neighbourhood Centre (PPS6 Local Centre)	6

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:

Commercial Zone	1
Residential Zone	2
High Street	3

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	2 days - Selected
Servicing vehicles Excluded	4 days - Selected

Secondary Filtering selection:

Use Class:

E(a)	6 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

Secondary Filtering selection (Cont.):

Population within 1 mile:

5,001 to 10,000	1 days
15,001 to 20,000	3 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:

125,001 to 250,000	4 days
250,001 to 500,000	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	5 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	6 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	6 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	6 days

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

LIST OF SITES relevant to selection parameters

1	CF-01-O-01	TESCO EXPRESS		CARDIFF
	BUTE STREET			
	CARDIFF			
	CARDIFF BAY			
	Neighbourhood Centre (PPS6 Local Centre)			
	Commercial Zone			
	Total Gross floor area:		450 sqm	
	Survey date: WEDNESDAY		*18/07/12*	*Survey Type: MANUAL*
2	CF-01-O-02	CO-OPERATIVE		CARDIFF
	HEOL-Y-DERI			
	CARDIFF			
	RHIWBINA			
	Neighbourhood Centre (PPS6 Local Centre)			
	Residential Zone			
	Total Gross floor area:		350 sqm	
	Survey date: FRIDAY		*07/10/16*	*Survey Type: MANUAL*
3	PB-01-O-01	CO-OP		PETERBOROUGH
	MAYORS WALK			
	PETERBOROUGH			
	NETHERTON			
	Neighbourhood Centre (PPS6 Local Centre)			
	Residential Zone			
	Total Gross floor area:		375 sqm	
	Survey date: MONDAY		*17/10/11*	*Survey Type: MANUAL*
4	SE-01-O-02	SAINSBURY'S LOCAL		SHEFFIELD
	ECCLESALL ROAD			
	SHEFFIELD			
	Neighbourhood Centre (PPS6 Local Centre)			
	High Street			
	Total Gross floor area:		306 sqm	
	Survey date: FRIDAY		*14/12/12*	*Survey Type: MANUAL*
5	WS-01-O-01	CO-OP		WEST SUSSEX
	GORING ROAD			
	WORTHING			
	GORING-BY-SEA			
	Neighbourhood Centre (PPS6 Local Centre)			
	High Street			
	Total Gross floor area:		500 sqm	
	Survey date: THURSDAY		*12/05/22*	*Survey Type: MANUAL*
6	WS-01-O-02	SAINSBURY'S LOCAL		WEST SUSSEX
	GORING ROAD			
	WORTHING			
	GORING-BY-SEA			
	Neighbourhood Centre (PPS6 Local Centre)			
	High Street			
	Total Gross floor area:		409 sqm	
	Survey date: WEDNESDAY		*11/05/22*	*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): 3.48

	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	1	500	1.200	1	500	0.800	1	500	2.000
06:00 - 07:00	4	409	1.224	4	409	0.857	4	409	2.081
07:00 - 08:00	6	398	4.937	6	398	4.937	6	398	9.874
08:00 - 09:00	6	398	5.523	6	398	5.230	6	398	10.753
09:00 - 10:00	6	398	5.272	6	398	4.937	6	398	10.209
10:00 - 11:00	6	398	5.607	6	398	5.314	6	398	10.921
11:00 - 12:00	6	398	6.151	6	398	5.858	6	398	12.009
12:00 - 13:00	6	398	6.485	6	398	6.569	6	398	13.054
13:00 - 14:00	6	398	5.816	6	398	5.649	6	398	11.465
14:00 - 15:00	6	398	6.318	6	398	6.025	6	398	12.343
15:00 - 16:00	6	398	6.778	6	398	6.234	6	398	13.012
16:00 - 17:00	6	398	7.197	6	398	6.318	6	398	13.515
17:00 - 18:00	6	398	7.113	6	398	8.368	6	398	15.481
18:00 - 19:00	6	398	7.322	6	398	7.113	6	398	14.435
19:00 - 20:00	6	398	5.230	6	398	5.356	6	398	10.586
20:00 - 21:00	6	398	3.138	6	398	3.724	6	398	6.862
21:00 - 22:00	6	398	2.218	6	398	2.594	6	398	4.812
22:00 - 23:00	3	428	0.623	3	428	0.701	3	428	1.324
23:00 - 24:00	2	455	0.000	2	455	0.330	2	455	0.330
Total Rates:			88.152			86.914			175.066

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:	306 - 500 (units: sqm)
Survey date date range:	01/01/10 - 17/09/22
Number of weekdays (Monday-Friday):	6
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.

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
MULTI-MODAL OGVS
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	1	500	0.000	1	500	0.000	1	500	0.000
06:00 - 07:00	4	409	0.122	4	409	0.061	4	409	0.183
07:00 - 08:00	6	398	0.167	6	398	0.209	6	398	0.376
08:00 - 09:00	6	398	0.084	6	398	0.042	6	398	0.126
09:00 - 10:00	6	398	0.042	6	398	0.084	6	398	0.126
10:00 - 11:00	6	398	0.084	6	398	0.084	6	398	0.168
11:00 - 12:00	6	398	0.126	6	398	0.084	6	398	0.210
12:00 - 13:00	6	398	0.000	6	398	0.042	6	398	0.042
13:00 - 14:00	6	398	0.000	6	398	0.000	6	398	0.000
14:00 - 15:00	6	398	0.000	6	398	0.000	6	398	0.000
15:00 - 16:00	6	398	0.000	6	398	0.000	6	398	0.000
16:00 - 17:00	6	398	0.000	6	398	0.000	6	398	0.000
17:00 - 18:00	6	398	0.000	6	398	0.000	6	398	0.000
18:00 - 19:00	6	398	0.000	6	398	0.000	6	398	0.000
19:00 - 20:00	6	398	0.000	6	398	0.000	6	398	0.000
20:00 - 21:00	6	398	0.000	6	398	0.000	6	398	0.000
21:00 - 22:00	6	398	0.000	6	398	0.000	6	398	0.000
22:00 - 23:00	3	428	0.000	3	428	0.000	3	428	0.000
23:00 - 24:00	2	455	0.000	2	455	0.000	2	455	0.000
Total Rates:			0.625			0.606			1.231

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 CYCLISTS
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	1	500	0.000	1	500	0.000	1	500	0.000
06:00 - 07:00	4	409	0.061	4	409	0.061	4	409	0.122
07:00 - 08:00	6	398	0.209	6	398	0.251	6	398	0.460
08:00 - 09:00	6	398	0.167	6	398	0.167	6	398	0.334
09:00 - 10:00	6	398	0.293	6	398	0.293	6	398	0.586
10:00 - 11:00	6	398	0.209	6	398	0.167	6	398	0.376
11:00 - 12:00	6	398	0.251	6	398	0.293	6	398	0.544
12:00 - 13:00	6	398	0.335	6	398	0.335	6	398	0.670
13:00 - 14:00	6	398	0.377	6	398	0.293	6	398	0.670
14:00 - 15:00	6	398	0.460	6	398	0.502	6	398	0.962
15:00 - 16:00	6	398	0.377	6	398	0.335	6	398	0.712
16:00 - 17:00	6	398	0.460	6	398	0.460	6	398	0.920
17:00 - 18:00	6	398	0.293	6	398	0.377	6	398	0.670
18:00 - 19:00	6	398	0.460	6	398	0.460	6	398	0.920
19:00 - 20:00	6	398	0.293	6	398	0.209	6	398	0.502
20:00 - 21:00	6	398	0.251	6	398	0.293	6	398	0.544
21:00 - 22:00	6	398	0.293	6	398	0.335	6	398	0.628
22:00 - 23:00	3	428	0.234	3	428	0.234	3	428	0.468
23:00 - 24:00	2	455	0.000	2	455	0.000	2	455	0.000
Total Rates:			5.023			5.065			10.088

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 VEHICLE OCCUPANTS
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	1	500	1.000	1	500	0.200	1	500	1.200
06:00 - 07:00	4	409	1.408	4	409	0.857	4	409	2.265
07:00 - 08:00	6	398	5.649	6	398	5.565	6	398	11.214
08:00 - 09:00	6	398	6.485	6	398	5.983	6	398	12.468
09:00 - 10:00	6	398	6.067	6	398	5.356	6	398	11.423
10:00 - 11:00	6	398	6.067	6	398	6.276	6	398	12.343
11:00 - 12:00	6	398	7.615	6	398	6.820	6	398	14.435
12:00 - 13:00	6	398	7.615	6	398	7.741	6	398	15.356
13:00 - 14:00	6	398	6.736	6	398	6.653	6	398	13.389
14:00 - 15:00	6	398	6.987	6	398	7.280	6	398	14.267
15:00 - 16:00	6	398	8.619	6	398	7.866	6	398	16.485
16:00 - 17:00	6	398	8.410	6	398	7.113	6	398	15.523
17:00 - 18:00	6	398	8.117	6	398	9.623	6	398	17.740
18:00 - 19:00	6	398	8.996	6	398	8.828	6	398	17.824
19:00 - 20:00	6	398	5.858	6	398	6.276	6	398	12.134
20:00 - 21:00	6	398	3.975	6	398	4.519	6	398	8.494
21:00 - 22:00	6	398	2.301	6	398	2.636	6	398	4.937
22:00 - 23:00	3	428	1.012	3	428	0.857	3	428	1.869
23:00 - 24:00	2	455	0.000	2	455	0.440	2	455	0.440
Total Rates:			102.917			100.889			203.806

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

	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	1	500	0.000	1	500	0.000	1	500	0.000
06:00 - 07:00	4	409	0.551	4	409	0.428	4	409	0.979
07:00 - 08:00	6	398	3.724	6	398	3.138	6	398	6.862
08:00 - 09:00	6	398	8.619	6	398	7.573	6	398	16.192
09:00 - 10:00	6	398	8.787	6	398	9.079	6	398	17.866
10:00 - 11:00	6	398	10.795	6	398	11.004	6	398	21.799
11:00 - 12:00	6	398	12.971	6	398	13.013	6	398	25.984
12:00 - 13:00	6	398	17.657	6	398	16.234	6	398	33.891
13:00 - 14:00	6	398	18.201	6	398	19.079	6	398	37.280
14:00 - 15:00	6	398	14.310	6	398	15.983	6	398	30.293
15:00 - 16:00	6	398	16.151	6	398	16.402	6	398	32.553
16:00 - 17:00	6	398	16.778	6	398	17.490	6	398	34.268
17:00 - 18:00	6	398	14.017	6	398	13.766	6	398	27.783
18:00 - 19:00	6	398	13.598	6	398	13.347	6	398	26.945
19:00 - 20:00	6	398	13.766	6	398	13.431	6	398	27.197
20:00 - 21:00	6	398	8.996	6	398	10.000	6	398	18.996
21:00 - 22:00	6	398	6.402	6	398	6.778	6	398	13.180
22:00 - 23:00	3	428	1.012	3	428	1.713	3	428	2.725
23:00 - 24:00	2	455	0.000	2	455	0.330	2	455	0.330
Total Rates:			186.335			188.788			375.123

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

	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	1	500	0.000	1	500	0.000	1	500	0.000
06:00 - 07:00	4	409	0.000	4	409	0.000	4	409	0.000
07:00 - 08:00	6	398	0.042	6	398	0.042	6	398	0.084
08:00 - 09:00	6	398	0.460	6	398	0.335	6	398	0.795
09:00 - 10:00	6	398	0.628	6	398	0.460	6	398	1.088
10:00 - 11:00	6	398	0.669	6	398	0.711	6	398	1.380
11:00 - 12:00	6	398	0.167	6	398	0.335	6	398	0.502
12:00 - 13:00	6	398	0.586	6	398	0.669	6	398	1.255
13:00 - 14:00	6	398	0.586	6	398	0.377	6	398	0.963
14:00 - 15:00	6	398	0.879	6	398	0.628	6	398	1.507
15:00 - 16:00	6	398	0.586	6	398	0.586	6	398	1.172
16:00 - 17:00	6	398	0.209	6	398	0.167	6	398	0.376
17:00 - 18:00	6	398	1.172	6	398	1.046	6	398	2.218
18:00 - 19:00	6	398	0.628	6	398	0.586	6	398	1.214
19:00 - 20:00	6	398	0.962	6	398	0.962	6	398	1.924
20:00 - 21:00	6	398	0.126	6	398	0.126	6	398	0.252
21:00 - 22:00	6	398	0.042	6	398	0.042	6	398	0.084
22:00 - 23:00	3	428	0.000	3	428	0.000	3	428	0.000
23:00 - 24:00	2	455	0.000	2	455	0.000	2	455	0.000
Total Rates:			7.742			7.072			14.814

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): 3.48

	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	1	500	1.000	1	500	0.200	1	500	1.200
06:00 - 07:00	4	409	2.020	4	409	1.346	4	409	3.366
07:00 - 08:00	6	398	9.623	6	398	8.996	6	398	18.619
08:00 - 09:00	6	398	15.732	6	398	14.059	6	398	29.791
09:00 - 10:00	6	398	15.774	6	398	15.188	6	398	30.962
10:00 - 11:00	6	398	17.741	6	398	18.159	6	398	35.900
11:00 - 12:00	6	398	21.004	6	398	20.460	6	398	41.464
12:00 - 13:00	6	398	26.192	6	398	24.979	6	398	51.171
13:00 - 14:00	6	398	25.900	6	398	26.402	6	398	52.302
14:00 - 15:00	6	398	22.636	6	398	24.393	6	398	47.029
15:00 - 16:00	6	398	25.732	6	398	25.188	6	398	50.920
16:00 - 17:00	6	398	25.858	6	398	25.230	6	398	51.088
17:00 - 18:00	6	398	23.598	6	398	24.812	6	398	48.410
18:00 - 19:00	6	398	23.682	6	398	23.222	6	398	46.904
19:00 - 20:00	6	398	20.879	6	398	20.879	6	398	41.758
20:00 - 21:00	6	398	13.347	6	398	14.937	6	398	28.284
21:00 - 22:00	6	398	9.038	6	398	9.791	6	398	18.829
22:00 - 23:00	3	428	2.259	3	428	2.804	3	428	5.063
23:00 - 24:00	2	455	0.000	2	455	0.770	2	455	0.770
Total Rates:			302.015			301.815			603.830

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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