Proposed Residential Development
Dowker Street, Milnsbridge, Huddersfield

Transport Statement

August 2023

Client: Westshield

Ref: RHC-23-068-TS

Roberts Highway Consultants Limited
Company Number: 13958498

Contents

Appendices

Revision History

Revision	Comments	Written By
- August 2023	Initial submission	Andrew Roberts BA (Hons) MCIHT MTPS

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1.0 INTRODUCTION

1.1 Roberts Highway Consultants Limited has been appointed by Westshield, to provide transport planning support in relation to a planning application for a proposed residential development comprising 38 dwellings at Dowker Street, Milnsbridge, Huddersfield. The broad extent of the site is outlined on **Plan 1**, with a proposed site plan contained within **Appendix A**.

Plan 1: Contextual Site Plan

© Google Maps

1.2 The site is located within the unitary authority of Kirklees Council, who act as both the Local Planning Authority and the Local Highway Authority for the area. This report has been prepared in accordance with Kirklees Highway Design Guide Supplementary Planning Document (SPD).

Planning History

1.3 A planning application for the conversion of existing factory buildings to three town houses and the erection of 31 dwellings and two apartments, was granted planning permission in January 2013 at the site (planning application reference: 2011/62/90822/W1).

1.4 The above planning application was never implemented, with the factory buildings which once occupied the site being demolished in 2016.

1.5 A new planning application is proposed at the site, similar to the previously approved planning application therefore, this Transport Statement will assess any highway impact brought about by the proposed

development.

Methodology and Scoping

1.6 This Transport Statement has been prepared in accordance with the National Planning Policy Framework (NPPF) and seeks to demonstrate:

- Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location.
- Safe and suitable access to the site can be achieved for all users.
- 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.

1.7 In addition to the above, this report has been prepared with reference to the following national policy/guidance documents:

- National Planning Policy Framework (July 2021).
- Inclusive Mobility - A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure.
- Design Manual for Roads and Bridges.
- Manual for Streets / Manual for Streets 2.
- Kirklees Highway Design Guide SPD (2019).

Report Structure

1.8 This Transport Statement report will review all existing and proposed highway elements, providing appropriate conclusions to assess the impact of proposed development upon the local highway network. The structure of this report is as follows:

- A review of the existing site, alongside the local highway network, collision records and accessibility are covered within **Chapter 2.0**.
- The development proposals, which include development quantum, the proposed site access and car parking arrangements are included within **Chapter 3.0**.
- Analysis of the projected vehicle movements associated with the development proposals and their impact upon the highway network, in addition to mitigation measures, will be outlined within **Chapter 4.0**.
- A summary of all findings will be presented in the conclusions in **Chapter 5.0**.

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Disclaimer

1.9 Roberts Highway Consultants Limited has completed this report for the benefit of the individuals referred to in paragraph 1.1 and any relevant statutory authority which may require reference in relation to approvals for the proposed development. Third parties should not use or rely upon the contents of this report unless explicit written approval has been gained from Roberts Highway Consultants Limited.

1.10 Roberts Highway Consultants Limited accepts no responsibility or liability for:

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2.0 EXISTING CONDITIONS

Existing Site

2.1 The development site, which is irregular in shape, is a brownfield site which was once occupied by Taylor Valves Works, an engineering firm designing and manufacturing specialist steam valves. The factory buildings were demolished in 2016, with the site presently unkempt and overgrown with vegetation.

2.2 The site is identified as part of the Milnsbridge large local centre, a locality that is characterised by mixed uses, retail, commercial, industrial, and residential in proximity, centred on Ordnance Survey Grid Reference 411620, 416070.

2.3 The site fronts onto Armitage Road, Dowker Street and George Street to the north, east and south respectively, with residential dwellings and commercial premises forming the immediate western boundaries of the site. A small number of residential dwellings are located along half of the northern boundary, as can be seen on **Plan 1**, with the site not impacted by a Public Right of Way.

2.4 There are four points of access to the site for vehicles, with two points of access located along Dowker Street. The first point of access (**Image 1**) was used as a main access for delivery vehicles associated with previous operations at the site and comprises of a formal bellmouth arrangement onto the highway.

2.5 The second point of access via Dowker Street (**Image 2**) is again of a bellmouth arrangement however, this access was used by delivery vehicles through a roller shutter access into the factory building.

Image 1: Dowker Street (Access A)

Image 2: Dowker Street (Access B)

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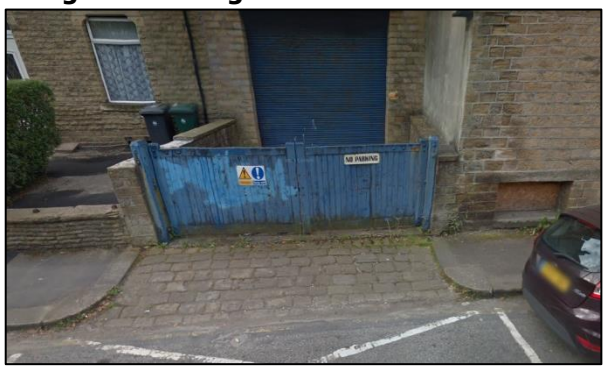
2.6 A further two points of access can be achieved into the site via George Street and Armitage Road.

2.7 The George Street access (**Image 3**), which is situated adjacent to an existing residential dwelling, was a main point of access for the site and comprises of a formal bellmouth arrangement onto the highway.

2.8 Access onto Armitage Road, to the north of the site, was achieved via a private drive which allowed access into the factory buildings via a roller shutter (**Image 4**).

Image 3: George Street Access

Image 4: Armitage Road Access



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Local Highway Network

2.9 The street network around the site is subject to commercial as well as residential generated traffic. George Street for its length between Market Street and Dowker Street is confined to a single direction flow west to east. Beyond Dowker Street, the street reverts to two-way traffic. George Street functions as the vehicular access route to industrial and commercial premises located further to the east of the site.

2.10 Dowker Street is also subject to single way direction flow south to north between its junctions with George Street and Armitage Road. Armitage Road between its junction with Dowker Street and Market Street allows for single direction traffic east to west, therefore the roads adjacent to the site function as a local gyratory network.

2.11 On-street parking is allowed on the northern side of the George Street carriageway, with on-street parking also permitted along both sides of Dowker Street and Armitage Lane. These parking locations are identified by formal on-street parking bays, with double yellow lines present where parking is not allocated.

2.12 The parking bays along the northern side of George Street, which are circa 40m in length, are within a Controlled Parking Zone (CPZ) between the hours of 08:00-18:00, Monday to Saturday. Users of these spaces are allowed to park for no longer than 45 minutes unless they have a residents parking permit.

2.13 Parking along Dowker Street is also restricted for users between the hours of 09:00-18:00, Monday to Saturday. Again, users of these spaces can park for no longer than 45 minutes, with no return permitted for 75 minutes.

2.14 Formal parking along the northern side of Armitage Road within the designated parking bays is limited to resident parking permit holders only. Parking is restricted along the southern side of the carriageway between the hours of 08:00-18:00, Monday to Friday and 08:00-12:30 on Saturdays.

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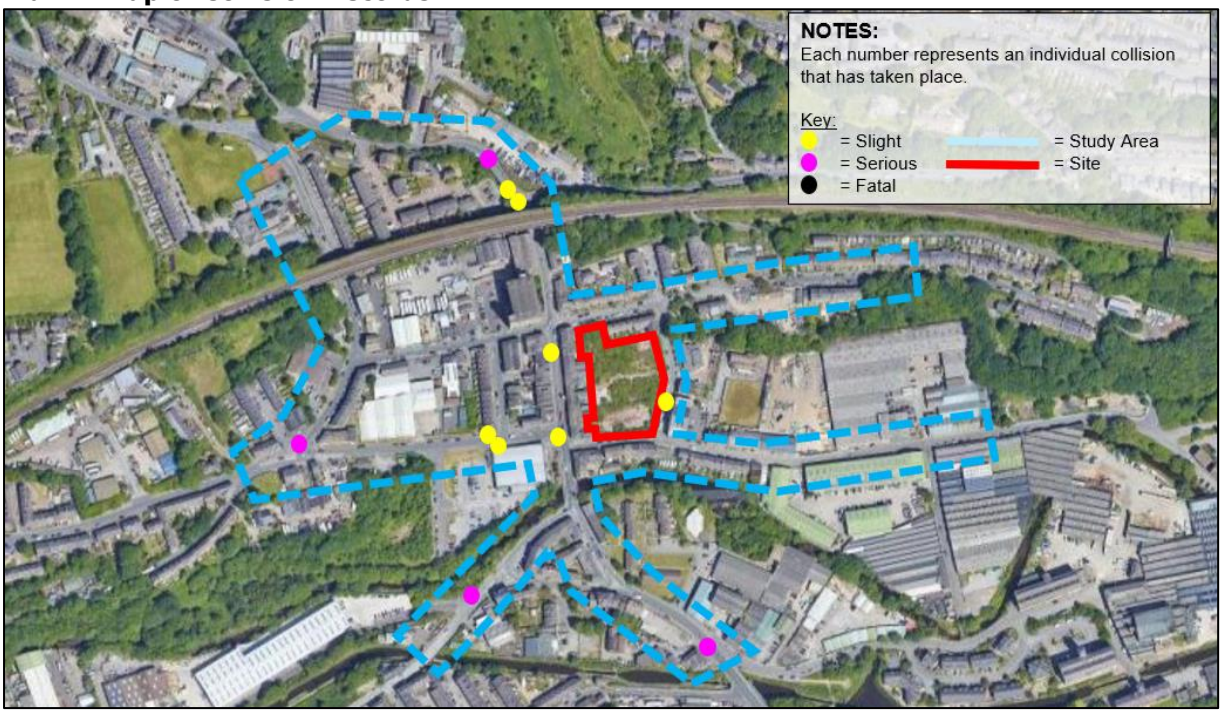
2.15 Street-lit footways of approximately 1.5m width are located along all surrounding residential streets, with these footpaths linking with the wider footway network along Market Street, to the west of the site.

Road Collision Data

2.16 Personal Injury Collision (PIC) data has been obtained from Crashmap.co.uk for collisions recorded by local police forces using the STATS19 form. The results acquired demonstrate the latest five-year period available (01/01/2017 to 31/12/2021), which highlight 11 collisions occurred within the chosen study area. **Plan 2** outlines the locations of these collisions in context of the site.

Plan 2: Map of Collision Records



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2.17 Of the 11 collisions which occurred within the study area over the five-year period, only two were situated at the same location. These two collisions occurred at the Lipscomb Street and Scar Lane junction and were classified as being 'slight' in severity. All other collisions within the study area were situated across different locations along the highway network.

2.18 Taking into consideration the analysis work undertaken, there is no available evidence to suggest an existing road safety concern which would be exacerbated by the development proposals.

Sustainable Transport Opportunities

2.19 An accessibility assessment has been undertaken to determine the location of key local facilities and amenities in relation to walking and cycling to highlight travel time to these services. **Table 1** provides a summary of key amenities and facilities using these travel modes.

Table 1: Accessibility Assessment to Local Amenities/Facilities

Amenity/Facility	Approx. Distance (m)	Approx. Walking Time (mins)	Approx. Cycling Time (mins)
Retail			
KV Convenience and Off Licence	60	1	0
Anchor Fish and Chips	80	1	0
Aldi	100	1	0
Milnsbridge Post Office	100	1	0
Londis	900	11	4
Co-Op Food	1400	17	6
Education			
Charley's Angels Day Nursery	360	4	2
Crowe Lane Primary and Foundation Stage School	460	5	2
Jitterbug's Pre School	700	8	3
Royds Hall A SHARE Academy	1200	14	5
Leisure & Hospitality			
Rawthorpe Amateur Boxing Club	240	3	1
Elysium Studios	360	4	2
Milnsbridge Bowling Club	600	7	3
Golcar United Football Club	1400	17	6
Paddock Cricket, Bowling and Athletic Club	1600	19	7
Health			
Wells Pharmacy	80	1	0
Chinese Herbal Medicine Store	100	1	0
Bupa Dental Care Milnsbridge	100	1	0
Selbie Opticians	100	1	0
The New Street Surgery	460	5	2
Longwood Village Surgery	960	11	4
Transport			
Market Street Scar Lane Bus Stop	60	1	0
Market Street Savile Street Bus Stop	160	2	1
Saville Street Market Street Bus Stop	160	2	1
Employment			
The Royal Hotel	280	3	1
Cliff End Business Park	460	5	2
Britannia Industrial Estate	900	11	4

**Assumes a walking speed of 1.4m/s (3.2mph or 5.0kph) taken from the Guidance for Providing for Journeys on Foot (IHT, 2000) and cycling speed of 4m/s (9mph or 14.4kph), taken from Local Transport Note 1/86.*

Accessibility on Foot

2.20 **Table 1** demonstrates that any key facilities and amenities residents may require within the local area are located within the 1.6km distance desired by the DfT. The DfT National Travel Survey (England) 2021 found that walking constitutes 31% of all journeys made in a year, and that the average walking trip time was 19 minutes (1.6km).

2.21 Guidelines for "Providing for Journeys on Foot" commissioned by the Institution of Highways Engineers (IHT) suggest that for pedestrians without a mobility impairment, the following average distances are considered acceptable and should be used for planning and evaluation purposes. **Table 2** replicates those distances on the IHT guidance.

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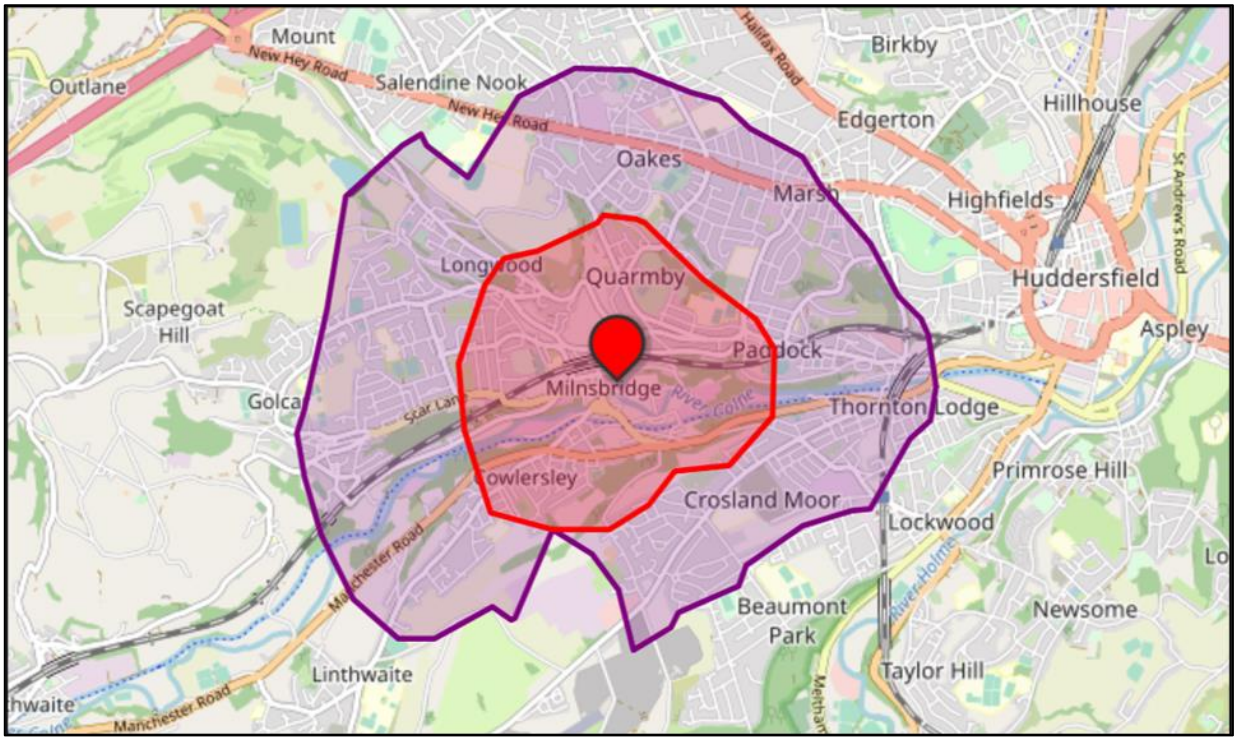
Table 2: **IHT Suggested Walking Distances**

Suggested Acceptable Walking Distances			
	Town Centre's	Commuting and School	Elsewhere
Desirable	200m	500m	400m
Acceptable	400m	1000m	800m
Maximum	800m	2000m	1200m

2.22 For purposes of planning and evaluation, and in the absence of any other anecdotal evidence, it is generally accepted that the 'suggested' distances highlighted in the above table are used. To understand how these distances relate to the site and the surrounding infrastructure available to accommodate journeys by foot, an iso-distance map indicating a 2km iso-distance has been produced and presented in **Plan 3.**

Plan 3: 2km Walking Map Shown in 1km Isochrones



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2.23 **Plan 3** illustrates that the urban areas of Crosland Moor, Marsh and parts of Thornton Lodge are located within a 2km walking distance of the site. These areas provide a full range of amenities that would be attractive to residents of the proposed development, including significant employment opportunities and a wide range of retail and leisure facilities.

2.24 The footways surrounding the site are street lit and conducive to encourage walking trips. Dropped kerbs can be found at many of the local junctions, with Puffin crossings benefitting from tactile paving located along Market Street to facilitate safe pedestrian movement.

Accessibility by Cycle

2.25 A review of local roads surrounding the site suggests that cycling would be a suitable form of travel for residents, with cyclists utilising Market Street for onward travel to the north and south. The carriageway is of suitable width for cyclists (approximately 7.5m) and has a low vehicle speed limit (30mph). Adjacent roads also comprise low vehicle speed limits and are considered quiet in nature.

2.26 There is a City Connect cycle route located south of the proposed site which runs adjacent to the Huddersfield canal. This connects the site to the town of Huddersfield to the east and offers residents an off-road route of travel to an area which provides a full range of amenities that would be attractive to residents, including significant employment opportunities and a wide range of retail and leisure facilities. There is also a signed cycle route which offers residents guided travel from the suburb of Marsh to the north of Huddersfield town centre and connects directly to National Cycle Route 69.

Accessibility by Bus

2.27 The closest bus stop to the site ('Market Street Scar Lane') is situated along the southbound side of Market Street, approximately 60m walking distance. The stop comprises of a flag-and-pole with bus timetable information attached. 'Savile Street Market Street' and 'Scar Lane Aldi Supermarket' bus stops are also located near the site and offer residents additional services.

2.28 A summary of the bus services which operate from the stops can be found within **Table 3**, with a bus stop plan attached within **Appendix B.**

Table 3: Summary of Bus Service Adjacent to Site

Service	Operating Days	Approx. Operating Times	Approx. Frequency (up to)	Route	Provider
301	Mon-Fri	06:12-23:42	60 mins	Huddersfield-Golcar Circular	First Halifax, Calder Valley & Huddersfield
	Sat	06:42-23:43			
	Sun	07:43-22:43	90 mins		
302	Mon-Fri	07:02-18:25	30 mins		
	Sat	08:19-17:53			
	Sun	08:46-16:19	60 mins		
303	Mon-Fri	07:15-22:13		Huddersfield-Scapegoat Hill	Team Pennine
	Sat	09:13-22:13	120 mins		
	Sun	10:24-17:24			
304	Mon-Fri	11:13-17:13			
	Sat	11:14-17:13			
394	Mon-Fri	10:32-16:32	120 mins	Huddersfield-Slaithwaite	Stotts Coaches
	Sat				
395	Mon-Fri	07:29-17:32	4 hours		
	Sat				
396	Mon-Fri	19:16-21:16	2 services	Huddersfield-Willberlee	Team Pennine
	Sat				
	Sun	12:24-18:24	120 mins		

Timetable data taken from 'traveline.info' accessed 15/04/2023

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2.29 The bus timetable information demonstrates that residents will be able to use the accessible bus services along Market Street, Savile Street and Scar Lane to access local villages, towns, educational facilities and railway stations.

Accessibility by Rail

2.30 The nearest train station to the site is Lockwood Railway Station, located approximately 2.1km walking distance southeast from the site.

2.31 The station benefits from several facilities, with a summary as follows:

- Ticket Machines.
- Bicycle Parking (10 spaces and CCTV).
- Car Park (10 Spaces).
- Information services.
- Customer Help Points.
- Ramps for accessible access.

2.32 **Table 4** provides details on rail services to the major destinations from Lockwood Railway Station.

Table 4: Summary of Main Services Operating from Lockwood Railway Station

Destination	Frequency (Peak Hours)
Sheffield	08:13, 09:15
Huddersfield	08:46, 09:46

Timetable data taken from 'traveline.info' accessed 15/04/2023

2.33 Transport to Huddersfield Town Centre can be reached directly from Lockwood Railway Station in approximately five minutes. Huddersfield Railway Station offers additional services to larger cities such as Hull and Leeds. Services directly from Lockwood Railway Station to Sheffield take approximately 1 hour 15 minutes.

Sustainability Conclusion

2.34 Upon reviewing the information within this chapter, the site can be described as being in accordance with Paragraph 105 of the NPPF which states;

> *'Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes.'*

2.35 A development of 38 residential dwellings would be accommodated by the existing infrastructure within the site's locale, with direct access to public transport links as well as existing amenities.

3.0 PROPOSED DEVELOPMENT

Schedule of Accommodation

3.1 The development will comprise of 38 residential dwellings (14x houses and 24 flats), with the number of bedrooms outlined within **Table 5**.

Table 5: Schedule of Accommodation

Dwelling / Bedrooms	Total
Flats / One Bedroom	16
Flats / Two Bedrooms	8
Houses / Two Bedrooms	8
Houses / Three Bedrooms	6

Vehicle Access

3.2 Access to the site will be taken via two points of access onto the highway. The first point of access will be via George Street through the development of a priority-controlled junction, replacing the existing bellmouth access outlined within **Image 3**.

3.3 The access, which will be designed to adoptable highway standards and offered for adoption, will have a width of 6m to allow for simultaneous two-way vehicle movement. The access will link with Dowker Street through an internal road serving various parking areas and residential dwellings.

3.4 To achieve the access into the site, alterations to the existing on-street parking bay along the northern side of George Street will be required and therefore, an amendment to the existing Traffic Regulation Order (TRO) is proposed. The existing parking bay measures a length of circa 40m, suitable to accommodate eight vehicles when assuming a space length of 5m per vehicle. The implementation of the site access would reduce the parking bay length to 30m, resulting in a reduction of two car parking spaces. Drawing Number RHC-23-068-01 Rev B, attached within **Appendix C**, outlines the site access arrangements.

3.5 Visibility splays of 2.4m x 30m can be achieved to the west of the site access to the Market Street/George Street junction. No visibility splays have been shown to the east of the site access given the existing one-way arrangement.

3.6 The second point of access will utilise the existing access onto Dowker Street, as outlined within **Image 1**. Drawing Number RHC-23-068-02 Rev B, attached within **Appendix D**, outlines the site access arrangements and how visibility splays of 2.4m x 43m can be achieved from the site access. Whilst it is appreciated there could be parked cars situated within the visibility splay, these vehicles would be temporary obstruction and would likely have been in place when the existing access was being used.

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Pedestrian Access

3.7 Access to the site for pedestrians will be predominantly via the existing footway network which surrounds the site. Footways of 2m width will be provided along both sides of the proposed access road, to cater for pedestrian movements onto George Street and Dowker Street.

3.8 In addition to the above, pedestrian connectivity to the car parking area within the site will be available via Armitage Road. Access to Dowker Street will be achieved through the provision of footpaths, most notably to the north of Plot 12.

Vehicle Parking

3.9 Kirklees Highway Design Guide do not have specific car parking standards for residential developments however, they do provide suggested parking levels, as outlined below.

- 1/2Bed apartments = one vehicle space
- 2/3Bed dwellings = two spaces.

3.10 The design guide also suggests that one space per four dwelling ratio is generally provided for residential developments.

3.11 The proposed development will provide 43 off-street parking spaces, with 42 of these allocated to the residential dwellings with the remaining space for visitors. This equates to just under 1.2 allocated vehicle spaces per dwelling, with a single visitor space.

3.12 To fully assess the likely number of vehicles which will be associated with the proposed development, a review of the 2021 census data for 'Accommodation type by car or van availability by number of usual residents aged 17 or over in household' has been undertaken within the Kirklees 045B Super Output Area (Lower Layer), where the site is situated.

3.13 A summary of the results is presented within **Table 6**, with full results attached within **Appendix E**.

Table 6: 2021 Census Accommodation Type by Car or Van Availability by Number of Usual Residents Aged 17 or Over in Kirklees 045B

Houses/Bungalows			
	No Cars or Vans	One Car or Van	Two Cars or Vans
Residents (619)	203	254	162
Percentage	33%	41%	26%
Flats/Apartments			
Residents (293)	151	124	18
Percentage	52%	42%	6%

3.14 Further review of the census data outlines that 46% of houses/bungalows and 78% of flats/apartments are occupied by a single resident over the age of 17 years. Using this information, a projection has been made regarding the likely number of persons occupying the development site for each house type. A summary is provided within **Table 7**.

Table 7: Household Occupancy Split

House Type (Quantity)	Single Occupant (%)	Dwelling Total	Two+ Occupants (%)	Dwelling Total
Houses (14)	46%	6	54%	8
Flats (24)	78%	19	22%	5

3.15 The analysis within **Table 7** outlines that six of the 14 proposed houses will have a single occupant over the age of 17 years, with 19 of the 24 flats having a single occupant. Using the percentage within **Table 6** and applying them to the information presented within **Table 7**, a projection in relation to car ownership levels for the site has been outlined within **Table 8**.

Table 8: Projected Number of Vehicles Associated with Proposed Development

	No Cars or Vans	One Car or Van	Two Cars or Vans
One Resident (6 Dwellings)	2	2	2
Two+ Residents (8 Dwellings)	3	3	2
One Resident (19 Flats)	10	8	1
Two+ Residents (5 Flats)	3	2	0
Total Vehicles	*0*	*15*	*10**

**Doubled when considering two cars*

3.16 Upon reviewing the information provided, it is calculated that users of the site are likely to have 25 vehicles, based on similar car ownership levels within the surrounding area.

3.17 When taking the analysis work into consideration, the proposed 43 car parking spaces within the site will cater for the likely number of vehicles, without the overspill of parking upon the highway.

Cycle Parking/Storage

3.18 Bicycles would be stored within the boundary of each property, in sheds or similar storage facilities. Each of the dwellings will have enough enclosed garden space for this to be achieved.

Servicing

3.19 Refuse collection will be in accordance with the councils 'Waste Management Design Guide for New Developments' (October 2020 Version 5). The layout has been designed to cater for a 11.85m refuse vehicle, as this is a requirement of the highway authority to allow the road to be adopted.

3.20 Swept paths of the council's refuse vehicle outlines that the vehicle can manoeuvre within the site, being able to exit within a forward gear. Drawing RHC-23-068-03 Rev B, attached within **Appendix F**, demonstrates this movement.

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3.21 For some of the residential properties which directly front the highway, refuse collection would be in keeping with existing operations. Residents would be responsible for placing the relevant bins at the back line of pavement on collection day.

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4.0 VEHICLE IMPACT AND MITIGATION

Traffic Generation

4.1 To ascertain the number of vehicle movements likely to be generated from the proposed development, an analysis of the Trip Rate Information Computer System (TRICS®), a computer program which assists in estimating trip rates to and from sites, has been undertaken. A summary of the likely projected person trip rates can be found within **Table 9**, with the full TRICS data available in **Appendix G**.

Table 9: TRICS Total Person Trip Rate Analysis for the Proposed Development

	AM Peak (8am to 9am)			PM Peak (5pm to 6pm)		
	Arrival	Departure	Two-Way	Arrival	Departure	Two-Way
Trip Rates (per dwelling)	0.108	0.372	0.480	0.365	0.215	0.580

4.2 The 2011 census modal split results for the Kirklees 045B Lower Super Output Area, in which the site is situated, have been applied to the total person trips presented in **Table 9** to provide a forecast of trips for each travel mode. The census data shows that there are 972 economically active people in employment, with an additional 489 people not in employment.

4.3 A total of 64 out of the 972 economically active people in employment work from home. These people are still considered as having a potential travel demand to/from the area, as their circumstances may change, and their employers may implement policies or practices making them more, or less able to work from home, especially after the change in working arrangements since the Covid-19 pandemic.

4.4 A review of the recently released 2021 Method of Travel to Work census data for the Kirklees 045B Lower Super Output Area has been undertaken as to compare the results against the 2011 Method of Travel to Work census data.

4.5 The 2021 census was undertaken during a period of rapid change and therefore, care should be taken when using this data for planning purposes. The results of the data outlined that 21.4% of the working population living within the Kirklees 045B Lower Super Output Area worked from home, a typical result of the Covid-19 pandemic. There was a reduction in car drivers of 6.8%.

4.6 Given travel patterns and movements were influenced by the Covid-19 pandemic during the time of the 2021 census, it is considered that the 2011 census data for Method of Travel to work is a more robust dataset when considering vehicle impacts upon the immediate highway network. This data has therefore been used as part of any assessment work within this report.

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4.7 Roberts Highway Consultants Limited have provided a forecast of trips based on economically active residents who are likely to travel during the AM and PM peaks driving a car or van (56.2%). A copy of the 2011 census data for the Kirklees 045B Lower Super Output Area can be found within **Appendix H**.

4.8 The resulting vehicular trip rates and trip generation for the site, which consists of a mix of residential houses and apartments, is shown within **Table 10**.

Table 10: Development Vehicle Trip Rates and Trip Generation

	Trip Rates (per unit)			Trip Generation (38 units)		
	Arrival	Departure	Two-Way	Arrival	Departure	Two-Way
AM Peak (08:00-09:00)	0.061	0.209	0.270	2	8	10
PM Peak (17:00-18:00)	0.205	0.121	0.326	8	5	13
Daily (07:00-19:00)	1.655	1.699	3.354	63	65	128

4.9 Information presented above outlines that the proposed development would generate approximately 10 two-way vehicle movements during the generic AM peak period, with 13 two-way vehicle movements during the generic PM peak period, during a typical weekday.

4.10 Given the buildings associated with the previous use have been demolished, no consideration has been given to vehicle movements which would have previously occurred at the site, when the factory building was in full operation. As places of employment often have higher trip rates than residential sites, the proposals will likely result in negligible impacts upon the highway.

4.11 When considering the projected traffic flows outlined within this chapter, it is considered that the proposed development will not result in a severe impact on the highway network and is therefore acceptable on transport grounds in accordance with Paragraph 111 of the NPPF.

Off-site Mitigation

4.12 As part of the development, it is proposed to reinstate footways across the existing bellmouth junctions along Dowker Street and Armitage Road, which once served the previous site. The footways will have full height kerbs, in the interest of pedestrian safety, with these alterations providing a continuous footway network around the perimeter of the site.

4.13 Given that the George Street access into the site will remove two on-street parking spaces, there is a possibility that on-street parking bays could be extended along Dowker Street to provide additional parking. Drawing Number RHC-23-068-02 Rev B depicts the extended parking bay, which could see an additional parking space provided for existing residents. This proposal will be subject to the necessary TRO process.

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4.14 The existing vehicle access to the site via Armitage Road (**Image 4**) will be closed, with the reinstatement of the footway including for a full height kerb. Any existing road markings outside of this access will be removed from the carriageway.

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5.0 CONCLUSION

5.1 This Transport Statement has been produced to provide information in support of a proposed residential development comprising a mix of 24 apartments and 14 houses at Dowker Street, Milnsbridge, Huddersfield.

5.2 A review of available collision data supplied by crashmap.co.uk highlights that there are no road safety concerns within the study area.

5.3 The site is well located in terms of access to local amenities and facilities by foot, cycle or public transport. Access to employment areas within Milnsbridge are within a suitable commute via alternative transport modes other than use of the car.

5.4 Vehicle access to the site will be via the development of a new priority-controlled junction onto George Street to the south of the site and Dowker Street to the east of the site. Both accesses will be designed to adoptable highway standard and will have a width of 6m to allow for simultaneous two-way vehicle movement. An amendment to the existing Traffic Regulation Order along George Street will be required to facilitate the southern access.

5.5 Swept path analysis of the council's refuse vehicle outlines that the council's refuse vehicle can manoeuvre within the site, being able to exit within a forward gear.

5.6 A total of 43 off-street parking spaces will be provided within the site, split between 42 allocated spaces with a single visitor space. Evidence obtained from the 2021 census data outlines how the proposed number of spaces would cater for anticipated demand. Sufficient space will also be provided within each of the dwellings for cycle storage.

5.7 The proposed development would generate approximately 10 two-way vehicle movements during the generic AM peak period, with 13 two-way vehicle movements noted during the generic PM peak period during a typical weekday.

5.8 All redundant access points which once served the factory building will be closed, with continuous footways provided alongside full height kerbs. Additional on-street parking could be provided along the western side of Dowker Street upon closure of the existing points of access, providing additional on-street parking for existing residents.

5.9 Based on the assessments undertaken, it is considered that the proposed development would not be expected to have a severe impact on the operation of the local highway network. The proposals are therefore considered to be in accordance with the 'National Planning Policy Framework' (NPPF) which states that *"development should only be prevented or refused on highways grounds if there would be an*

unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe".

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Company Number: 13958498

Appendix A: -

Area Schedule

Type	Description	Area
BTP - Adopted Footpath	Light Grey	527 m²
BTP - Adopted Road	Dark Grey	769 m²
BTP - Car Parking	Salmon	578 m²
BTP - Front Garden	Dark Green	117 m²
BTP - Plot Hardstanding	Light Grey	536 m²
BTP - POS Zone	Dark Green	713 m²
BTP - Private Garden	Light Green	531 m²
BTP - Unadopted Drive	Brown	82 m²
Total: 85		3854 m²

Fence Schedule

Type	Fence Height	Length
Fence - TSW 1800mm Trellis	1.800	135.6
Fence - TSW 2100mm	2.100	54.8
Metal Railings - 1100mm	1.100	14.8
Total: 24		205.3

Key

- 2400 x 4800mm parking space
- Pavement
- Block Paved Parking Space
- Private Garden
- Front Garden
- POS
- Road - Tarmac
- Easement - Culvert
- Easement - Sewer

Schedule of Accommodation

14no 1B2P Flats @ 50m²
8no 2B3P Flats @ 61m²
2no 1B2P Flats @ 61m²
06no 2B3P House (Semi-Detached) @ 70m²
02no 2B4P House (Semi-Detached) @ 79m²
04no 3B4P House (Semi-Detached) @ 84m²
02no 3B5P House (Semi-Detached) @ 92m²
38no Total

1B2P Cottage Flat - 100% parking spaces
2B3P Cottage Flat - 100% parking spaces
2B3P House - 100% parking spaces
2B4P House - 100% parking spaces
3B4P House - 200% parking spaces
3B5P House - 200% parking spaces

Caveats
- Overlooking distances subject to LPA Approval
- Density and parking mix subject to LPA Approval

Layout subject to confirmation of red line boundary, all statutory approvals including highways, planning and building regulations, relevant surveys and reports such as topographical, ecology, trees, ground investigation and flood risk.

5 0 5 10 15 20 25
SCALE 1: 500 m

N

Rev	Date	Int	Description

btp ARCHITECTS
RIBA Chartered Practice

CLIENT:
Westshield / FCHO

PROJECT:
Dowker Street, Milnsbridge

DESCRIPTION:
Proposed Site Plan

PURPOSE OF ISSUE:
Planning

DRAWN BY:	CHECKED BY:	DATE:	SCALE @ A1:
ED	VJS	31.07.23	1 : 200

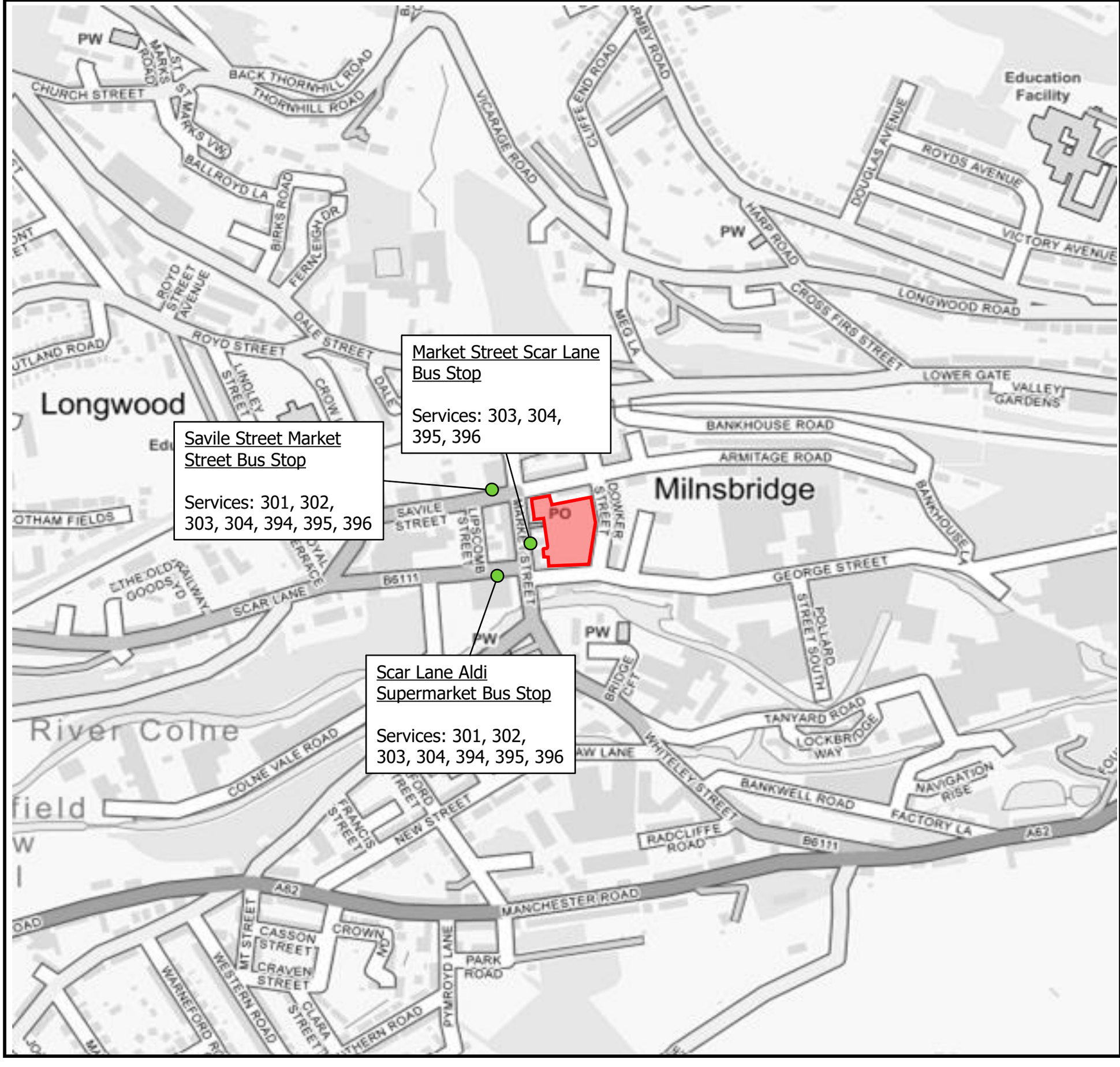
JOB NO:	STATUS CODE:	DRAWING NO:	REV:
4016	S0	105	

FILE IDENTIFIER:
DS-BTP-00-SP-DR-A-4016_105

Elizabeth House 486 Didsbury Road Heaton Mersey Stockport SK4 3BS
0161 443 1221 info@bernardtaylor.co.uk www.btparchitects.co.uk

Proposed Site Plan
1 : 200

Appendix B: -



Scale:

Not To Scale.

N

Notes:

1. Do Not Scale From This Figure.
2. This Figure May Include Data Provided By 3rd Parties No Liability Is Accepted For The Accuracy Of Such Data.
3. This Figure Is Not Intended As A Comprehensive Listing, And Shows Only Selected Local Facilities Considered Of Significance.
4. Paved Footways May Not Be Available On All Routes.

Site Location

Selected Bus Stops Close To Site

Client:
Westshield

Project:
Dowker Street
Milnsbridge
Huddersfield

Diagram Title:
Public Transport Plan
Diagram 001

Drawn & Checked By:	Date:
AR	14/04/2023

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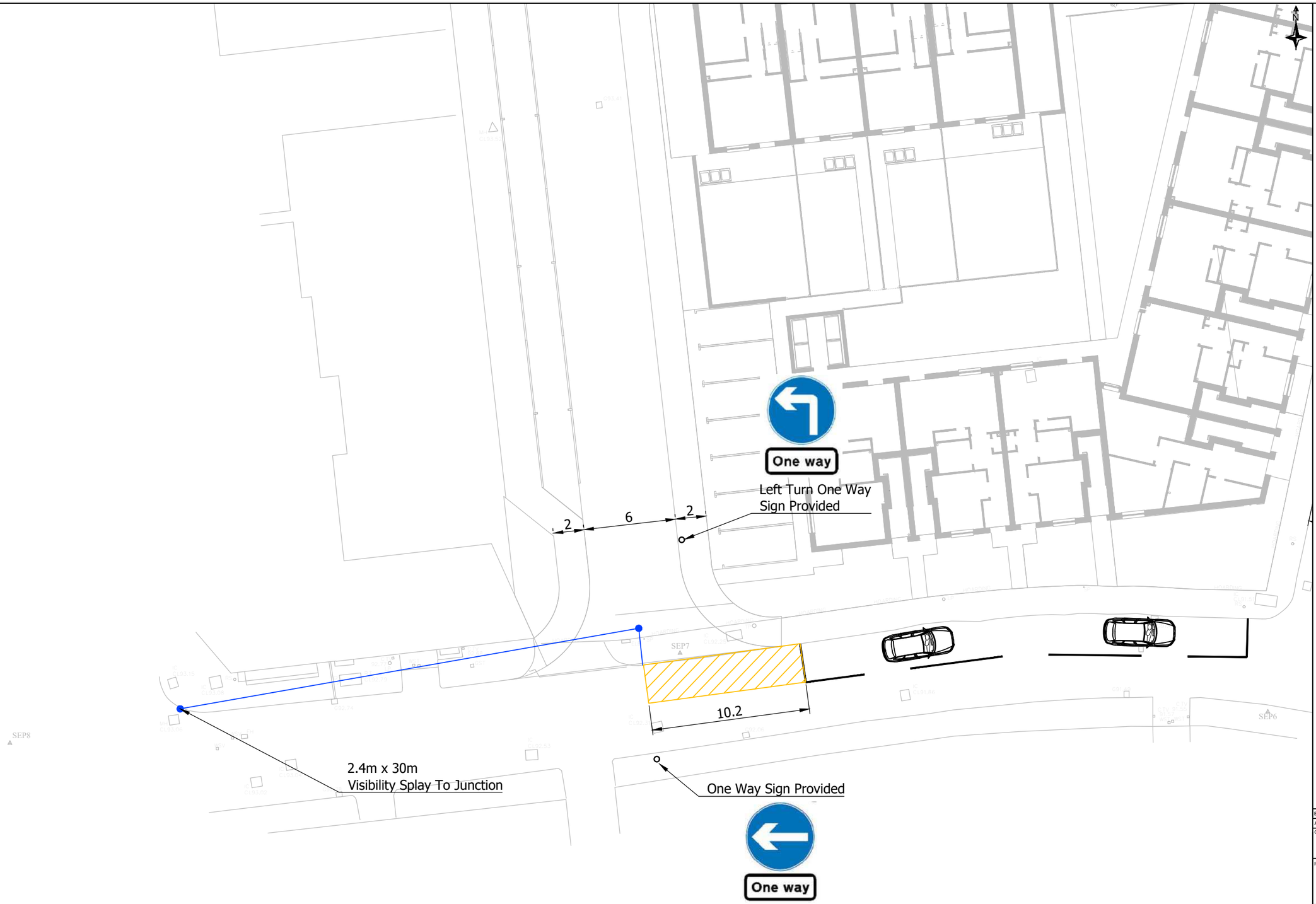
Roberts Highway Consultants

Appendix C: -



Notes:

1. Do Not Scale This Drawing Unless For Planning Purposes Only. Any Dimensions Shown Are Indicative Only And Are Subject To Verification Onsite.
2. Base Drawing Prepared By Bernard Taylor Partnerships Ltd. This Drawing Is For Information Only And Should Not Be Used For Construction.

Parking Area To Be Removed

B	Updated Layout Added	31/07/2023
A	Updated Layout Added	10/05/2023

Client: Westshield

Project: Dowker Street, Milnsbridge, Huddersfield

Drawing Title: Access Design And Visibility Extents (George Street)

Drawing Number: RHC-23-068-01

Revision:	Sheet Size:	Scale:
B	A3	1:250
Drawn & Checked By:	Date:	Status:
AR	17/04/2023	Information

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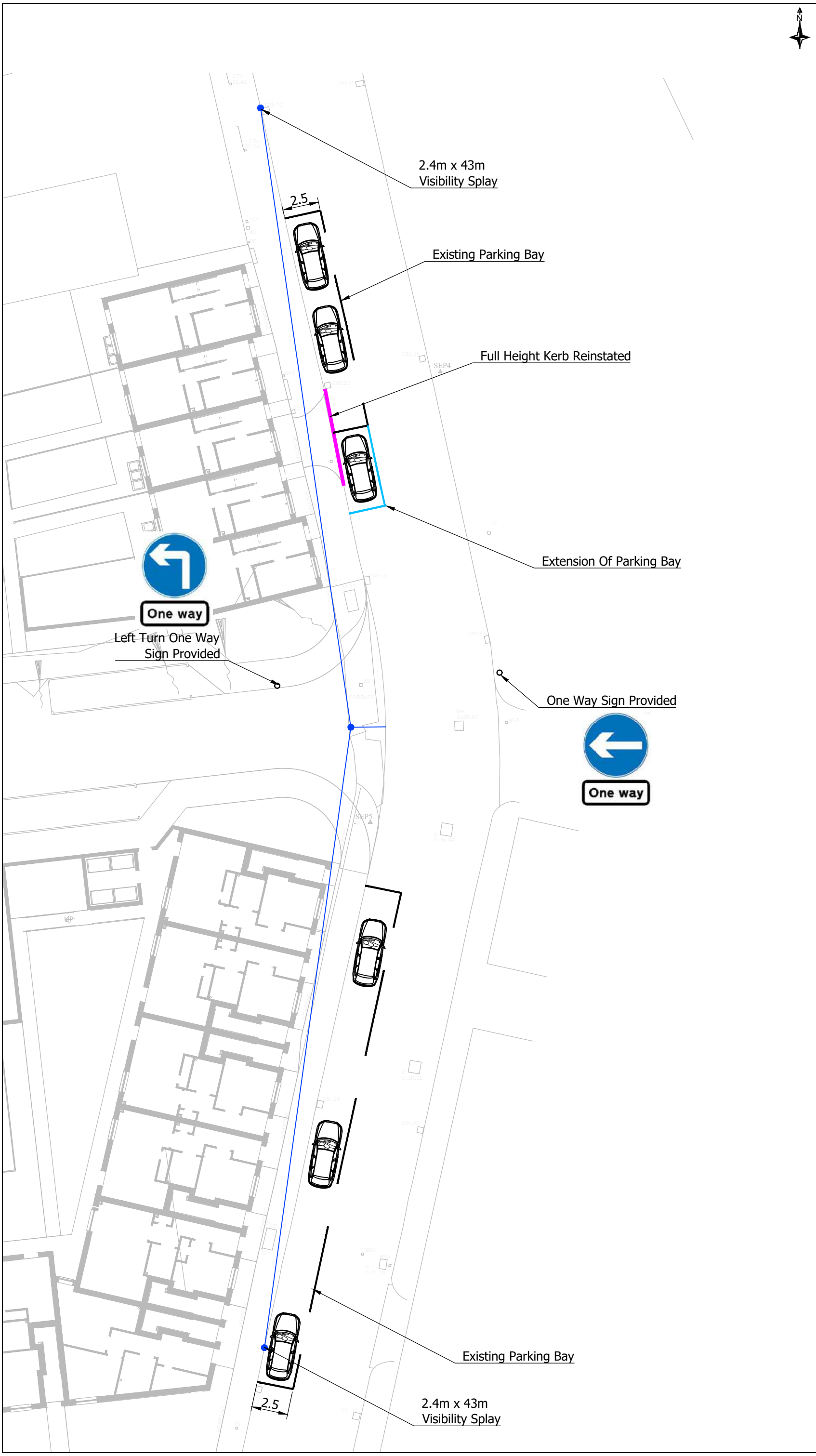
Appendix D: -

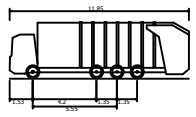


Notes:

1. Do Not Scale This Drawing Unless For Planning Purposes Only. Any Dimensions Shown Are Indicative Only And Are Subject To Verification Onsite.
2. Base Drawing Prepared By Bernard Taylor Partnerships Ltd. This Drawing Is For Information Only And Should Not Be Used For Construction.

Dropped Kerb Reinstated To Full Height Kerb

New Section Of On-Street Parking (45m Length)



Kirklees Refuse Vehicle	
Overall Length	11.850m
Overall Width	2.490m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.000m

B	Updated Layout Added	31/07/2023
A	Updated Layout Added	10/05/2023

Client: Westshield

Project: Dowker Street, Milnsbridge, Huddersfield

Drawing Title: Access Design And Visibility Extents (Dowker Street)

Drawing Number: RHC-23-068-02

Revision:	Sheet Size:	Scale:
B	A3	1:250
Drawn & Checked By:	Date:	Status:
AR	17/04/2023	Information

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Appendix E: -

RM001 - Accommodation type by car or van availability by number of usual residents aged 17 years or over in household

population	All households
units	Households
date	2021
area type	2021 super output areas - lower layer
area name	E01011149 : Kirklees 045B
accommodation type	Whole house or bungalow

Number of cars or vans	Total	No usual residents aged 17 years or over in household	One usual resident aged 17 years or over in household	Two or more usual residents aged 17 years or over in household		
Total	619	0	282	337	46%	54%
No cars or vans in household	203	0	141	62	33%	
1 car or van in household	254	0	132	122	41%	
2 or more cars or vans in house	162	0	9	153	26%	

In order to protect against disclosure of personal information, records have been swapped between different geographic areas and counts perturbed by small amounts. Small counts at the lowest geographies will be most affected.

RM001 - Accommodation type by car or van availability by number of usual residents aged 17 years or over in household

population	All households
units	Households
date	2021
area type	2021 super output areas - lower layer
area name	E01011149 : Kirklees 045B
accommodation type	Flat, maisonette, apartment, caravan or other mobile or temporary structure

Number of cars or vans	Total	No usual residents aged 17 years or over in household	One usual resident aged 17 years or over in household	Two or more usual residents aged 17 years or over in household		
Total	293	0	228	65	78%	22%
No cars or vans in household	151	0	132	19	52%	
1 car or van in household	124	0	91	33	42%	
2 or more cars or vans in house	18	0	5	13	6%	

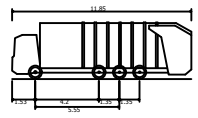
In order to protect against disclosure of personal information, records have been swapped between different geographic areas and counts perturbed by small amounts. Small counts at the lowest geographies will be most affected.

Appendix F: -

Notes:

1. Do Not Scale This Drawing Unless For Planning Purposes Only. Any Dimensions Shown Are Indicative Only And Are Subject To Verification Onsite.

2. Base Drawing Prepared By Bernard Taylor Partnerships Ltd. This Drawing Is For Information Only And Should Not Be Used For Construction.



Kirklees Refuse Vehicle	
Overall Length	11.850m
Overall Width	2.490m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.000m

B	Updated Layout Added	31/07/2023
A	Updated Layout Added	10/05/2023

Client:
Westshield

Project:
Dowker Street
Milnsbridge
Huddersfield

Drawing Title:
Swept Path Analysis (Refuse Vehicle)

Drawing Number:
RHC-23-068-03

Revision:	Sheet Size:	Scale:
B	A3	1:500
Drawn & Checked By:	Date:	Status:
AR	17/04/2023	Information

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Highway Consultants

Appendix G: -

Calculation Reference: AUDIT-608801-230428-0448

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : K - MIXED PRIV HOUS (FLATS AND HOUSES)
MULTI-MODAL TOTAL PEOPLE

Selected regions and areas:

03	SOUTH WEST		
	GS	GLOUCESTERSHIRE	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
06	WEST MIDLANDS		
	ST	STAFFORDSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NE	NORTH EAST LINCOLNSHIRE	1 days
	NY	NORTH YORKSHIRE	1 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	1 days
09	NORTH		
	CB	CUMBRIA	1 days
	TW	TYNE & WEAR	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
Actual Range: 15 to 67 (units:)
Range Selected by User: 15 to 80 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 15/10/21

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

Selected survey days:

Monday	1 days
Tuesday	3 days
Wednesday	1 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	8 days
Directional ATC Count	0 days

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

Selected Locations:

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

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	6 days - Selected

Secondary Filtering selection:

Use Class:

C3	8 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	2 days
15,001 to 20,000	2 days
25,001 to 50,000	3 days

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	3 days
125,001 to 250,000	2 days
250,001 to 500,000	1 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	5 days
1.6 to 2.0	1 days

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

Travel Plan:

Yes	1 days
No	7 days

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

PTAL Rating:

No PTAL Present	8 days

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

LIST OF SITES relevant to selection parameters

1 CA-03-K-04 MIXED HOUSES & FLATS CAMBRIDGESHIRE
FORDHAM ROAD
SOHAM

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 65
Survey date: WEDNESDAY 11/07/18 Survey Type: MANUAL

2 CB-03-K-02 SEMI-DETACHED & FLATS CUMBRIA
NATLAND ROAD
KENDAL

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 15
Survey date: TUESDAY 21/06/16 Survey Type: MANUAL

3 GM-03-K-02 SEMI DET. & FLATS GREATER MANCHESTER
ABRAM CLOSE
MANCHESTER
FALLOWFIELD
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 33
Survey date: TUESDAY 11/10/11 Survey Type: MANUAL

4 GS-03-K-01 MIXED HOUSING GLOUCESTERSHIRE
CONEY HILL ROAD
GLOUCESTER
CONEY HILL
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 33
Survey date: THURSDAY 29/04/10 Survey Type: MANUAL

5 NE-03-K-01 BLOCK OF FLATS NORTH EAST LINCOLNSHIRE
LADYSMITH ROAD
CLEETHORPES

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 67
Survey date: TUESDAY 06/05/14 Survey Type: MANUAL

6 NY-03-K-02 MIXED HOUSING NORTH YORKSHIRE
HORSEFAIR
BOROUGHBRIDGE

Edge of Town Centre
Residential Zone
Total No of Dwellings: 19
Survey date: MONDAY 10/10/11 Survey Type: MANUAL

7 ST-03-K-03 MIXED HOUSING & FLATS STAFFORDSHIRE
CLAREMONT ROAD
WOLVERHAMPTON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 28
Survey date: FRIDAY 09/05/14 Survey Type: MANUAL

8 TW-03-K-02 FLATS & TOWN HOUSES TYNE & WEAR
TYNEMOUTH ROAD
TYNEMOUTH

Edge of Town Centre
No Sub Category
Total No of Dwellings: 28
Survey date: FRIDAY 15/10/21 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 03 - RESIDENTIAL/K - MIXED PRIV HOUS (FLATS AND HOUSES)
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period
Total People to Total Vehicles ratio (all time periods and directions): 1.88

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	36	0.094	8	36	0.267	8	36	0.361
08:00 - 09:00	8	36	0.108	8	36	0.372	8	36	0.480
09:00 - 10:00	8	36	0.191	8	36	0.247	8	36	0.438
10:00 - 11:00	8	36	0.167	8	36	0.222	8	36	0.389
11:00 - 12:00	8	36	0.278	8	36	0.243	8	36	0.521
12:00 - 13:00	8	36	0.243	8	36	0.250	8	36	0.493
13:00 - 14:00	8	36	0.250	8	36	0.226	8	36	0.476
14:00 - 15:00	8	36	0.201	8	36	0.267	8	36	0.468
15:00 - 16:00	8	36	0.424	8	36	0.226	8	36	0.650
16:00 - 17:00	8	36	0.347	8	36	0.295	8	36	0.642
17:00 - 18:00	8	36	0.365	8	36	0.215	8	36	0.580
18:00 - 19:00	8	36	0.278	8	36	0.194	8	36	0.472
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.946			3.024			5.970

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.*

Appendix H: -

Roberts Highway Consultants

QS701EW - Method of travel to work

population	All usual residents aged 16 to 74
units	Persons
area type	2011 super output areas - lower layer
area name	E01011149 : Kirklees 045B
rural urban	Total

Dwellings	
38	
Total	972
Working Population	

TRICS PERSON RATES PEAK			
	Arr	Dep	Two-Way
AM	0.108	0.372	0.48
PM	0.365	0.215	0.58
Day	2.946	3.024	5.97

Arrive AM	Arrive PM	Day Arrive	Dep AM	Dep PM	Day Dep
4	14	112	14	8	115

Method of Travel to Work	**2011**	**%age**							
All categories: Method of travel to work	1,461								
Work mainly at or from home	64	6.6%	0	1	7	1	1	8
Underground, metro, light rail, tram	1	0.1%	0	0	0	0	0	0
Train	30	3.1%	0	0	3	0	0	4
Bus, minibus or coach	126	13.0%	1	2	15	2	1	15
Taxi	6	0.6%	0	0	1	0	0	1
Motorcycle, scooter or moped	10	1.0%	0	0	1	0	0	1
Driving a car or van	546	56.2%	2	8	63	8	5	65
Passenger in a car or van	67	6.9%	0	1	8	1	1	8
Bicycle	22	2.3%	0	0	3	0	0	3
On foot	99	10.2%	0	1	11	1	1	12
Other method of travel to work	1	0.1%	0	0	0	0	0	0
Not in employment	489							

CENSUS VEHICLE RATES PEAK			
	Arr	Dep	Two-Way
AM	0.061	0.209	0.270
PM	0.205	0.121	0.326
Day	1.655	1.699	3.354

In order to protect against disclosure of personal information, records have been swapped between different geographic areas.
Some counts will be affected, particularly small counts at the lowest geographies.

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