ANDREW MOSELEY ASSOCIATES
TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS

BLACKMOORFOOT ROAD, HUDDERSFIELD

TRANSPORT ASSESSMENT

AUGUST 2024

REPORT NO 22224-001

BLACKMOORFOOT ROAD, HUDDERSFIELD

TRANSPORT ASSESSMENT

Miller Homes and Countryside Partnership

Final Issue

Project no: 22224-001

Date: August 2024

Andrew Moseley Associates

15 St Paul's Street

Leeds

LS1 2JG

www.amatp.co.uk

info@amatp.co.uk

QUALITY MANAGEMENT

	First Issue	Revision 1	Revision 2	Revision 3
Remarks	Draft Issue	Final Issue		
Date	24/07/24	02/08/24		
Prepared	RW	RW		
Checked	ATM	ATM		
Authorised	ATM	ATM		

PRODUCTION TEAM

AMA	
Managing Director	Andrew Moseley
Senior Transport Planner	Rosie Ward

TABLE OF CONTENTS

TABLES

FIGURES

APPENDICES

Appendix A – Proposed Site Layout

Appendix B – PIC Data

Appendix C – Site Access Visibility Splays

Appendix D – 30mph Speed Extensions

Appendix E – Swept Path Analysis

1 INTRODUCTION

1.1 OVERVIEW

1.1.1 Andrew Moseley Associates (AMA) has been commissioned by Miller Homes and Countryside Partnership to prepare a Transport Assessment (TA) and a Travel Plan (TP) in support of a reserved matters application for a residential development of 770 dwellings located on land to the north of Blackmoorfoot Road, approximately 3.5km to the south-west of Huddersfield Town Centre.

1.1.2 The site benefits from an outline planning permission (reference: 2020/92546), the proposed quantum and type of development remains the same as part of this reserved matters application.

1.1.3 The Local Planning Authority (LPA) and Local Highway Authority (LHA) is Kirklees Council (KC).

1.1.4 A series of pre-application discussions have been held with KC to agree the scope and methodology of the reserved matters application. It is therefore considered that all elements presented in this TA have been scoped and agreed with KC.

1.1.5 The site is located approximately 3.5km south-west of Huddersfield town centre. The site is bounded to the north by undeveloped land and to the south by Blackmoorfoot Road. To the west the site is bound by the Felks Stile Road whilst employment and residential development bounds the site to the east. The location of the application site is shown within **Figure 1**.

1.1.6 The Blackmoorfoot Road site is allocated for residential development within the adopted Aire Valley Kirklees Local Plan under reference HS23.

1.1.7 In keeping with the outline planning application, it is proposed that the site will be accessed via two new points of vehicular access; a southern location from Blackmoorfoot Road, and a southwestern location from Felks Stile Road. Details of the proposed development are provided in the Site Layout Plan attached at **Appendix A**.

1.1.8 The purpose of this report is to review the local highway network, the sustainable accessibility of the proposed development and to assess the development proposals in a local transport context.

1.1.9 This TA has been prepared with reference to the National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG).

1.1.10 This TA will demonstrate that the site is well served by existing transport provision and is accessible to a range of key services and facilities. The report will also demonstrate that the traffic generated by the proposals will not result in a detrimental impact on the surrounding road network, and results in no 'net' increase from the level of traffic accepted as part of the extant planning permission.

1.1.11 As detailed later within this TA, the traffic generated as part of the reserved matters application, remains the same as that previously assessed within the outline planning application that has been agreed with KC. This TA therefore does not undertake any additional junction capacity assessments.

1.1.12 An Interim Travel Plan (ITP) (ref: *AMA-22224-001*) has also been prepared which sets out measures to encourage sustainable travel patterns and reduce the reliance on private car use.

1.2 REPORT STRUCTURE

1.2.1 The structure of the report is set out as follows;

- **Section 2** – outlines the policy background at a national and local level;
- **Section 3** – provides a description of the highway network surrounding the site, details of the existing traffic flows and a review of the personal injury collision records;
- **Section 4** – examines the accessibility of the site by sustainable modes of travel and also considers the accessibility of a range of key services and facilities;
- **Section 5** – describes the development proposals, with regard to the proposed quantum of development, the proposed means of access to the site and also the proposed parking provision;
- **Section 6** – summarises the assessment parameters and trips rates that have been adopted within this TA;
- **Section 7** – outlines why junction modelling capacity assessments remain the same as the consented outline planning application; and
- **Section 8** – provides a summary of the TA.

2 POLICY BACKGROUND

2.1 NATIONAL POLICY

2.1.1 The National Planning Policy Framework (NPPF) came into effect in 2012. The document was designed to supersede and simplify previous national planning documents and their policies. A revised version of the NPPF was published in July 2018. The revision implements around 85 reforms announced previously through the Housing White Paper, the planning for the right homes in the right places consultation and the draft revised NPPF consultation. A further update was made in December 2023.

2.1.2 The preparation of this TA is consistent with national transport policy guidance set out in the NPPF which advocates the submission of such documents to support applications for new developments which generate traffic movements.

2.1.3 The Government's objectives set out in the revised NPPF are to ensure that new developments are provided in sustainable locations, where the need to travel is minimised and the use of sustainable modes can be maximised.

2.1.4 The NPPF states under the subheading 'Considering development proposals' 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 48; and*
>
> *c) 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 (Paragraph 114).*
>
> *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 (Paragraph 115).*
>
> *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 (Paragraph 116).

All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed Paragraph 117).'

2.1.5 **Section 3** of this report highlights the existing sustainable travel modes within the vicinity of the site and demonstrates that the development will be well suited to this location.

2.1.6 **Section 7** of this report assesses the traffic associated with the development on the surrounding road network and will identify mitigation measures where necessary to ensure that the impact of the development is not severe.

2.2 REGIONAL POLICY

West Yorkshire Transport Strategy 2040

2.2.1 The West Yorkshire Transport Strategy 2040 was adopted in August 2017 and was produced by the West Yorkshire Combined Authority and the West Yorkshire district councils of Bradford, Calderdale, Kirklees, Leeds and Wakefield.

2.2.2 The Transport Strategy 2040 sets out the partners ambitions for the region and although focused on the West Yorkshire it is recognising the importance and impact of links with the wider Leeds City Region and states the following vision;

"To enhance business success and people's live by providing modern, world-class, well connected transport that makes travel around West Yorkshire easy and reliable."

2.2.3 To achieve this vision the document states that the following objectives must be achieved;

- Economy: Create a more reliable, less congested, better connected transport network;
- Environment: Have a positive impact on our built and natural environment; and
- People and place: Put people first to create a strong sense of place.

2.2.4 With regard to the borough of Kirklees, the specific aim of the Transport Strategy is;

"To achieve a balanced and integrated transport network that makes the most efficient and effective use of the road, rail and public transport."

West Yorkshire Local Transport Plan (LTP)

2.2.5 The LTP3 replaced the LTP2 at the end of April 2011. LTP3 is a 15 year plan with three year Implementation Plans produced through this period.

2.2.6 Entitled "MyJourney", the LTP for West Yorkshire sets out a strategy for improving local bus, road, rail, walking and cycling networks for the next 15 years up to 2026. MyJourney's vision is for a people-focused, low-carbon transport system that supports economic activity and growth and enhances people's quality of life, and has been designed to put the needs of all transport users at its heart.

2.2.7 The Plan sets out to tackle congestion and a lack of transport investment which are key contributory factors to lower than average economic performance in West Yorkshire. It also aims to prepare for the predicted, post-recession growth in employment, population and housing and their impact on the reliability of the transport network.

2.2.8 Four themes run through the Plan to help ensure it achieves its aims:

- Transport Assets focusing on the existing components of the transport network such as roads, bus stations / stops and traffic lights to ensure we are getting the most value out of them;
- Travel Choices enabling customers to make the most sustainable choices about when and how they travel;
- Connectivity ensuring people can make integrated and safe journeys using transport networks on which they can rely; and
- Enhancements improving the overall network to make it more fit for journeys in the future.

2.2.9 Priorities include schemes suggested by local communities, as well as the provision of bus priority schemes on main roads into town and city centres, major maintenance of roads across West Yorkshire, cycling and walking schemes, and the development larger schemes such as new rail stations and the New Generation Transport (NGT) trolleybus network.

2.2.10 The proposed development will contribute to the LTP objectives given the proximity to existing public transport services. Travel planning will be implemented at the development, ensuring that people can make an informed choice for all their journeys and can travel in a responsible manner. As such, the development proposals will encourage behavioural change to maximise use of more sustainable modes of transport to access the development.

2.3 LOCAL POLICY

Kirklees Local Plan

2.3.1 The Kirklees Local Plan was adopted in 2019 and is the statutory development plan setting out the policies necessary to achieve the development goals and strategy of the area. The plan covers:

- A vision and strategic objectives for the development of Kirklees up to 2031;
- A spatial strategy setting out how development will be accommodated across the district reflecting the distinctiveness of different parts of the district;
- Objectively assessed development needs particularly for housing and employment specifying the number of new homes and jobs to be provided during the plan period;
- Clear policies to guide decisions on planning applications;
- Site allocations showing land to be developed for housing, employment, retail, minerals and waste and other uses, identified on a Policies Map;
- Designations showing land to be protected from development and land subject to other policies in the plan;
- Infrastructure provision to support the delivery of the proposed development;
- An indication of how the policies will be delivered and implemented; and
- A monitoring framework setting out the performance measures that will show how successfully the plan's objectives and proposals are being delivered over time.

Kirklees Transport Vision

2.3.2 The 2025 Kirklees Transport Vision sets out the importance of sustainable travel and its role in alleviating congestion, poor air quality and environmental damage. The Vision aims to allow sustainable transport systems to flourish to benefit the wellbeing of citizens and build a thriving local economy. The vision provides:

- A top-class public transport system for everyone providing a first choice for travel for many more new customers and a real alternative to using the car;
- A sustainable transport system that encourages healthy citizens, promotes social inclusion and preserves and enhances the local environment; and
- A transport network that promotes a sustainable thriving economy for businesses to invest in.

3 EXISTING CONDITIONS

3.1 SITE LOCATION

3.1.1 The site is located approximately 3.5km south-west of Huddersfield town centre. The site is bounded to the north by undeveloped land and to the south by Blackmoorfoot Road. To the west the site is bound by the Felks Stile Road whilst employment and residential development bounds the site to the east.

3.1.2 The location of the application site is shown within **Figure 1**.

3.1.3 Vehicular access into the site is currently provided for via a priority-controlled access junction off Blackmoorfoot Road approximately 290m west of the Blackmoorfoot Road/Crosland Hill Road priority controlled junction.

3.2 PLANNING HISTORY

3.2.1 Outline planning permission (ref: 2020/92546) was granted in March 2022 for the development of up to 770 dwellings, including up to 70 care apartments with doctors' surgery and up to 500sqm of A1/A2/A3/A4/A5/D1 floorspace. This permission remains valid and is therefore relevant to the current proposals.

3.2.2 The site is also allocated within the Kirklees Local Plan under reference HS23. The site has an indicative capacity for 700 dwellings.

3.3 LOCAL HIGHWAY NETWORK

3.3.1 Blackmoorfoot Road has a carriageway width of 7m along the frontage of the site. It is subject to a 30mph speed limit along the eastern side of the frontage (in the vicinity of the existing site access junction), whilst a 40mph speed limit is located on the western section. A footway with a width of 1.9m is located on the northern side of the carriageway along the frontage of the application site.

3.3.2 To the north-east of the application site Blackmoorfoot Road runs in an approximate north-south alignment for approximately 1.6km until it provides an arm of the Blackmoorfoot Road/Park Road signal controlled junction. To the south of this junction Park Road provides access to the Lockwood area of Huddersfield and the B6108 Meltham Road.

3.3.3 From the Blackmoorfoot Road/Park Road junction the Blackmoorfoot Road continues in north-easterly direction for a further 510m until it forms the A62 Manchester Road/Blackmoorfoot Road/Birkhouse Lane signal controlled junction. To the west of this junction the A62 Manchester Road provides access to the surrounding areas of Milnsbridge, Slaithwaite and Marsden.

3.3.4 To east of the junction the A62 Manchester Road continues until it provides an arm of the A62 Manchester Road/B6432 St. Thomas Road signal controlled junction. From this junction the B6432 St. Thomas Road provides access to the A616 Folly Hall whilst the A62 Manchester Road provides access into Huddersfield town centre.

3.3.5 Felks Stile Road which bounds the site to the west has a carriageway width of 6m and is subject to the National Speed Limit along the frontage of the application site. To the south-east it provides the minor arm of the Blackmoorfoot Road/Felks Stile Road priority controlled junction whilst to the north-west it changes to Church Lane and provides a minor arm of the Cowlersley Lane/Church Lane priority controlled junction.

3.4 PERSONAL INJURY COLLISION RECORDS

3.4.1 Personal Injury Collision (PIC) data for the local highway network in the vicinity of the site for the period January 2018 – December 2022 has been obtained from Crashmap, providing the latest five years of collision data available.

3.4.2 This approach was agreed with Kirklees Council as part of the pre-application scoping exercise as being acceptable.

3.4.3 The reviewed area of interest includes the same study area as the previously assessed TA within the Croft 2020 TA. The PIC plot plan is provided in **Appendix B** of this report showing the collisions within the study area in more detail.

Blackmoorfoot Road / Felks Stile Road

3.4.4 Within the most recent five-year period of assessment, a single collision was recorded at this junction. The collision resulted in a slight injury and was recorded as involving two vehicles. No non-motorised users (NMU's) were recorded as being involved.

Blackmoorfoot Road / Hill Tree Park

3.4.5 Within the most recent five-year period, a total of two collisions were recorded as occurring at this junction, details of which include;

- A collision resulting in fatal injury occurred on 21/09/21, which was recorded as involving two vehicles and no NMU's; and
- A collision resulting in slight injury occurred on 10/02/22, which was recorded as involving two vehicles and no NMU's.

Blackmoorfoot Road / Sands House Lane

3.4.6 There were no reported accidents at this junction during the requested five-year study period.

Blackmoorfoot Road / Park Road / Park Road West

3.4.7 Within the most recent five-year period, a total of six collisions were recorded as occurring at this junction, details of which include;

- A collision resulting in slight injury occurred on 22/03/18, which was recorded as involving two vehicles and no NMU's;
- A collision resulting in slight injury occurred on 07/09/18, which was recorded as involving a single vehicle and a pedal cyclist;
- A collision resulting in slight injury occurred on 05/02/20, which was recorded as involving two vehicles and no NMU's;
- A collision resulting in slight injury occurred on 01/08/20, which was recorded as involving two vehicles and no NMU's;

- A collision resulting in serious injury on 14/03/22, which was recorded as involving a single vehicle and a pedestrian; and
- A collision classified as resulting in fatal severity occurred on 03/12/22, which was recorded as involving a single vehicle and a pedestrian.

Blackmoorfoot Road / Crossland Hill Road

3.4.8 Within the most recent five-year period, a total of two collisions were recorded as occurring at this junction, details of which include;

- A collision resulting in serious injury occurred on 27/11/20, which was recorded as involving a single vehicle and a pedestrian; and
- A collision resulting in serious injury occurred on 05/06/21, which was recorded as involving two vehicles and no NMU's.

A62 Manchester Road / Blackmoorfoot Road / Birkhouse Lane

3.4.9 Within the most recent five-year period, a total of four collisions were recorded as occurring at this junction, details of which include;

- A collision resulting in slight injury occurred on 29/05/18, which was recorded as involving two vehicles and no NMU's;
- A collision resulting in slight injury occurred on 02/09/18, which was recorded as involving two vehicles and no NMU's;
- A collision resulting in slight injury occurred on 27/04/21, which was recorded as involving a single vehicle and a pedestrian; and
- A collision resulting in slight injury occurred on 23/06/21, which was recorded as involving two vehicles and no NMU's.

A62 Manchester Road / B6432 St Thomas Road

3.4.10 Within the most recent five-year period, a total of seven collisions were recorded as occurring at this junction, details of which include;

- A collision resulting in slight injury occurred on 14/01/19, which was recorded as involving a single vehicle and a pedestrian;
- A collision resulting in slight injury occurred on 07/12/19, which was recorded as involving a single vehicle and a pedal cyclist;
- A collision resulting in slight injury occurred on 03/12/20, which was recorded as involving two vehicles and no NMU's;
- A collision resulting in slight injury occurred on 13/03/21, which was recorded as involving two vehicles and no NMU's;
- A collision resulting in serious injury occurred on 19/10/21, which was recorded as involving a single vehicle and a pedestrian;
- A collision resulting in slight injury occurred on 27/10/21, which was recorded as involving two vehicles and no NMU's; and
- A collision resulting in slight injury occurred on 18/12/22, which was recorded as involving two vehicles and no NMU's.

A62 Manchester Road / Longroyd Lane

3.4.11 Within the most recent five-year period, a total of three collisions were recorded as occurring at this junction, details of which include;

- A collision resulting in slight injury occurred on 21/01/18, which was recorded as involving two vehicles and no NMU's;
- A collision resulting in slight injury occurred on 20/09/18, which was recorded as involving two vehicles and no NMU's; and
- A collision resulting in slight injury occurred on 07/11/18, which was recorded as involving two vehicles and no NMU's.

Summary

3.4.12 The PIC data demonstrates that only a single collision was recorded along the site's frontage within the last five-year period. The collision resulted in a slight injury and occurred at the Balckmoorfoot Lane / Felks Stile Road priority T-junction.

3.4.13 It is therefore concluded that there are no extant road safety issues on the highway network in the vicinity of the development site. The frequency of collisions that occurred on the wider network, given the extent of the search area assessed within this TA, are considered to be low and no mitigation measures are proposed at this stage.

4 EXISTING SUSTAINABLE TRANSPORT PROVISION

4.1 INTRODUCTION

4.1.1 The Government's objectives set out in the NPPF are to ensure that new developments are provided in sustainable locations, where the need to travel is minimised and the use of sustainable modes can be maximised.

4.1.2 The site has a good level of accessibility and access to sustainable modes of transport within a reasonable distance of the site. A Travel Plan has been written for the site, which will encourage the use of alternative modes of travel to the private car and incentives to use local public transport services. This is anticipated to reduce the overall travel demands of the site, particularly those trips by single occupancy vehicles.

4.1.3 Travel by non-car modes will be encouraged at the site and the proposals include pedestrian and cycle connections across the site, linking into the surrounding existing infrastructure.

4.1.4 This section outlines the existing walking, cycling and public transport facilities within the vicinity of the development site and describes the accessibility of the site in terms of its proximity to key services and destinations.

4.2 WALKING ACCESSIBILITY

4.2.1 Whilst superseded by the NPPF, the transport policies in the former PPG13 set out specific guidance related to walking:

> "*Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2 kilometres*" (Para 74)

4.2.2 These potential walking catchments have been used in the consideration of the accessibility of the site set out below.

4.2.3 **Figure 2** shows a 2km walking catchment area from the centre of the site. The catchment includes the surrounding residential settlements of Cowersley, Crossland Moor and Crosland Hill. Including access to the neighbouring facilities and amenities such as primary schools, secondary schools, public houses, take-away restaurants, cafés as well as areas of recreation and leisure.

4.2.4 The primary pedestrian desire lines will be to the east toward Huddersfield town centre. At present a pedestrian footway with a minimum width of 1.9m are located on the northern side of the carriageway. This footway runs along the entirety of the frontage of the site and links with the extensive pedestrian infrastructure provided to east of the application site which provides access to local amenities as well as Huddersfield town centre.

4.2.5 Pedestrian crossing facilities are provided for on Blackmoorfoot Road in the form of Zebra crossing which is located 900m east of the application site. This crossing provides safe pedestrian movement across Blackmoorfoot Road and provides pedestrian access to Dryclough CoE Infant School which is located on Dryclough Road.

4.2.6 As part of the development proposals it is proposed to provide pedestrian linkages to this existing pedestrian footway at the proposed site access junctions as well on the eastern boundary of the site which will provide access to the nearby village of Cowersley.

4.2.7 **Tabel 4-1** details the walking distance from the centre of the site to several of the local key amenities in the immediate vicinity of the site. The table also confirms whether or not the particular amenity is within the 'preferred maximum' walk distances using the above guideline criteria.

Table 4-1 – Distance from Site to Local Facilities

Local Amenity	Distance
The Sands House public house	300m
Crosland Heath Golf Club	520m
Crosland Hill Methodist Church	800m
Premier Convenience store / post office	1,320m
Colne Valley High School	1,500m
Moor End Academy	1,620m
Co-operative food store	1,920m
Boots Pharmacy	1,940m

4.2.8 As can be seen in the above table, the site is located within close proximity to a number of local amenities including primary services as well as leisure facilities. Based on the above the site can therefore be considered as being accessible by foot.

4.2.9 A review of the Kirklees definitive map identifies a number of Public Rights of Way (PRoW) and footpaths present within the vicinity of the application site. A footpath identified as 'HUD/234/50' runs alongside the northern boundary of the application site, providing an off-road route between Quarry Road and the adjacent PROW's; 'HUD/234/10', 'HUD/234/20', 'HUD/234/30' and 'HUD/234/40'.

4.2.10 Details of the PRoW are provided in **Figure 3.**

4.3 CYCLING ACCESSIBILITY

4.3.1 Whilst superseded by the NPPF, the transport policies in the former PPG13 set out specific guidance related to cycling:

> *"Cycling also has potential to substitute for short car trips, particularly those under 5 kilometres, and to form part of a longer journey by public transport" (Para 77)*

4.3.2 As such, all areas and facilities within a reasonable walking distance can also be considered to be within a reasonable cycling distance of the site.

4.3.3 **Figure 4** shows a 5km cycling catchment area from the centre of the site, which extends to areas such as Newsome, Crosland Hill, Milnsbridge, Slaithwaite and the whole of Huddersfield town centre. This provides potential for residents to travel by bicycle to a range of destinations such as areas of education, areas of employment as well as a range of food and non-food retail options.

4.3.4 Blackmoorfoot Road, Felks Stile Road and Crossland Hill Road are all designated as advisory on-carriageway routes and provide access to Huddersfield and the surrounding Kirklees area.

4.3.5 The site can therefore be considered as being accessible by cycle.

4.3.6 As detailed later in **Chapter 5**, the development proposes a range of new cycling infrastructure across the site layout to assist in promoting travel by sustainable modes and improve the connectivity of the site.

4.4 PUBLIC TRANSPORT

Bus Services

4.4.1 The closest bus stops to the site are located along Blackmoorfoot Road along the southern frontage of the site which are approximately 300m from the centre of the application site. The eastbound bus stop has a bus pole displaying service information, whilst no facilities are provided for the westbound bus stop.

4.4.2 Additional bus stops are located on Felks Stile Road at its junction with Blackmoorfoot Road these bus stops are located approximately 650m from the centre of the planning application site. The south-east bound bus stop includes a bus shelter with bus service information whilst the bus pole displaying service information is provided for on the north-west bound bus stop.

4.4.3 All of the bus stops located within the vicinity of the application site can be accessed via the existing and proposed pedestrian infrastructure located on Blackmoorfoot Road and Felks Stile Road.

4.4.4 The bus stops located within the vicinity of the site is shown in **Figure 5** and details of the buses which serve them are provided in **Table 4-2.**

Table 4-2 - Local Bus Services

Service	Route	Monday – Friday	Saturday	Sunday
389	Slaithwaite - Meltham	School Service at 08:19 and Public Service at 16:03	One service per day 16:03	No Service
393	Blackmoorfoot – Huddersfield	Every hour (08:18 to 17:18)	Every hour (08:18 to 17:18)	No Service

4.4.5 As set out in **Table 4-1**, the bus services within the vicinity of the site provide a cumulative frequency of one buses per hour on weekdays and Saturdays.

4.4.6 These buses provide access to the site from Huddersfield ton centre as well as Slaithwaite and Meltham, providing a feasible means of access to and from the site by bus within a reasonable walking distance.

4.4.7 As detailed in **Chapter 5**, the development proposes a suitable carriageway width to accommodate the possible future routing of bus services through the application site, along with the provision of dedicated bus stops and a lay-over bay.

Rail Services

4.4.8 The nearest rail station to the site (Lockwood Station) is located approximately 2.5km / 10minute cycle journey to the northwest of the proposed site access. The station is therefore within acceptable cycling distances for commuting and linked trip purposes.

4.4.9 Lockwood Station is a local transport hub which is supplied with ticket machines, and accessibility features such as accessible ticket machines and a ramp for train access. The rail station is also equipped with cycle storage facilities for 10 spaces, with CCTV present.

4.4.10 Details of the direct rail services are provided below in **Table 4-3**.

Table 4-3 - Lockwood Station Direct Rail Services

Destination	Train Operator	Monday – Friday	Saturday	Sunday
Huddersfield	Northern	Every hour	Every hour	Every hour
Sheffield	Northern	Every hour	Every hour	Every hour

4.4.11 **Table 4-3** demonstrates that Leeds rail station provides frequent services to the nearby regional hubs of Huddersfield and Sheffield.

4.4.12 It is considered that Leeds Station is of a suitable distance from the site to encourage modal interchange and commuting to and from the development site to regional destinations and those on the national rail network, particularly for employment and commuting purposes.

4.5 SUMMARY

4.5.1 A range of facilities and amenities, including employment areas, education, food and health care facilities are all accessible to the site via walking, cycling and public transport services.

4.5.2 It is therefore considered that the location of the site is consistent with national and local policy objectives and future residents will not be reliant on the private car to undertake everyday journeys.

5 DEVELOPMENT PROPOSALS

5.1 SITE LAYOUT PROPOSALS

5.1.1 The development proposals are for 700 residential dwellings and 70 care home bedrooms with associated parking. The layout has been developed with consideration of the KC Highways Design Guide SPD, ensuring that good design principles are promoted on the site.

5.1.2 In keeping with the consented outline application (ref: 2020/92546), the development also provides 500sqm of floorspace which will be dual use (Use Class A1/A2/A3/A4/A5/D1), these uses will be ancillary to the proposed residential development.

5.1.3 A breakdown of the proposed development includes;

Affordable:

- 38 x 1 bedroom dwellings;
- 38 x 2 bedroom dwellings;
- 31 x 3 bedroom dwellings; and
- 6 x 4 bedroom dwellings.

Additional Affordable:

- 4 x 1 bedroom dwellings;
- 65 x 2 bedroom dwellings;
- 48 x 3 bedroom dwellings; and
- 16 x 4 bedroom dwellings.

Market:

- 0 x 1 bedroom dwellings;
- 112 x 2 bedroom dwellings;
- 195 x 3 bedroom dwellings;
- 142 x 4 bedroom dwellings; and
- 5 x 5 bedroom dwellings.

5.1.4 The site layout shows the hierarchy of access roads within the site and beyond the principal network of roads a number of shared surfaces and private drives providing access to individual properties. A copy of the site layout is attached in **Appendix A**.

5.1.5 The internal access roads are designed to achieve low vehicle speeds, incorporating appropriate changes in the road alignment which will assist in providing a safe environment for pedestrians and cyclists, including a network of footways and footpaths across the site.

5.2 PROPOSED ACCESS AND SERVICING ARRANGEMENTS

5.2.1 In keeping with the outline planning application, it is proposed that the site will be accessed via two new points of vehicular access; a southern location from Blackmoorfoot Road, and a southwestern location from Felks Stile Road. The proposed access plans are detailed in **Appendix C**.

5.2.2 The site will provide access to 770 residential units containing a mixture of housing styles and sizes. Following the pre-app discussions with KC Highways, it was agreed that the main route through the application site would be designed in accordance with a 'Type A - Residential Connector Street' with a carriageway width of 6.75m, 3m shared cycleway / footways along both sides of the road.

5.2.3 The 6.75m road width is maintained across the arterial route of the layout, which reduces to a carriageway width of 5.5m along side streets with 2m wide footways along both sides, apart from those locations where shared surfaces and private drives are proposed and would adopt the required KC standards.

5.2.4 It is proposed that site will be accessed via a new south-eastern junction from Blackmoorfoot Road. As detailed in AMA Drawing Number *22224-SK-040*, the south-eastern junction is equipped with a dedicated right-turn ghost island for vehicles as well as a separate right-turn ghost island facility for cyclists enabling a safe connection to the dedicated cycle infrastructure present along the site's frontage. The access arrangement has been agreed with KC as part of the pre-application scoping exercise.

5.2.5 It is proposed that the site will also be accessed via a new south-western junction from Felks Stile Road. As detailed in AMA Drawing Number *22224-SK-040*, the south-western junction forms a simple T-junction and the 3m wide cycleway / footway continues along the Felks Stile Road carriageway providing a safe connection to the existing footway prevision and bus stops present.

5.2.6 In addition to the two points of access, the reserved matters application also details the design for both the Care Home and Local Centre access junctions. Details of the proposed design and associated visibility splays are provided in AMA Drawing Number *22224-SK-040*, attached at **Appendix C**.

5.2.7 The internal road network has been designed in accordance with the KC Highways Design Guide SPD requirements and Manual for Streets (MfS) to encourage vehicles to travel at an appropriate speed throughout the development. Low vehicle speeds will be achieved through the adoption of appropriate design standards based on the primary function of the street and will include a reduction in forward visibility at junctions to achieve appropriate vehicle speeds to create environments which are attractive to pedestrians and cyclists.

5.2.8 The development proposes to extend the existing 30mph speed restriction on Blackmoorfoot Road past the application site, as well as also including sections of Felks Stile Road. The extension of the 30mph speed limit zone will benefit existing residential dwellings present at Hill Tree Park, and provides a safer route to encourage NMU modes of transport. Details of the proposed 30mph extensions are provided in AMA Drawing No *22224-SK-033*, attached at **Appendix D**.

5.2.9 Based on the characteristics of Blackmoorfoot Road and Felks Stile Road, Manual for Streets (MfS) design standards are considered appropriate. Visibility splays are therefore provided in line with the required MfS standard for a 30mph road at 2.4m x 43m. The proposed access junction layout on Blackmoorfoot Road and Felks Stile Road with associated visibility splays is provided in **Appendix C** in AMA Drawing No *22224-SK-040*.

5.2.10 Visibility splays for the access junction have been designed wholly within the adopted highway and land under the applicants control and do not encroach on any third-party land.

5.2.11 To ensure the safety of the proposed site access junction for all road users, a Road Safety Audit (RSA) has been undertaken to review the proposals for both accesses. A Designers Response has been prepared to address the comments received as part of the RSA. A copy of the RSA and the Designers Response provided as an accompanying document.

5.2.12 As agreed with KC, the development includes the provision of two bus stops as well as a dedicated bus-layby to assist in the futureproofing of the application site should the bus services detailed in **Table 4-2** later be routed through the site.

5.2.13 In addition to the all-modes access points, the development proposes NMU points of access to encourage the connectivity and sustainability of the development to the surrounding areas. As detailed within the site layout plan, attached at **Appendix A**, the development proposes a number of NMU connections, providing a safe link between the application site and the PRoWs which run along the northern boundary of the application site.

5.2.14 In addition to the NMU links, the development also proposes a continuous safe connection for cyclists travelling through the site, with the provision of dedicated cycling infrastructure such as cycle lanes, a parallel crossing and a raised table crossing. Cycling connections are provided via both the southeastern and southwestern access points, as well as a connection to Quarry Road in the north.

5.2.15 As part of the design process, an LTN 1/20 assessment has been undertaken to ensure a high level of cycle infrastructure is provided across the site, ensuring safe provision and connections for future cyclists of the development.

5.2.16 The site would be serviced by an KC standard refuse vehicle, therefore a vehicle swept path of the site is detailed in AMA Drawing No. AMA-22224-ATR-004, provided at **Appendix E**. The drawing demonstrates that the vehicle can satisfactorily access and egress the site. It is therefore considered that the proposed service arrangements are satisfactory to accommodate the proposed vehicle with minimal conflicts with other site users.

5.3 PARKING

5.3.1 Parking for the residential units will be provided in line with Kirklees Council Parking Standards minimum parking requirements as outlined below:

- 2-Bedrooms – 2 spaces per dwelling;
- 3-Bedrooms – 2 spaces per dwelling;
- 4-Bedrooms – 3 spaces per dwelling; and
- 5-Bedrooms – 3 spaces per dwelling.

5.3.2 Where garages are provided as the spaces detailed above, these will have minimal internal dimensions in line with KC requirements.

5.3.3 Secure cycle parking will be provided across the site. Where garages are proposed with (or within) a property this will accommodate the provision, those without garages will have secure cycle storage provided within the curtilage of the property.

5.3.4 It is considered that the proposed level of parking provides an appropriate balance between the need to promote sustainable modes of transport, meeting the needs of residents and minimising on-street parking.

6 ASSESSMENT PARAMETERS

6.1 INTRODUCTION

6.1.1 This section sets out the methodology and parameters used in assessing the proposed development and its potential impact on the highway network.

6.1.2 As detailed below in this Chapter, the proposed traffic generated and assignment of traffic remains the same as the consented outline planning application (ref: 2020/92546). No changes to the impact on the local road network and therefore anticipated to arise from the reserved matters application.

6.1.3 Junction capacity assessments are therefore not considered necessary to support this reserved matters application.

6.2 DEVELOPMENT TRAFFIC GENERATION

6.2.1 The proposed approach to quantifying the trip generation of the site was set out in the original Scoping Note prepared by AMA. This was followed up by discussions at the pre-application meeting in November 2023. The proposed approach for assessment is set out below.

6.2.2 As part of the reserved matters application, the development proposes a total of 700 dwellings and a 70-bedroom Care Home. In keeping with the consented outline application, and to provide an overly robust assessment, this TA assesses the traffic generation of 770 residential dwellings.

Residential Trip Generation

6.2.3 In keeping with the consented outline planning application, this TA prepared to support the reserved matters application will adopt the same trip rates as those agreed within the Croft TA (July 202).

6.2.4 The trip rates used are summarised in **Table 6-1** and have been applied to the proposed development quantum (770 dwellings) to identify the total trip generation of the residential element of the scheme.

Table 6-1 – Residential Trip Rates and Generation

	AM Peak		PM Peak	
	Arrivals	Departures	Arrivals	Departures
Trip Rate	0.225	0.500	0.475	0.307
Trip Generation	173	385	366	236

6.2.5 **Table 6-1** demonstrates that the development proposals are forecast to generate the following vehicular trips during the highway network peak hours:

- AM Peak – 173 Arrivals and 385 Departures – 558 Two-Way Trips; and
- PM Peak – 366 Arrivals and 236 Departures – 602 Two-Way Trips.

6.2.6 For the purposes of this reserved matters application, the trip rates previous agreed as part of the extant planning permission (ref: 2020/92546) have been applied to the same quantum of development.

Non-Residential Trip Generation

6.2.7 In addition to the residential element, it is proposed to provide 500sqm of floorspace which will be dual use (Use Class A1/A2/A3/A4/A5/D1).

6.2.8 This element will provide facilities for those living within the proposed development it has been assumed that any trips generated will be internal to site and therefore will not generate any new traffic to them during the peak hours. Due to this no further consideration has been given to this use as part of this traffic impact analysis.

6.2.9 As detailed in **Chapter 5**, the development proposes a range of walking and cycling infrastructure across the application site to assist with the movement by active modes of transport. It is therefore considered that majority of trips generated by the Non-Residential uses will be non-motorised user (NMU) modes of travel and less reliant on private vehicles.

6.2.10 Delivery and servicing-based trips will be generated by the Local Centre and Care Home, these remain in keeping with the consented outline application (ref: *2020/92546).*

6.2.11 As there is no 'net' increase in traffic generated by the reserved matters application from the previously agreed *2020/92546* outline application, it is concluded that junction capacity assessments are not required.

6.3 DEVELOPMENT TRAFFIC DISTRIBUTION AND ASSIGMENT

6.3.1 In keeping with the consented outline planning application, this TA adopts the same distribution and assignment of development traffic on the local road network.

6.3.2 As no changes are proposed to the routing of the development traffic, it is therefore considered that the junction capacity assessments will operate the same as those previously agreed as part of the outline planning permission (ref: 2020/92546).

6.4 SUMMARY

6.4.1 As detailed above, the proposed traffic generated and assignment of traffic remains the same as the consented outline planning application (ref: 2020/92546). No changes to the impact on the local road network and therefore anticipated to arise from the reserved matters application.

6.4.2 In summary, the trip generation and distribution methodology adopted in this TA is considered appropriate and robust.

7 FUTURE DEVELOPMENT IMPACTS

7.1 INTRODUCTION

7.1.1 As detailed in **Chapter 6**, the proposed traffic generated and assignment of traffic remains the same as the consented outline planning application (ref: 2020/92546).

7.1.2 No changes to the impact on the local road network and therefore anticipated to arise from the reserved matters application.

7.1.3 Junction capacity assessments are therefore not considered necessary to support this reserved matters application.

8 SUMMARY AND CONCLUSIONS

8.1.1 Andrew Moseley Associates (AMA) has been commissioned by Miller Homes and Countryside Partnership to prepare a Transport Assessment (TA) and a Travel Plan (TP) in support of a reserved matters application for a residential development of 770 dwellings located on land to the north of Blackmoorfoot Road, approximately 3.5km to the south-west of Huddersfield Town Centre.

8.1.2 The site benefits from an outline planning permission (reference: 2020/92546), the proposed quantum and type of development remains the same as part of this reserved matters application.

8.1.3 The Local Planning Authority (LPA) and Local Highway Authority (LHA) is Kirklees Council (KC).

8.1.4 A series of pre-application discussions have been held with KC to agree the scope and methodology of the reserved matters application. It is therefore considered that all elements presented as part of this TA have been scoped and agreed with KC.

8.1.5 The site is located approximately 3.5km south-west of Huddersfield town centre. The site is bounded to the north by undeveloped land and to the south by Blackmoorfoot Road. To the west the site is bound by the Felks Stile Road whilst employment and residential development bounds the site to the east. The location of the application site is shown within **Figure 1**.

8.1.6 The Blackmoorfoot Road site is allocated for residential development within the adopted Aire Valley Kirklees Local Plan under reference HS23.

8.1.7 In keeping with the outline planning application, it is proposed that the site will be accessed via two new points of vehicular access; a southern location from Blackmoorfoot Road, and a southwestern location from Felks Stile Road. Details of the proposed development are provided in the Site Layout Plan attached at **Appendix A**.

8.1.8 The report has shown that the development proposals will be accessible by a range of travel modes and have been developed to accord with current national and local transport policies, including those set out within the West Yorkshire Local Transport Plan 3, the Kirklees Local Plan, Kirklees Transport Vision and the NPPF.

8.1.9 It is concluded that a range of key facilities and services, including retail, health and education uses, can be accessed from the site, supporting residential development. Future residents will not be reliant on the private car to undertake everyday journeys.

8.1.10 The development proposals based on 770 dwellings are forecast to generate some 558 and 602 two-way vehicle trips during the AM and PM peak hours respectively, therefore given the quantum remains constant between the outline consent and this reserved matters submission there would be no material impact on the local road network to that already approved by the LHA. Junction capacity assessments are therefore not considered necessary to support this reserved matters application.

8.1.11 An Interim Travel Plan has also been prepared which sets out measures to encourage sustainable travel patterns and reduce the reliance on private car use.

8.1.12 Overall, it is considered, as previously supported by KC and KC Highways, that the site is in a suitable location for the proposed residential development and that there are no overriding highways or transport reasons that should prevent the granting of planning consent for the proposals.

FIGURES

Figure 1 – Site Location Plan

Figure 2 – 2km Walking Isochrone

Figure 3 – Public Rights of Way

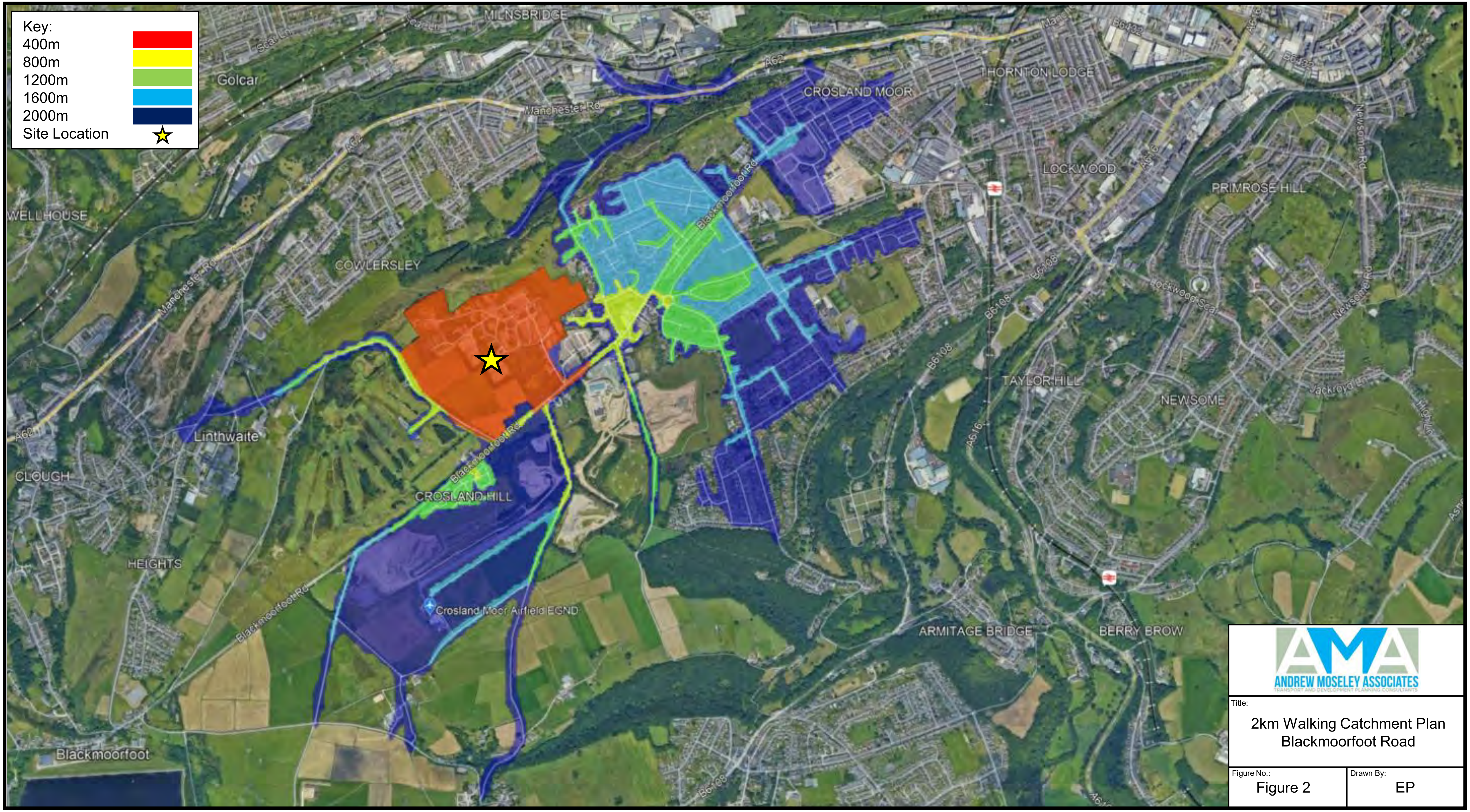
Figure 4 – 5km Cycling Isochrone

Figure 5 – Bus Stop Location Plan

Key:
Site Location

ANDREW MOSELEY ASSOCIATES
TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS

Title:	
Site Location Plan Blackmoorfoot Road	
Figure No.: Figure 1	Drawn By: EP



ANDREW MOSELEY ASSOCIATES
TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS

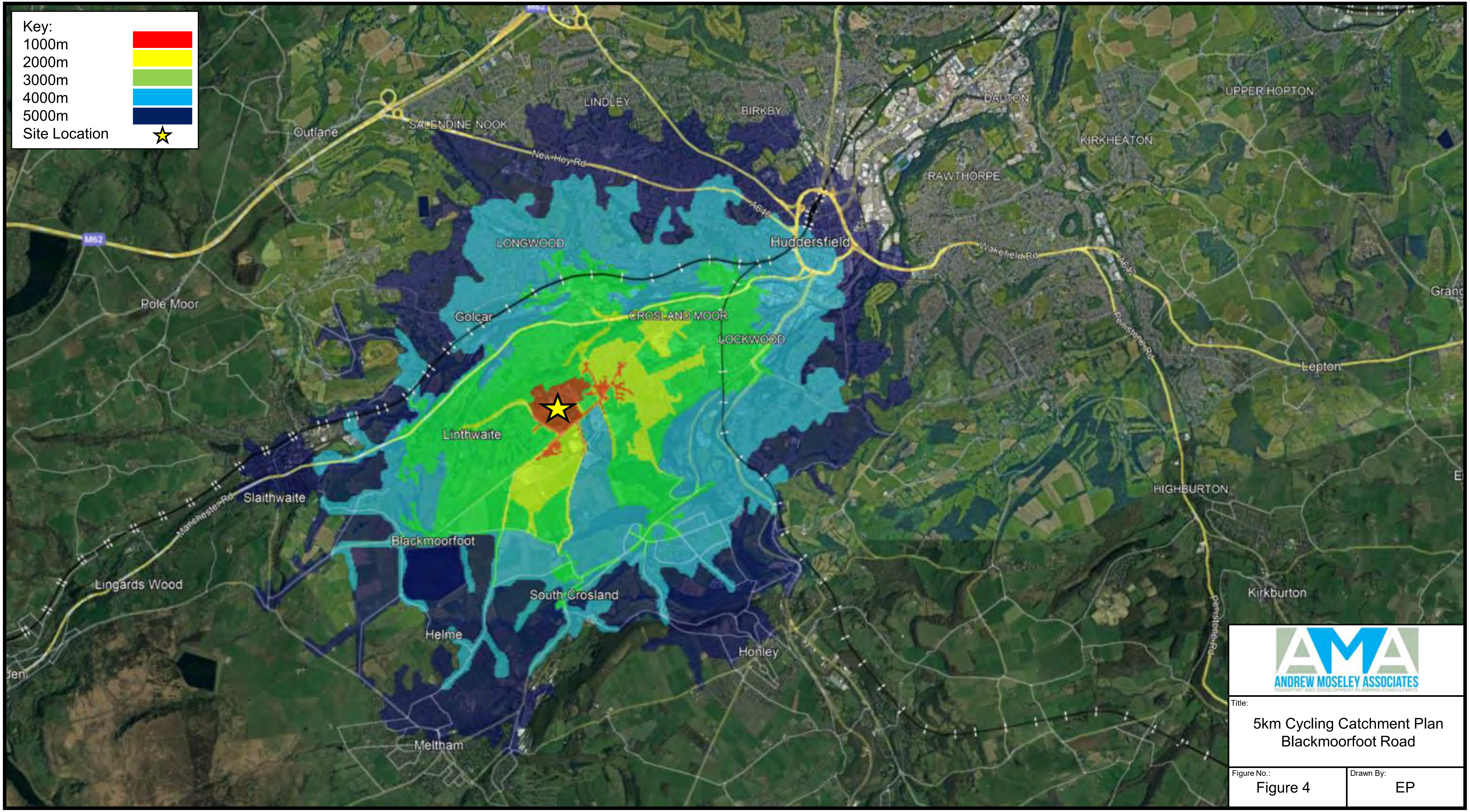
Title:
2km Walking Catchment Plan
Blackmoorfoot Road

Figure No.: Figure 2

Drawn By: EP

Title:
Public Rights of Way Map
Blackmoorfoot Road

Figure No.:	Drawn By:
Figure 3	EP



Title:

5km Cycling Catchment Plan
Blackmoorfoot Road

Figure No.:	Drawn By:
Figure 4	EP

Key:

Site Location	
Bus Stops	
Walking Route	
Dropped Kerb Crossing	
Pelican Crossing	

ANDREW MOSELEY ASSOCIATES
TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS

Title:
Bus Stop Location Plan
Blackmoorfoot Road

Figure No.:	Drawn By:
Figure 5	EP

APPENDICES

Appendix A – Proposed Site Layout

Appendix B – PIC Data

Appendix C – Site Access & Visibility Splays

Appendix D – 30mph Speed Extensions

Appendix E – Swept Path Analysis

Appendix A

PROPOSED SITE LAYOUT

Key

- Application Site Boundary
- Other Land Under Control Of Applicant
- Existing (retained) Trees & Hedgerow
- Tree Preservation Order
- Indicative Proposed Planting
- Open Space
- Indicative Storage Tank
- Proposed Pedestrian/cycle Link
- Proposed Street
- Shared Surface Street
- Private Drive
- Bus Stop with Shelter
- Bus Stop with Layby
- Visual Links
- Indicative Extent Of Residential Area
- Potential Locations Of Landmark Buildings
- Existing Public Right Of Way
- Potential For Equipped Play (NEAP)
- Potential For Equipped Play (LEAP)
- Potential For Equipped Play (LAP)
- Play area buffer

0 10 50 m

nineteen47
CHARTERED TOWN PLANNERS & URBAN DESIGNERS

Project
Blackmoorfoot Road, Huddersfield

Drawing Title
Masterplan

Project Code	Drawing Nr	Rev
n2114	005	Q

Date	Drawing Scale
25.07.2024	1:1,250 @ A1

Appendix B

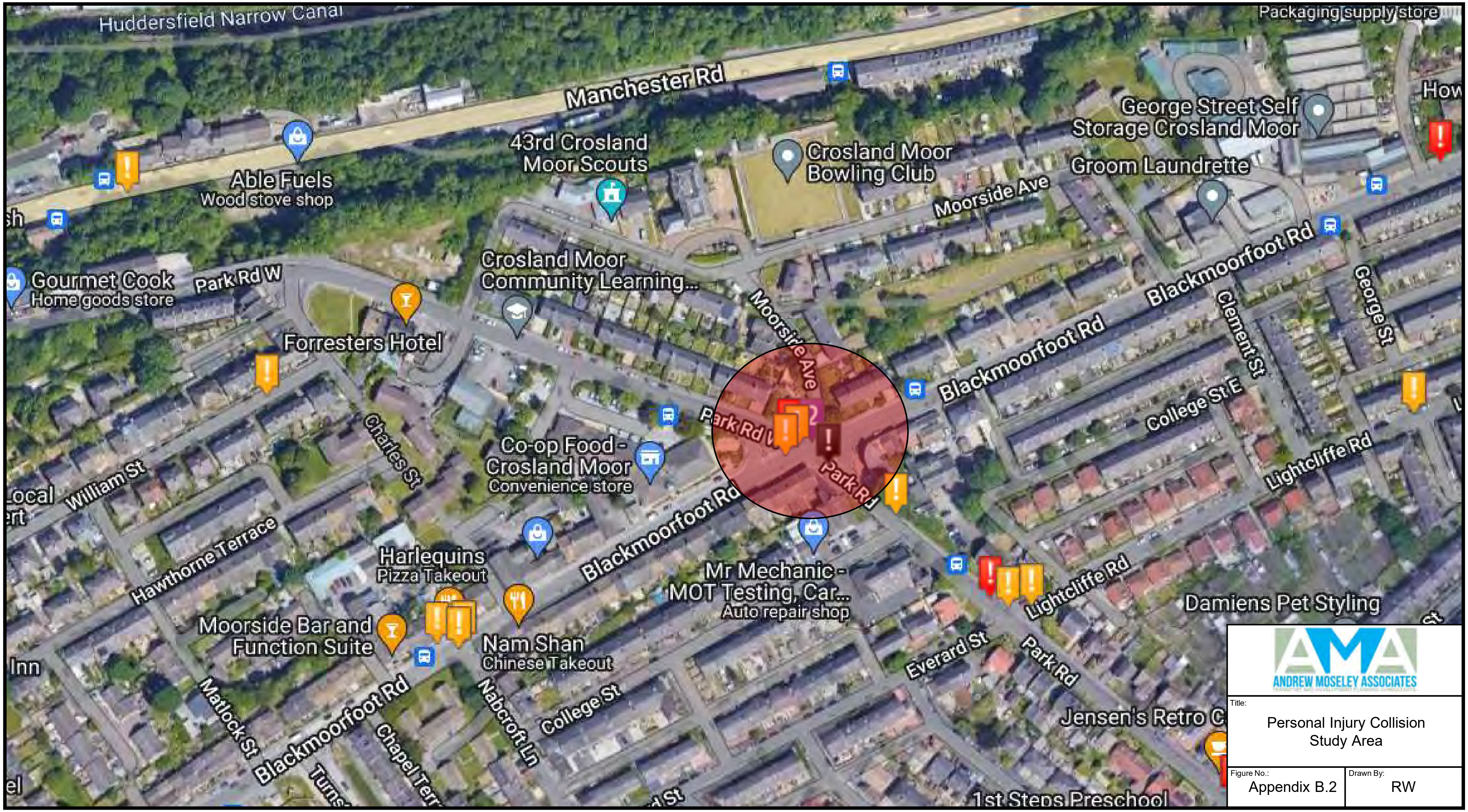
PIC DATA

ANDREW MOSELEY ASSOCIATES

Title:

Personal Injury Collision Study Area

Figure No.:	Drawn By:
Appendix B.1	RW

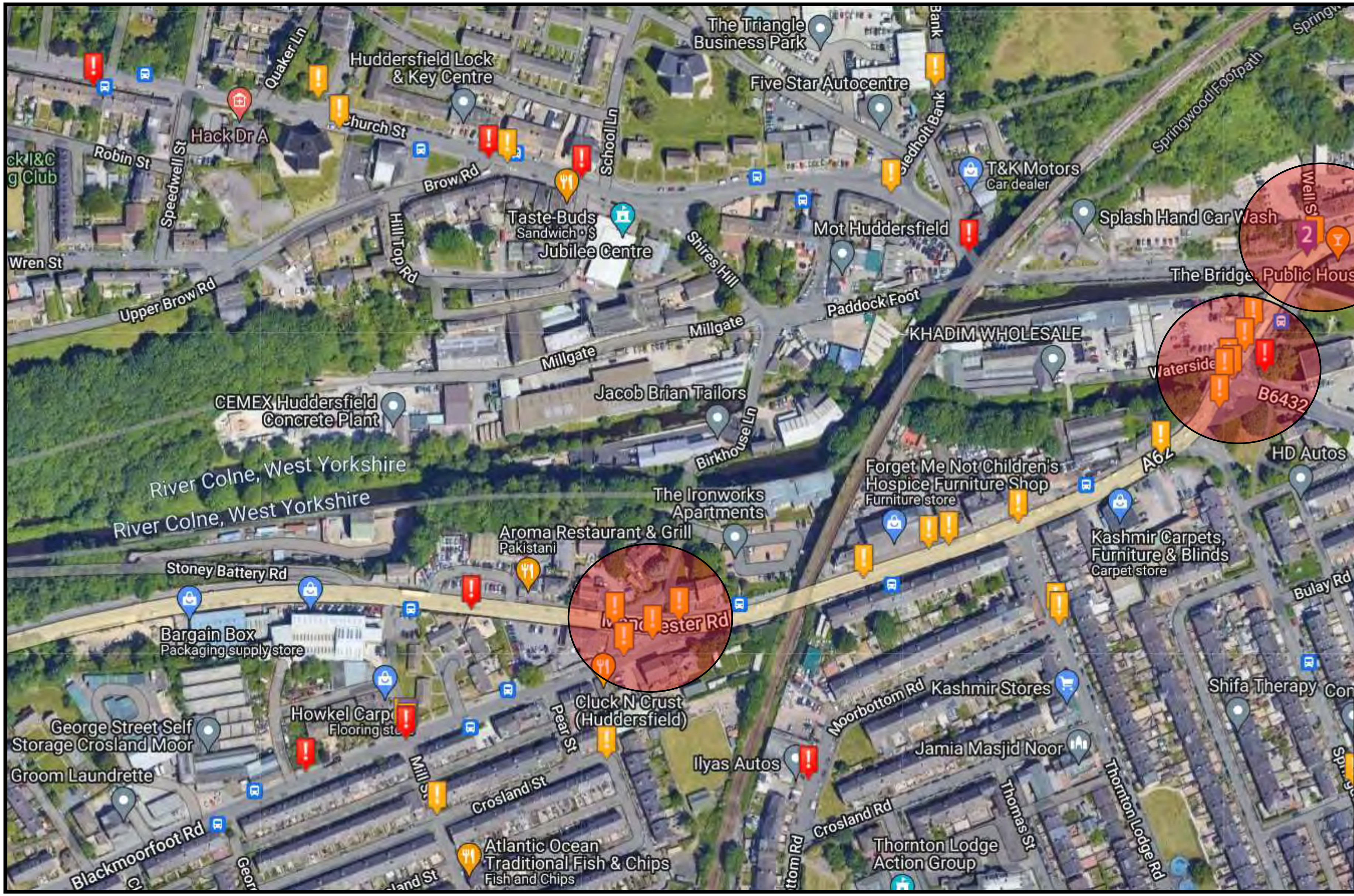


ANDREW MOSELEY ASSOCIATES

Title:
Personal Injury Collision Study Area

Figure No.: Appendix B.2

Drawn By: RW



ANDREW MOSELEY ASSOCIATES

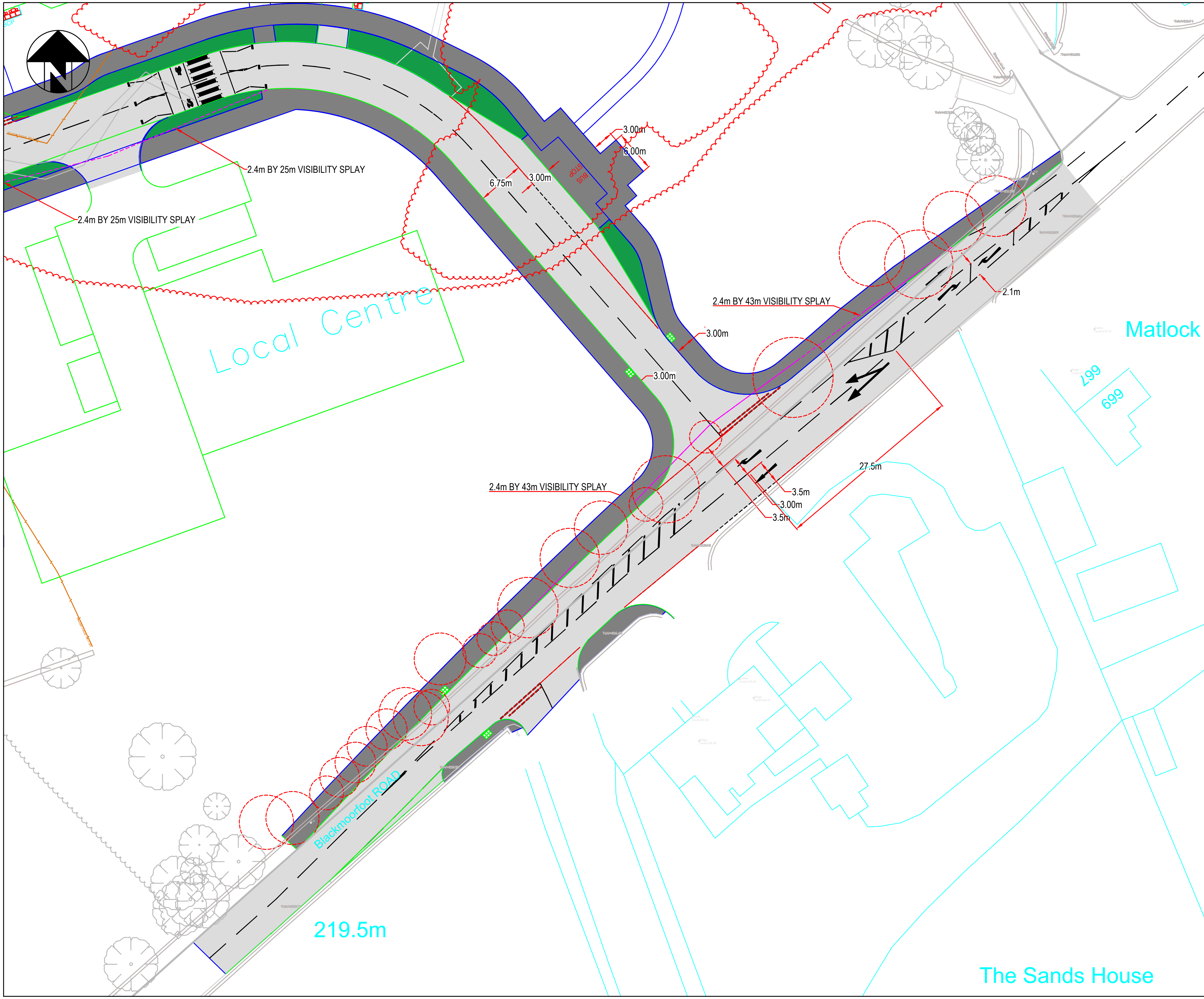
Title:

Personal Injury Collision Study Area

Figure No.:	Drawn By:
Appendix B.3	RW

Appendix C

SITE ACCESS VISIBILITY SPLAYS



P01	Preliminary Issue	00.00.00	XX

ANDREW MOSELEY ASSOCIATES

Transport & Infrastructure Consultants

15 St Paul's Street, Second Floor, Leeds, LS1 2JG

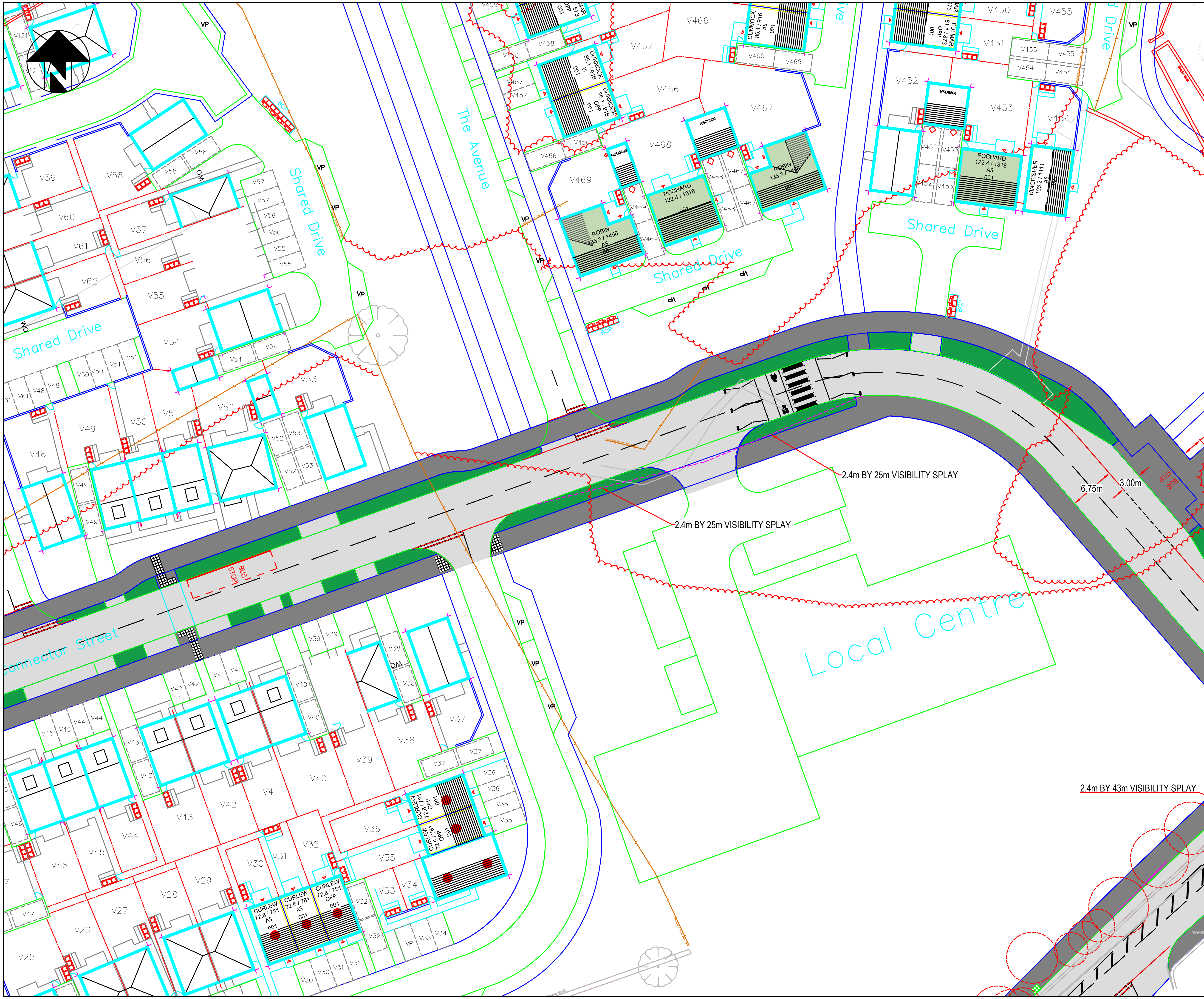
www.amatp.co.uk

Project: BLACKMOORFOOT ROAD, HUDDERSFIELD

Client: VISTRY PARTNERSHIPS

Drawing: PROPOSED ACCESS ARRANGEMENT

Drawn By: RID	Date: 26.07.2024	
Checked: JF	Scale: 1:500	Paper: A3
Drawing No. AMA-22224-SK040 - 1.4		Rev. P01



Rev.	Description	Date	By
P01	Preliminary Issue	00.00.00	XX

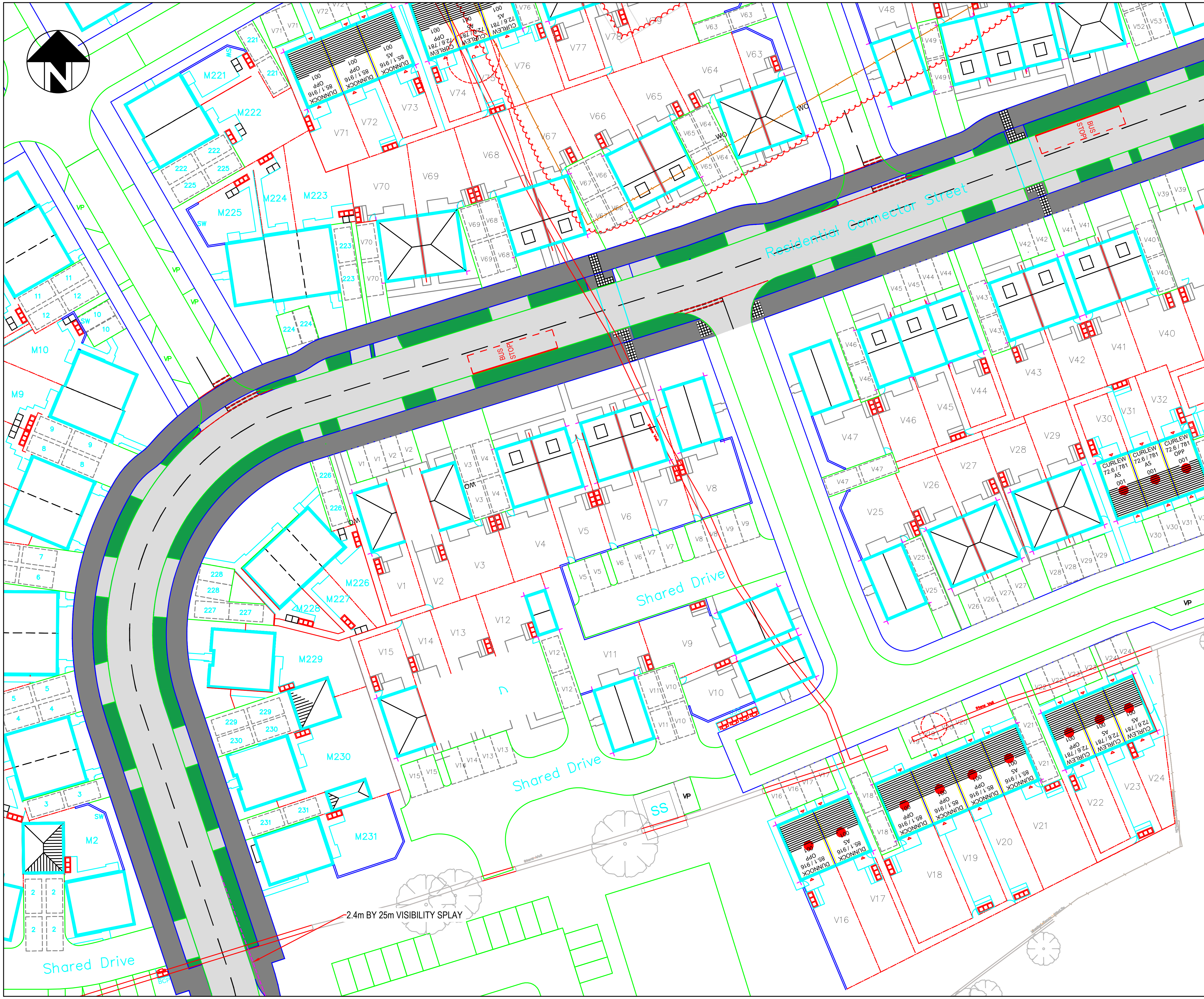
ANDREW MOSELEY ASSOCIATES
Transport & Infrastructure Consultants
15 St Paul's Street
Second Floor
Leeds
LS1 2JG
www.amatp.co.uk

Project:
BLACKMOORFOOT ROAD, HUDDERSFIELD

Client:
VISTRY PARTNERSHIPS

Drawing:
PROPOSED ACCESS ARRANGEMENT

Drawn By: RID	Date: 26.07.2024	
Checked: JF	Scale: 1:500	Paper: A3
Drawing No. AMA-22224-SK040 - 2.4		Rev. P01



Rev.	Description	Date	By
P01	Preliminary Issue	00.00.00	XX

ANDREW MOSELEY ASSOCIATES

Transport & Infrastructure Consultants

15 St Paul's Street
Second Floor
Leeds
LS1 2JG

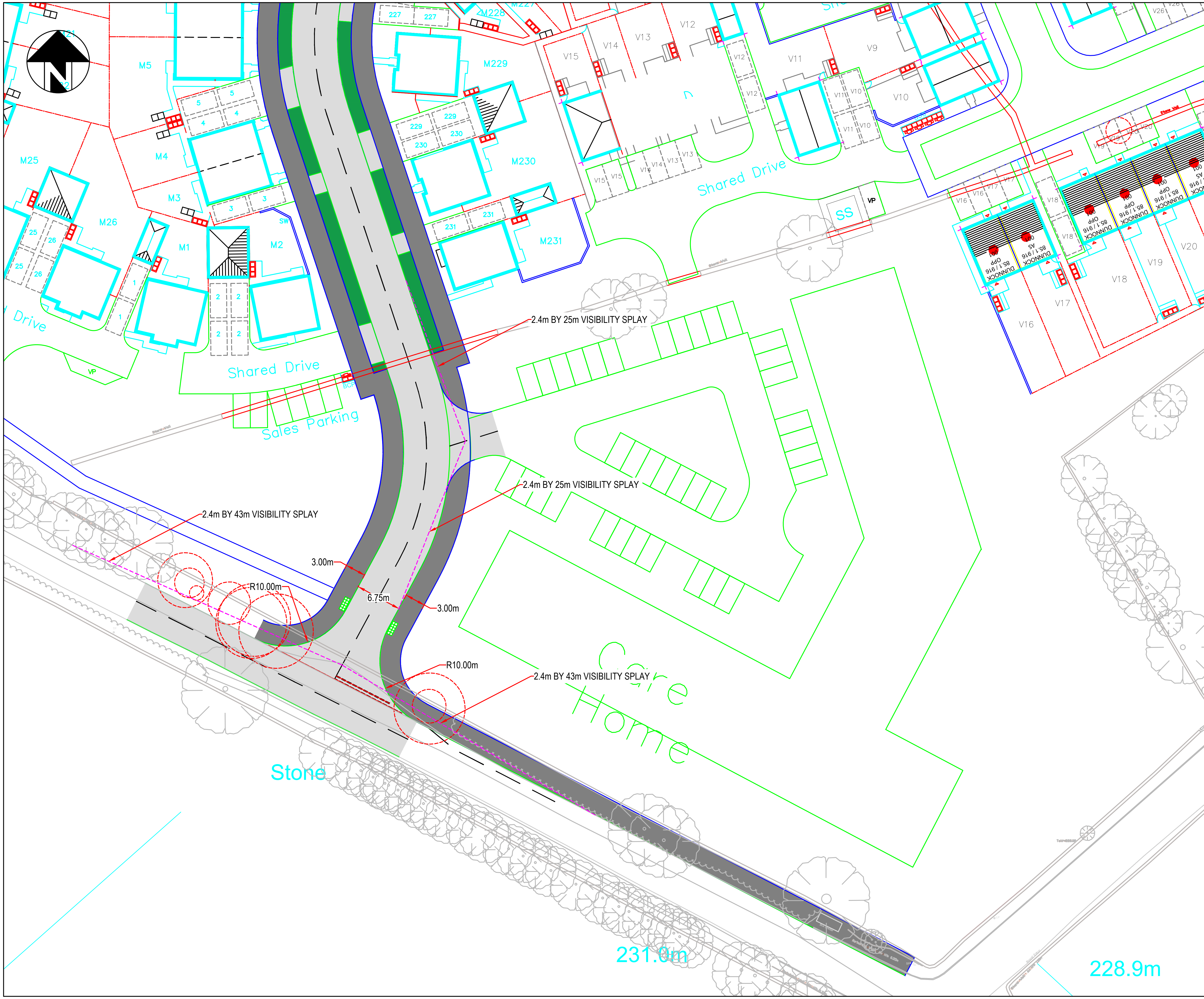
www.amatp.co.uk

Project:
BLACKMOORFOOT ROAD, HUDDERSFIELD

Client:
VISTRY PARTNERSHIPS

Drawing:
PROPOSED ACCESS ARRANGEMENT

Drawn By:	Date:	
RID	26.07.2024	
Checked: JF	Scale: 1:500	Paper: A3
Drawing No. AMA-22224-SK040 - 3.4		Rev. P01



P01	Preliminary Issue	00.00.00	XX

ANDREW MOSELEY ASSOCIATES

Transport & Infrastructure Consultants

15 St Paul's Street
Second Floor
Leeds
LS1 2JG

www.amatp.co.uk

Project:
BLACKMOORFOOT ROAD, HUDDERSFIELD

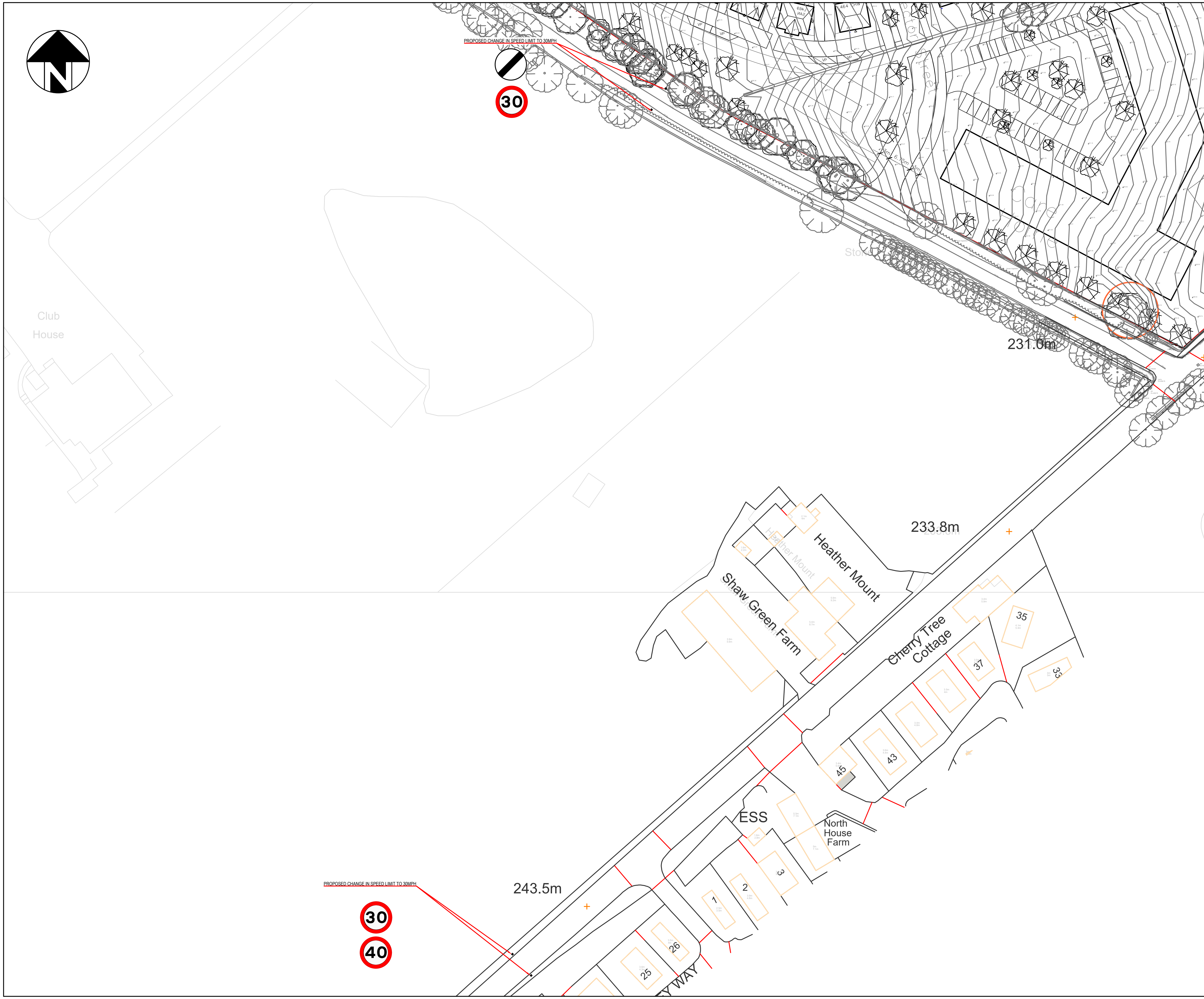
Client:
VISTRY PARTNERSHIPS

Drawing:
PROPOSED ACCESS ARRANGEMENT

Drawn By:	Date:		
RID	26.07.2024		
Checked: JF	Scale: 1:500	Paper: A3	
Drawing No. AMA-22224-SK040 - 4.4		Rev. P01	

Appendix D

30MPH SPEED EXTENSIONS



Rev.	Description	Date	By
P01	Preliminary Issue	00.00.00	XX

ANDREW MOSELEY ASSOCIATES

Transport & Infrastructure Consultants

15 St Paul's Street
Second Floor
Leeds
LS1 2JG

www.amatp.co.uk

Project:
BLACKMOORFOOT ROAD, HUDDERSFIELD

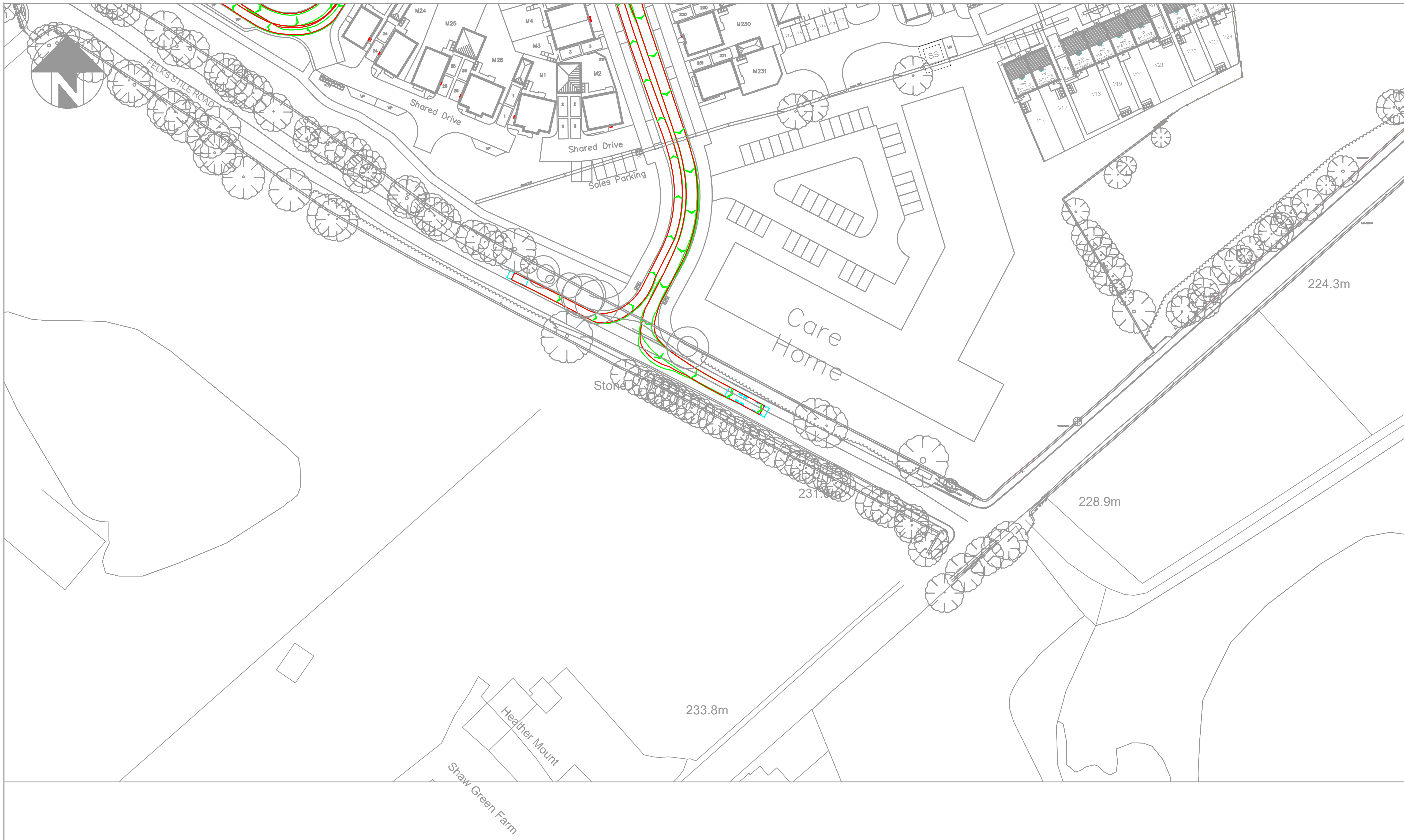
Client:
VISTRY PARTNERSHIPS

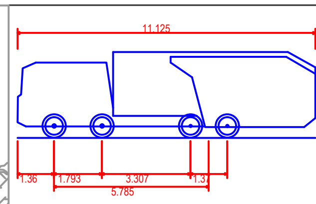
Drawing:
PROPOSED CHANGE IN SPEED LIMIT SIGN LOCATIONS

Drawn By: RID	Date: 22.05.2024	
Checked: JF	Scale: 1:500	Paper: A3
Drawing No. AMA-22224-SK033		Rev. P01

Appendix E

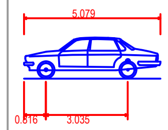
SWEPT PATH ANALYSIS





Phoenix 2-25W (with Volvo FM12 chassis)

Overall Length	11.125m
Overall Width	2.530m
Overall Body Height	3.205m
Min Body Ground Clearance	0.410m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.250m



Large Car (2006)

Overall Length	5.079m
Overall Width	1.872m
Overall Body Height	1.525m
Min Body Ground Clearance	0.310m
Max Track Width	1.831m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.900m

P01	Preliminary Issue	00.00.00	XX

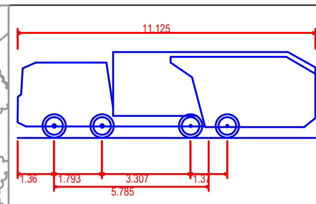
ANDREW MOSELEY ASSOCIATES
Transport & Infrastructure Consultants
15 St Paul's Street
Second Floor
Leeds
LS1 2JG
www.amatp.co.uk

Project:
BLACKMOORFOOT ROAD, HUDDERSFIELD

Client:
VISTRY PARTNERSHIPS

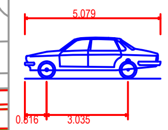
Drawing:
LARGE REFUSE VEHICLE AND LARGE CAR SWEPT PATH ANALYSIS

Drawn By: RID	Date: 29.07.2024	
Checked: GDM	Scale: 1:500	Paper: A3
Drawing No. AMA-22224-ATR004 - 1.5		Rev. P01



Phoenix 2-25W (with Volvo FM12 chassis)

Overall Length	11.125m
Overall Width	2.530m
Overall Body Height	3.205m
Min Body Ground Clearance	0.410m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.250m



Large Car (2006)

Overall Length	5.079m
Overall Width	1.872m
Overall Body Height	1.525m
Min Body Ground Clearance	0.310m
Max Track Width	1.831m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.900m

P01	Preliminary Issue	00.00.00	XX

ANDREW MOSELEY ASSOCIATES

Transport & Infrastructure Consultants

15 St Paul's Street
Second Floor
Leeds
LS1 2JG

www.amatp.co.uk

Project:

BLACKMOORFOOT ROAD, HUDDERSFIELD

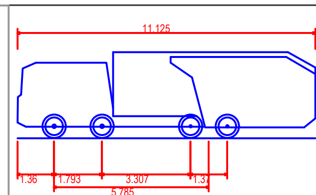
Client:

VISTRY PARTNERSHIPS

Drawing:

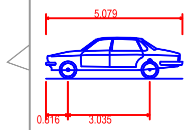
LARGE REFUSE VEHICLE AND LARGE CAR SWEPT PATH ANALYSIS

Drawn By:	Date:	
RID	29.07.2024	
Checked:	**Scale:**	**Paper:**
GDM	1:500	A3
Drawing No.		**Rev.**
AMA-22224-ATR004 - 2.5		P01



Phoenix 2-25W (with Volvo FM12 chassis)

Overall Length	11.125m
Overall Width	2.530m
Overall Body Height	3.205m
Min Body Ground Clearance	0.410m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.250m



Large Car (2006)

Overall Length	5.079m
Overall Width	1.872m
Overall Body Height	1.525m
Min Body Ground Clearance	0.310m
Max Track Width	1.831m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.900m

P01	Preliminary Issue	00.00.00	XX

ANDREW MOSELEY ASSOCIATES

Transport & Infrastructure Consultants

15 St Paul's Street
Second Floor
Leeds
LS1 2JG

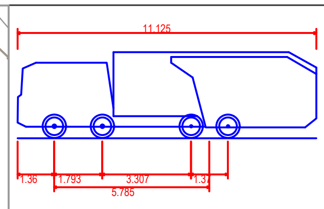
www.amatp.co.uk

Project:
BLACKMOORFOOT ROAD, HUDDERSFIELD

Client:
VISTRY PARTNERSHIPS

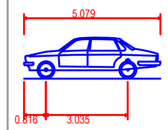
Drawing:
LARGE REFUSE VEHICLE AND LARGE CAR SWEPT PATH ANALYSIS

Drawn By: RID	Date: 29.07.2024	
Checked: GDM	Scale: 1:500	Paper: A3
Drawing No. AMA-22224-ATR004 - 3.5		Rev. P01



Phoenix 2-25W (with Volvo FM12 chassis)

Overall Length	11.125m
Overall Width	2.530m
Overall Body Height	3.205m
Min Body Ground Clearance	0.410m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.250m



Large Car (2006)

Overall Length	5.079m
Overall Width	1.872m
Overall Body Height	1.525m
Min Body Ground Clearance	0.310m
Max Track Width	1.831m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.900m

P01	Preliminary Issue	00.00.00	XX

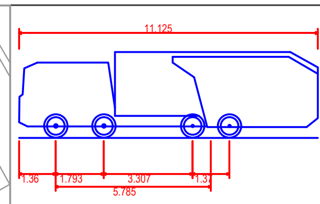
ANDREW MOSELEY ASSOCIATES
Transport & Infrastructure Consultants
15 St Paul's Street
Second Floor
Leeds
LS1 2JG
www.amatp.co.uk

Project:
BLACKMOORFOOT ROAD, HUDDERSFIELD

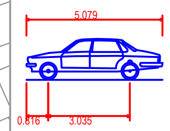
Client:
VISTRY PARTNERSHIPS

Drawing:
LARGE REFUSE VEHICLE AND LARGE CAR SWEPT PATH ANALYSIS

Drawn By:	Date:	
RID	29.07.2024	
Checked: GDM	Scale: 1:500	Paper: A3
Drawing No. AMA-22224-ATR004 - 4.5		Rev. P01



Phoenix 2-25W (with Volvo FM12 chassis)	
Overall Length	11.125m
Overall Width	2.530m
Overall Body Height	3.205m
Min Body Ground Clearance	0.410m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.250m



Large Car (2006)	
Overall Length	5.079m
Overall Width	1.872m
Overall Body Height	1.525m
Min Body Ground Clearance	0.310m
Max Track Width	1.831m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.900m

P01	Preliminary Issue	00.00.00	XX

ANDREW MOSELEY ASSOCIATES

Transport & Infrastructure Consultants

15 St Paul's Street
Second Floor
Leeds
LS1 2JG

www.amatp.co.uk

Project:
BLACKMOORFOOT ROAD, HUDDERSFIELD

Client:
VISTRY PARTNERSHIPS

Drawing:
LARGE REFUSE VEHICLE AND LARGE CAR SWEPT PATH ANALYSIS

Drawn By:	Date:	
RID	29.07.2024	
Checked: GDM	Scale: 1:500	Paper: A3
Drawing No. AMA-22224-ATR004 - 5.5		Rev. P01

ANDREW MOSELEY ASSOCIATES
TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS

Andrew Moseley Associates, 15 St Paul's Street, Leeds, LS1 2JG

www.amatp.co.uk

info@amatp.co.uk