

November 2020

Transport Locality Assessments

Introductory Note and Assessments –
Oldham allocations

GMSF 2020

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1. Background

1.1 Greater Manchester Spatial Framework (GMSF)

1.1.1 The GMSF is a joint plan of all ten local authorities in Greater Manchester, providing a spatial interpretation of the Greater Manchester Strategy which will set out how Greater Manchester should develop over the next two decades up to the year 2037. It will:

- identify the amount of new development that will come forward across the 10 Local Authorities, in terms of housing, offices, and industry and warehousing, and the main areas in which this will be focused;
- ensure we have an appropriate supply of land to meet this need;
- protect the important environmental assets across the conurbation;
- allocate sites for employment and housing outside of the urban area;
- support the delivery of key infrastructure, such as transport and utilities;
- define a new Green Belt boundary for Greater Manchester.

1.1.2 The Plan focuses on making the most of Greater Manchester's brownfield sites, prioritising redevelopment of town centres and other sustainable locations. The Plan is required to demonstrate that Greater Manchester has enough land to deliver the homes and jobs people require up until 2037, and whilst there is an expectation that the focus of development will be on brownfield sites in the early years, it is recognised that some land will need to be released from the green belt to fully meet Greater Manchester's housing and employment requirement.

1.1.3 The comments from the Draft GMSF 2019, together with local and national policy, have helped to inform the Locality Assessments methodology for the Draft GMSF 2020. More information on the consultation comments can be found in the Consultation Statement and within each of the Allocation Locality Assessments.

1.1.4 This document has been prepared as evidence for the GMSF and is part of a suite of documents that examine the implications of the GMSF on transport in Greater Manchester. The other documents are:

- Greater Manchester Transport Strategy 2040 and supporting Five Year Transport Delivery Plan. These documents together set out our strategic aspirations for transport in Greater Manchester and articulate our plan for delivery.
- Greater Manchester Transport Strategy 2040 ‘Right Mix’ Technical Note. This note describes the ‘Right Mix’ transport vision and sets out a pathway to achieving this vision.
- GMSF Existing Land Supply and Transport Technical Note. This describes the distribution and quantity of the Existing Land Supply, identified key growth areas, and considers the relationship of these growth areas to the transport schemes proposed within the Greater Manchester Transport Strategy Delivery Plan.
- GMSF Allocations Strategic Modelling Technical Note. This provides analysis of the potential strategic impact of growth on our transport network in a “policy-off” scenario.

1.2 Policy Context – The National Planning Policy Framework

- 1.2.1 The National Planning Policy Framework sets out the Government’s planning policies for England and Wales and how these are to be applied. It provides a framework for which locally prepared plans for housing and development, such as the GMSF, can be produced.
- 1.2.2 The NPPF makes it clear that transport issues should be considered from the earliest stages of plan-making and development proposals, so that:
- the potential impacts of development on transport networks can be addressed;
 - opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;
 - opportunities to promote walking, cycling and public transport use are identified and pursued;
 - the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and
 - patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places.

- 1.2.3 The NPPF makes clear that when assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:
- 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; and
 - 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.
- 1.2.4 Importantly, NPPF 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’. (NPPF, Chapter 9, Para 109).
- 1.2.5 In order to ensure that the requirements of the NPPF were fully met and that that these allocations can be brought forward and operate sustainably within the context of the wider transport network, Transport for Greater Manchester (TfGM), on behalf of the ten Greater Manchester Local Planning Authorities, appointed SYSTRA Ltd to oversee the development of Locality Assessments for each site.
- 1.2.6 These Locality Assessments forecast the likely level and distribution of traffic generated by each Allocation and assess its impact on the transport network. Where that impact is considered significant, possible schemes to mitigate that impact and reduce it back to the reference level of operation have been developed, tested and costed. Potential mitigations could include the introduction of new public transport schemes, cycling and walking routes, as well as highway engineering solutions. Where suitable mitigations could not be identified, a decision to either reduce the level of development at the Allocation such that it had a lesser impact on the transport network, or to remove the site from the GMSF completely were considered.
- 1.2.7 It is important to note that the mitigation schemes developed are intended to demonstrate only that significant transport impacts of the Allocation can be appropriately ameliorated. As such they are indicative only, and are not intended to

act as a definitive proposal for the mitigation of any Allocation, which would be developed as part of a Transport Assessment submitted as part of a planning application at a later date.

- 1.2.8 The Locality Assessments are one of a number of pieces of evidence developed in order to assess and evaluate the impact of the GMSF proposals on the transport network and focus only on the sites being allocated in the Plan. The majority of sites proposed for development are actually contained within the existing land supply (ELS) and have been split into three subcategories; Homes (both houses and apartments), Offices, and Industry and Warehousing. A separate “Existing Land Supply and Transport Technical Note” describes the quantity and distribution of the ELS, the key growth areas and the relationship between areas and the transport schemes proposed to serve them.
- 1.2.9 Transport for Greater Manchester has also worked closely with Highways England to understand the impact that the Allocations may have on the Strategic Road Network (SRN). SYSTRA Ltd was asked to carry out an exercise to assign the ‘with GMSF’ traffic flows to an representation of an empty SRN network and to produce network stress maps which identified areas of significant delay on the network, as well as providing detailed breakdowns of GMSF Allocation traffic for key sections of the SRN. This exercise has enabled all parties to move towards a common understanding of where the most significant traffic impacts are likely to occur, and provides a common basis to enable Highways England to make investment decisions as part of future Road Investment Strategy (RIS) planning discussions.

1.3 Policy Context – Greater Manchester Transport Strategy 2040

- 1.3.1 It is important to recognise that the GMSF has been developed with the benefit of an adopted Local Transport Plan – the Greater Manchester Transport Strategy 2040 (hereafter referred to as the 2040 Transport Strategy). The 2040 Transport Strategy has an established long-term vision for transport, of providing *world class connections that support long-term, sustainable economic growth and access to opportunity for all*. The four key elements of this vision are:

- Supporting sustainable economic growth;
- Protecting the environment;
- Improving quality of life for all; and,
- Developing an innovative city region.

1.3.2 The 2040 Transport Strategy was first published in February 2017. The Strategy has undergone a ‘light touch’ refresh to reflect work undertaken and the changed context, since 2017. As well as refreshing the 2040 Transport Strategy, to support the GMSF an updated Five Year Transport Delivery Plan has also been prepared. It sets out the practical actions planned to deliver the 2040 Transport Strategy and achieve the ambitions of the GMCA and the Mayor, providing a coordinated approach to transport investment. It is also intended to inform the development of the Greater Manchester Infrastructure Programme (GMIP).

1.3.3 Covid-19 has had a massive health and economic impact on our city region, affecting every person and every business in our city-region. The impact from the pandemic has not been equal or fair, highlighting inequalities across Greater Manchester. Travel demand remains well below levels prior to the pandemic and, although it is increasing, it is clear that Greater Manchester’s plans for transport and other policy areas will need to be adaptive as the recovery continues.

1.3.4 The aim will be to “lock in” some of the benefits our neighbourhoods, communities, towns and cities have experienced from lower vehicle traffic levels and embracing the opportunities to be more productive through flexible working and accessing services through high quality digital systems. The vision is for a future where walking and cycling are the obvious choice for shorter journeys and where the past dependency on the car is superseded by a reliable and responsive public transport system. Our Five Year Transport Delivery Plan sets out those first steps, from a transport and place making perspective to support leading the recovery and creating a stronger, sustainable and resilient Greater Manchester.

1.3.5 The Our Network policies in the GMSF and in Our Five Year Transport Delivery Plan support the implementation of “Our Network”, a ten-year plan to create an integrated, modern and accessible transport network for Greater Manchester. The Delivery Plan brings together different modes of public transport — bus, tram, rail,

tram-train and cycling and walking in an integrated, easy-to-use system with seamless connections, and simplified ticketing and fares.



- 1.3.6 The Five Year Delivery Plan has been prepared to respond to the transport opportunities and challenges facing Greater Manchester, in parallel with the development of the Greater Manchester Spatial Framework (GMSF). Together, these documents provide an integrated approach to transport and land use planning by identifying the strategic transport interventions required to deliver the scale of growth set out in the GMSF. It also supports the priorities of the Greater Manchester Strategy (2018).
- 1.3.7 A key ambition is to improve our transport system so that, by 2040, 50% of all journeys in Greater Manchester are made by public transport or active travel, supporting a reduction in car use to no more than 50% of daily trips. This will mean one million more sustainable journeys every day in Greater Manchester by 2040, enabling us to deliver a healthier, greener and more productive city-region – this is known as the “Right Mix”. Achieving the Right Mix is expected to lead to zero net growth in motor vehicle traffic in Greater Manchester between 2017 and 2040.
- 1.3.8 Fundamental to delivering the Right Mix will be the adoption of a “Streets for All” framework – to enable more people to walk, cycle and use public transport, and improve reliability for, in particular, buses and freight vehicles on the key route network serving our towns and Regional Centre.

1.3.9 This will be one of the mechanisms used to grow bus patronage alongside:

- Bus Reform
- Integrated Ticketing
- Quality Bus Transit and Bus Corridor Upgrades
- Bus Rapid Transit

1.3.10 Following the introduction of the Bus Services Act (2017), the GMCA asked TfGM to carry out an assessment of a bus franchising scheme, have that assessment reviewed by an independent audit organisation, and carry out a consultation on a proposed franchising scheme which ran from 14 October 2019 to 8 January 2020. The Covid-19 pandemic has had a significant impact on Greater Manchester's bus market, including timetables, revenues, passenger numbers and the public's attitudes to public transport. Due to this, further work will be undertaken to assess the impact of coronavirus on the bus reform process.

1.3.11 Greater Manchester is also delivering the Bee Network - the UK's largest cycling and walking network as a key element in delivering the Right Mix vision. The Combined Authority has allocated £160m between 2018-2022 to fund the first phase of the Bee Network. The network has at its core a programme of new and upgraded pedestrian and cycling crossing points of major roads and other sources of severance, connected by a network of signed cycling and walking routes – known as Beeways – on existing quiet streets. These will be complemented by a number of routes on busier roads where Dutch style cycle lanes protected from motor traffic will be constructed.

1.3.12 Our Five Year Transport Delivery Plan sets out a comprehensive programme of work across all modes and in all Local Authorities which are focused on ensuring the realisation of the 'Right Mix' vision. It contains explanatory text and a summary of the interventions and their stage in the development and delivery process. These include committed, unfunded priorities for the next five years and our longer-term development priorities. The Delivery Plan sections are:

Our Bus	Our Metrolink	Our Rail	Our Streets	Our Integrated Network
<ul style="list-style-type: none"> Local Bus Quality Bus Transit Bus Rapid Transit 	<ul style="list-style-type: none"> Metrolink New Stops and Upgrades Tram-Train 	<ul style="list-style-type: none"> Rail High Speed Rail Stations 	<ul style="list-style-type: none"> Walking and Cycling Local Highways Strategic Roads and Motorways Freight and Logistics Maintenance Town Centres 	<ul style="list-style-type: none"> Clean Air and Carbon Future Mobility and Innovation Interchnages Travel Hubs / Park & Ride Fares and Ticketing Behaviour change Safety and security

1.3.13 Many of these interventions support the GMSF Allocations directly, whilst others are intended to provide alternatives to private car travel more generally. The schemes demonstrate a clear plan for delivering strategic transport interventions for the first five years of the GMSF plan period, whilst also laying the foundations for longer term investment in sustainable transport across the length of the plan period.

1.3.14 Where relevant, each of the individual Locality Assessments will highlight elements of the Delivery Plan that are particularly relevant to each Allocation or the local area.

1.3.15 Our Five Year Transport Delivery Plan is supported by ten Local Implementation Plans (LIPs) covering the period 2020 to 2025. Each of the ten councils that make up Greater Manchester has its own LIP. The LIPs are designed to ensure local priorities are articulated in the Delivery Plan. The LIPs are included as an appendix to the Delivery Plan. They will be ‘live’ documents for a period of time and will be updated as councils develop and publish transport plans and strategies, or as new schemes are developed or delivered.

1.3.16 For more detail on the Greater Manchester Transport Strategy 2040 and Our Five Year Transport Delivery Plan visit the [TfGM website](#).

1.4 Structure of this Note

1.4.1 This note sets out the process that was implemented to identify the sites considered as suitable for inclusion in the draft GMSF. It also sets out a summary of the Greater Manchester Accessibility Level (GMAL) model which is TfGM’s tool for

assessing the accessibility of sites in public transport terms and which was used in assessing the transport requirements of the Allocations.

1.4.2 An associated exercise was carried out to assess the potential to introduce or extend bus services to the Allocations, and this note sets out the process implemented to assess the likely demand and revenue implications of these new services.

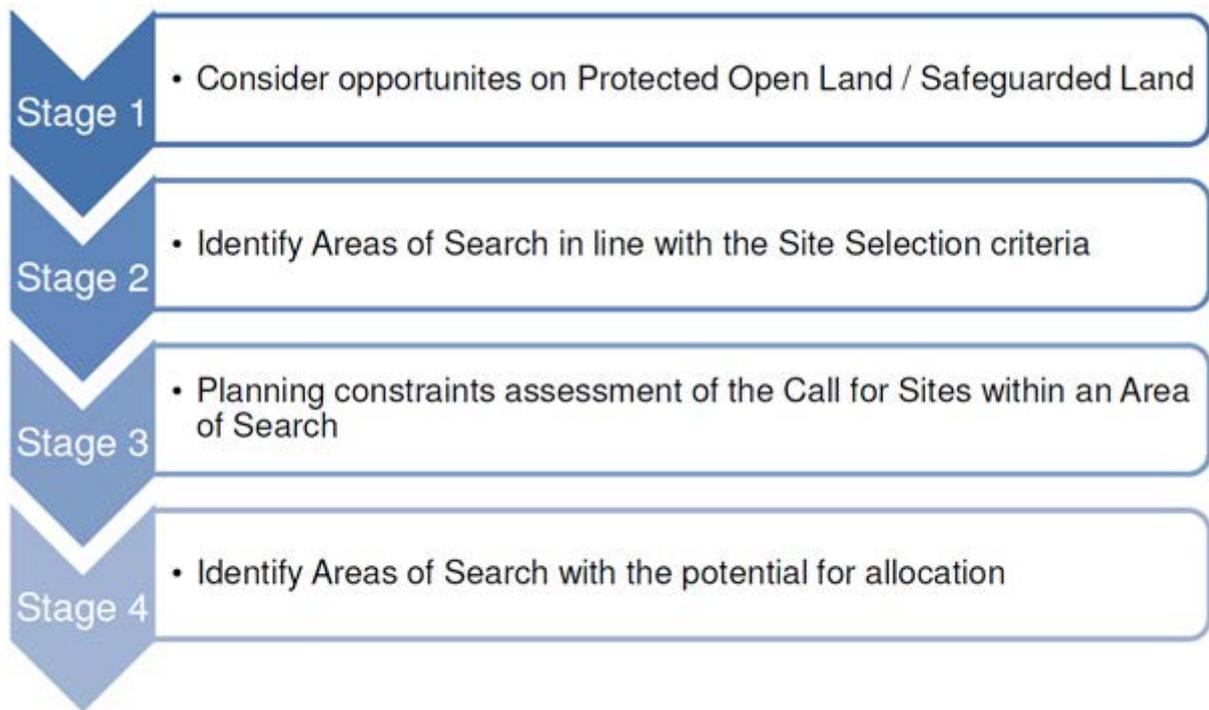
1.4.3 It then explains the approach to strategic modelling which was used to highlight the transport impacts of the Allocations on the transport network, and the process to identify, develop and categorise suggested mitigation schemes.

2. Site Selection

2.1 The Process

1.1.1 The process of identifying and selecting site allocations for the draft GMSF was led by the 10 Greater Manchester Authorities and provided the starting point for further investigation of the preferred sites through the Locality Assessments. It should be noted at the outset that a wide range of planning issues are considered when identifying sites for release, and transport is just one important aspect of this. A Site Selection methodology was developed that included seven criteria informed by the Vision, Objectives and Spatial Strategy in the GMSF 2019, and was used to guide the selection of sites for development within the green belt. A key objective for the process was to demonstrate a clear, consistent and transparent approach to the selection of sites in the GMSF.

1.1.2 The following stages set out the process used to identify the proposed allocations in the GMSF:



1.1.3 Stage One relates to land which is outside of the existing urban area but which is not in the green belt. This includes land which has been identified in Local Authority Local Plans as safeguarded land and/or protected open land (POL). This land is considered to be sequentially preferable to green belt. If stage one does not identify sufficient land to meet the need then it will be necessary to consider sites which are currently in the green belt as part of Stage two.

1.1.4 Stage Two is the identification of broad “Areas of Search” based on the Site Selection Criteria within which call for sites could be assessed. The Site Selection criteria reflect the priorities of the GMSF Spatial Strategy and objectives. The broad Areas of Search approach was chosen because of the volume of call for sites submitted and therefore it was necessary to undertake an initial high level sift to identify only those sites with the potential to meet the GMSF strategy. Sites which did not fall within an Area of Search were not considered to meet the strategy and were therefore excluded from the Site Selection process and not subject to any further assessment.

1.1.5 Based on the GMSF Spatial Strategy, plan objectives and guidance in the NPPF on green belt release, seven Site Selection Criteria were developed to identify the most sustainable sites in the green belt.

- Criterion 1 – Land which has been previously developed and/or land which is well served by public transport.
- Criterion 2 – Land that is able to take advantage of the key assets and opportunities that genuinely distinguish Greater Manchester from its competitors.
- Criterion 3 – Land that can maximise existing economic opportunities which have significant capacity to deliver transformational change and / or boost the competitiveness and connectivity of Greater Manchester and genuinely deliver inclusive growth.
- Criterion 4 – Land within 800 metres of a main town centre boundary or 800m from the other town centres' centroids.
- Criterion 5 – Land which would have a direct significant impact on delivering urban regeneration.
- Criterion 6 – Land where transport investment (by the developer) and the creation of significant new demand (through appropriate development densities), would support the delivery of long-term viable sustainable travel options and deliver significant wider community benefits.
- Criterion 7 – Land that would deliver significant local benefits by addressing a major local problem/issue.

1.1.6 Stage Three is an assessment of the sites within the identified Areas of Search to determine whether development in the Areas of Search would be appropriate, weighing the likely benefits against key planning constraints.

1.1.7 Stage four of the assessment identified proposed allocations within the Areas of Search. These Areas of Search were those which were considered to have no other significant constraints precluding development. Because the Areas of Search were derived from the Site Selection Criteria, it is considered that allocations within them represent the best fit for delivering the GMSF Spatial Strategy.

1.1.8 The Locality Assessments are not proposed to take the place of Transport Assessments (TA) which are a required part of individual Planning Applications. The Locality Assessments are intended to give a high-level assessment of how the site may impact on the surrounding transport network, in the absence of any detailed proposals for the configuration and phasing of a site. As such, they are intended to

highlight any significant 'show stoppers' that would suggest the site was not suitable for further consideration.

2.2 Greater Manchester Accessibility Levels

1.2.1 In order to support analysis of public transport accessibility and to assist in service development, TfGM has developed the [Greater Manchester Accessibility Levels \(GMAL\)](#) model, which provides a detailed and accurate measure of accessibility for any given location in the City Region for public transport (bus, rail and Metrolink), as well as flexible transport services such as Local Link.

1.2.2 GMAL provides a score of a location of between 1 to 8, where 1 represents the lowest level of accessibility and 8 represents the highest.

1.2.3 The GMAL measure reflects:

- Walking time from the point-of interest to the public transport access points;
- The number of services (bus, Metrolink and Rail) available within the catchment;
- The level of service at the public transport access points - i.e. average waiting time; and
- The operating areas of Local Link (flexible transport) services.

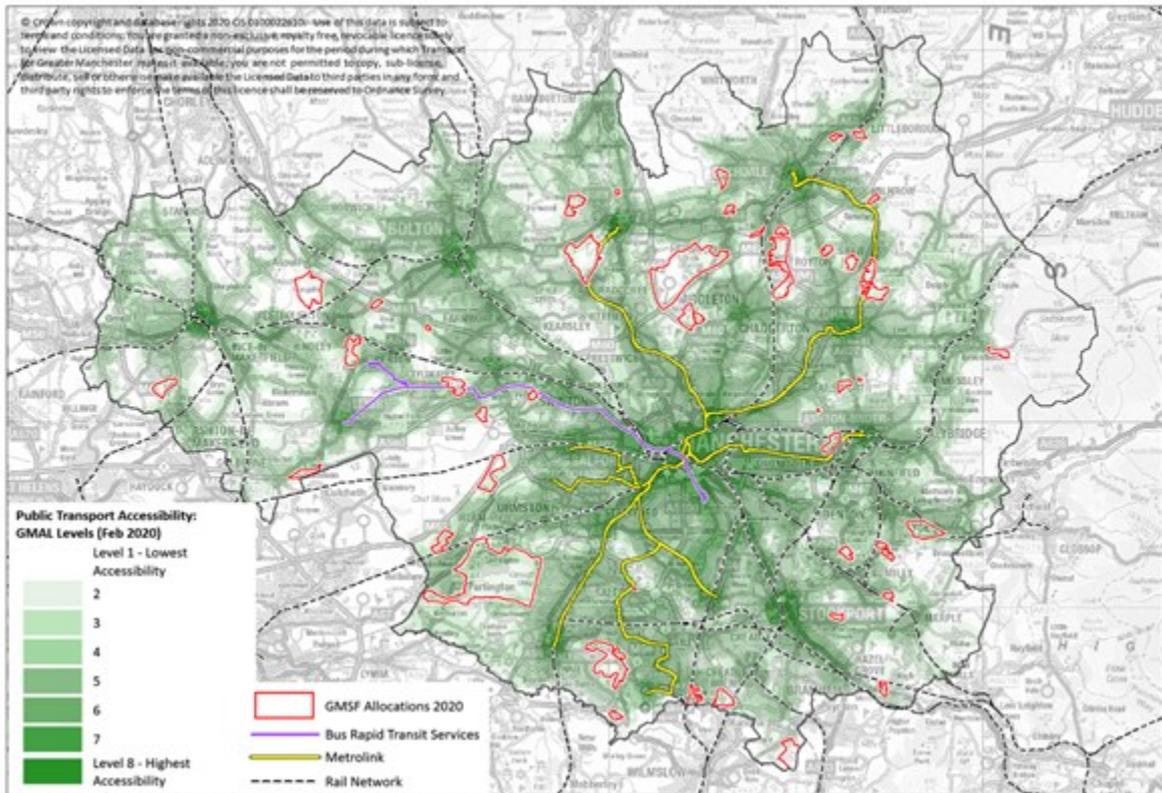
1.2.4 It does not consider:

- The speed or utility of accessible services;
- Crowding, including the ability to board services; or,
- Ease of interchange.

1.2.5 The map below displays the public transport accessibility of allocations within the Greater Manchester Spatial Framework. A representation of the Rail, Metrolink (including the Trafford Park Line completed in March 2020) and Bus Rapid Transit (Vantage bus services) corridors are provided for reference, as well as an indication of public transport accessibility through GMAL.

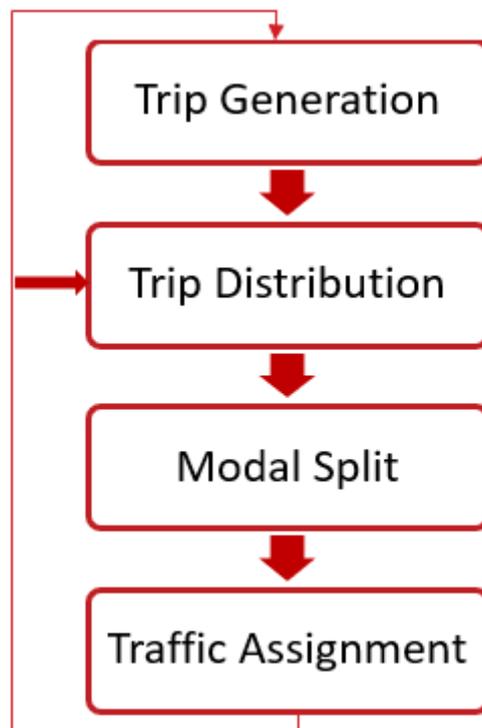
1.2.6 This accessibility data should be considered correct as of February 2020, providing a stable representation of the public transport network before changes in services associated with Covid-19. Since March 2020, public transport services have been under continuous review subject to the requirements of demand, social distancing

and funding. There have been a range of changes made regarding service frequencies across public transport networks, and while there was an initial reduction in services, much of this has now been restored, and this would still represent the areas best served by public transport within a stable service pattern.



3. Approach to Strategic Modelling

2.1 The GMSF Locality Assessments have been produced using data provided from TfGM's Variable Demand Model (GMVDM). This model is a mathematical representation of the transport network, which works by determining all of the origins and destinations of trips within a given area, matching these two together in order to generate a set of journeys, assigning these journeys to a mode (for example, car, bus, or cycling) and then assigning these trips to a route. The model runs numerous 'loops' in order to identify the best path (by generalised cost). This approach is summarised in the diagram below.



2.2 For this project, SYSTRA updated the model in order to produce a number of different scenarios to permit comparison and evaluation.

2.3 TfGM provided the Base Model to SYSTRA representing how the transport network operates at present (in 2017). SYSTRA made some refinements to the Base Model to add detail in the vicinity of some allocations. GMVDM is a strategic model and, as such, does have limitations in terms of investigating localised transport issues.

2.4 SYSTRA then produced a Reference Scenario, including the Existing Land Supply and committed transport infrastructure for two assessment years – 2025 and 2040. This facilitated an understanding of how the transport network was likely to operate in

the future, with the existing land supply identified in the GMSF, but without the introduction of the Allocations proposed in the plan.

- 2.5 Future trip generation to/from the site (i.e. how many people and vehicles will enter or leave the site) was estimated by applying a set of Greater Manchester-wide trip rates derived from an industry database known as TRICS (Trip Rate Information Computer System) to the agreed development quantum for each site. TRICS is a national system for trip generation analysis which allows users to establish potential levels of trip generation for a wide range of development types and scenarios. Trip rates were based on the Trafford Park Metrolink business case and were given for three periods, AM(0700-1000), Inter-Peak (1000-1600) and PM (1600-1900), different rates were also used for town centre and out-of-centre areas. Where Office or Industry and Warehouse was a part of the land use mix, floorspace was converted into a number of jobs, using densities derived from the Homes and Community Agency Employment Density Guide.
- 2.6 The distribution of trips (i.e. where they are going to or coming from) was derived by selecting nearby zones with similar land use characteristics as a proxy and using the existing distribution in the model.
- 2.7 In order to assess the cumulative impact of Greater Manchester allocations on the network, two test model scenarios were undertaken, a 'constrained' and 'high side' assessment. The constrained forecasts could reduce the number of future highway trips due to congestion on the highway network. This constraining process is undertaken by the GMVDM.
- 2.8 In simple terms, the GMVDM takes the unconstrained input demand and adjusts it to reflect changes in the costs of travel over time, due to:
- increased congestion due to the underlying increase in car trips forecast by the National Trip End Model (NTEM) a UK wide forecast of population, employment, car ownership and trip rates, produced by the Department for Transport
 - the inclusion of significant new developments causing additional local congestion
 - changes in values of time and vehicle operating costs
 - changes in public transport fares

- introduction of new public transport services or changes to journeys times / headways for existing services
- introduction of new road infrastructure

2.9 The model adjusts the input demand based on how the cost of travel changes from the base year to the future. For example, for a shopping trip undertaken by car which becomes more congested in future, changes might be:

- travel via a different route
- travel via a different mode, e.g. walk/cycle, bus, Metrolink
- travel to some different shops
- travel at a different time of day
- some combination of the above

2.10 The 'standard' development planning approach would generally not assume that future highway trips are constrained by congestion on the highway network. Discussions between SYSTRA and TfGM pointed towards a need to also look at such a 'high-side' scenario with the GMSF development scenario which does not take account of future congestion on the road network.

2.11 The outputs of these four Test Cases ("GMSF Constrained" and "GMSF High Side", for both 2025 and 2040) were used to assess and mitigate the impact of the GMSF Allocations on the Greater Manchester transport network.

2.12 Further iterations of the above process were necessary in the case of some sites. When the process was completed, a comparison was made of the input TRICS trip rates and the output GMVDM development traffic flows, to confirm that both were broadly comparable.

4. Approach to Technical Analysis

4.1 Background

3.1.1 For each of the Site Allocations originally examined, SYSTRA worked with representatives of the ten Greater Manchester Local Authorities, TfGM and site promoters to identify key parts of the transport network (e.g. key road links and

junctions) likely to be impacted by the site. This was achieved by a combination of both professional judgement and local knowledge.

- 3.1.2 In almost all cases the junctions in a road network reach capacity before the road links. Hence, much of the analysis focused on the identified critical junctions. For each of these, a local junction model was built which replicated the current operation of the junction. Signalised junctions were assessed in detail using industry-standard modelling software 'LINSIG Version 3'. Where possible, traffic signal information (i.e. signal phasing and timings) and lane geometry (alignment, profile and lane position) were provided by TfGM to ensure that the local junction models reflected (as far as possible), the operation of the junctions on the ground. 'Junctions 9' software was used to assess priority and roundabout junctions.
- 3.1.3 Junction performance was tested for the "Reference", "GMSF Constrained" and "GMSF High Side" scenarios for both 2025 and 2040. Site traffic impacts were measured relative to the Reference scenario. Where these impacts were considered to be significant, transport mitigation schemes were developed to address these. Through discussions with TfGM and the Combined Authority, it was agreed that where mitigation was required, it should mitigate the impacts back to the Reference Case scenario – i.e. the allocations should mitigate their own cumulative impact rather than seek to mitigate the impact of general traffic growth arising from the Existing Land Supply. It should be noted that mitigating back to this level of operation may not mean that the junction operates within capacity by 2040.

4.2 Approach to identifying Public Transport schemes

- 3.2.1 Public transport interventions have been identified which could support non-car trips to and from the draft Allocation. In some instances sites have been proposed close to current or planned Metrolink stops or current rail stations, and for a majority of sites the introduction of new or extended bus services have been proposed and outline costs developed.
- 3.2.2 In order to develop these proposals, SYSTRA Ltd's bus service experts and TfGM's Operational Planning team held a workshop to identify potential new and improved services for each site, including any existing proposals identified during the early stages of the planning process. The identified services were then defined in more

detail to understand the likely catchments and patronage levels. Patronage was based on TRICS outputs moderated in line with the actual levels of services proposed (e.g. slow and/or low frequency services are unlikely to achieve the patronage implied by the raw TRICS outputs). The patronage forecasts were used to estimate the likely revenue levels to be generated by the new or improved bus service associated with each site.

- 3.2.3 Services were also costed using detailed costing information available to TfGM through its specification of current socially necessary bus services, to establish whether they could operate without subsidy, and, where subsidy was likely to be necessary, to understand the likely cost per passenger. Services with an unacceptably high cost per passenger subsidy were reviewed in order to understand if any changes could be made that would reduce the subsidy, which led to a reduction in the specification of some services.
- 3.2.4 Services which, following review, still had an unacceptably high cost per passenger subsidy were deemed to be unviable and were not included in the Locality Assessments.
- 3.2.5 It should be noted that the working environment for buses is likely to be substantially different in the future, and this exercise was intended to be indicative of the type of bus service that may be possible when an Allocation is developed. The opportunity for bus service improvements will need to be reviewed at the time of submission of the planning application (within the Transport Assessment) as circumstances and opportunities for service improvement may have changed.

4.3 Mitigations and Scheme Development

- 3.3.1 A number of the site allocations have a body of pre-existing planning information associated with them. This body of work includes consideration of how they could best be linked into the transport network. Therefore, for some sites, there were pre-existing proposals for interventions in the form of link roads, new rail or Metrolink stations, or extensions to existing or proposed bus, cycle and walking routes. Where these schemes had a base level of detail (which would allow them to be coded into the model), they could be examined to consider the level of relief they provided to the traffic impacts. In other instances, it was for the Locality

Assessment technical teams to identify possible interventions and off-site mitigations. Typical local mitigations that were considered included:

- priority junctions (both new priority junctions and modification of existing junctions)
- signalised junctions (both new signalised junctions, modification of existing signalised junctions and conversion of priority junctions to signalised arrangement)
- roundabouts (both mini and standard, modification of existing roundabouts and signalisation of standard roundabouts)
- carriageway construction (single and dual carriageway)
- installation of pedestrian / cycle crossings (pelican, toucan, puffin and zebra).

3.3.2 In addition, the team considered the introduction of new bus services, extensions to or increases in frequency for existing bus services, and the possible introduction of Demand Responsive Transport.

3.3.3 In parallel to the identification and costing of local mitigations, a costing exercise was undertaken to identify broad costs for each intervention to understand how these could be delivered and the extent to which they offered value for money. SYSTRA and other third-party consultants have pro-actively engaged with the Local Authorities and other stakeholders such as TfGM and Highways England throughout the assessment process and based on their inputs the list of transport interventions has been refined and consolidated.

3.3.4 In the case of certain allocations, it was necessary to undertake the process described above more than once. In the case of some larger and/or more complex sites, it was necessary to test the effectiveness of the identified mitigations via the GMVDM and to further check that traffic reassignment did not generate additional problems.

3.3.5 Each of the Locality Assessments has considered the full range of mitigations and interventions, from public transport, to highway schemes, to sustainable modes. Some of the sites allocated for development have proven to be more complex than others; due either to their size and composition, their proximity to other sites or their interaction with congested sections of the Strategic Road Network. In these instances, it has been necessary to complete several iterations of the process set out above. For example, mitigations developed for a site may not fully address the

issues identified, and further mitigations and/or reductions in development quantum have been considered in order to identify the correct level of scale. This has in some cases necessitated several rounds of strategic modelling.

3.3.6 In some instances, it was not possible to fully identify interventions which could suitably mitigate the impact of the site on the network. Where this is the case, this became a contributing factor in decisions to either reduce the scale or remove the site completely from the GMSF (Appendix 1 gives a full list of the final GMSF Allocations). In other instances, the proposed intervention made a contribution to mitigating the site, but could not fully ameliorate the impact. In these instances, care has been taken to ensure that the Allocation is not proposed for delivery in the early part of the Plan period, in order to allow further work to be done to improve the transport network, and ensure that the Allocation can be brought forward safely and sustainably.

3.3.7 Mitigations have been grouped in one of four categories depending on their size and significance:

Necessary strategic interventions

3.3.8 These comprise significant interventions that have potential to have strategic benefits – i.e. benefits to the wider network not just the local network. There is a consensus that the intervention is required to support the implementation of a specific site and that the site could not come forward without it

Supporting strategic interventions

3.3.9 These comprise significant interventions; similar in magnitude to those defined in the previous category. These interventions are considered highly desirable and may be required in order to deliver the GMSF at a Plan level but are not necessarily linked to the delivery of any one Allocation.

Necessary local interventions

3.3.10 These are essential for a site to come forward, but do not have a wider strategic impact on the transport network. They are comprised of three main types:

- Site Access – Direct connections between the external road network and the site.

- Local Mitigation – Local transport mitigation measures proposed to address direct impacts of the site. These might comprise road network improvements, localised public transport improvements and measures to support the use of active modes.
- SRN Mitigation – Highway mitigation measures specifically intended to address identified issues on the Strategic Road Network arising from an Allocation.

Supporting local interventions

- 3.3.11 Site Access, Local Mitigation and SRN mitigation which are considered highly desirable but are not essential to the delivery of any one Allocation.
- 3.3.12 It is important to note that the interventions developed are intended to demonstrate only that significant transport impacts of the Allocation can be appropriately ameliorated. As such they are indicative only and are not intended to act as a definitive proposal for the mitigation of any Allocation, which would be developed as part of a Transport Assessment submitted as part of a planning application at a later date.
- 3.3.13 All of the interventions set out in the Locality Assessments are included in Greater Manchester’s Five Year Transport Delivery Plan (or are covered within the associated Local Implementation Plans (LIP) for each local authority). This sets out those transport schemes which will be implemented or developed further across the next five-years in order to deliver on Greater Manchester’s wider economic, social and environmental objectives for transport as set out in 2040 Transport Strategy.
- 3.3.14 The focus of the main Transport Delivery Plan is on those GMSF schemes that have strategic benefits, while the LIP documents enable the local interventions to be incorporated into the local sustainable transport and highway programmes.
- 3.3.15 In all cases, we would expect significant developer funding to enable the delivery of both the strategic and local schemes, and where appropriate other sources of public funding will be sought to help ensure delivery over the plan period. Funding and delivery priorities of the Delivery Plan, over the next 3-5 years, will be reflected in the Greater Manchester Infrastructure Programme (GMIP).

3.3.16 Further iterations of the Delivery Plan will be published at regular intervals, and as sites come forward for development, we would expect to see interventions necessary to ensure new Allocations can be delivered sustainably to be reflected in those iterations. TfGM, the Local Authorities, Highway England and site promoters will work together to ensure that schemes which are brought forward support the City Region's commitment to the Right Mix vision and the ambition to enable more people to walk, cycle and use public transport.

5. Conclusion

4.2 The completion of Locality Assessments on the proposed GMSF Allocations has ensured that each site has been subject to a thorough, robust and consistent evaluation of its likely contribution to transport impacts in Greater Manchester. The sites that have been selected for inclusion in the latest version of the GMSF have been found to be suitable from a transport perspective, and satisfy the requirements of National Planning Policy Framework in that they do not place an unacceptable impact on highway safety or severe impact on the road network. Where necessary, illustrative mitigation schemes have been developed, and their effectiveness in reducing traffic impacts has been demonstrated. Those schemes which have a strategic benefit and are likely to be needed in the next five-year period have been referenced in Our Five Year Transport Delivery Plan and form part of GMIP.

4.3 Nonetheless, it is clear that for some Allocations there is further work to be done in order to develop a solution that fully mitigates the site's impact on the transport network. In these instances care has been taken to ensure that the Allocation is not identified for delivery in the first five years of the Plan, to enable more work to be undertaken to ensure that the site can be delivered in a safe and sustainable matter at a later point in time.

6. GMSF Allocations List

Local Authority	2019 Ref	2019 Title	2020 Ref	2020 Title
Cross Boundary	GMA01.1	Northern Gateway Heywood Pilsworth	GMA1.1	Northern Gateway Heywood Pilsworth
Cross Boundary	GMA01.2	Northern Gateway Simister and Bowlee	GMA1.2	Northern Gateway Simister and Bowlee
Cross Boundary	GMA01.3	Whitefield	Withdrawn	Withdrawn
Cross Boundary	GMA02	Stakehill	GMA2	Stakehill
Cross Boundary	GMA03	Kingsway South	Withdrawn	Withdrawn
Bolton	GMA04	Bewshill Farm	GMA4	Bewshill Farm
Bolton	GMA05	Chequerbent North	GMA5	Chequerbent North
Bolton	GMA06	West of Wingates	GMA6	West of Wingates
Bury	GMA07	Elton Reservoir	GMA7	Elton Reservoir
Bury	GMA08	Seedfield	GMA8	Seedfield
Bury	GMA09	Walshaw	GMA9	Walshaw
Manchester	GMA10	Global Logistics	GMA10	Global Logistics
Manchester	GMA11	Roundthorn MediPark Extension	GMA3.1	Roundthorn MediPark Extension
Manchester	GMA12	Southwick Park	GMA11	Southwick Park
Oldham	GMA13	Ashton Road Corridor	GMA18	Land south of Coal Pit Lane (Ashton Road)
Oldham	GMA14	Beal Valley	GMA12	Beal Valley

Local Authority	2019 Ref	2019 Title	2020 Ref	2020 Title
Oldham	GMA15	Broadbent Moss	GMA14	Broadbent Moss
Oldham	GMA16	Cowlshaw	GMA16	Cowlshaw
Oldham	GMA17	Hanging Chadder	GMA17	Hanging Chadder
Oldham	GMA18	Robert Fletchers	GMA15	Chew Brook Vale (Robert Fletchers)
Oldham	GMA19	South of Rosary Road	GMA19	South of Rosary Road
Oldham	GMA20	Spinners Way	Withdrawn	Withdrawn
Oldham	GMA21	Thornham Old Road	Withdrawn	Withdrawn
Oldham	GMA22	Woodhouses	GMA13	Bottom Field Farm (Woodhouses)
Rochdale	GMA23	Bamford and Norden	GMA20	Bamford and Norden
Rochdale	GMA24	Castleton Sidings	GMA21	Castleton Sidings
Rochdale	GMA25	Crimble Mill	GMA22	Crimble Mill
Rochdale	GMA26	Land north of Smithy Bridge	GMA23	Land north of Smithy Bridge
Rochdale	GMA27	Newhey Quarry	GMA24	Newhey Quarry
Rochdale	GMA28	Roch Valley	GMA25	Roch Valley
Rochdale	GMA29	Trows Farm	GMA26	Trows Farm
Salford	GMA30	Land at Hazelhurst Farm	GMA27	Land at Hazelhurst Farm

Local Authority	2019 Ref	2019 Title	2020 Ref	2020 Title
Salford	GMA31	East of Boothstown	GMA28	East of Boothstown
Salford	GMA32	North of Irlam Station	GMA29	North of Irlam Station
Salford	GMA33	Port Salford Extension	GMA30	Port Salford Extension
Stockport	GMA34	Bredbury Park Extension	GMA31	Bredbury Park Extension
Stockport	GMA35	Former Offerton High School	GMA32	Former Offerton High School
Stockport	GMA36	Gravel Bank Road/Unity Mill	Withdrawn	Withdrawn
Stockport	GMA37	Heald Green	GMA33	Heald Green 1 (West)
Stockport	GMA38	High Lane	GMA35	High Lane
Stockport	GMA39	Hyde Bank Meadows	GMA36	Hyde Bank Meadows
Stockport	GMA40	Griffen Farm/Stanley Green	GMA34	Heald Green 2 (East)
Stockport	GMA41	Woodford Aerodrome	GMA37	Woodford Aerodrome
Tameside	GMA42	Ashton Moss West	GMA38	Ashton Moss West
Tameside	GMA43	Godley Green Garden Village	GMA39	Godley Green Garden Village
Tameside	GMA44	South of Hyde	GMA40	South of Hyde

Local Authority	2019 Ref	2019 Title	2020 Ref	2020 Title
Trafford	GMA45	New Carrington	GMA41	New Carrington
Trafford	GMA46	Timperley Wedge	GMA3.2	Timperley Wedge
Wigan	GMA47	Land South of Pennington	Withdrawn	Withdrawn
Wigan	GMA48	M6 Jctn 25	GMA42	M6 Junction 25
Wigan	GMA49	North of Mosley Common	GMA43	North of Mosley Common
Wigan	GMA50	Pocket Nook	GMA44	Pocket Nook
Wigan	GMA51	West of Gibfield	GMA45	West of Gibfield

Greater Manchester Spatial Framework

Locality Assessment:

Beal Valley (GMA 12)

Publication Version 2: November 2020

Identification Table	
Client	Oldham Council
Allocation	Beal Valley
File name	GMA12 Oldham - Beal Valley LA 021020
Reference number	GMA12 108724

Approval					
Version	Role	Name	Position	Date	Modifications
0	Author	Ruairidh MacVeigh	Consultant	25/07/2020	Base report
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Allocation Data	
Allocation Reference No.	GMA12
Allocation Name	Beal Valley
Authority	Oldham Council
Ward	Shaw
Modelling Analysis	620 Dwellings
Policy Allocation Proposal	482 Dwellings (GMSF Plan Period)
Allocation Timescale	0-5 years <input type="checkbox"/> 6-15 years <input checked="" type="checkbox"/> 16 + years <input type="checkbox"/>

Glossary

“2025 GMSF Constrained” - is the 2025 forecast case in which the model adjusts the input demand based on how the cost of travel changes from the base year to the future. For example, for a shopping trip undertaken by car which becomes more congested in future, changes might be travel via a different route, mode, location or time of day.

“2040 GMSF Constrained” - as above, but for a 2040 forecast year

“2025 GMSF High-Side” - is the 2025 forecast case in which the model does not adjust the input demand based on how the cost of travel changes. In this scenario congestion does not lead to a reassignment of traffic, and therefore road traffic flow will generally be higher.

“2040 GMSF High-Side” - as above, but for a 2040 forecast year

“2025 Reference Case” - is the Do Minimum scenario which includes delivery of all transport schemes already committed and assumed to be completed by 2025

“2040 Reference Case” - is the Do Minimum scenario which includes delivery of all transport schemes already committed and assumed to be completed by 2040

AADT - Annual average daily traffic, is a measure used in transportation planning to quantify how busy the road is

Bee Network - is a proposal for Greater Manchester to become the very first city-region in the UK to have a fully joined-up cycling and walking network: the most comprehensive in Britain covering 1,800 miles.

Bus Rapid Transit - is a bus-based public transport system designed to improve capacity and reliability relative to a conventional bus system. Typically, a BRT system includes roadways that are dedicated to buses, and gives priority to buses at junctions where buses may interact with other traffic

Existing Land Supply - these are allocations across the county that have been identified by each local planning authority across Greater Manchester and are available for development

Greater Manchester Variable Demand Model (GMVDM) - the multi-modal transport model for Greater Manchester. This transport model provides estimates of future year transport demand as well as the estimates of travel behaviour changes and new patterns that the Plan is likely to produce. These include

changes in choices of routes, travel mode, time of travel and changes in journey destinations for some activities such as work and shopping.

Local Road Network (LRN) - All other roads comprise the Local Road Network. The LRN is managed by the local highways authorities

National Trip End Model (NTEM) - is a Department for Transport forecast that ensures that measures of population, jobs and trips made by various mode are consistent across the whole of Great Britain.

Rapid transit services - refers to high frequency, high capacity metro style transport services including Metrolink and Bus Rapid Transit.

Strategic Road Network (SRN) - The Strategic Road Network comprises motorways and trunk roads, the most significant 'A' roads. The SRN is managed by Highways England.

"TfGM" - Transport for Greater Manchester, the Passenger Transport Executive for Greater Manchester

Urban Traffic Control (UTC) - is a specialist form of traffic management that, by coordinating traffic signals in a centralised location, minimises the impact of stop times on the road user.

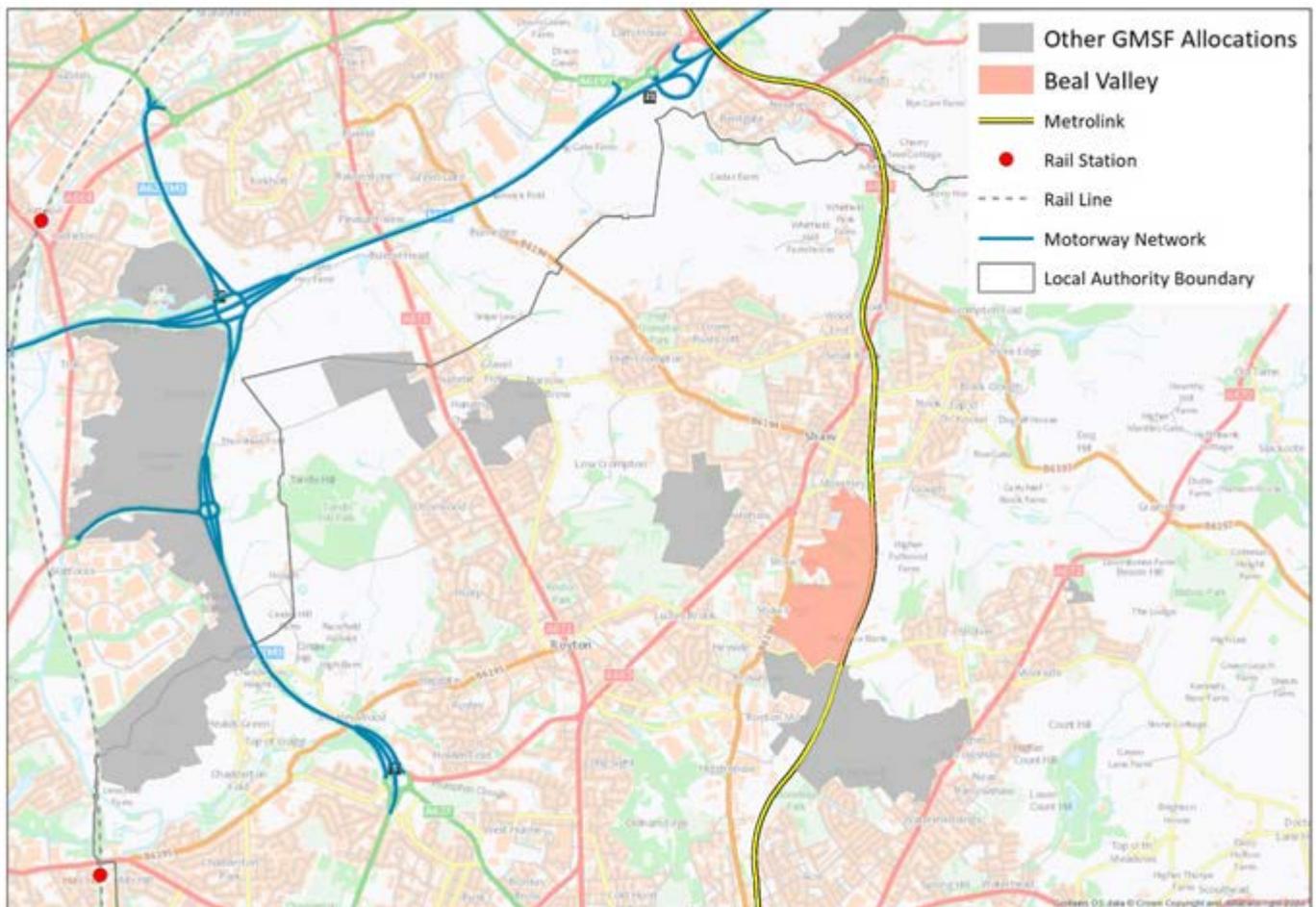
1. Allocation Location and Overview

- 1.1.1 This Locality Assessment (LA) is one of a series being prepared for proposed new allocations within Greater Manchester in order to confirm the potential impacts on both the local and strategic network, as well as identifying possible forms of mitigation or the promotion of sustainable alternatives to reduce this impact.
- 1.1.2 The full Beal Valley allocation is expected to comprise 482 dwellings within the GMSF plan. This buildout does not include two parcels in the northern part of the site (P & D Northern Steels and Duke Mill) which are already included in the baseline housing land supply figures.
- 1.1.3 As this locality assessment was being finalised, minor amendments were made to the final quantum of the Beal Valley allocation. These changes amount to a minor reduction in the assumed GMSF plan quantum of the allocation, in order to reflect the baseline housing supply which forms part of the site at Northern Steels and Duke Mill.
- 1.1.4 These amendments to the GMSF allocation quantum came too late to be reflected in the final round of modelling; as such modelling outlined within this Locality Assessment has been conducted at an assumed quantum of 620 dwellings. It is not expected that this will have a material impact on the mitigations proposed. This should be confirmed at a later date as part of the typical planning process.
- 1.1.5 This allocation is considered alongside the – Broadbent Moss allocation, which is located immediately to the south. The allocation is bounded by the Rochdale Metrolink Line of the Manchester Metrolink to the east, to the south by Bullcote Lane, and to the west and north by existing residential developments. The existing land use of the allocation is predominantly open land, although there are some remote farm buildings present.
- 1.1.6 No highway infrastructure is present within the allocation, however, access arrangements are expected to consist of an access to the west onto Heyside, and south onto Bullcote Lane. Heyside is a single-carriageway urban road with footpaths, streetlighting and a 30mph speed limit, while Bullcote Lane is an interurban single-carriageway road with no streetlighting or walking facilities, and a speed limit of 30mph.

- 1.1.7 The allocation lies within the 2011 Census mid-layer super output area of Oldham 003. The scale of residential development (620 homes) is approximately 10% of the existing number of households in the area (6,127).
- 1.1.8 For the purposes of the testing the impact of the allocation through the strategic model, a total of 620 dwellings have been assumed to be built out by 2040. The GM transport modelling suite has a 2040 forecast year, as such it uses 2040 trajectory data as proxy for 2037 full build-out, this is not considered to materially impact on the analysis or conclusions of this report.
- 1.1.9 All phasing plans information contained in this Locality Assessment is indicative only and has only been used to understand the likely intervention delivery timetable. Final trajectory information is contained in the GMSF Allocation Topic Paper.

Figure 1. Allocation Location – Beal Valley

Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.



2. Justification for Allocation Selection

- 2.1.1 The Site Selection process has been led by the 10 Greater Manchester Authorities, including Oldham Council, and provided the starting point for the investigation of the preferred sites through the Locality Assessments.
- 2.1.2 Detail of the Site Selection process including the criteria used to identify the sites, and how this was used to select the most sustainable sites is considered within the GMSF Spatial Strategy

3. Key Issues from Consultation

3.1.1 The Greater Manchester Plan for Homes, Jobs and Environment (Spatial Framework) consultation ran from 14th January to 18th March 2019. The comments made to the strategic allocation proposed at this location during the 2019 GMSF consultation relate to the following key transport themes; roads, public transport, air quality and active travel:

- Congestion is already an issue;
- The scale of development is of a concern from cumulative traffic impact perspective due to close geographic proximity of other proposed allocated development sites in the immediate local area;
- Concerned about traffic when cricket matches are on;
- Road surfaces are poor with existing traffic levels;
- Proposals will lead to increased road traffic accidents;
- A663 / Oldham Road is dangerous;
- Request for traffic and transport impact assessments;
- Sumner Street is narrow;
- Access from Oldham Road (opposite the Marches) looks impractical;
- Access from Oldham Road is a good idea;
- Road infrastructure needs bringing up to modern standards;
- Proposed link road to Beal Lane will result in loss of car parking spaces at the Metrolink;
- Proposed junction on Bullcote Lane and Bullcote Green is unpractical and dangerous. Children play on Bullcote Green estate. Junction includes an accident blind spot;
- Concept plan does not show where the access road continues. Plans are not detailed enough;
- Dangerous access to and from Manchester Road;
- B6194 Water Street – Bullcote Lane cannot be improved without loss of public houses, which are part of the social infrastructure;
- Spine road will come out onto Shaw Road, which is busy;
- Question how the new access road will be funded. Land is uneven, will be expensive and would involve cutting into the landscape;
- Concerned new car park will result in additional noise, traffic, pollution and lighting at the cricket club;

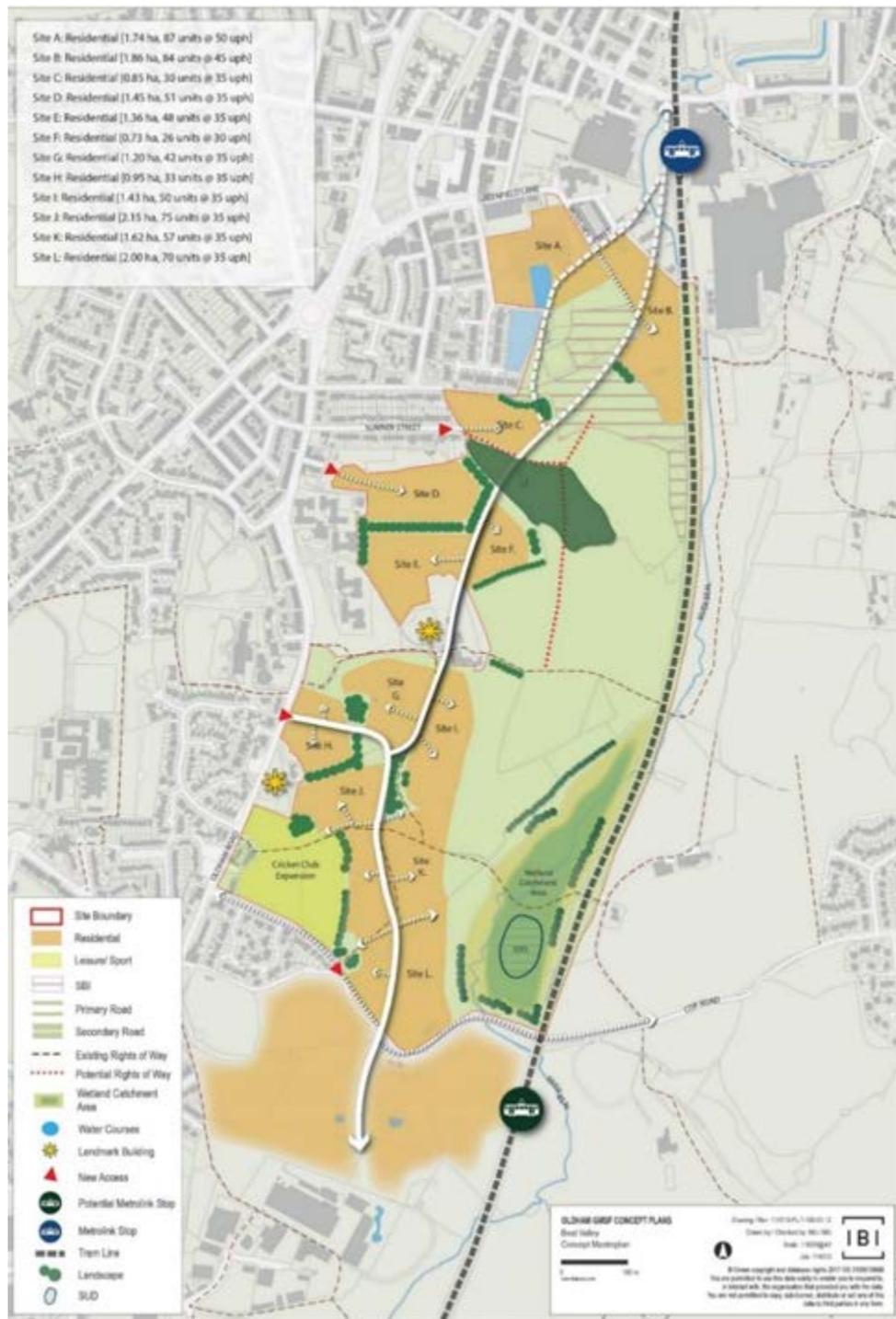
- Oppose additional Metrolink stops as they will make the journey time longer for those living further north of the proposed Metrolink stop. Question regarding who will pay for the new stop and associated infrastructure;
- Policy should be amended to say that land would be safeguarded for a potential Metrolink stop. Suggested text provided;
- Access to the Metrolink stop would be via a B road, which is unfit for traffic;
- Remote location of the Metrolink stop is a concern given issues with anti-social behaviour on the Oldham/ Rochdale line;
- We need compulsory school buses and walking to school, reduced travel fares to work etc; and
- People from Saddleworth also travel to Shaw Metrolink park and ride- increasing the pressure on infrastructure. Parking is inadequate.
- Oldham Council officers, as part of design development within workshops, identified that development would need to consider current high levels of congestion along Oldham Road and access issues on Bullcote Lane, as well as retention and improvement of access along Cop Road towards Moorside. Access to the north should be considered to increase connectivity to Shaw and reduce congestion in its centre. Access to western allocations should be limited through existing junctions.

4. Existing Network Conditions and Allocation Access

4.1 Vehicular Access

Figure 2. Indicative Concept Plan – Beal Valley.

Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.



- 4.1.1 Bullcote Lane/Cop Road is a single-lane, two-way interurban road that connects Shaw with Sholver, and runs across the southern boundary of the proposed allocation, and the northern boundary of the allocation. Bullcote Lane/Cop Road, as an interurban road, does not provide footpaths and has no street lighting, presenting a potential safety concern for pedestrians and cyclists on this road, compounded further by high hedgerows that bound the carriageway and therefore reduce visibility on corners. This road is subject to a 30mph speed limit.
- 4.1.2 Heyside is a single lane, two-way urban carriageway restricted to a 30mph speed limit (enforced by speed cameras) with multiple points of access to serve surrounding farms, dwellings and businesses. Heyside forms a main road corridor between Shaw and central Oldham, and passes along the western boundary of the allocation.
- 4.1.3 Fenton Street and Sumner Street are both two-way residential streets with footpaths, full street lighting and a 20mph speed limit. These roads also present carriageway width restrictions and on-street parking.
- 4.1.4 Beal Lane is a single lane, two-way carriageway urban road restricted to a 30mph speed limit with multiple points of access to serve surrounding dwellings and businesses. At the point of the proposed allocation access, Beal Lane crosses the Rochdale Metrolink Line at a signalised level crossing.

4.2 **Accidents and Collision Overview**

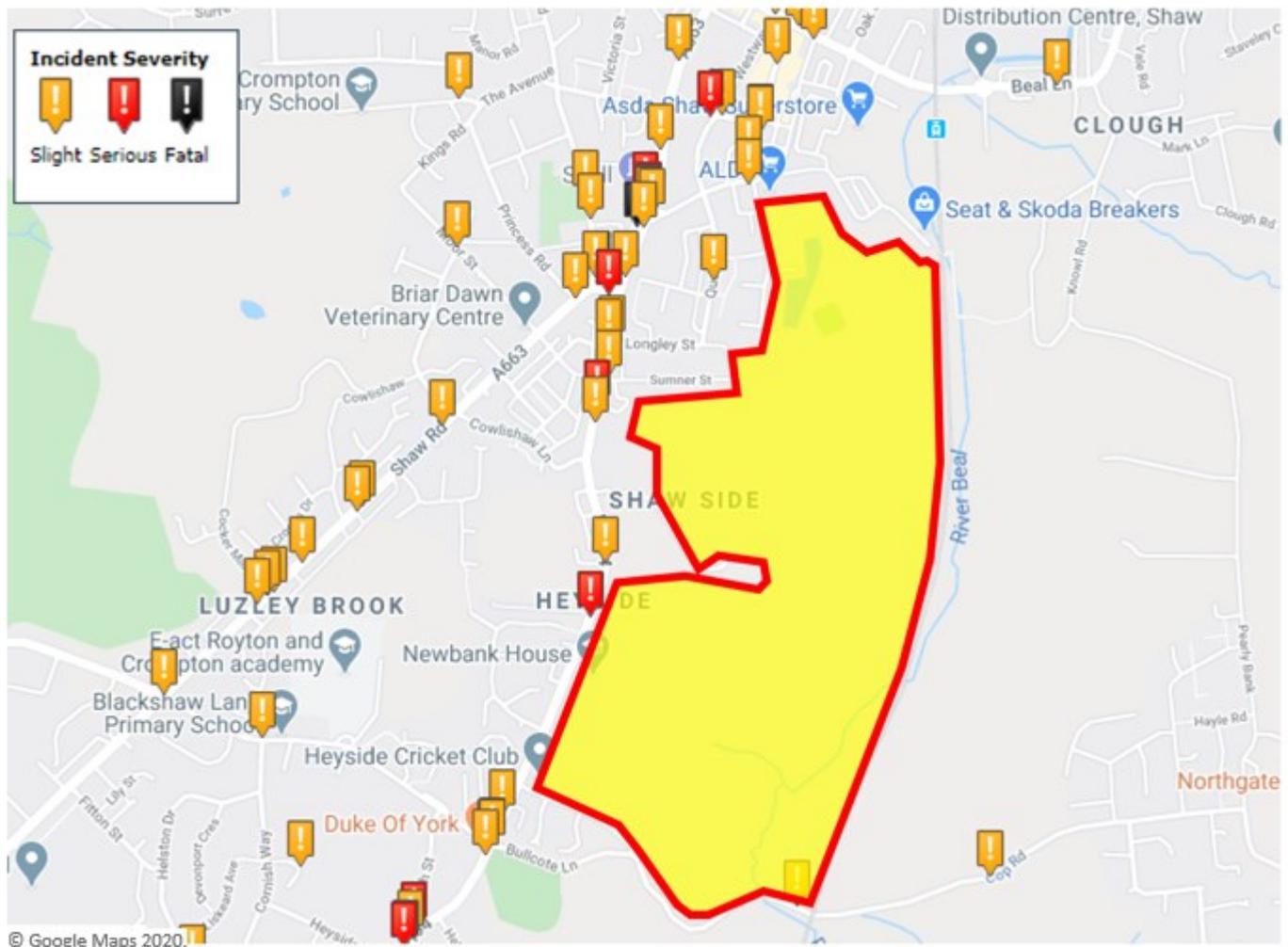
4.2.1 **Table 1** and **Figure 3** show the number of vehicle collisions over the last 5 years in a 1km area surrounding the – Beal Valley allocation. There have been a total of 59 accidents over the last 5 years with one fatal incident reported in September 2017.

Table 1. Collision data within 1km of allocation within the last 5 years

Fatal	Serious	Slight	Total
1	7	51	59

Figure 3. Map of collision data within 1km of the allocation within the last 5 years.

Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

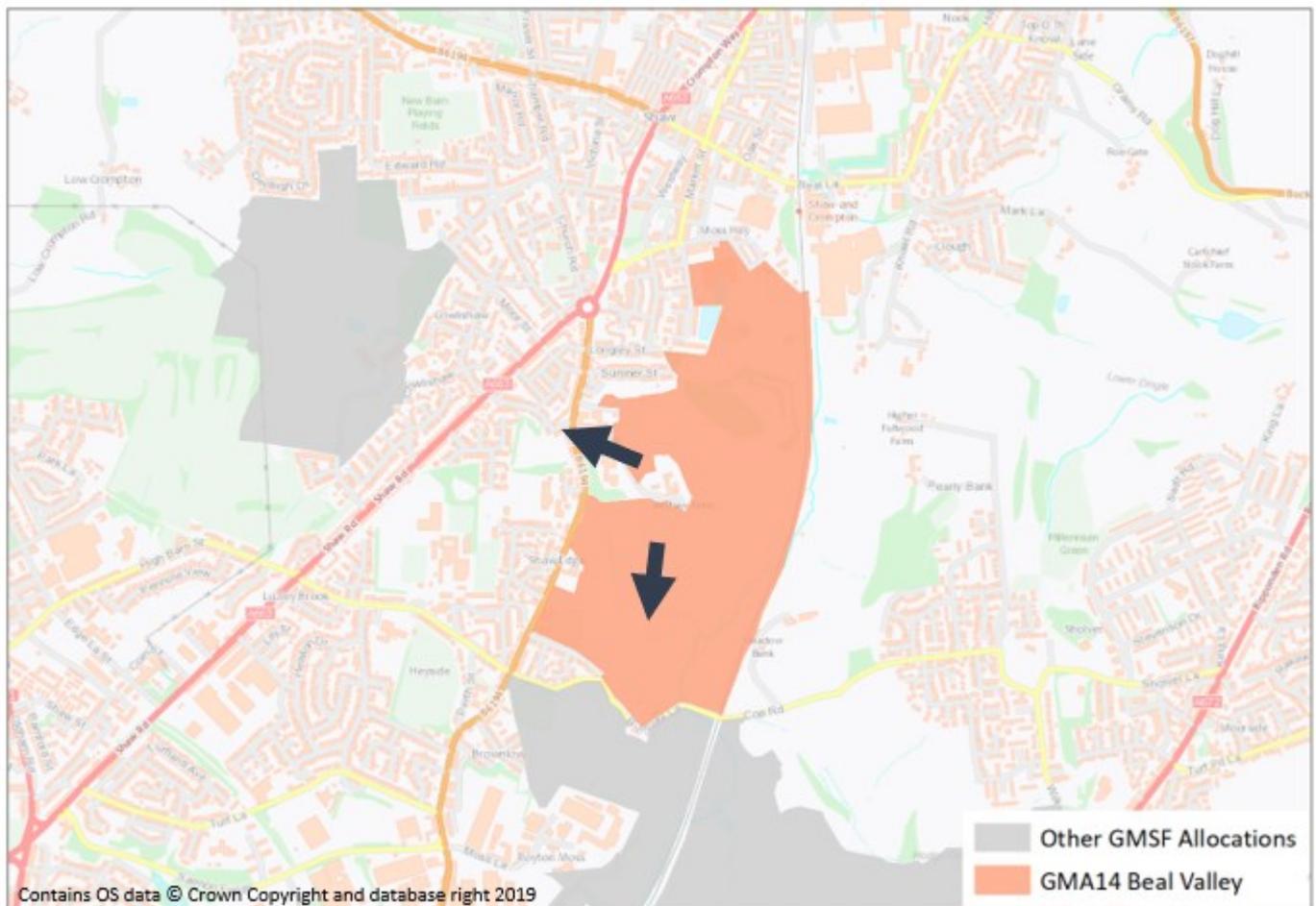


5. Proposed Access to the Allocation

Figure 4. Allocation Location with Access Arrangements.

Note: Since initial publication a number of allocations have undergone revision or withdrawal.

All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.



5.1.1 Based on the indicative concept plan (**Figure 2**) for the Beal Valley allocation, two vehicular access into the allocation have been considered comprising of an access, onto Heyside to the west, and one onto Bullcote Lane to the south.

5.1.2 As outlined within the concept plan, a third access was also considered to be delivered as part of the allocation's internal spine road that would connect to Beal Lane adjacent to Shaw & Crompton Metrolink stop. This access option has been identified to be difficult to deliver, and although

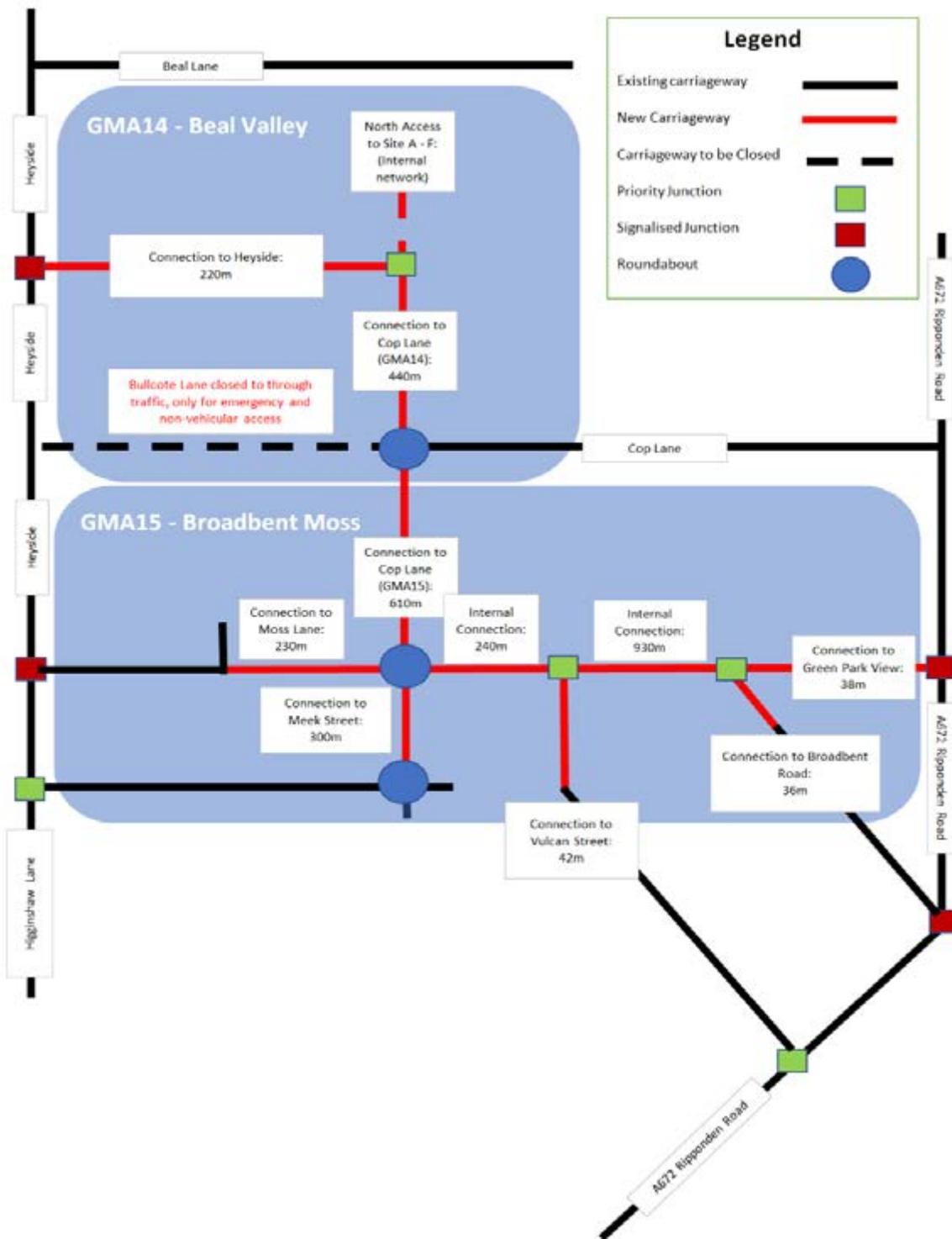
potentially desirable in transport terms longer term, has been assessed as not being necessary to support the allocation.

- 5.1.3 Access onto Heyside would consist of a three-arm signalised junction with a free-flow slip for left-turn traffic from the proposed allocation south towards central Oldham. In consideration of the nearby St Joseph's R C Primary School and its potential draw of students from the allocation, this proposed arrangement would also include signalised crossing facilities in the interest of pedestrian and cyclist safety.
- 5.1.4 Original considerations for access onto Heyside was to form a four-arm standard roundabout that would incorporate access into the adjacent St Joseph's R C Primary School, but this was discounted due to space constraints presented by surrounding properties and unfavourable local topography to the east of the Heyside carriageway as well as the relative lower priority such an option would have afforded to pedestrians.
- 5.1.5 Regarding access onto Bullcote Lane, this is to be considered in the context of the adjacent Broadbent Moss allocation, as this is to form part of a wider spine road that will create a new north/south corridor between the two developments. In this, the proposed access arrangements for the allocation should also be considered as potential access points for the allocation due to the interconnectivity between the two allocations, which includes proposed allocation accesses onto Heyside at Moss Lane and Meek Street, as well as direct connections east to Sholver via the A672 Ripponden Road at Green Park View and Broadbent Road.
- 5.1.6 A review of Bullcote Lane west of the proposed spine road has determined that the width of the carriageway, and existing traffic issues at its junction with Heyside has determined this route to be unsuitable as primary access for both the and allocations. It is therefore proposed that Bullcote Lane be closed to through traffic to the west of the new spine road, with access to Heyside instead being achieved via the new Heyside access, and the Moss Lane and Meek Street accesses.
- 5.1.7 Cop Road would remain open to traffic bound for Sholver, and would connect to the spine road at a three-arm standard roundabout, while a new three-arm priority junction north of the roundabout would connect to Bullcote Lane to form as a pedestrian and cycle route (**Appendix 2**). This second access point will also serve a secondary role as an emergency access, offering

alternate routing for allocation trips and emergency vehicles in the event the primary access is obstructed.

- 5.1.8 Though Fenton Street and Sumner Street directly bound the site, a review of the carriageway widths and the presence of on-street parking consider that these roads are unsuitable for use as either primary or secondary access. However, both Fenton Street and Sumner Street could be opened up for pedestrian and cycle access.
- 5.1.9 As part of the Locality Assessment the proposed dimensions potential northern link through to Beal Lane were considered with a broad route identified. This route would run through lands within and beyond the allocation including that which currently forms a car breaker's yard and other areas of open land including areas of green space surrounding the River Beal, which would need to be bridged twice . At its northern extent the route would run parallel to the Metro link to meet a new junction onto Beal Lane which would need careful design to consider the interactions with the adjacent signalling for the Metro level crossing, .
- 5.1.10 Based on the required alignment and necessary structures and proximity to the Metrolink level crossing, it is foreseen that delivery of this opportunity is constrained. As such it cannot be certain, based on the level of detail available for consideration through the Locality Assessment, that it will prove feasible to deliver this connection.. Consequently while the route for a potential northern link through to Beal Lane is not foreseen to come forward initially, and may or may not ultimately be delivered, the route should be protected to allow for future delivery.
- 5.1.11 It should be noted that further to the indicative concept plan illustrated in **Figure 2**, other concept plans have been supplied by the promotor f part of the allocation that consider alternate arrangements for both the land parcels and the internal road network (included in **Appendix 7**). This alternate concept plan, however, does not deliver the housing density required as part of this GMSF study, and therefore this report considers a higher figure and wider scope of lands, including those outside of the developer's control.
- 5.1.12 Access arrangements for the allocation (in context with the allocation) are further illustrated in **Figure 5**:

Figure 5. Indicative and Accesses and principal internal road network



6. Multi-modal accessibility

6.1 Overview

- 6.1.1 The current accessibility of the Beal Valley allocation using Greater Manchester's Accessibility Level model (GMAL) has been identified as comprising areas of level 2 and 3 for accessibility, giving it a lower rating.
- 6.1.2 Greater Manchester Accessibility Levels (GMAL) are a detailed and accurate measure of the accessibility of a point to both the conventional public transport network (i.e. bus, Metrolink and rail) and Greater Manchester's Local Link (flexible transport service), taking into account walk access time and service availability. The method is essentially a way of measuring the density of the public transport provision at any location within the Greater Manchester region. The GMAL methodology is derived from the Public Transport Accessibility Level (PTAL) approach developed by the London Borough of Hammersmith and Fulham but modified to consider flexible transport service provision (Local Link) and to reflect local service provision levels (different accessibility levels) within Greater Manchester.
- 6.1.3 The accessibility index score is categorized into eight levels, 1 to 8, where level 8 represents a high level of accessibility and level 1 a low level of accessibility.

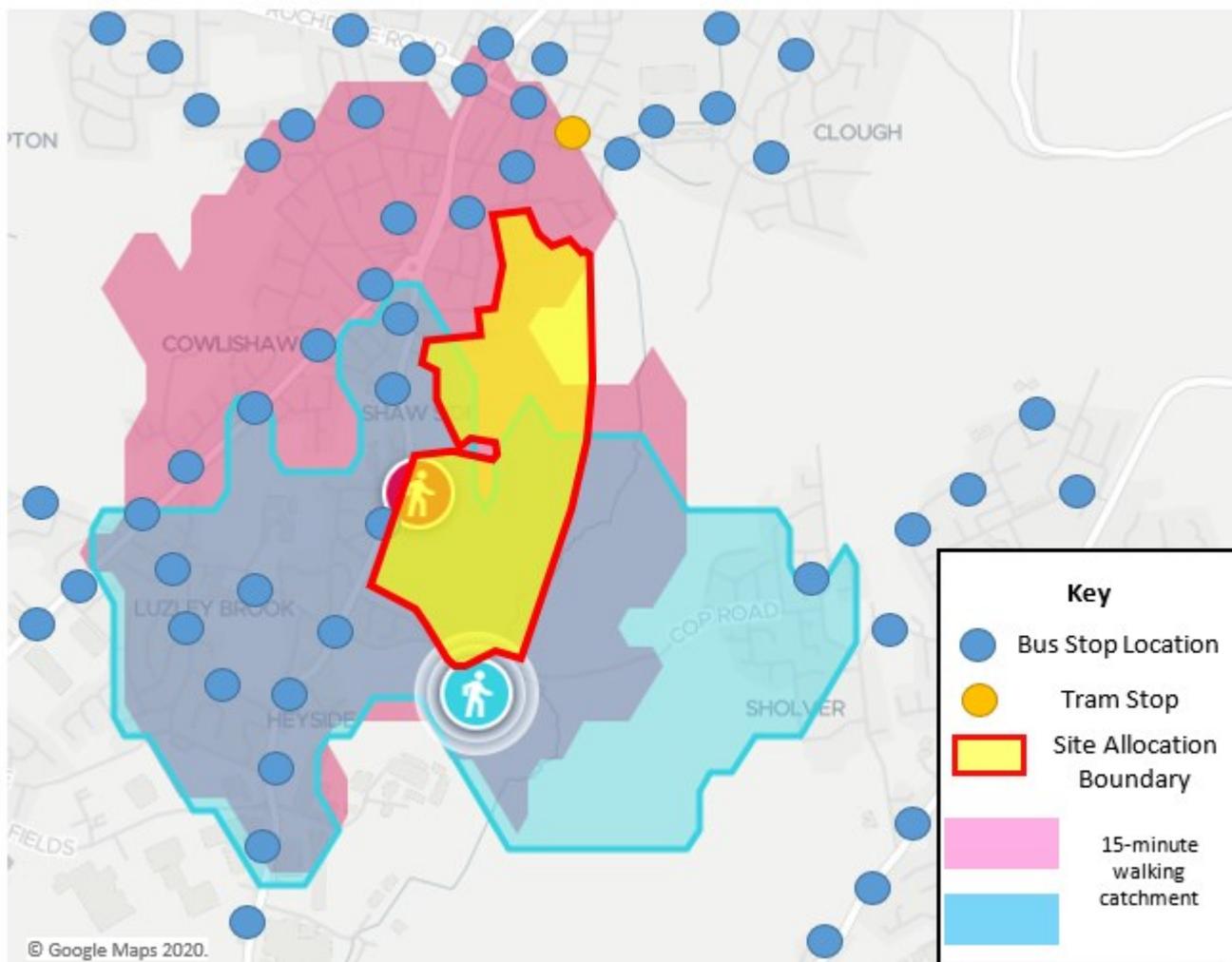
6.2 Walking and Cycling

- 6.2.1 The main local destinations likely to generate walking and cycling trips are Oldham Town Centre to the south of the allocation (4km) the local shops at Shaw/Crompton (1.2km), local shops at Royton (2.2km), E-act Royton and Crompton academy (1.2km), Crompton Primary School (1.3km), and St Joseph's R C Primary School (0.1km).
- 6.2.2 While the B6194 (Heyside) provides footpaths on both sides of the carriageway, footpaths on the southbound carriageway are narrower than standard width, while those on the northbound carriageway are standard width. Although Heyside provides full streetlighting, there are no crossings or facilities for cyclists. Though SFA may resolve some pedestrian/cycle issues, localised improvements may be required in the vicinity of the new access.

- 6.2.3 Bullcote Lane / Cop Road provides no walking or cycling facilities, and thus presents a significant safety concern for pedestrian and cycle trips between Shaw and Sholver.
- 6.2.4 The site benefits from being located on a proposed section of the Bee Network, which intends to improve cycling and walking facilities and infrastructure along primary routes within the Manchester area. With regard to the allocation, a section of the Bee Network passes across the proposed allocation along what is currently Bullcote Lane/Cop Road between Shaw and Sholver, and should therefore be integrated into this site so as to provide suitable pedestrian and cycle access towards both Sholver and Shaw
- 6.2.5 There are multiple Public Rights of Way (PRoW) that cross the proposed allocation. This, therefore, allows for easy integration of these routes into the allocation in order to provide dedicated pedestrian and cycle routes away from traffic.
- 6.2.6 **Figure 6** shows the current level of accessibility for the Beal Valley allocation using the Travel Time Platform online database, which illustrates the 15 minute walking time from the proposed allocation access via the local road network and any available pedestrian through-routes.

Figure 6. 15 minute walking catchment with public transport provision

Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.



6.2.7 In terms of access to local public transport facilities by walking, there are local bus stops situated along Heyside which are all within a walkable distance.

6.3 Public Transport

6.3.1 The B6194 (Heyside), forms a main arterial route between Oldham and Shaw, is served by multiple, frequent bus routes operated by First Group; these include the following:

- Route 59: Rushcroft to Piccadilly Gardens (average frequency: 30 minutes)
- Route 181: Milnrow/Wren's Nest to Piccadilly Gardens (average frequency: 60 minutes)

6.3.2 The Rochdale Metrolink Line runs immediately east of the proposed allocation, and is accessible to the north at Shaw & Crompton Metrolink stop, and to the south at Derker Metrolink stop, operating the following route:

- Rochdale Metrolink (Pink Line): Rochdale Town Centre to East Didsbury (average frequency: 10 minutes)

6.3.3 **Table 2** identifies the current accessibility of public transport for the future employees of the Beal Valley, exploring the proximity, and the frequency of travel during peak hours.

Table 2. Accessibility of and proximity to Public Transport

Mode	Nearest Stop/ Station	Distance (km)	Peak Hour Frequency (Mins)
Bus	St Josephs	0.1	60
Rail	Mills Hill	5.9	30
Metro	Shaw and Crompton	1.4	6

6.4 Proposed

6.4.1 In consideration of the provision of existing pedestrian and cycling infrastructure in the adjacent residential streets, our main recommendation in this regard is that a permeable network for pedestrian and cyclist priority within the development is required including sufficient secure cycle parking for all dwellings.

6.4.2 Given the location of the allocation and its close proximity to the Crompton, Shaw and Sholver local areas, the internal walking and cycle network should be linked to high quality routes connecting through to these areas, including the proposed Bee Network. Existing PRoWs that either pass near or cross the proposed site should be positively upgraded, with both PRoWs and the internal pedestrian/cycle network of the site being constructed to the standards set out by the Bee Network.

6.4.3 Selective widening of pedestrian footpaths should be considered at Heyside linked to the access scheme, and footpaths should be implemented on Bullcote Lane / Cop Road between Shaw and

Sholver to provide a route for travel by active means, these improvements should be carried out to Bee Network standards. The internal walking network for the site, as well as connecting Public Rights of Way (PRoW), should be upgraded to a standard that reflects those being implemented by the Bee Network in order to suitably accommodate both pedestrian and cycle users.

- 6.4.4 The Shaw & Crompton Metrolink stop provides significant opportunity for development to the north of the allocation and, therefore, efforts should be made to connect the whole allocation to Shaw town centre. However, as the central and southern sections of the allocation are beyond acceptable walking times from the existing Metrolink stops.
- 6.4.5 A new Metrolink stop has been proposed adjacent to Bullcote Lane which will provide connections for both the Beal Valley and Broadbent Moss allocations, which also includes a sizeable Park & Ride facility. This service is necessary to support both and allocations in terms of access by sustainable means and with regards mitigating the transport impacts of the development. Potential contributions as to the cost of delivering this scheme should be considered at the detailed planning stage, specifically whether the costs of this scheme are to be allocated to the site developer.
- 6.4.6 With regard to bus services, the Beal Valley allocation It is recognised that due to the size of the allocation many residences and other aspects of the development are likely to be significant distance from the nearest public transport mode at the boundary. Of the local bus services operating in the area, The existing 181 service which now runs every 60 minutes to Piccadilly Gardens and Shaw along Heyside is the closes however this is likely to be insufficient .
- 6.4.7 It has therefore been identified that the allocation would benefit from the diversion / extension of the existing 82/83 bus route to the proposed new Metrolink stop at Cop Rd and then north into the allocation to terminate at Shaw Metrolink stop on an every 30 mins basis. It Is further recommended that the. Introduction of this service within the allocation should be done at the earliest opportunity in order to allow initial residents a sustainable transport alternative and on a timing that is no later than the opening of the new Metro facility.

7. Parking

- 7.1.1 A broad assumption has been made that a maximum of 2 spaces per dwelling is likely to be proportionate however other alternative local policy requirements are likely to be equally deliverable and can be considered at the planning application stage.
- 7.1.2 It is not necessary to consider in detail the parking standards for residential units relevant to the site at this stage of assessment as there are no particular constraints on achieving likely minimum parking standards that may be in application at the time the site is brought forward. Accommodation of Electric Vehicle (EV) parking, while an important factor in developing more efficient transport connections for the allocation, should be considered at the detailed design stage, potentially as an integration of specific house design.
- 7.1.3 National Planning Policy Framework (NPPF) is clear that such standards should only be set where there is a clear and compelling justification that they are necessary. This may be either for managing the local road network conditions, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with chapter 11 of NPPF).

8. Allocation Trip Generation and Distribution

- 8.1.1 Future trip generation to/from the site (i.e. how many people and vehicles will enter or leave the site) was estimated by applying a set of GM-wide trip rates to the agreed development quantum for each site. The distribution of trips (i.e. where they are going to or coming from) was derived by selecting nearby zones with similar land use characteristics as a proxy and using the existing distribution in the model.

Table 3. Development Quantum: Beal Valley

Residential	Houses	35	558
Residential	Apartments	4	62
Industrial	e.g. B2/B8 etc.	0	0
Total		39	620

Table 4. Allocation Traffic Generation: Beal Valley*

Year	AM Peak Hour Departures	AM Peak Hour Arrivals	PM Peak Hour Departures	PM Peak Hour Arrivals
2025 GMSF Constrained	12	4	6	13
2025 GMSF High-Side	13	5	8	13
2040 GMSF Constrained	162	47	82	177
2040 GMSF High-Side	206	81	126	184

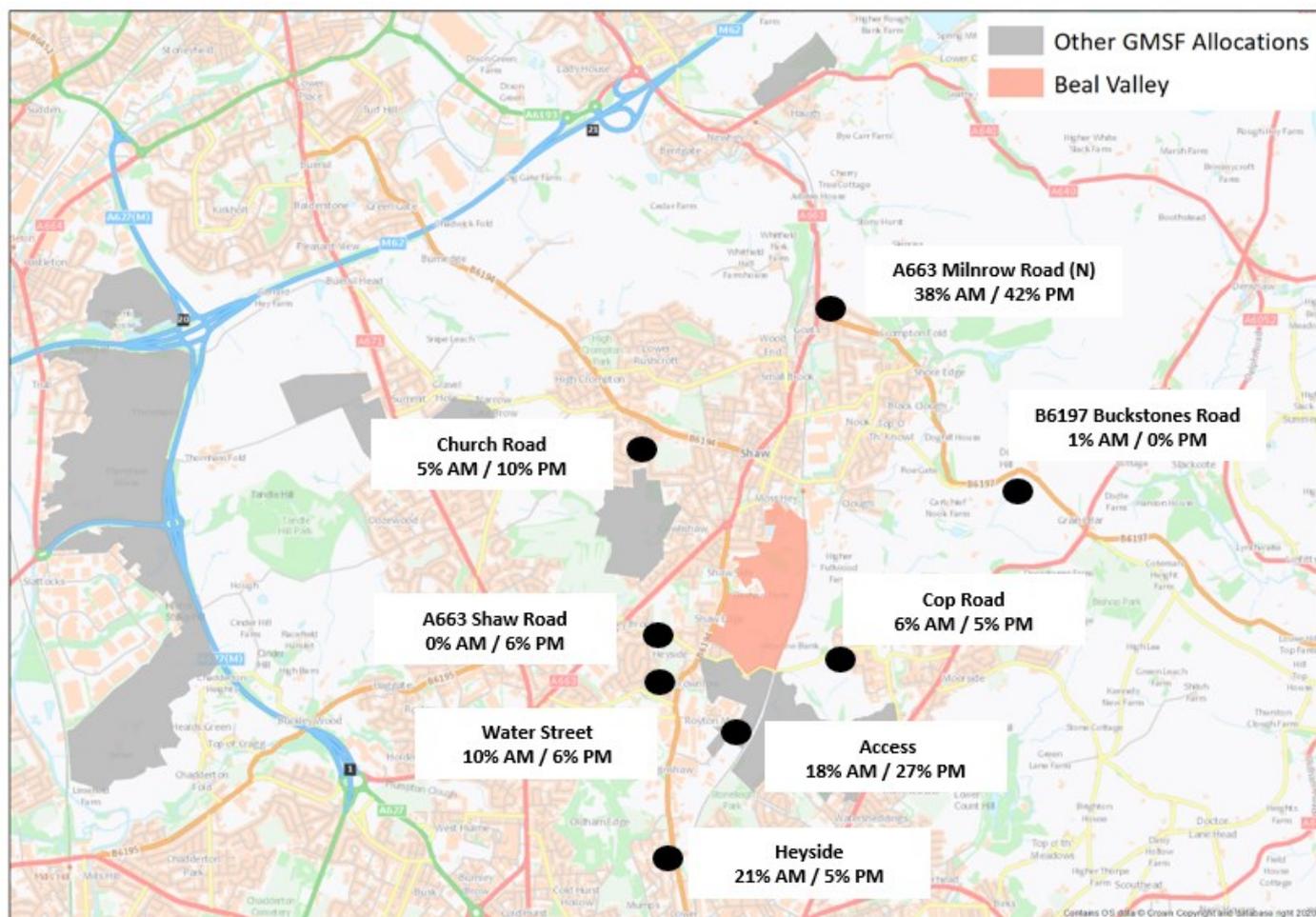
*Units are in PCU (passenger car units/hr)

Table 5. Allocation Traffic Distribution, 2040 GMSF High-Side (Origin/Destination Combined): Beal Valley

Route	AM Peak Hour	PM Peak Hour
Heyside	21%	5%
Water Street	10%	6%
A663 Shaw Road	0%	6%
Church Road	5%	10%
A663 Milnrow Road	38%	42%
B6197 Buckstones Road	1%	0%
Cop Road	6%	5%
Allocation 15 Southern Allocation Access	18%	27%

Figure 7. Allocation Traffic Distribution, 2040 GMSF High-Side (Origin/Destination Combined): Beal Valley

Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.



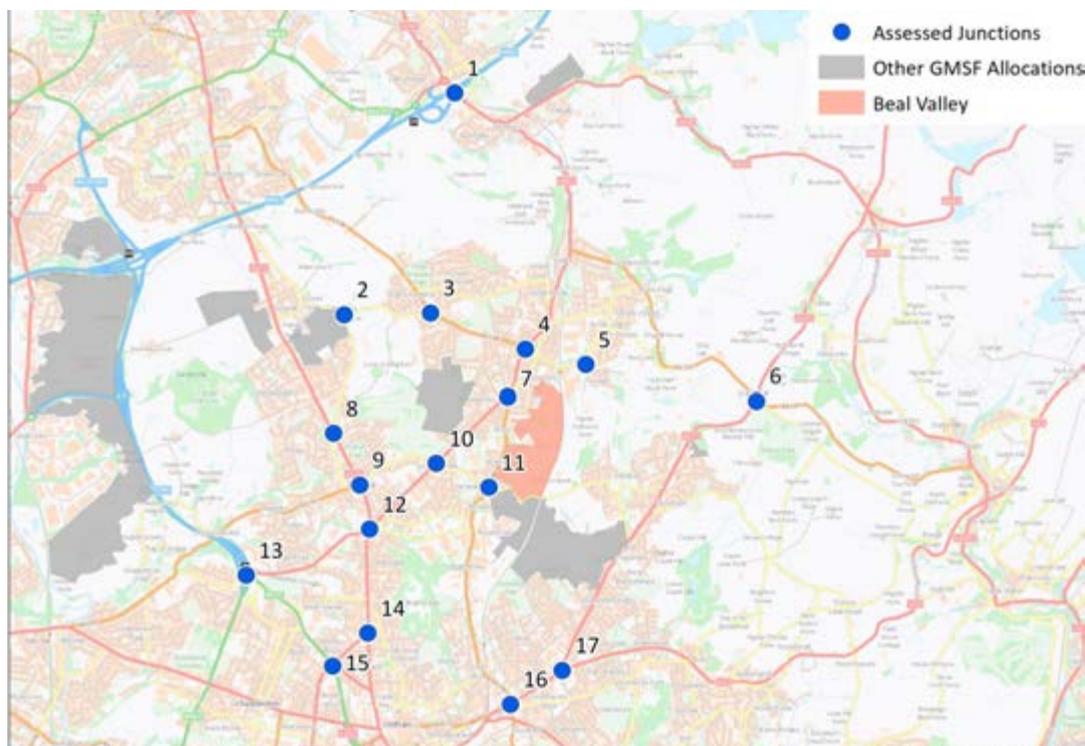
9. Existing Highway Network Review

9.1.1 Heyside runs north to south to the west of the Beal Valley allocation, providing a main route between Shaw and the centre of Oldham. SYSTRA identified a number of junctions in proximity to the site where additional traffic could have an impact on their operation based on existing conditions. These are set out in Figure 8 below

1. A6193 Sir Isaac Newton Way / A640 Elizabethan Way / A640 Newhey Road
2. Castleton Road / Thornham Road / Narrowgate Brow
3. B6194 Rochdale Road / Thornham Road
4. A663 Crompton Way / Rochdale Road / Beal Lane
5. Beal Lane / Hillside Avenue
6. A672 Ripponden / B6197 Grains Road / Oldham Road / Buckstones Road
7. A663 Shaw Road / B6194 Oldham Road / Church Road
8. A671 Oldham Road / Dogford Road / A671 Rochdale Road / Rochdale Lane
9. A671 Rochdale Road / B6195 High Barn Road / A671 Oldham Road / B6195 Middleton Road
10. A663 Shaw Road / High Barn Road / Blackshaw Lane
11. B6194 Heyside / Water Street
12. A663 Shaw Road / A671 Oldham Road
13. A627 (M) / A627 Chadderton Way / A663 Broadway / Burnley Lane
14. A671 Oldham Road / A671 Rochdale Road / A6048 Featherstall Road
15. Featherstall Road / A627 Oldham Road / Chadderton Way Roundabout
16. A62 Huddersfield Road / Cross Street / B6194 Shaw Road
17. A672 Ripponden Road / A62 Huddersfield Road

Figure 8. Key junctions assessed

Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.



10. Treatment of Cumulative Impacts

10.1.1 The constrained and high side model runs take account of traffic associated with all GMSF allocations. Within a 2km buffer of the Beal Valley allocation are the Stakehill, Kingsway South, Broadbent Moss, Cowlshaw, Hanging Chadder and Newhey Quarry allocations. Therefore, at the local level, the transport impacts of the site need to be considered cumulatively with the above-stated GMSF allocations. These developments are forecast to generate the following trips.

- – Stakehill: 1,991 AM Peak / 1,670 PM Peak
- – Kingsway South: 323 AM Peak / 353 PM Peak
- – Beal Valley: 287 AM Peak / 310 PM Peak
- – Broadbent Moss: 574 AM Peak / 556 PM Peak
- – Cowlshaw: 169 AM Peak / 240 PM Peak
- – Hanging Chadder: 125 AM Peak / 134 PM Peak
- – Newhey Quarry: 177 AM Peak / 195 PM Peak

10.1.2 Since production of this Locality Assessment, allocations Kingsway South has have been removed from the GMSF, with a number of other allocations undergoing amendments to quantum or allocation geography. The impact of this change has not been considered in this assessment, as the withdrawal of these allocations came after modelling results were produced. These changes may materially impact treatment of cumulative impacts and proposed mitigations.

10.1.3 Furthermore, although the Thornham Old Road allocation is illustrated on mapping, the assessment and cumulative impacts of this allocation have been considered separately due to the conclusion of that assessment that the allocation is not deliverable and therefore not taken forward for last stages of the cumulative assessment. As such, Thornham Old Road has not been included in modelling outputs.

11. Allocation Access Assessment

11.1.1 This site access arrangement has been developed to illustrate that there is a practical option for site access in this location and to develop indicative cost estimations. It is assumed that a detailed design consistent with Greater Manchester’s best practice Streets for all highway design principles will be required at the more detailed planning application stage. Due to the role of the proposed highway network within the site, which will have a role in local traffic distribution, the full traffic impact of all GMSF flows are recorded below, and not just those pertaining to the allocation.

Table 6. Allocation Access Junction Capacity Analysis: Beal Valley

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	GMSF Flows AM	GMSF Flows PM
Heyside Access Junction	N/A	N/A	94%	97%	204	214
Bullcote Lane / Cop Road Junction	N/A	N/A	20%	20%	83	96

11.1.2 The proposed access at Heyside is demonstrated to operate near to its theoretical capacity limits in the 2040 High side scenario, it is recognised this is likely to be somewhat of a worst-case assumption but emphasises the importance of the delivery of sustainable modes accessibility through the allocation to mitigate the traffic impacts of the development

12. Impact of Allocation Before Mitigation on the Local Road Network

- 12.1.1 In order to understand a worst case impact of the GMSF, the 'high side' runs from the GMVDM were used to derive with GMSF development flows for 2040. These flows were then entered into junction based models for the junctions identified in **Section 9**. Flows from a 2040 reference case scenario (including approved Local Plan development from the respective districts) were also extracted to provide a comparison between the operation of those junctions in the 2040 reference case and the 2040 with GMSF development scenarios.
- 12.1.2 The 'with GMSF' scenario has been assessed against a Reference Case which assumes background growth and includes the housing and employment commitments from the districts. These assessments were then used to identify the junctions where there was considered to be a substantial impact, relative to the operation of the junction in the 2040 reference case, and hence where mitigation was considered to be required in order to bring GMSF sites forward. For the purposes of GMSF, it was been agreed that where mitigation is required, it should mitigate the impacts back to the reference case scenario. It should be noted that mitigating back to this level of impact may not mean that the junction operates within capacity by 2040, and any subsequent mitigation schemes developed based on impacts caused through development trips from this allocation are only designed to mitigate the impact of GMSF traffic only, and are not intended to solve pre-existing congestion on the local network.
- 12.1.3 This section looks at the impact on the network at the junctions highlighted in **Section 9**. Signalised junctions were assessed in detail using industry-standard modelling software LINSIG version 3. Where possible, traffic signal information was requested from TfGM in order to ensure that the local junction models reflected (as far as possible), the operation of the junctions on the ground. Junctions 9 software was used to assess priority and roundabout junctions. **Table 7** below provides a comparison between the operation of the in scope junctions in the 2040 reference case and the 2040 'high side' scenarios, as well as the site development flows through each respective junction. The table shows a comparison between the ratio of flow to capacity on the worst case arm at each junction as well as the total development flows through the junction.
- 12.1.4 For reference, a figure of between 85% and 99% illustrates that the junction is nearing its operational capacity, and a figure of 100% or over illustrates that flows exceed the operational capacity at the junction.

Table 7. Results of Local Junction Capacity Analysis Before Mitigation: Beal Valley

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	Allocation Flows AM	Allocation Flows PM
2. Castleton Road / Thornham Road / Narrowgate Brow	29%	24%	34%	24%	3	2
3. B6194 Rochdale Road / Thornham Road	53%	41%	58%	43%	13	33
4. A663 Crompton Way / Rochdale Road / Beal Lane	93%	105%	155%	111%	97	102
5. Beal Lane / Hillside Avenue	14%	12%	15%	13%	12	1
6. A672 Ripponden / B6197 Grains Road / Oldham Road / Buckstones Road	110%	103%	113%	102%	13	9
7. A663 Shaw Road / B6194 Oldham Road / Church Road	64%	67%	68%	67%	124	184
8. A671 Oldham Road / Dogford Road / A671 Rochdale Road / Rochdale Lane	73%	77%	77%	77%	0	0
9. A671 Rochdale Road / B6195 High Barn Road /	117%	93%	95%	94%	7	15

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	Allocation Flows AM	Allocation Flows PM
A671 Oldham Road / B6195 Middleton Road						
10. A663 Shaw Road / High Barn Road / Blackshaw Lane	110%	94%	111%	93%	22	30
11. B6194 Heyside / Water Street	81%	81%	72%	61%	64	33
12. A663 Shaw Road / A671 Oldham Road	137%	134%	137%	139%	84	60
14. A671 Oldham Road / A671 Rochdale Road / A6048 Featherstall Road	62%	58%	63%	59%	3	3
15. Featherstall Road / A627 Oldham Road / Chadderton Way Roundabout	73%	81%	75%	82%	11	5
16. A62 Huddersfield Road / Cross Street / B6194 Shaw Road	94%	95%	92%	95%	11	23
17. A672 Ripponden Road / A62 Huddersfield Road	80%	88%	78%	88%	5	3

13. Transport Interventions Tested on the Local Road Network

13.1.1 While in isolation this allocation would be unlikely to present significant implications on the surrounding road network, its potential cumulative impact with Stakehill, Kingsway South, Broadbent Moss, Cowlshaw, Hanging Chadder and Newhey Quarry allocations by 2040 (as outlined in **Section 10**) has resulted in several mitigation schemes being considered at junctions likely to see material impacts as a result of traffic introduced by these allocations.

13.1.2 As previously noted, Kingsway South has since been removed from the GMSF since the production of this Locality Assessment document and modelling outputs.

Table 8. Approach to Mitigation: Beal Valley

Junction	Mitigation Approach
4. A663 Crompton Way / Rochdale Road / Beal Lane	Cumulative impact, substantial for this allocation – mitigation proposed
11. B6194 Heyside / Water Street	Cumulative impact, substantial for this allocation – mitigation proposed
12. A663 Shaw Road / A671 Oldham Road	Cumulative impact, substantial for this allocation – mitigation proposed

13.1.3 These schemes were then coded into the GMVDM, in advance of a second ‘with mitigation’ run of the model. The outcomes of this model run in relation to the Stakehill, Kingsway South, Broadbent Moss, Cowlshaw, Hanging Chadder and Newhey Quarry allocations are presented in the following section.

13.1.4 In consideration of the provision of existing pedestrian and cycling infrastructure in the adjacent residential streets, our main recommendation in this regard is that a permeable network for pedestrian and cyclist priority within the development is required including sufficient secure cycle parking for all dwellings.

14. Impact of interventions on the Local Road Network

14.1.1 In order to understand whether the mitigation developed for the allocation (and all other allocations within the GMSF) is sufficient to mitigate the worst-case impacts of the GMSF identified in **Section 12**, a second run of the GMVDM with all identified mitigation included, was undertaken. Where a significant flow change was observed the junction models were rerun to check that the mitigation identified in **Section 13** is still sufficient to mitigate allocation impacts and that all other in scope junctions continue to operate satisfactorily in light of any reassignment due to mitigation schemes.

14.1.2 **Table 9** below provides a comparison between the operation of the in-scope junctions in the 2040 reference case and the 2040 'high side' with mitigation scenarios, as well as the allocation development flows through each respective junction. The table shows a comparison between the ratio of flow to capacity on the worst-case arm at each junction as well as the total development flows through the junction.

Table 9. Results of Local Junction Capacity Analysis After Mitigation: Beal Valley

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	Allocation Flows AM	Allocation Flows PM
4. A663 Crompton Way / Rochdale Road / Beal Lane	74%	112%	75%	112%	97	102
9. A671 Rochdale Road / B6195 High Barn Road / A671 Oldham Road / B6195 Middleton Road	88%	89%	80%	92%	7	15
11. B6194 Heyside / Water Street	37%	29%	41%	30%	64	33
12. A663 Shaw Road / A671 Oldham Road	122%	106%	113%	109%	84	60

15. Impact and mitigation on the Strategic Road Network

15.1 Overview

15.1.1 This chapter covers those impacts where traffic generated by the GMSF allocations meets the Strategic Road Network (SRN). Junctions at the interface between the Local Road Network (LRN) and the Strategic Road Network (SRN) have been assessed using a similar approach to that described in the preceding chapters. Wider issues relating to the SRN mainline are being assessed separately as described below.

15.1.2 SYSTRA is currently consulting with Highways England on behalf of TfGM and the Combined Authority in relation to the wider impacts of the GMSF allocations on the Strategic Road Network (SRN). This consultation is ongoing and it is expected that it will allow Highways England to gain a strategic understanding of where there is an interaction between network stress points and GMSF allocation demand. This will facilitate further discussion and transfer of information between TfGM and Highways England in reaching agreement and/or common ground on improvement measures.

15.2 Impact of Allocation Before Mitigation on the Strategic Road Network

15.2.1 The cumulative impacts of this and other allocations in this area have been considered likely to result in implications for the operation of the SRN in key locations.

Table 10. Results of Strategic Junction Capacity Analysis Before Mitigation: Beal Valley

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	Allocation Flows AM	Allocation Flows PM
1. A6193 Sir Isaac Newton Way / A640 Elizabethan Way / A640 Newhey Road	130%	140%	136%	142%	103	114
13. A627 (M) / A627 Chadderton Way / A663 Broadway / Burnley Lane	131%	132%	137%	137%	83	57

Specific SRN Junction Mitigation Measures

15.2.2 In consideration of the cumulative allocation impacts on the SRN at the A6193/A640 junction, which forms part of the wider M62 Junction 21 interchange, mitigation measures have included the addition of a second lane to the roundabout circulatory, and changes to the lane designations that favour movements accessing the M62, as well as a two-lane merge section of approximately 80m on the A640 (S) to allow for the safe merging of vehicles turning right from the A6193.

15.2.3 For the A627(M) / Chadderton Way / A663 Broadway Interchange, mitigation measures have included the addition of a third lane on the southbound access from the A627 (M) north, thereby reducing the amount of queuing that is experienced on the slip road that could potentially extend onto the A627 (M) carriageway. The results of this mitigation are supplied in **Table 11** below.

Impact of Interventions on the SRN

Table 11. Results of Local Junction Capacity Analysis After Mitigation: Beal Valley

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	Allocation Flows AM	Allocation Flows PM
1. A6193 Sir Isaac Newton Way / A640 Elizabethan Way / A640 Newhey Road	78%	81%	72%	80%	103	114
13. A627 (M) / A627 Chadderton Way / A663 Broadway / Burnley Lane	122%	128%	125%	127%	83	57

15.2.4 While the mitigations proposed do improve the cumulative impact of GMSF proposals upon the Strategic Road Network, following consultation these mitigations have been identified as Supporting Strategic Interventions due to the distance from the site to the SRN.

16. Final list of interventions

Table 12. Interventions List: Beal Valley

Mitigation	Description
Allocation Access	
Heyside Access Junction	New Signalised Junction – See Appendix 1
Bullcote Lane Junction	New Standard Roundabout junction – See Appendix 2
Necessary Strategic interventions	
New Metrolink Stop and P&R facility adjacent to Beal Valley and Broadbent Moss allocations	Proposed by TfGM for direct Metrolink access to both and developments, including a sizeable Park & Ride facility
Key Internal Highway network – Spine Road.	660m of internal spine road network to be dedicated as a key local highway (See Figure 5), identified to have a through route function that will serve as a wider strategic highways link with bus access.
Metrolink Overbridge	Standard width road bridge as part of new internal spine road network should spine road arrangement prove unsuitable with level crossing
Necessary Local Mitigations	
Improvement of A663 Crompton Way / Rochdale Road / Beal Lane	An indicative scheme was developed as a potential improvement scheme at this location. See Appendix 3
Improvement of A663 Shaw Road / A671 Oldham Road junction	An indicative scheme was developed as a potential improvement scheme at this location. See Appendix 4
Improvement of B6194 Heyside / Water Street / Bullcote Lane junction	Severance of Bullcote lane – (resulting operational improvement to B6194 Heyside / Water Street / Bullcote Lane

	junction). See Appendix 2 . Note this does not include the roundabout shown.
Provision of bus services within the allocation	Extension of existing bus service (Route 82/83) into the centre of the allocation at earliest possible opportunity to provide competitive sustainable transport alternative
Permeable network for pedestrian and cyclist priority within the development	Assumed full permeability of cycle and pedestrian access, as well as direct connections to PRoWs either bounding or near the development. All pedestrian and cycle networks internal to the site, as well as connecting PRoWs, should be built or upgraded to the standards outlined in the Bee Network, as well as providing connections to the nearest section of the Bee Network
Improvement of walking/cycling facilities on Heyside and Cop Road via new Metrolink overbridge bridge	Heyside footway improvements and new footway / cycleway to join missing 250m section of Cop Road (either on or adjacent alternative off road provision) linking to new metro overbridge.
Mitigation	Description
Supporting Strategic Interventions	
Improvement of A6193 Sir Isaac Newton Way / A640 Elizabethan Way / A640 Newhey Road roundabout interchange	An indicative scheme was developed as a potential improvement scheme at this location. See Appendix 5
Improvement of A627 (M) / Chadderton Way / A663 Broadway interchange	An indicative scheme was developed as a potential improvement scheme at this location. See Appendix 6
Improvement of A640 Huddersfield Road / A640 Newhey Road / A663 Shaw Road / Cedar Lane	Enhancements and efficiencies to the operation of the signal-controlled junction is promoted by way of updating the signal controller to MOVA control.

Necessary Strategic Mitigations

New Metrolink Stop and P&R facility adjacent to Beal Valley and Broadbent Moss allocations

- 16.1.1 The Shaw and Crompton Metrolink stop provides opportunities for access to the far north of the allocation, which can, in combination with supporting necessary opportunities for walking and cycling connections to Shaw town centre, for a level of supporting access by sustainable means for the allocation. However, as the central and southern sections of the allocation are beyond acceptable walking times from the existing Metrolink stops, a new stop has been proposed adjacent to Bullcote Lane which will provide connections for both the Beal Valley and Broadbent Moss allocations, which also includes a sizeable Park & Ride facility.
- 16.1.2 The introduction of the Metrolink stop is expected to contribute to resolving the general issue regarding congestion on the surrounding road corridors, specifically Oldham Road, as this is the main thoroughfare into the centre of Oldham as well as supporting access to the allocation by sustainable means.

Internal Spine Road Highways Arrangement

- 16.1.3 660m of internal spine road network to be dedicated as a key local highway (See **Figure 5**), identified to have a through route function that will serve as a wider strategic highways link with bus access required. This could be delivered as part of an internal highways arrangement, though through route function would require safeguarding for future strategic use.

Internal Spine Road Metrolink Over Bridge

- 16.1.4 Depending upon design and arrangement, the above spine road may require a standard width road crossing over the proposed Metrolink line where a level crossing would be deemed unsuitable.

Necessary Local Mitigations

A663 Crompton Way / Rochdale Road / Beal Lane

- 16.1.5 At the A663 Crompton Way / Rochdale Road / Beal Lane junction, a mitigation scheme has been proposed to add extra lanes onto the A663 Crompton Way (South) arm and the B6194 Rochdale Road (West) arm in order to increase capacity. The A663 additional lane would allow for the separation of left-turn, ahead and right-turn movements in order to improve the turning

movements of this arm, while the additional lane on the B6194 would allow separate right-turn movements from this arm.

16.1.6 This transport interventions is purely a highway infrastructural intervention prepared to illustrate that options may be available at this location – further detailed consideration would be required at the time of a planning application to ensure development of an option suitable for all users including pedestrians, cyclists and bus users. High frequency services between Oldham and Shaw/Rushcroft are already established along the corridor with bus stops located within accessible walking distance. The introduction of this mitigation scheme is expected to contribute to resolving the general issue regarding congestion in the centre of Shaw.

A663 Shaw Road / A671 Oldham Road

16.1.7 At the A663 Shaw Road / A671 Oldham Road junction, a mitigation scheme has been proposed to add a free-flow arm between the A663 Broadway and the A671 Rochdale Road in order to remove west to north movements from the main junction flow, while also providing an additional lane for ahead movements onto the A663 Shaw Road.

16.1.8 This transport interventions is purely a highway infrastructural intervention prepared to illustrate that options may be available at this location – further detailed consideration would be required at the time of a planning application to ensure development of an option suitable for all users including pedestrians, cyclists and bus users. High frequency services between Oldham and Rochdale are already established along the corridor with bus stops located within accessible walking distance.

16.1.9 The introduction of this mitigation scheme is expected to contribute to resolving the general issue regarding congestion on the surrounding road corridors, specifically Oldham Road, as this is the main thoroughfare into the centre of Oldham.

B6194 Heyside / Water Street / Bullcote Lane

16.1.10 At the B6194 Heyside / Water Street / Bullcote Lane junction, a mitigation scheme has been proposed to close through access on Bullcote Lane between Shaw and Sholver, thereby removing through traffic and development trips from the Beal Valley and Broadbent Moss allocations. The Bullcote Lane arm would remain in situ so as to access the adjacent bowling green. This mitigation

option has been considered with regard to matters of safety for traffic exiting this arm due to the below standard width of Bullcote Lane.

Provision of bus services within the allocation

16.1.11 Due to the size of the proposed allocation, bus services should be introduced to serve one or more of the proposed land parcels that are to form the overall allocation so as to provide a competitive public transport alternative for residents and visitors to the site.

16.1.12 The introduction of public transport services within the allocation should be done at the earliest possible opportunity so as to allow for the provision of sustainable transport alternatives to the first new residents. Promotion of sustainable transport alternatives will also help to answer concerns regarding increased pollution from added vehicular trips on the local road network.

Permeable network for pedestrian and cyclist priority within the development

16.1.13 In order to promote and encourage sustainable transport modes and accessibility for non-vehicular traffic, the development is to both provide ease of access for pedestrian and cyclist traffic into and out of the site, as well as connecting and improving Public Rights of Way that either directly connect or pass near the proposed site. This is to include upgrading of the local PRow routes to meet the standards of the proposed Bee Network and, wherever possible, connect directly to sections of the Bee Network.

Improvement of walking/cycling facilities on Heyside and Cop Road

16.1.14 Pedestrian and cycle facilities in the areas surrounding the allocation should be improved wherever possible in order to allow for safe accessibility by non-vehicular users to both all parts of the development, but also the adjacent residential, employment and retail areas.

16.1.15 This scheme outlines the improvements needs for these users and includes widening of footpaths along Heyside (100m) including the introduction of a new Toucan Crossing facility and the provision and the introduction of suitable pedestrian and cycle facilities along a 250m section of Cop Road towards Sholve. These should meet SFA standards and provide safe access for pedestrian, cycle and horse-rider traffic. Promotion of sustainable transport alternatives will also help to answer concerns regarding increased pollution from added vehicular trips on the local road network. The Cop Road connection to Sholver and where applicable improvements to Heyside

should meet the standards of the proposed Bee Network and, wherever possible, connect directly to sections of the Bee Network.

16.1.16 As part of this proposal it will need to be resolved at the detailed design stage whether it is sufficient that the pedestrian /cycle route via Cob Road would cross the metro route via a new level crossing, a new pedestrian cycle bridge, or widened / replacement Cob Road bridge. The later has been taken as a worst case assumption.

Supporting Strategic Interventions

A6193 Sir Isaac Newton Way / A640 Elizabethan Way / A640 Newhey Road

16.1.17 At the A6193 Sir Isaac Newton Way / A640 Elizabethan Way / A640 Newhey Road, a mitigation scheme has been proposed to add an additional lane to the roundabout circulatory in order to provide more capacity for turning movements to and from the A640 from the A6193. This has also included the provision of an 80m merging space on the A640 south of the junction to allow for safe merging for vehicles exiting the junction.

16.1.18 Due to its proximity to M62 Junction 21, and the presence of existing queues on the A6193 that cause congestion at the junction itself, the introduction of this mitigation is expected to resolve these issues.

A627(M) / Chadderton Way / A663 Broadway Interchange

16.1.19 At the A627 (M) Chadderton Way interchange, mitigation measures have included the addition of a third lane on the southbound access from the A627 (M) north, thereby reducing the amount of queuing that is experienced on the slip road that could potentially extend onto the A627 (M) carriageway.

A640 Huddersfield Road / A640 Newhey Road / A663 Shaw Road / Cedar Lane

16.1.20 Enhancements and efficiencies to the operation of the signal-controlled junction is promoted by way of updating the signal controller to MOVA control.

17. Greater Manchester Transport Strategy Interventions

17.1 Site Specific

- 17.1.1 Further to the site-specific interventions outlined within **Section 16**, Oldham Council and TfGM have jointly considered measures to support sustainable travel and to contribute towards the achievement of Greater Manchester's 'Right Mix' ambition.
- 17.1.2 The Right Mix initiative forms part of the Greater Manchester Transport Strategy 2040, and is proposes that by 2040, 50% of trips are to be undertaken by sustainable modes and no net increase in motor-vehicle traffic. The Right Mix vision is comprised of evidence-based targets which will be adjusted over time in order to reflect the progress of meeting such targets, and the interventions set out for walking, cycling and public transport for the allocation will contribute to the Right Mix target of reducing growth in motor vehicle traffic in Greater Manchester.

17.2 Oldham

- 17.2.1 In addition to the site-specific interventions set out in this Locality Assessment, there are a number of other measures already planned by Oldham Council and Transport for Greater Manchester to support sustainable travel, and to contribute to the achievement of Greater Manchester's 'Right Mix' ambition.
- 17.2.2 Transport for Greater Manchester is currently producing a business case for early delivery of a Quality Bus Transit scheme between Rochdale, Oldham and Ashton, which will include significant improvements to the quality, frequency and reliability of the bus service, as well as localised public realm enhancements which it is hoped will lead to an increase in bus patronage along the route. If successful, the concept would be rolled out to other routes in the City Region.
- 17.2.3 TfGM is also leading a study to complete a business case for the early delivery of the Cop Road Metrolink stop, which would improve access to Rochdale and Oldham and, from there, the Regional Centre.
- 17.2.4 In addition, Oldham Council is progressing 'Accessible Oldham' a £6 million Local Growth Deal package to regenerate and improve the connectivity of Oldham town centre. The scheme includes

upgraded pedestrian areas and cycling routes, better access to bus and Metrolink stops and improvements to the highway network.

- 17.2.5 Oldham Council have successfully bid for funding from the Mayor of Greater Manchester's Cycling and Walking Challenge Fund – a £160 million initiative to deliver the infrastructure to encourage more people to cycle and walk across the region. This scheme is to come forward in a series of Bee Network developments within the Oldham area.
- 17.2.6 Outside of the town centre, Network Rail, in association with TfGM, have secured funding for the "Access for All" scheme from the Department for Transport in order to upgrade Mill Hill Rail Station to improve access for mobility impaired passengers, improving accessibility by rail in Manchester and Rochdale directions. TfGM are also investing in the increase of capacity at the Mill Hill Park & Ride facilities through Growth Deal 3.
- 17.2.7 Oldham Council have mediated between Network Rail and TfGM with regard to off-site highway works, and NR are now providing a new controlled pedestrian facility to link the two schemes together, although the facilities chosen have not been considered ideal for this proposal. Furthermore, there is some dispute regarding car park development at Mill Hill station as it contravenes bus only restrictions and conflicts with bus movements.

18. Phasing Plan

- 18.1.1 The initial locality assessments were based on information on new site allocations consolidated by TfGM based on inputs from each of the Districts. This initial exercise focused on the development quanta to be delivered at the end of the plan period, i.e. by 2040.
- 18.1.2 During the course of the locality assessment work in late 2019 / early 2020, the Districts provided input on their expected phasing of the sites focusing on the milestone years of 2025 and 2040. The expected 2025 development quanta were tested along with those for 2040 to assess their deliverability in terms of transport network capacity. In some cases, the development phasing was amended by the Districts as a result of the technical analysis undertaken. All other schemes will require implementation between 2025 and 2040, with a more precise implementation timeframe for these schemes being ascertained through a similar process to that detailed in **Section 12 to 14** as part of the five-year review of the plan.

18.1.3 Based on the proposed forecast used for modelling within this Locality Assessment, 8% of the development quantum (39 dwellings) for the Beal Valley allocation is expected to come forward by 2025. The full development quantum, as outlined in this GMSF, is expected to come forward by 2040.

18.1.4 As mentioned in section 1, this Locality Assessment has been produced with a previously assumed GMSF allocation quantum of 620 dwellings, with development phasing outlined in table 13.

18.1.5 Following amendment, Beal Valley allocation is expected to comprise 482 dwellings within the GMSF This buildout does not include two parcels in the northern part of the site (P & D Northern Steels and Duke Mill) which are already included in the baseline housing land supply figures.

Table 13. Allocation Phasing as modelled: Beal Valley

Allocation Phasing	2020 25	2025 30	2030 2037	2037+	Total
Allocation	39	620	0	0	620
Total	39	620	0	0	620

Table 13.1. Allocation Phasing – Updated Policy Allocation Proposal: Beal Valley

Allocation Phasing	2020 25	2025 30	2030 2037	2037+	Total
Allocation		402	80		482
Total		402	80		482

Table 14. Indicative intervention delivery timetable: Beal Valley

Mitigation	2020 2025	2025 2030	2030 2037
Allocation Access			
Heyside Access Junction	✓		
Bullcote Lane Junction (New 3 arm Roundabout)	✓		
Necessary Strategic interventions			
New Metrolink Stop and P&R facility adjacent to Beal Valley and Broadbent Moss allocations		✓	
Key Highway spine road network with through route function	✓		
Metrolink Overbridge	✓		
Necessary Local Mitigations			
Improvement of A663 Crompton Way / Rochdale Road / Beal Lane		✓	
Improvement of A663 Shaw Road / A671 Oldham Road		✓	
Improvement of B6194 Heyside / Water Street / Bullcote Lane		✓	
Provision of bus services within the allocation		✓	
Permeable network for pedestrian and cyclist priority within the development		✓	

Improvement of walking/cycling facilities on Heyside including a new Toucan Crossing Facility and at Cop Road including via new Metrolink overbridge bridge		✓	
Supporting Strategic Interventions			
Improvement of A6193 Sir Isaac Newton Way / A640 Elizabethan Way / A640 Newhey Road roundabout interchange		✓	
Improvement of A627 (M) / Chadderton Way / A663 Broadway interchange		✓	
A640 Huddersfield Road / A640 Newhey Road / A663 Shaw Road / Cedar Lane		✓	

19. Summary

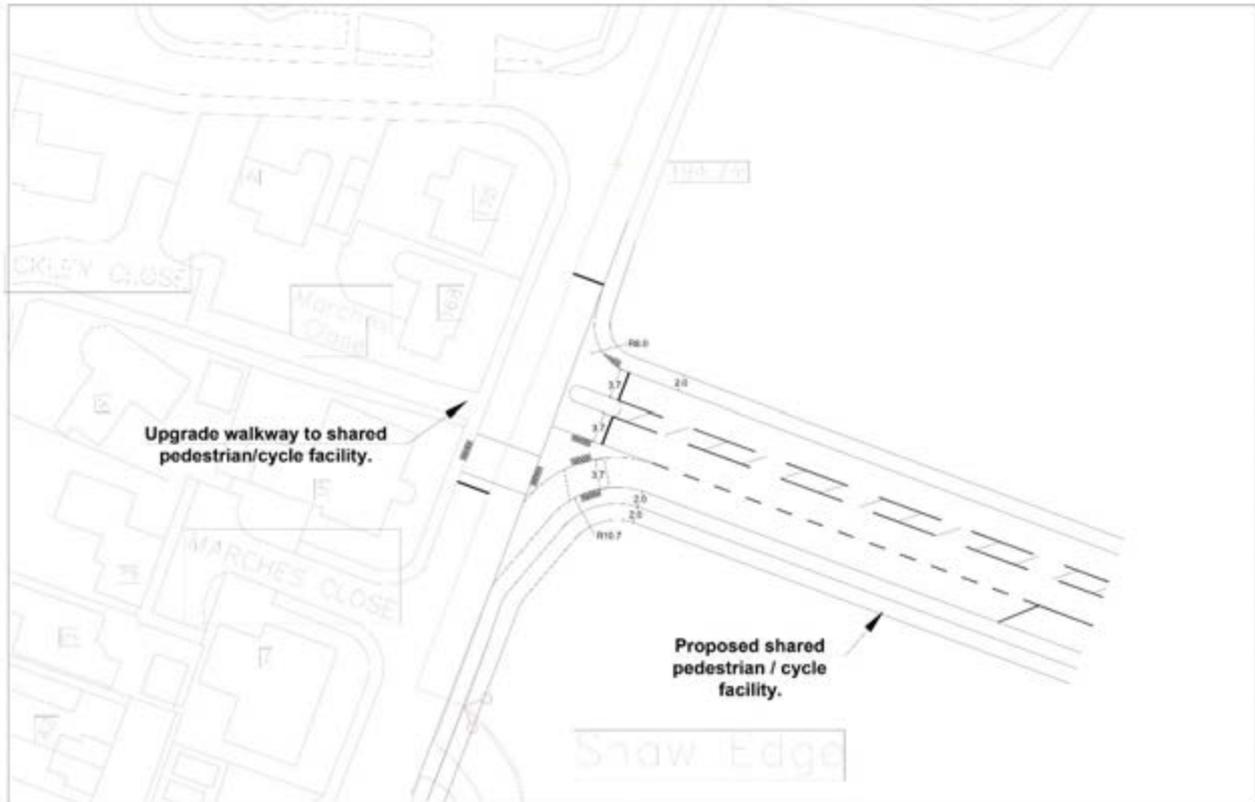
- 19.1.1 GMSF allocation Beal Valley is a development located on what is currently open land and isolated farm buildings within the Shaw ward.
- 19.1.2 Assessments undertaken have considered the potential impact of this development on the surrounding road network, both in isolation and in cumulative impact with allocations Stakehill, Kingsway South, Broadbent Moss, Cowlshaw, Hanging Chadder and Newhey Quarry. Both in isolation and cumulatively, the development has the potential to present increased congestion at existing areas of concern raised in Section 16. Furthermore, not all of the proposed site buildout is to be delivered before the end of the current GMSF plan period.
- 19.1.3 In response to potential concerns regarding congestion at key junctions, mitigation schemes have been considered at the A663 Crompton Way / Rochdale Road / Beal Lane (Mitigation Option 1), A663 Shaw Road / A671 Oldham Road (Mitigation Option 2), B6194 Heyside / Water Street / Bullcote Lane (Mitigation Option 3). These have been tested, and illustrate significant improvements to traffic flows only across these junctions, both with and without the cumulative impact of the GMSF allocations. These schemes have only been developed in outline detail to inform viability and allocations policy.
- 19.1.4 Strategic Road Network cumulative impact concerns have been assessed with mitigation options at A6193 Sir Isaac Newton Way / A640 Elizabethan Way / A640 Newhey Road roundabout interchange (Mitigation Option 4), and A627 (M) / Chadderton Way / A663 Broadway interchange (Mitigation Option 5) and A640 Huddersfield Road / A640 Newhey Road / A663 Shaw Road / Cedar Lane having been developed. These mitigations are viewed as supporting strategic mitigations due to distance from the allocation.
- 19.1.5 Based on the information contained within this report, we conclude that the traffic impacts of the site are considered to be less than severe subject to the implementation of localised mitigation at a discrete number of locations. The “High-Side” modelling work indicates that in general other junctions within the vicinity of the site will either operate within capacity in 2040 with GMSF development, or that in some cases junctions operating over capacity in the future year would not be materially worsened by development traffic.

- 19.1.6 At this stage, the modelling work is considered to be a 'worst case' scenario as it does not take full account of the extensive opportunities for active travel and public transport improvements in the local area, and that junctions which are considered to operate over capacity in the 2040 model years, both with and without mitigation, are attributed not to the introduction of development trips, but to the cumulative impact of wider growth. The objective of mitigation scenarios is to suitably accommodate the proposed development trips for this allocation, rather than fully amending wider traffic concerns.
- 19.1.7 Further detailed work will be necessary to identify the specific interventions required to ensure the network works effectively based on transport network conditions at the time of the planning application. All final design solutions should be consistent with Greater Manchester's best practice Streets for All highway design principles.
- 19.1.8 However, the mitigation schemes proposed should be considered in conjunction with continued investment into sustainable transport alternatives, including pedestrian, cycling and public transport, in order to reduce the overall number of additional vehicles being introduced onto the local road network. This, combined with the mitigation schemes, could potentially resolve a number of issues raised regarding pollution and safety in relation to the Beal Valley allocation.
- 19.1.9 This is an initial indication that the allocation is deliverable and to inform viability, and that further detailed work will be necessary to identify the specific interventions required to ensure the network works effectively based on transport network conditions at the time of the planning application.
- 19.1.10 In summary, this assessment gives an initial indication that the allocation is deliverable, however, significant further work will be needed to verify and refine these findings, particularly in relation to connections to the SRN, as the allocation moves through the planning process. The allocation will also need to be supported by continuing wider transport investment across GM.

Appendix 1 – Indicative Allocation Access Option (North Access – Heyside)

[Illustrative/Typical Layout]

GM14 - BEAL VALLEY SITE ACCESS INDICATIVE DESIGN PROPOSAL



Comment: Proposed signal controlled three-arm junction with toucan crossing facilities.

Please note that this design is based on indicative measurements taken from OS map. This design is subject to further improvement.

Appendix 2 – Indicative Allocation Access Option/Mitigation Option 3 (South Access – Bullcote Lane)

[Illustrative/Typical Layout]

GM14 / 15 - BEAL VALLEY / BROADBENT MOSS BULLCOTE LANE IMPROVEMENTS AND SITE ACCESS INDICATIVE PROPOSAL



Comments:

1. Bullcote Lane access to be severed from west, possible cul-de-sac as shown.
2. Illustrative roundabout option for the straightening of Cop Road/Bullcote Lane and its integration with Beal Valley / Broadbent Moss development. Geometries and alignments are shown for indicative purposes only.

KEY:

- Pedestrian Desire Lines
- Emergency Access Route

Please note that this design is based on indicative measurements based on OS map. This design is subject to further improvement.

Appendix 3 – Indicative Mitigation Option 1 (A663 Crompton Way / Rochdale Road)

[Illustrative/Typical Layout]

OLDHAM NORTH SITES - INDICATIVE MITIGATION PROPOSAL A663 CROMPTON WAY / B6194 ROCHDALE ROAD

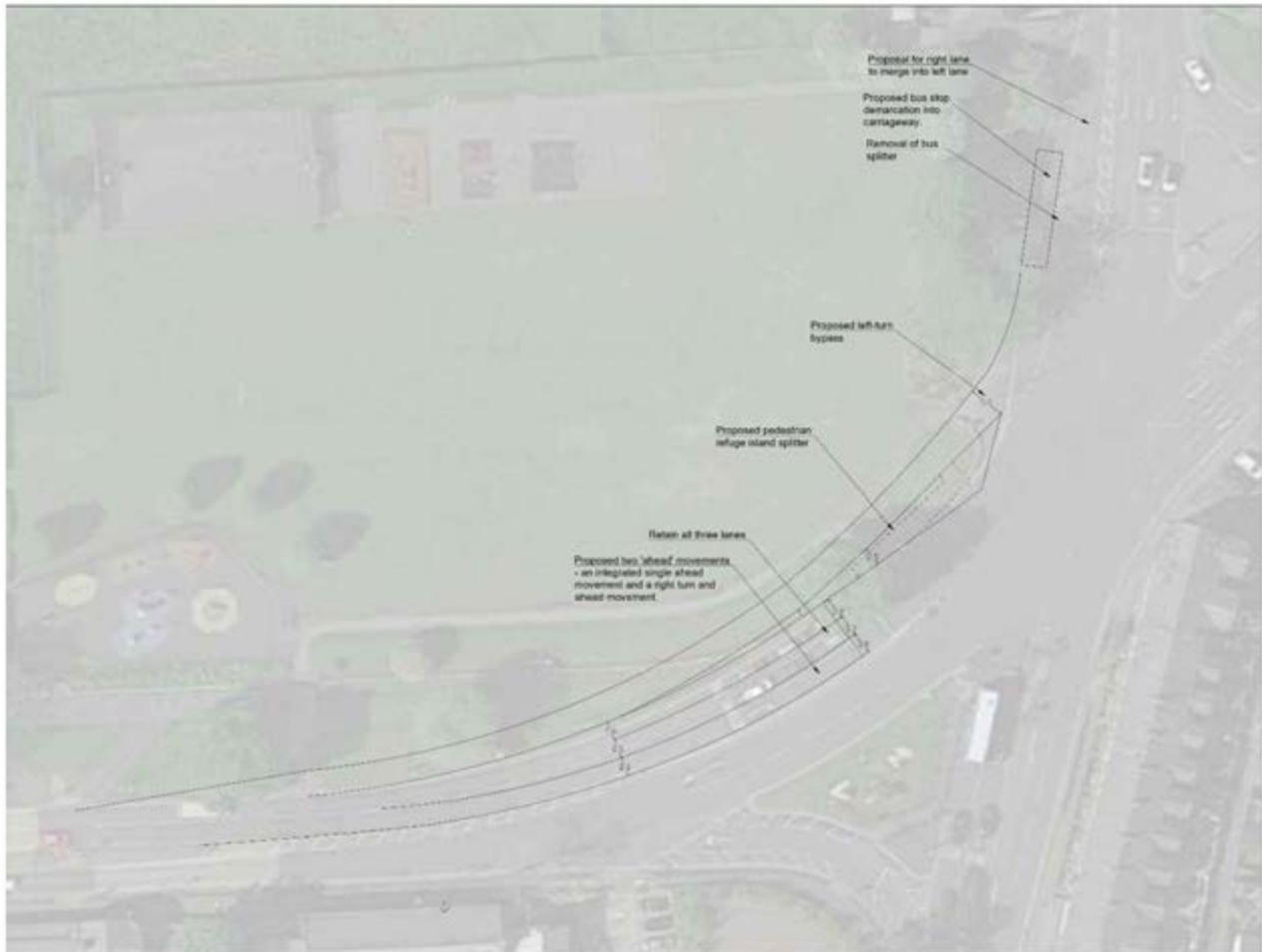


Please note that this design is based on indicative measurements taken from OS map in addition to guidelines from Google Maps. This design is subject to further improvement.

Appendix 4 – Indicative Mitigation Option 2 (A663 Shaw Road / A671 Rochdale Road)

[Illustrative/Typical Layout]

**GM14/15/16/17 and 21 - OLDHAM NORTH SITES
INDICATIVE MITIGATION PROPOSAL - A671 / A663**



Please note that this design is based on indicative measurements taken from OS map in addition to guidelines from Google Maps. This design is subject to further improvement.

Appendix 5 – Indicative Mitigation Option 4 (A6193 Sir Isaac Newton Way / A640 Elizabethan Way / A640 Newhey Road)

[Illustrative/Typical Layout]



Appendix 6 – Indicative Mitigation Option 5 (A627(M) / Chadderton Way / A663 Broadway Interchange)

[Illustrative/Typical Layout]

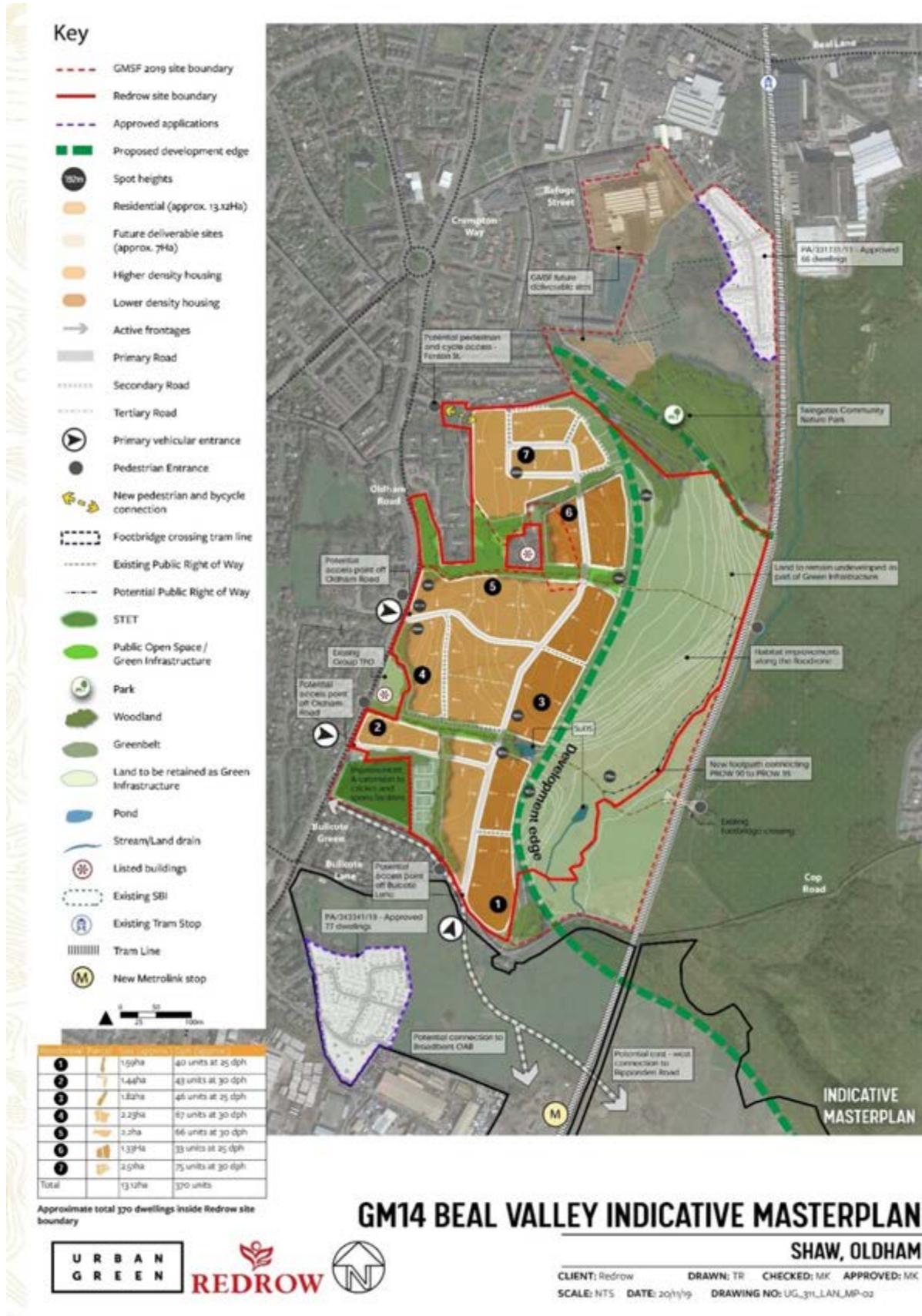
GM14/15/16/17 and 21 - OLDHAM NORTH SITES INDICATIVE MITIGATION PROPOSAL - CHADDERTON WAY



Please note that this design is based on indicative measurements taken from OS map in addition to guidelines from Google Maps. This design is subject to further improvement.

Appendix 7 – Redrow Indicative Concept Plan – Beal Valley

[Illustrative/Typical Layout]



Greater Manchester Spatial Framework

Locality Assessment:

Bottom Field Farm (Woodhouses) (GMA13)

Publication Version 2: November 2020

Identification Table	
Client	Oldham Council
Allocation	Bottom Field Farm (Woodhouses)
File name	GMA13 Oldham - Bottom Field Farm (Woodhouses) LA 021020
Reference number	GMA13 (2020) previously GMA22 (2019) 108724

Approval					
Version	Role	Name	Position	Date	Modifications
0	Author	Ruairidh MacVeigh	Consultant	01/08/20	Base report
	Checked by	Nicky Agimal	Senior Consultant	14/08/20	
	Approved by	Chris Cox	Associate	12/09/20	
1	Author	E. Hayes	TfGM	29/09/20	Consistency edits
	Checked By	J Betts	Oldham Council	30/09/20	
	Approved by	E Dryden-Stuart	Oldham Council	30/09/20	

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Allocation Data	
Allocation Reference No.	GMA13 (2020) previously GMA22 (2019)
Allocation Name	Bottom Field Farm (Woodhouses)
Authority	Oldham Council
Ward	Failsworth East
Modelling Analysis	130 Dwellings
Policy Allocation Proposal	30 Dwellings (GMSF Plan Period)
Allocation Timescale	0-5 years <input type="checkbox"/> 6-15 years <input checked="" type="checkbox"/> 16 + years <input type="checkbox"/>

Glossary

“2025 GMSF Constrained” - is the 2025 forecast case in which the model adjusts the input demand based on how the cost of travel changes from the base year to the future. For example, for a shopping trip undertaken by car which becomes more congested in future, changes might be travel via a different route, mode, location or time of day.

“2040 GMSF Constrained” - as above, but for a 2040 forecast year

“2025 GMSF High-Side” - is the 2025 forecast case in which the model does not adjust the input demand based on how the cost of travel changes. In this scenario congestion does not lead to a reassignment of traffic, and therefore road traffic flow will generally be higher.

“2040 GMSF High-Side” - as above, but for a 2040 forecast year

“2025 Reference Case” - is the Do Minimum scenario which includes delivery of all transport schemes already committed and assumed to be completed by 2025

“2040 Reference Case” - is the Do Minimum scenario which includes delivery of all transport schemes already committed and assumed to be completed by 2040

AADT - Annual average daily traffic, is a measure used in transportation planning to quantify how busy the road is

Bee Network - is a proposal for Greater Manchester to become the very first city-region in the UK to have a fully joined-up cycling and walking network: the most comprehensive in Britain covering 1,800 miles.

Bus Rapid Transit - is a bus-based public transport system designed to improve capacity and reliability relative to a conventional bus system. Typically, a BRT system includes roadways that are dedicated to buses, and gives priority to buses at junctions where buses may interact with other traffic

Existing Land Supply - these are allocations across the county that have been identified by each local planning authority across Greater Manchester and are available for development

Greater Manchester Variable Demand Model (GMVDM) - the multi-modal transport model for Greater Manchester. This transport model provides estimates of future year transport demand as well as the estimates of travel behaviour changes and new patterns that the Plan is likely to produce. These include

changes in choices of routes, travel mode, time of travel and changes in journey destinations for some activities such as work and shopping.

Local Road Network (LRN) - All other roads comprise the Local Road Network. The LRN is managed by the local highways authorities

National Trip End Model (NTEM) - is a Department for Transport forecast that ensures that measures of population, jobs and trips made by various mode are consistent across the whole of Great Britain.

Rapid transit services - refers to high frequency, high capacity metro style transport services including Metrolink and Bus Rapid Transit.

Strategic Road Network (SRN) - The Strategic Road Network comprises motorways and trunk roads, the most significant 'A' roads. The SRN is managed by Highways England.

"TfGM" - Transport for Greater Manchester, the Passenger Transport Executive for Greater Manchester

Urban Traffic Control (UTC) - is a specialist form of traffic management that, by coordinating traffic signals in a centralised location, minimises the impact of stop times on the road user.

1. Allocation Location and Overview

- 1.1.1 As this locality assessment was being finalised, a number of substantiate changes to Woodhouses Cluster were made which came too late in the Locality Assessment process to be reflected within the final round of modelling.
- 1.1.2 The final result of these changes amount to a substantial reduction in allocation quantum. Initially proposed as part of the 2019 Draft Plan at 260 dwellings, a reduction to 130 dwellings took place, with a subsequent final amendment to 30 dwellings within the GMSF plan period. Revised allocation boundaries now retain only the southern land parcel, land at Bottom Field Farm, as part of the GMSF allocation. Further details are available within section 18, table 11.
- 1.1.3 As these amendments to Woodhouses Cluster were made too late for inclusion in the final round of modelling, this Locality Assessment will focus discussion of impact and mitigation based upon the previous development quantum of 130 homes across two land parcels.
- 1.1.4 For the purposes of this report, the majority of images will still contain the previously proposed and modelled Woodhouses Cluster allocation with a potential capacity of 130 home.
- 1.1.5 It is likely that these changes will materially affect the scope of the junction mitigations proposed, and it is very likely that the site now has the potential to be delivered without the junction improvements originally proposed, as such these have been removed from the final list of necessary interventions. This will need to be verified at planning application stage through the production of a Transport Assessment.
- 1.1.6 For the purposes of the testing the impact of the allocation through the strategic model, a total of 130 dwellings have been assumed to be built out by 2040 rather than the 30 dwelling in the revised allocations policy.
- 1.1.7 This Locality Assessment (LA) is one of a series being prepared for proposed new allocations within Greater Manchester in order to confirm the potential impacts on both the local and strategic network, as well as identifying possible forms of mitigation or the promotion of sustainable alternatives to reduce this impact.
- 1.1.8 The Woodhouses Cluster allocation is in the Metropolitan Borough of Oldham, originally consisting of up to 130 dwellings, and is situated in the Failsworth East ward. This allocation originally

consisted of multiple land parcels, but has since been reduced to one - the southern parcel located to the south of Woodhouses on what is currently Bottom Field Farm adjacent to Hartshead Crescent.

1.1.9 No highway infrastructure is present, however, access arrangements are expected to consist of an access north onto Hartshead Crescent using the existing access into Bottom Field Farm for the southern parcel.

1.1.10 The allocation lies within the 2011 Census mid-layer super output area of Oldham 033.

Figure 1. Revised Policy Allocation Location – Bottom Field Farm (Woodhouses)



Note: Since initial publication a number of allocations have undergone revision or withdrawal. Boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

2. Justification for Allocation Selection

- 2.1.1 The Site Selection process has been led by the 10 Greater Manchester Authorities, including Oldham Council, and provided the starting point for the investigation of the preferred sites through the Locality Assessments.
- 2.1.2 Detail of the Site Selection process including the criteria used to identify the sites, and how this was used to select the most sustainable sites is considered within the GMSF Spatial Strategy.

3. Key Issues from Consultation

- 3.1.1 The Greater Manchester Plan for Homes, Jobs and Environment (Spatial Framework) consultation ran from 14th January to 18th March 2019. The comments made during the 2019 GMSF consultation relate to the following key transport themes; roads, public transport, air quality and active travel:
- Concerns about existing levels of traffic congestion and impact of allocation due to number of vehicles;
 - Medlock Road is too narrow in parts for two-way traffic, but not for its entire length – the location of access points would remove demand from Medlock Road;
 - Concerns regarding parking - park on both sides of the road, which creates safety issues, adds to congestion and means there is a lack of proper infrastructure for walking or cycling;
 - Access points still to be agreed, but preferred access would be onto Failsworth Road only for the northern parcel;
 - Lack of public transport provision;
 - Medlock Road has been extensively traffic calmed and presents on-street parking, but proposals have been made to either add further or alter traffic calming measures;
 - On-street parking Medlock Road on both sides of the road;
 - Speeding on Medlock Road;
 - Rat-run to Clayton, Manchester and Oldham;
 - In order to reduce the site's dependence on car travel, the ambition is to connect this site to Failsworth Metrolink station via the Albert Street Development, as well as the proposed routes of the Bee Network;

- Hollinwood Park and Ride is often full;
- Bus services stopped in the area apart from during rush hour;
- Concern that any location of access will cause issues;
- Marston Close is a small cul-de-sac and could not cope with the increased traffic; and
- Concern of the impact of construction traffic in terms of safety and noise.

4. Allocation Location and Overview

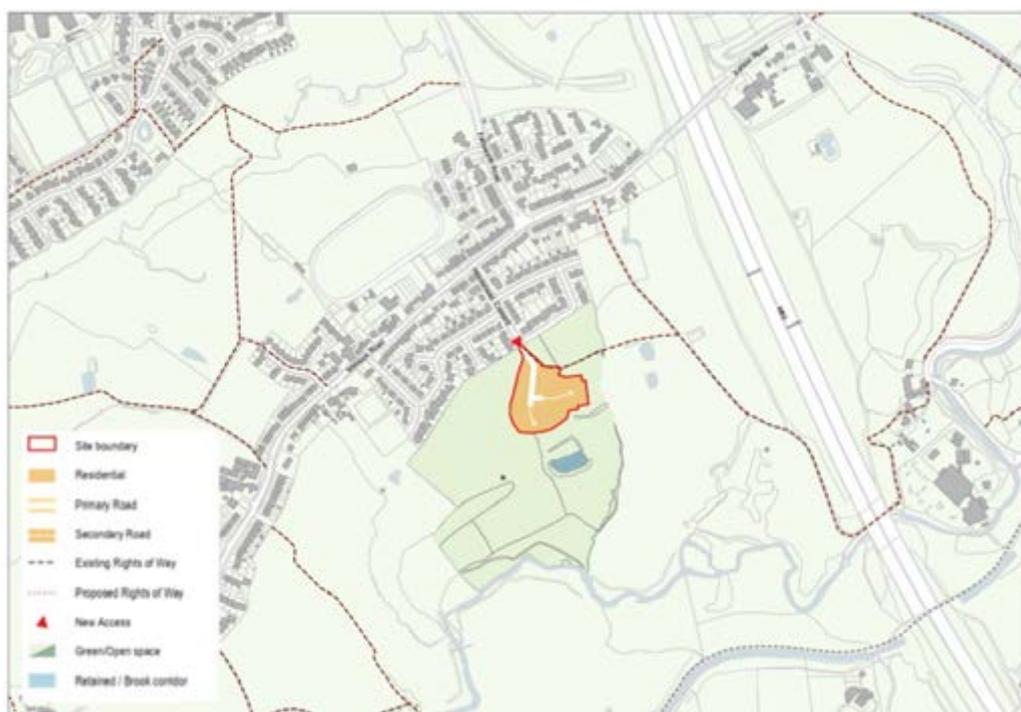
4.1 Vehicular Access

Figure 2. Original Indicative Concept Plan



4.1.1 The following figures outline the initial allocation proposal concept as modelled at 130 dwellings and discussed within this Locality Assessment and the revised allocation for 30 dwellings.

Figure 3. Revised Indicative Concept Plan



Note: All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

4.1.2 The proposed location for access to the allocation is via Hartshead Crescent.

4.1.3 Hartshead Crescent is a residential street with footpaths, full street lighting and a 20mph speed limit. This road also presents carriageway width restrictions and on-street parking. The road continues directly into the Plot 2 of the allocation where it forms a direct access to the existing farm buildings.

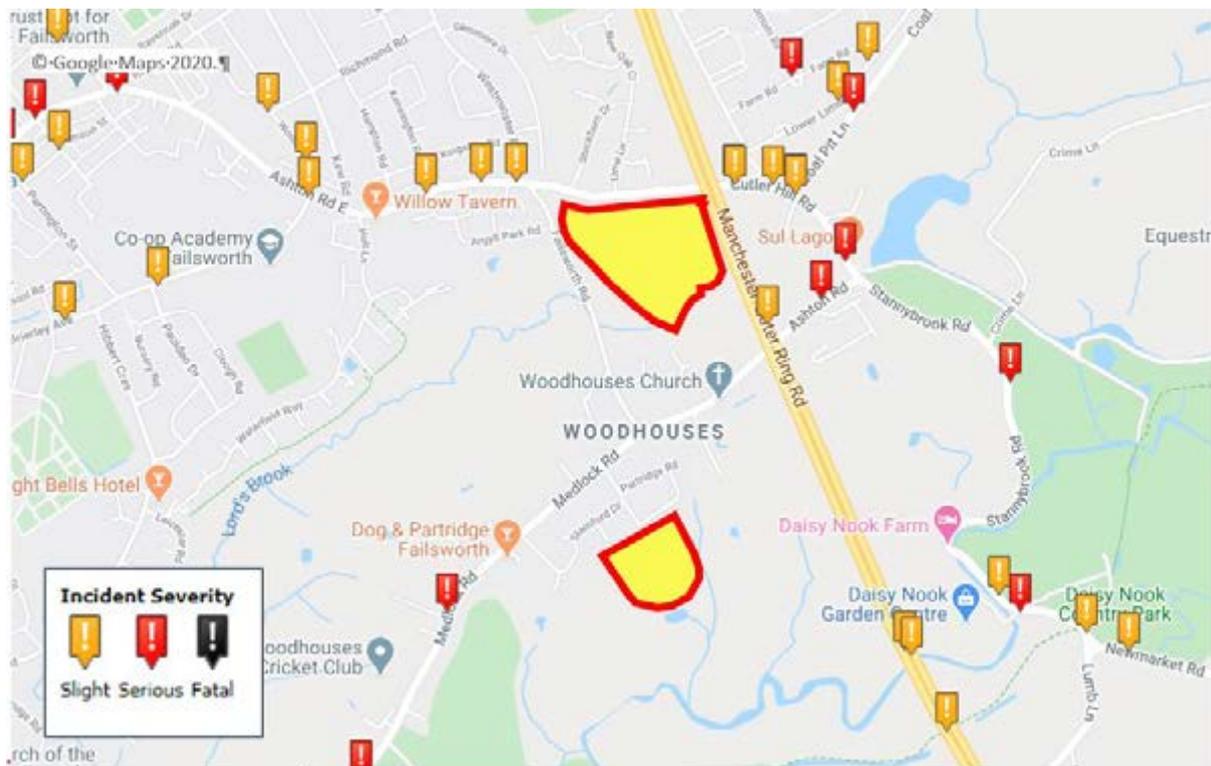
4.2 Accidents and Collision Overview

4.2.1 **Table 1** and the figure below show the number of vehicle collisions over the last 5 years in a 1km area surrounding the Woodhouses Cluster allocation. There have been a total of 44 accidents over the last 5 years.

Table 1. Collision data within 1km of site within the last 5 years.

Fatal	Serious	Slight	Total
1	23	51	75

Figure 4. Location map – Collision data within 1km of site within the last 5 years



© Google Maps 2020. NB: Plot 1 on the above masterplan has been withdrawn from the allocation since final modelling outputs were developed.

5. Proposed Access to the Allocation

- 5.1.1 Based on the revised indicative concept plan, the site would be served by a single vehicular access to Hartshead Crescent via the existing entry to Bottom Field Farm.
- 5.1.2 The Hartshead Crescent access will comprise modification to the existing three-arm priority junction to make it suitable for development traffic. It is also recommended, in order to allow for safe right-turn movements across oncoming traffic into the site, that the site access is given priority, and that traffic approaching on Hartshead Crescent to the east gives way.

6. Multi-modal accessibility

6.1 Overview

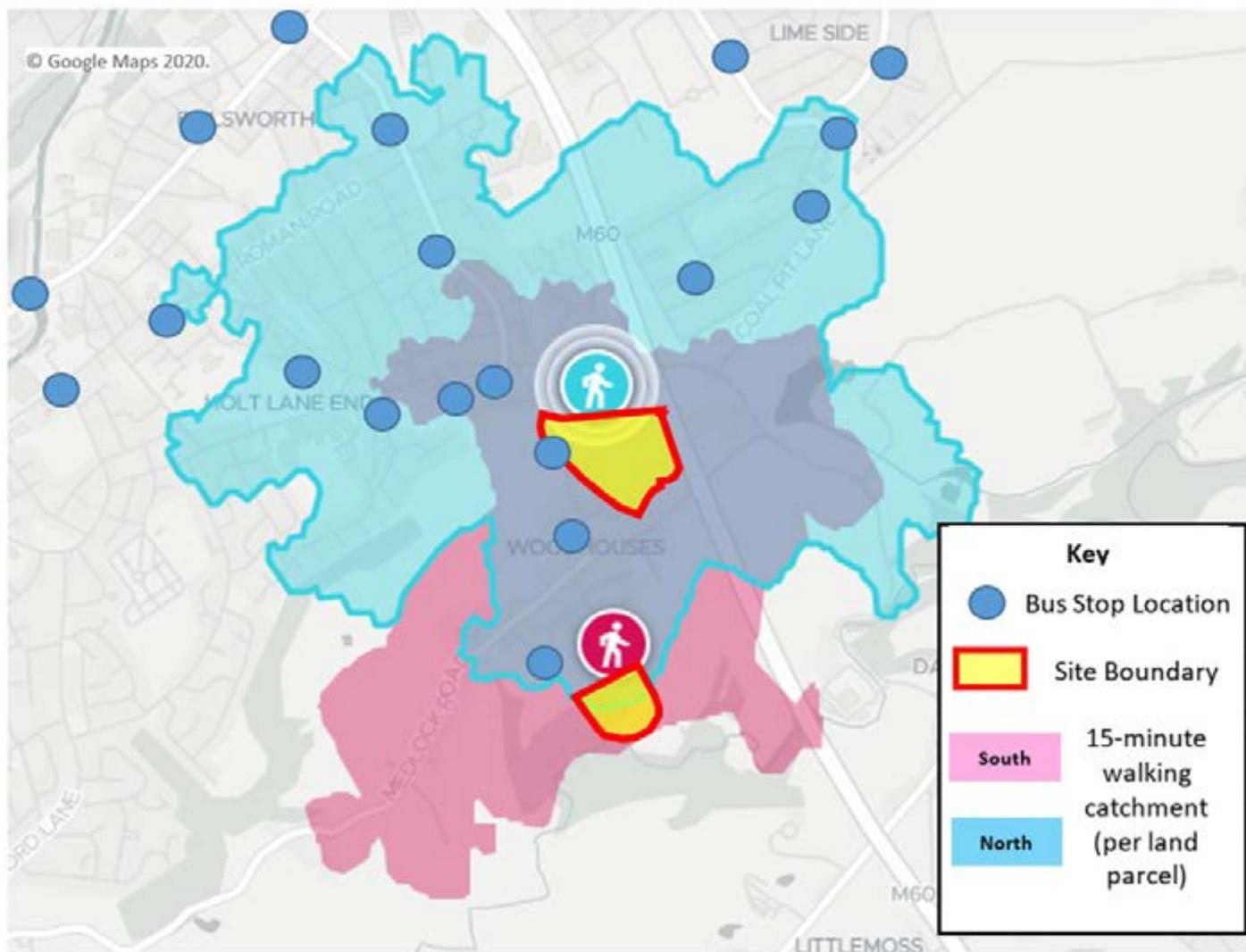
- 6.1.1 The current accessibility of the Woodhouses Cluster site using Greater Manchester's Accessibility Level model (GMAL) has been identified as comprising areas of level 2 and 3 for accessibility.
- 6.1.2 The Medlock Road bus stop in the centre of Woodhouses is a short distance from the site and is easily accessible. The Ashton Road East stop provides peak time services to Oldham and Manchester city centre, while the Medlock Road bus stop provides morning peak services only to Manchester every 30 minutes, and an hourly service throughout the day between Oldham and Middleton.

6.2 Walking and Cycling

- 6.2.1 The main local destinations likely to generate walking and cycling trips are the local shops at Failsworth (2km), Co-op Academy Failsworth (1.1km), Holy Family RC Primary School (1.4km), Limehurst Primary School (1.6km), and Higher Failsworth Primary School (1.6km).
- 6.2.2 While the Cutler Hill Road and Failsworth Road provide standard width footpaths connecting both the northern and southern sites to Failsworth and the wider Oldham area, these are only provided on one side of the carriageway. Furthermore, while full lighting is present on these main pedestrian and cycle routes, there are no dedicated crossing facilities, and no dedicated facilities for cyclists. Though SFA may resolve some pedestrian/cycle issues, localised improvements may be required in the vicinity of the new access

- 6.2.3 National Cycle Route 626 (NCN626) runs 3km east of the site, linking Oldham with Ashton-under-Lyne via Park Bridge Road. While this offers an attractive route away from traffic, it cannot be easily accessed from the Woodhouses Cluster allocations as no dedicated cycle paths or bridleways connect the two.
- 6.2.4 There is an existing Public Right of Way (PROW) that runs north from Cutler Hill Lane between Stockburn Drive and Glenmore Drive which provides an off-road walking and cycling route towards central Oldham. There are also several PROWs that run west from Failsworth Road to Waterfield Way and Leicester Road, as well as south from Hartshead Crescent and Ashton Road which provide dedicated pedestrian crossings of the M60 while also providing access towards Taunton and Ashton-under-Lyne.
- 6.2.5 While the southern parcel does not sit on any section of the proposed Bee Network, one part of the Bee Network passes immediately west of the northern parcel between Oldham and Failsworth, and could be easily integrated into this site. Notwithstanding this, the design of the internal pedestrian/cycle access should reflect the standards being implemented by the Bee Network in order to suitably accommodate both pedestrian and cycle users. These walking and cycling routes could also be integrated into the possible spine road passing through the site from east to west.
- 6.2.6 The figure below shows the current level of accessibility for the original Woodhouses Cluster sites using the Travel Time Platform online database, which illustrates the 15 minute walking time from the proposed site access via the local road network and any available pedestrian through-routes.

Figure 5. 15-minute walking catchment with public transport provision



NB: Plot 1 on the above masterplan has been withdrawn from the allocation since final modelling outputs were developed. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping

6.2.7 In terms of access to public transport facilities by foot, there are local bus stops situated in the centre of Woodhouses and southeast Failsworth which are all within a walkable distance of both land parcels.

6.3 Public Transport

6.3.1 While there are multiple local bus services within close proximity of both sites, the distance between the two land parcels means there are differences in the routes that pass near each one.

For the southern parcel, this is served by routes operated by Stagecoach and Stotts Coaches, which include the following:

- Route 74: Piccadilly Gardens to Woodhouses (average frequency: 30 minutes, only operates during morning peak)
- Route 159: Oldham to Middleton (average frequency: 60 minutes)

6.3.2 For the northern parcel, there are more frequent services and routes within the eastern suburbs of Failsworth which are operated by Stagecoach, and include the following:

- Route 76 and 76A: Piccadilly Gardens to Oldham (average frequency 10 minutes)

6.3.3 In terms of public transport, bus services operate to the centre of Woodhouses village at infrequent or inconsistent intervals, while more frequent services operate to the northwest of the proposed allocation in the suburbs of Failsworth. The nearest heavy rail station and Metrolink stop can be found at Moston and Failsworth, respectively, and travel south to Manchester city centre and north to Rochdale.

6.3.4 **Table 2** identifies the current accessibility of public transport for the future residents of the Woodhouses Cluster site, exploring the proximity, and the frequency of travel during peak hours.

Table 2. Accessibility of and proximity to Public Transport

Mode	Nearest Stop/ Station	Distance (km)*	Peak Hour Frequency (Mins)
Bus	Ashton Road East (Northern Parcel)	0.1	10
Bus	Medlock Road (Southern Parcel)	0.3	60
Rail	Moston	4.4	30
Metrolink	Failsworth	2.7	6

6.4 Proposed

- 6.4.1 In consideration of the provision of existing pedestrian and cycling infrastructure in the adjacent residential streets, our main recommendation in this regard is that a permeable network for pedestrian and cyclist priority within the development is required including sufficient secure cycle parking for all dwellings.
- 6.4.2 Given the location of the allocation and its close proximity to the Failsworth local area, the internal walking and cycle network should be linked to high quality routes connecting through to these areas, including the proposed Bee Network. Existing PRowS that either pass near or cross the proposed site should be positively upgraded, with both PRowS and the internal pedestrian/cycle network of the site being constructed to the standards set out by the Bee Network.
- 6.4.3 Furthermore, as a section of the Bee Network passes immediately adjacent to the northern parcel, pedestrian and cycle access to and from the site should be integrated into this network in order to allow for improved cycle and pedestrian routes into the centre of Oldham. A new pedestrian crossing facility, provisionally identified to be formed of a Zebra crossing is identified to be necessary at Cutler Hill Road to accommodate pedestrian movements.
- 6.4.4 With regard to public transport, the – Woodhouses Cluster allocation has been identified as potentially benefiting from increased bus services on the routes serving the village, specifically the 74, which could possibly be expanded to run through the day via Woodhouses, or via a potential new service that could operate a dedicated service via Woodhouses. Such an increase in frequency could be funded in-part through contributions arising from development order to help secure the delivery of this allocation.

7. Parking

- 7.1.1 It is not necessary to consider in detail the parking standards for residential units relevant to the site at this stage of assessment as there are no particular constraints on achieving likely minimum parking standards that may be in application at the time the site is brought forward. Accommodation of Electric Vehicle (EV) parking, while an important factor in developing more efficient transport connections for the allocation, should be considered at the detailed design stage, potentially as an integration of specific house design.

- 7.1.2 A broad assumption has been made that a maximum of 2 spaces per dwelling is likely to be proportionate however other alternative local policy requirements are likely to be equally deliverable and can be considered at the planning application stage.
- 7.1.3 National Planning Policy Framework (NPPF) is clear that such standards should only be set where there is a clear and compelling justification that they are necessary. This may be either for managing the local road network conditions, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with chapter 11 of NPPF).

8. Allocation Trip Generation and Distribution

- 8.1.1 Future trip generation to/from the site (i.e. how many people and vehicles will enter or leave the site) was estimated by applying a set of GM-wide trip rates to the agreed development quantum for each site. The distribution of trips (i.e. where they are going to or coming from) was derived by selecting nearby zones with similar land use characteristics as a proxy and using the existing distribution in the model.
- 8.1.2 Note Table 3 and 4 below are based upon the original, as modelled development quantum of 130 homes in total within the GMSF plan period. This has undergone further revision since modelling outputs and this Locality Assessment document were produced. Further details of the changes in quantum and geography to GMSF Allocation 22 Woodhouse are available in section 18.

Table 3. Development Quantum: Woodhouses Cluster

Residential	Houses	30	130
Total		30	130

Table 4. Allocation Traffic Generation: Woodhouses Cluster *

Year	AM Peak Hour Departures	AM Peak Hour Arrivals	PM Peak Hour Departures	PM Peak Hour Arrivals
2025 GMSF Constrained	10	3	5	11
2025 GMSF High-Side	10	4	6	11
2040 GMSF Constrained	41	12	21	44
2040 GMSF High-Side	45	18	27	44

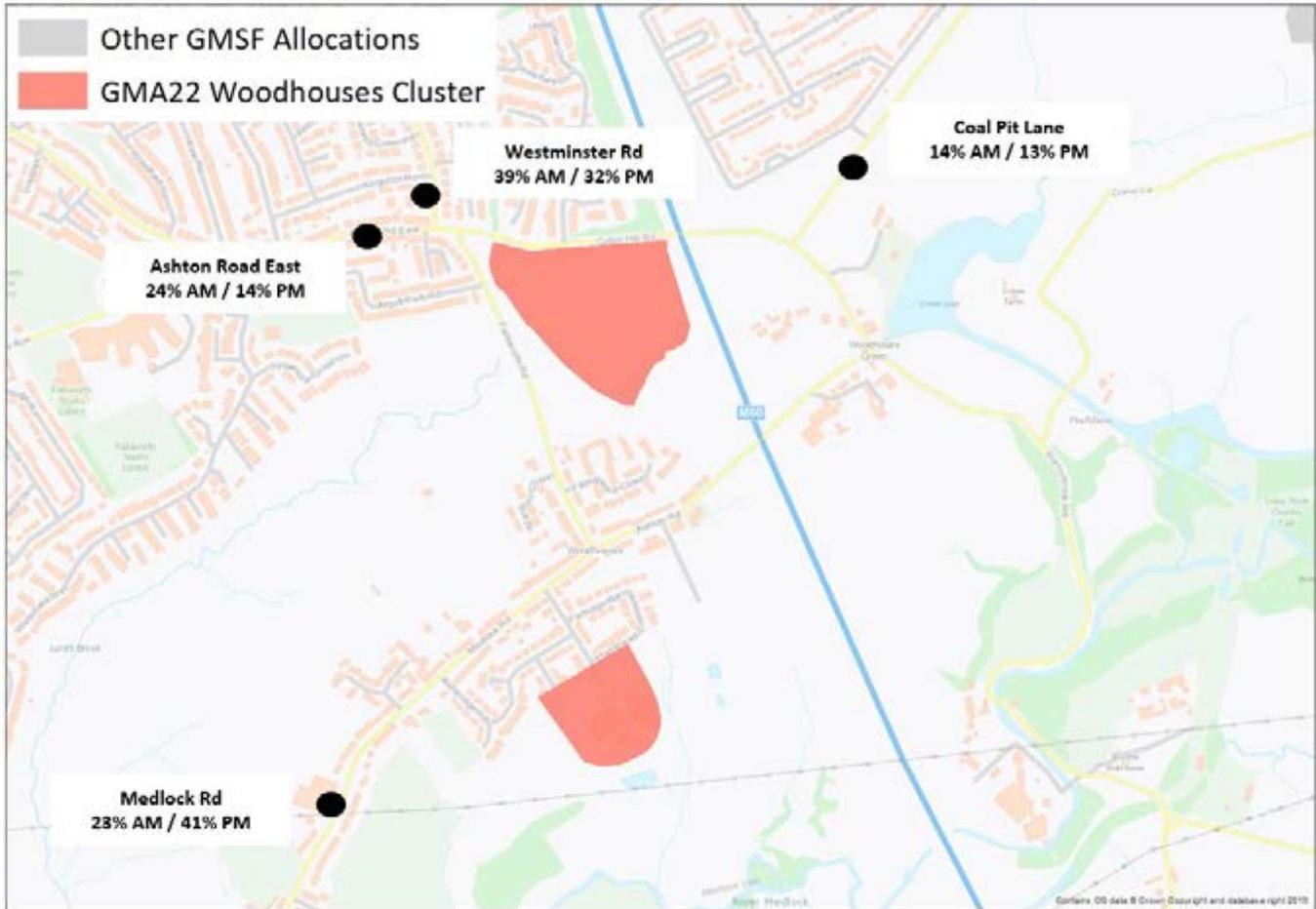
*Units are in PCU (passenger car units/hr)

Table 5. Allocation Traffic Distribution, 2040 GMSF High-Side (Origin/Destination Combined):

Woodhouses Cluster

Route	AM Peak Hour	PM Peak Hour
Medlock Road	23%	41%
Ashton Road East	24%	14%
Westminster Road	39%	32%
Coal Pit Lane	14%	13%

Figure 6. Allocation Traffic Distribution, 2040 GMSF High-Side (Origin/Destination Combined)



NB: Plot 1 on the above masterplan has been withdrawn from the allocation since final modelling outputs were developed. Figures based on original, as modelled development quantum of 130 homes. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping

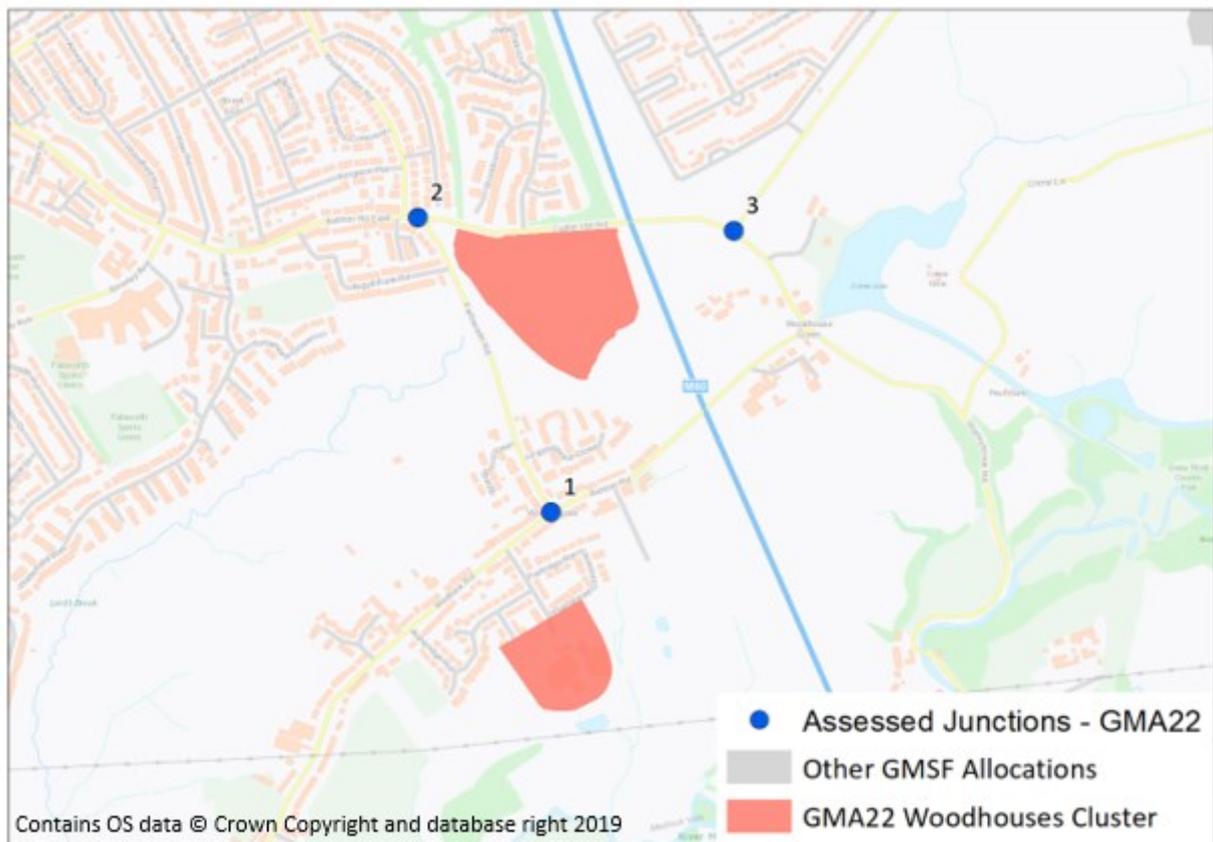
9. Existing Highway Network Review

9.1.1 Cutler Hill Road runs east to west to the north of the northern parcel of the – Woodhouses Cluster allocation, connecting Taunton with Failsworth, while Medlock Road forms the main route from east to west through the centre of Woodhouses, and is easily accessible from the southern parcel. SYSTRA identified a number of junctions in proximity to the site where additional traffic could have an impact on their operation based on existing conditions.

1. Failsworth Road / Medlock Road (mini-rbt)
2. Failsworth Road / Westminster Road (double-mini rbt)

3. Cutler Hill Road / Coal Pit Lane

Figure 7. Key junctions assessed



NB: Plot 1 on the above masterplan has been withdrawn from the allocation since final modelling outputs were developed. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping

10. Treatment of Cumulative Impacts

10.1.1 The constrained and high side model runs take account of traffic associated with all GMSF sites. Within a 2km buffer of the Woodhouses Cluster development site is the allocation at Land south of Coal Pit Lane (Ashton Road) allocation. Therefore, at the local level, the transport impacts of the site need to be considered cumulatively with this and other sites.

10.1.2 The Woodhouses Cluster development was originally expected to generate approximately 63 to 71 two-way vehicle trips during the morning and evening peak hours, while the Ashton Road Corridor was forecast to generate approximately 89 to 128 two-way vehicle trips during the morning and

evening peak hours. The combined impact of these trips could have a more significant impact on the network than that of the site by itself; hence the combined impact has been assessed.

11. Allocation Access Assessment

11.1.1 This site access arrangement has been developed to illustrate that there is a practical option for site access in this location at the original level of expected development and to develop indicative cost estimations. It is assumed that a detailed design consistent with Greater Manchester’s best practice Streets for all highway design principles will be required at the more detailed planning application stage.

11.1.2 Due to the role of the proposed highway network within the site, which will have a role in local traffic distribution, the full traffic impact of all GMSF flows are recorded below, and not just those pertaining to the allocation.

Table 6. Site Access Junction Capacity Analysis: Woodhouses Cluster

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	GMSF Flows AM	GMSF Flows PM
Cutler Hill Road Access Northern Parcel	N/A	N/A	10%	6%	54	37
Hartshead Crescent Access Southern Parcel	N/A	N/A	5%	2%	9	32

12. Impact of Allocation Before Mitigation on the Local Road Network

12.1.1 In order to understand a worst case impact of the GMSF, the ‘high side’ runs from the GMVDM were used to derive with GMSF development flows for 2040. These flows were then entered into junction based models for the junctions identified in section 8. Flows from a 2040 reference case scenario (including approved Local Plan development from the respective districts) were also extracted to provide a comparison between the operation of those junctions in the 2040 reference case and the 2040 with GMSF development scenarios.

- 12.1.2 The 'with GMSF' scenario has been assessed against a Reference Case which assumes background growth and includes the housing and employment commitments from the districts. Through discussions with TfGM and the Combined Authority, it has been agreed that where mitigation is required, it should mitigate the impacts back to a reference case scenario. It should be noted that mitigating back to this level of impact may not mean that the junction operates within capacity.
- 12.1.3 These assessments were then used to identify the junctions where there was considered to be a substantial impact, relative to the operation of the junction in the 2040 reference case, and hence where mitigation was considered to be required in order to bring GMSF sites forward. Through discussions with TfGM and the Combined Authority, it was been agreed that where mitigation is required, it should mitigate the impacts back to the reference case scenario. It should be noted that mitigating back to this level of impact may not mean that the junction operates within capacity by 2040.
- 12.1.4 This section looks at the impact on the network at the junctions highlighted in **Section 9**. Signalised junctions were assessed in detail using industry-standard modelling software LINSIG version 3. Where possible, traffic signal information was requested from TfGM in order to ensure that the local junction models reflected (as far as possible), the operation of the junctions on the ground. Junctions 9 software was used to assess priority and roundabout junctions. **Table 7** below provides a comparison between the operation of the in scope junctions in the 2040 reference case and the 2040 'high side' scenarios, as well as the site development flows through each respective junction. The table shows a comparison between the ratio of flow to capacity on the worst case arm at each junction as well as the total development flows through the junction.
- 12.1.5 For reference, a figure of between 85% and 99% illustrates that the junction is nearing its operational capacity, and a figure of 100% or over illustrates that flows exceed the operational capacity at the junction.

Table 7. Results of 2040 Local Junction Capacity Analysis Before Mitigation - Woodhouses Cluster

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	Allocation Flows AM	Allocation Flows PM
1. Failsworth Road / Medlock Road (mini-rbt)	24%	32%	23%	32%	14	25
2. Failsworth Road / Westminster Road (double-mini rbt)	73%	130%	74%	97%	39	43
3. Cutler Hill Road / Coal Pit Lane	104%	116%	105%	116%	9	9

13. Transport Interventions Tested on the Local Road Network

13.1.1 While in isolation this development would be unlikely to present significant implications on the surrounding road network, its potential cumulative impact with the Land south of Coal Pit Lane (Ashton Road) site by 2040 (as outlined in **Section 10**) has resulted in a mitigation scheme being considered at one of the junctions likely to see material impacts as a result of traffic introduced by these sites.

Table 8. Approach to Mitigation: Woodhouses Cluster

Junction	Mitigation Approach
3. Cutler Hill Road / Coal Pit Lane	Cumulative impact, but not substantial for this allocation. Mitigation proposed.

13.1.2 These schemes were then coded into the GMVDM, in advance of a second ‘with mitigation’ run of the model. The outcomes of this model run are presented in the following section.

13.1.3 In consideration of the provision of existing pedestrian and cycling infrastructure in the adjacent residential streets, our main recommendation in this regard is that a permeable network for pedestrian and cyclist priority within the development is required including sufficient secure cycle parking for all dwellings.

14. Impact of Interventions on the Local Road Network

14.1.1 In order to understand whether the mitigation developed for the site (and all other sites within the GMSF) is sufficient to mitigate the worst-case impacts of the GMSF identified in **Section 12**, a second run of the GMVDM with all identified mitigation included, was undertaken. Where a significant flow change was observed the junction models were rerun to check that the mitigation identified in **Section 13** is still sufficient to mitigate site impacts and that all other in scope junctions continue to operate satisfactorily in light of any reassignment due to mitigation schemes.

14.1.2 **Table 9** below provides a comparison between the operation of the in-scope junctions in the 2040 reference case and the 2040 ‘high side’ with mitigation scenarios, as well as the site development flows through each respective junction. The table shows a comparison between the ratio of flow to capacity on the worst-case arm at each junction as well as the total development flows through the junction.

Table 9. Results of 2040 Local Junction Capacity Analysis After Mitigation: Woodhouses Cluster

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	Allocation Flows AM	Allocation Flows PM
3. Cutler Hill Road / Coal Pit Lane	83%	91%	84%	91%	9	9

15. Impact and mitigation on the Strategic Road Network

15.1 Overview

- 15.1.1 SYSTRA is currently consulting with Highways England on behalf of TfGM and the Combined Authority in relation to the wider impacts of the GMSF allocations on the Strategic Road Network (SRN). This consultation is ongoing and it is expected that it will allow Highways England to gain a strategic understanding of where there is an interaction between network stress points and GMSF allocation demand. This will facilitate further discussion and transfer of information between TfGM and Highways England in reaching agreement and/or common ground.
- 15.1.2 Based on the proposed buildout of the site, and its distance from the nearest section of the Strategic Road Network (SRN), the Woodhouses Cluster allocation has been considered unlikely to present traffic implications requiring the introduction of mitigation on the SRN.
- 15.1.3 The nearest SRN junction to the – Woodhouses Cluster development is M60 Junction 22 (1.7km northwest).

16. Final list of interventions

Table 10. Interventions List: Woodhouses Cluster

Mitigation	Description
Site Access	
Cutler Hill Road Junction	Priority junction assumed
Hartshead Crescent Junction	Priority junction assumed
Necessary Local Mitigations	
Permeable network for pedestrian and cyclist priority within the development	Assumed full permeability of cycle and pedestrian access, as well as direct connections to PRoWs either bounding or near the development and improvement of walking/cycling facilities on Cutler Hill Road. All pedestrian and cycle networks internal to the site, as well as connecting PRoWs,

	should be built or upgraded to the standards outlined in the Bee Network, as well as providing connections to the nearest section of the Bee Network
Minor Traffic Management Improvements	Minor Traffic Management Improvements to address local highways concerns
Discounted Local Mitigations	
Improvement to Cutler Hill Road / Coal Pit Lane junction	An indicative scheme was developed as a potential improvement scheme at this location. This has been discounted as it is no longer necessary local mitigation – See Appendix 1
Improvement of Failsworth Road / Westminster Road (double-mini roundabout)	An indicative scheme was developed as a potential improvement scheme at this location, discounted due to highway safety concerns, lack of space for viable alternative and significantly significant amendment to allocation (quantum reduction and removal of northern land parcel) – See Appendix 2

Permeable network for pedestrian and cyclist priority within the development

- 16.1.1 1.1.1 In order to promote and encourage sustainable transport modes, as well as providing safe and efficient accessibility for non-vehicular traffic, the development is to both provide ease of access for pedestrian and cyclist traffic into and out of the site, as well as connecting and improving Public Rights of Way that either directly connect or pass near the proposed site. This is to include upgrading of the local PRoW routes to meet the standards of the proposed Bee Network and, wherever possible, connect directly to sections of the Bee Network.
- 16.1.2 Furthermore, pedestrian and cycle facilities in the areas surrounding the Woodhouses Cluster allocation should be improved wherever possible in order to allow for safe accessibility by non-vehicular users to both all parts of the development, but also the adjacent residential, employment and retail areas.

16.2 Discounted interventions

- 16.2.1 The interventions below have been discounted due to substantiate changes to Woodhouse Cluster which came too late in the Locality Assessment process to be reflected within the final round of modelling.
- 16.2.2 Revised allocation boundaries now retain only the southern land parcel, land at Bottom Field Farm, as part of the GMSF allocation. Further details are available within section 18, table 11.
- 16.2.3 As these amendments to Woodhouse Cluster were made too late for inclusion in the final round of modelling, it is likely that these changes will materially affect the scope of the junction mitigations proposed, as such these have been removed from the final list of necessary interventions within section 16. This will need to be verified at planning application stage through the production of a Transport Assessment

Cutler Hill Road / Coal Pit Lane – Discounted due to amendment of allocation

- 16.2.4 At the Cutler Hill Road / Coal Pit Lane junction, a mitigation scheme had been proposed to provide an additional lane approach for the Coal Pit Lane arm of the junction (**Appendix 1**).
- 16.2.5 As no public transport movements operate across this junction, either currently or proposed, this transport intervention purely considers highway infrastructural intervention.

16.2.6 The introduction of this mitigation scheme was expected to answer concerns regarding uncertainty as to the local road network's ability to support the proposed development (i.e. Coal Pit Lane, Bardsley Vale Avenue).

Failsworth Road / Westminster Road (double-mini roundabout) - Discounted due to amendment of allocation

16.2.7 In addition to the mitigation proposed at the Cutler Hill Road/Coal Pit Lane priority junction, a mitigation scheme was considered to relieve congestion noted at the Failsworth Road / Westminster Road double-mini roundabout (included for reference in **Appendix 2**). This mitigation scheme proposed to convert the eastern roundabout to a 3-arm priority junction with right turn facilities for traffic turning into Failsworth Road from Ashton Road East.

16.2.8 The original implementation of a double mini-roundabout scheme at the Failsworth Road / Westminster Road junction was undertaken as a safety intervention in response to a series of accidents, therefore further changes to this roundabout will require significant further investigation. One suggested alternative was the conversion of the entire junction into a large single standard roundabout, but early assessment of this option determined that this could not be delivered due to space constraints from surrounding dwellings, and thus would likely require the issuing of CPOs.

17. Greater Manchester Transport Strategy Interventions

Oldham

- 17.1.1 In addition to the site-specific interventions set out in this Locality Assessment, there are a number of other measures already planned by Oldham Council and Transport for Greater Manchester to support sustainable travel, and to contribute to the achievement of Greater Manchester's ambitions.
- 17.1.2 Transport for Greater Manchester is currently producing a business case for early delivery of a Quality Bus Transit scheme between Rochdale, Oldham and Ashton, which will include significant improvements to the quality, frequency and reliability of the bus service, as well as localised public realm enhancements which it is hoped will lead to an increase in bus patronage along the route. If successful, the concept would be rolled out to other routes in the City Region.
- 17.1.3 TfGM is also leading a study to complete a business case for the early delivery of the Cop Road Metrolink stop, which would improve access to Rochdale and Oldham and, from there, the Regional Centre.
- 17.1.4 In addition, Oldham Council is progressing 'Accessible Oldham' a £6 million Local Growth Deal package to regenerate and improve the connectivity of Oldham town centre. The scheme includes upgraded pedestrian areas and cycling routes, better access to bus and Metrolink stops and improvements to the highway network.

- 17.1.5 Oldham Council have successfully bid for funding from the Mayor of Greater Manchester's Cycling and Walking Challenge Fund – a £160 million initiative to deliver the infrastructure to encourage more people to cycle and walk across the region. This scheme is to come forward in a series of Bee Network developments within the Oldham area.
- 17.1.6 Outside of the town centre, Network Rail, in association with TfGM, have secured funding for the "Access for All" scheme from the Department for Transport in order to upgrade Mill Hill Rail Station to improve access for mobility impaired passengers, improving accessibility by rail in both Manchester and Rochdale directions. TfGM are also investing in the increase of capacity at the Mill Hill Park & Ride facilities through Growth Deal 3.
- 17.1.7 Oldham Council have mediated between Network Rail and TfGM with regard to off-site highway works, and NR are now providing a new controlled pedestrian facility to link the two schemes together, although the facilities chosen have not been considered ideal for this proposal. Furthermore, there is some dispute regarding car park development at Mill Hill station as it contravenes bus only restrictions and conflicts with bus movements.

18. Phasing Plan

- 18.1.1 This initial exercise focused on the development quantum to be delivered at the end of the plan period, i.e. by 2040.
- 18.1.2 As discussed, Woodhouse allocation underwent significant revision following final modelling outcomes were generated. These changes came too late within the Locality Assessment process to be reflected within the Locality Assessment process. As such, this Locality Assessment, assessed impacts, and proposed interventions have been developed with previously proposed development quantum and geography in mind.
- 18.1.3 Further details on the as modelled allocation quantum and geography are detailed in the tables below. Based on the initially proposed forecast, 23% of the development quantum (30 dwellings) for the Woodhouses Cluster allocation was expected to come forward by 2025. The full development quantum was expected to come forward by 2040.
- 18.1.4 The updated GMSF Policy Proposal for Bottom Field Farm (Woodhouses) is detailed in the tables below This reflects the significantly reduced quantum and removal of one land parcel, retaining

only the site at Bottom Field Farm. It is expected that the full development quantum will come forward by 2030.

Table 11. Allocation Phasing – As modelled: Woodhouses Cluster

Allocation Phasing	2020 25	2025 30	2030 2038	2038+	Total
Northern Parcel	0	100	0	0	100
Southern Parcel	30	0	0	0	30
Total	30	100	0	0	130

Table 12. Allocation Phasing – Updated Policy Allocation Proposal: Bottom Field Farm (Woodhouses)

Allocation Phasing	2020 25	2025 30	2030 2038	2038+	Total
Southern Parcel	0	30	0	0	30
Total	0	30	0	0	30

Table 13. Indicative intervention delivery timetable: Woodhouses Cluster

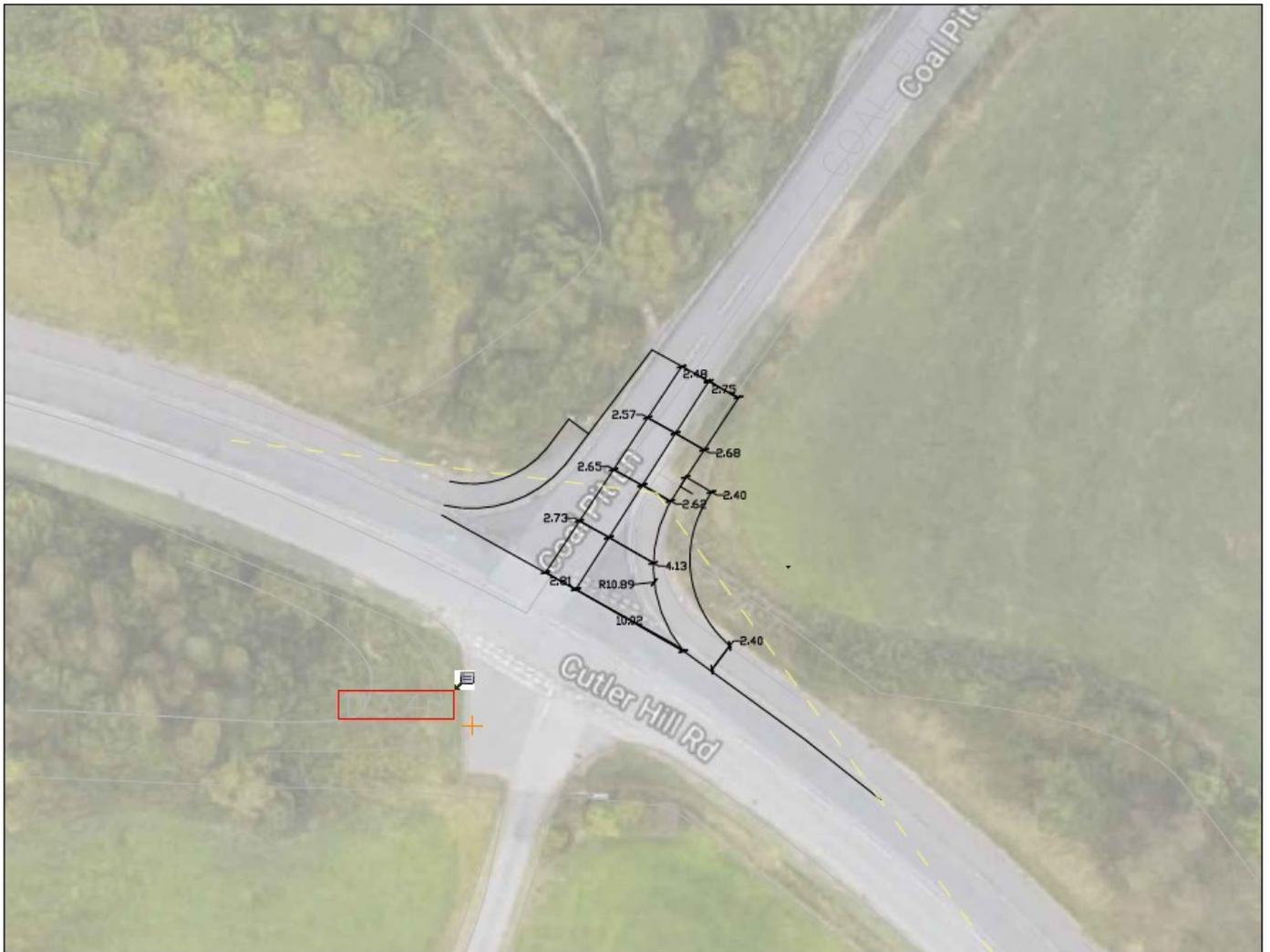
Mitigation	2020 2025	2025 2030	2030 2038
Site Access			
Cutler Hill Road Access Junction		✓	
Hartshead Crescent Access Junction	✓		
Necessary Local Mitigations			
Permeable network for pedestrian and cyclist priority within the development	✓		
Minor Traffic Management Improvements	✓		

19. Summary & Conclusion

- 19.1.1 GMSF allocation Woodhouses Cluster was initially a development located on two parcels of land surrounding the village of Woodhouses.
- 19.1.2 Following the final round of modelling outputs, the decision was made to significantly reduce quantum at Woodhouse Cluster, reducing the total allocation to one site (Bottom Field farm) and 30 dwellings.
- 19.1.3 Assessments undertaken have considered the potential impact of the original development on the surrounding road network, both in isolation and in cumulative impact with other allocations.
- 19.1.4 In response to potential concerns regarding congestion at key junctions, mitigation schemes were considered at both the Failsworth Road / Westminster Road (double-mini roundabout) (Mitigation Option 1) and the Cutler Hill Road / Coal Pit Lane junction (Mitigation Option 2). These have been tested, and illustrate significant improvements to traffic flows only across these junctions, both with and without the cumulative impact of the GMSF allocations. However, neither of these schemes are considered to be necessary for the revised allocation of 30 dwellings.
- 19.1.5 Based on the information contained within this report, we conclude that the traffic impacts of the site are considered to be less than severe, and even for the previous scale of development the impacts were likely to be successfully mitigated.
- 19.1.6 This is an initial indication that the allocation is deliverable and to inform viability, and that further detailed work will be necessary to identify the specific interventions required to ensure the network works effectively based on transport network conditions at the time of the planning application.

Appendix 1 – Indicative Mitigation Option 2 (Cutler Hill Road / Coal Pit Lane)

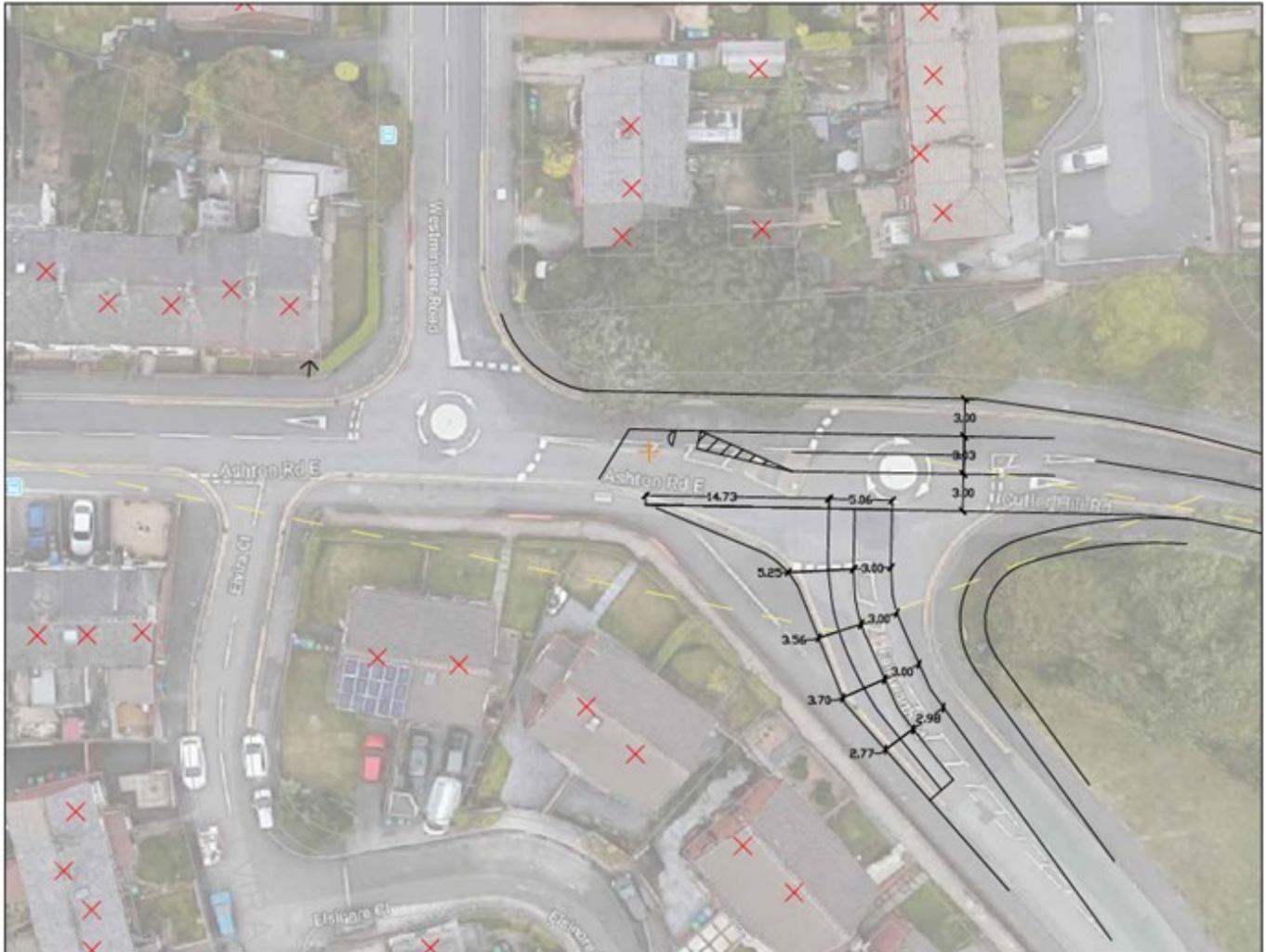
MITIGATION OPTION 2 - COAL PIT LANE (INDICATIVE DESIGN)



INTRODUCTION OF ADDITIONAL LANE ON APPROACH AT COAL PIT LANE AND RECONFIGURATION OF CARRIAGEWAY, FOOTWAY AND ROAD MARKINGS.

Appendix 2 – Indicative Mitigation Option 1 (Failsworth Road / Westminster Road)

MITIGATION OPTION 1 - CUTLER HILL ROAD / ASHTON ROAD E
(INDICATIVE DESIGN)



INTRODUCTION OF GHOST ISLAND RIGHT TURN ALONG ASHTON ROAD E AND ADDITIONAL LANE ON APPROACH AT FAILSWORTH ROAD AND RECONFIGURATION OF SURROUNDING CARRIAGEWAY, FOOTWAY AND ROAD MARKINGS.

Greater Manchester Spatial Framework

Locality Assessment:

Broadbent Moss (GMA 14)

Publication Version 2: November 2020

Identification Table	
Client	Oldham Council
Allocation	Broadbent Moss
File name	GMA14 Oldham - Broadbent Moss LA 021020
Reference number	GMA14 108724

Approval					
Version	Name		Position	Date	Modifications
0	Author	Ruairidh MacVeigh	Consultant	05/08/20	Base report
	Checked by	Nicky Agimal	Senior Consultant	18/08/20	
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Allocation Data	
Allocation Reference No.	GMA14
Allocation Name	Broadbent Moss
Authority	Oldham Council
Ward	Royton South / St James'
Modelling Analysis	951 dwellings & 21,720 sqm B2 Industrial/B8 Warehousing
Policy Allocation Proposal	874 Dwellings (GMSF Plan Period) & 21,720 sqm B2 Industrial/B8 Warehousing. With a further 501 dwellings post GMSF plan period.
Allocation Timescale	0-5 years <input type="checkbox"/> 6-15 years <input checked="" type="checkbox"/> 16 + years <input checked="" type="checkbox"/>

Glossary

“2025 GMSF Constrained” - is the 2025 forecast case in which the model adjusts the input demand based on how the cost of travel changes from the base year to the future. For example, for a shopping trip undertaken by car which becomes more congested in future, changes might be travel via a different route, mode, location or time of day.

“2040 GMSF Constrained” - as above, but for a 2040 forecast year

“2025 GMSF High-Side” - is the 2025 forecast case in which the model does not adjust the input demand based on how the cost of travel changes. In this scenario congestion does not lead to a reassignment of traffic, and therefore road traffic flow will generally be higher.

“2040 GMSF High-Side” - as above, but for a 2040 forecast year

“2025 Reference Case” - is the Do Minimum scenario which includes delivery of all transport schemes already committed and assumed to be completed by 2025

“2040 Reference Case” - is the Do Minimum scenario which includes delivery of all transport schemes already committed and assumed to be completed by 2040

AADT - Annual average daily traffic, is a measure used in transportation planning to quantify how busy the road is

Bee Network - is a proposal for Greater Manchester to become the very first city-region in the UK to have a fully joined-up cycling and walking network: the most comprehensive in Britain covering 1,800 miles.

Bus Rapid Transit - is a bus-based public transport system designed to improve capacity and reliability relative to a conventional bus system. Typically, a BRT system includes roadways that are dedicated to buses, and gives priority to buses at junctions where buses may interact with other traffic

Existing Land Supply - these are allocations across the county that have been identified by each local planning authority across Greater Manchester and are available for development

Greater Manchester Variable Demand Model (GMVDM) - the multi-modal transport model for Greater Manchester. This transport model provides estimates of future year transport demand as well as the estimates of travel behaviour changes and new patterns that the Plan is likely to produce. These include changes in choices of routes, travel mode, time of travel and changes in journey destinations for some activities such as work and shopping.

Local Road Network (LRN) - All other roads comprise the Local Road Network. The LRN is managed by the local highways authorities

National Trip End Model (NTEM) - is a Department for Transport forecast that ensures that measures of population, jobs and trips made by various mode are consistent across the whole of Great Britain.

Rapid transit services - refers to high frequency, high capacity metro style transport services including Metrolink and Bus Rapid Transit.

Strategic Road Network (SRN) - The Strategic Road Network comprises motorways and trunk roads, the most significant 'A' roads. The SRN is managed by Highways England.

"TfGM" - Transport for Greater Manchester, the Passenger Transport Executive for Greater Manchester

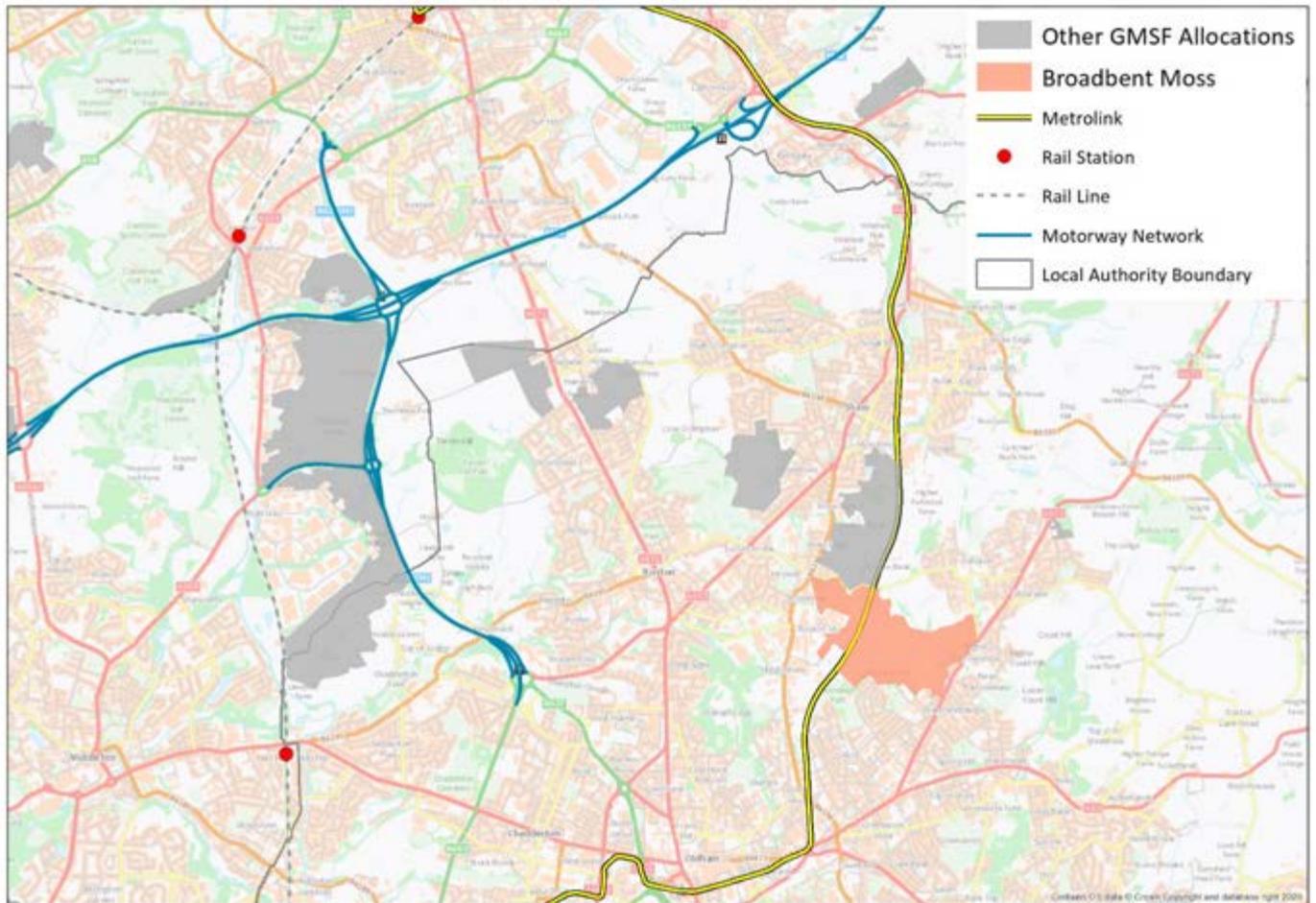
Urban Traffic Control (UTC) - is a specialist form of traffic management that, by coordinating traffic signals in a centralised location, minimises the impact of stop times on the road user.

1. Allocation Location & Overview

- 1.1.1 This Locality Assessment (LA) is one of a series being prepared for proposed new allocations within Greater Manchester in order to confirm the potential impacts on both the local and strategic network, as well as identifying possible forms of mitigation or the promotion of sustainable alternatives to reduce this impact.
- 1.1.2 The Broadbent Moss allocation is in the Oldham Metropolitan Borough Council, and is to consist of 951 dwellings and 21,720 sqm B2 Industrial/B8 Warehousing within the GMSF Plan Period (up to 2040), with a final proposed buildout of 1,451 dwellings beyond the current GMSF plan period (post 2040).
- 1.1.3 As this locality assessment was being finalised, minor amendments were made to the final quantum of the GM15 – Beal Valley allocation. These changes amount to a minor reduction in the assumed GMSF plan quantum of the allocation.
- 1.1.4 These amendments to the GMSF allocation quantum came too late to be reflected in the final round of modelling; as such modelling outlined within this Locality Assessment has been conducted at an assumed quantum of 951 dwellings. It is not expected that this will have a material impact on the mitigations proposed. This should be confirmed at a later date as part of the typical planning process.
- 1.1.5 The allocation is bounded by Bullcote Lane/Cop Road to the north, the Rochdale Metrolink Line to the east, and existing residential and employment land uses to the south and west. The existing land use of the allocation is predominantly open land, although there are some remote farm buildings present.
- 1.1.6 No highway infrastructure is present within the allocation, however, access arrangements are expected to consist of an access to the west onto B6194 Higginshaw Lane via Moss Lane and Meek Street, north onto Bullcote Lane/Cop Road, east onto the A672 Ripponden Road via Green Park View, southeast onto Broadbent Road, south onto Vulcan Street. B6194 Higginshaw Lane and the A672 Ripponden Road are single-carriageway urban roads with footpaths, streetlighting and 30mph speed limits, while Bullcote Lane is an interurban single-carriageway road with no streetlighting or walking facilities, and a speed limit of 30mph. Vulcan Street and Broadbent Road are residential streets with footpaths, streetlighting and 30mph speed limits.

- 1.1.7 The allocation lies within the 2011 Census mid-layer super output area of Oldham 007. The scale of residential development (951 dwellings) is expected to result in an approximate 35% increase in housing over the existing number of households in the area (2,679). The final buildout (post-GMSF) of 1,451 homes is expected to result in an approximate 54% increase in housing over the existing number of dwellings in the area.
- 1.1.8 For the purposes of the testing the impact of the allocation through the strategic model, a total of 620 dwellings have been assumed to be built out by 2040. The GM transport modelling suite has a 2040 forecast year, as such it uses 2040 trajectory data as proxy for 2037 full build-out, this is not considered to materially impact on the analysis or conclusions of this report.
- 1.1.9 All phasing plans information contained in this Locality Assessment is indicative only and has only been used to understand the likely intervention delivery timetable. Final trajectory information is contained in the GMSF Allocation Topic Paper.

Figure 1. Allocation Location - Broadbent Moss



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

1.2 Justification for Allocation Selection

1.2.1 The Site Selection process has been led by the 10 Greater Manchester Authorities, including Oldham Council, and provided the starting point for the investigation of the preferred sites through the Locality Assessments.

1.2.2 Detail of the Site Selection process including the criteria used to identify the sites, and how this was used to select the most sustainable sites is considered within the GMSF Spatial Strategy

2. Key Issues from Consultation

2.1.1 The Greater Manchester Plan for Homes, Jobs and Environment (Spatial Framework) consultation ran from 14th January to 18th March 2019. The comments made to the strategic allocation proposed at this location during the 2019 GMSF consultation relate to the following key transport themes; roads, public transport, air quality and active travel:

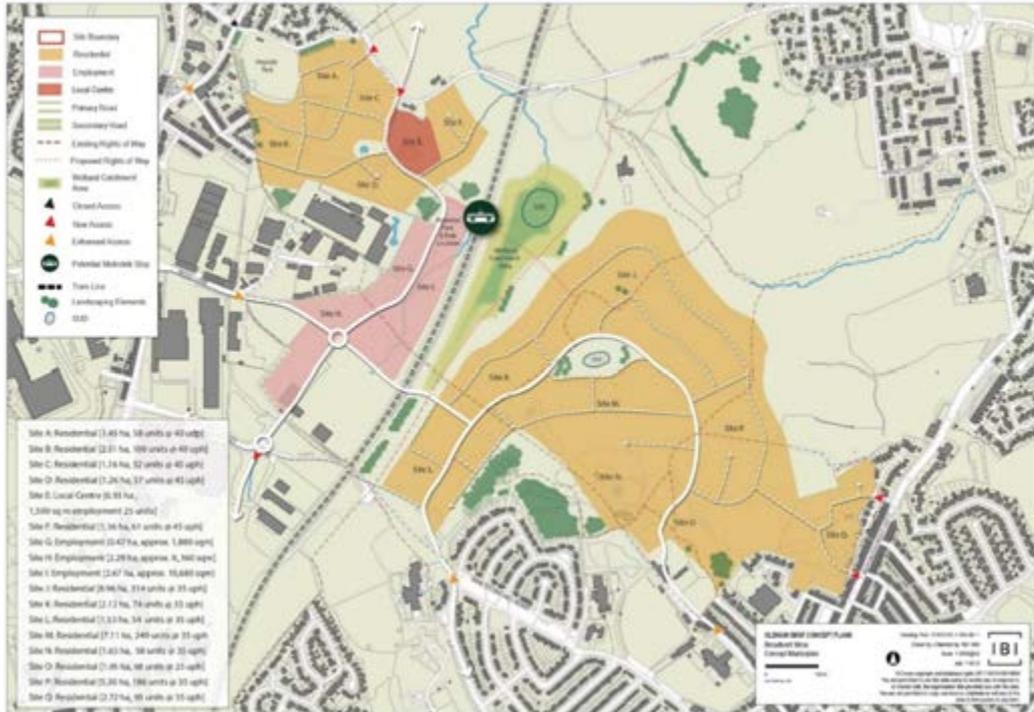
- The proposals would lead to traffic congestion.
- The need for improvements to Cop Road to provide link road.
- Worsen exiting cut throughs (i.e. Buckstead Road from Shaw Road through to Ripponden Road).
- The proposals would have a negative impact on nearby primary schools and safety of schoolchildren.
- Concerns about access points (particularly Broadbent Road and Whetstone Road).
- Concerns about the impact of construction traffic.
- Access is poor.
- No access should be considered via Bullcote Lane unless major works/widening of the road takes place prior to building of any housing.
- Impact on major pinch points in Ripponden Road.
- The surrounding road network cannot cope of with extra traffic and residents.
- The proposals will result in increased congestion.
- Rush hours would be extended; Rochdale road is extremely busy and dangerous at this time.
- If the Metrolink stop and roads are delivered it will be great, if not the area will be isolated and insular.
- Additional stop will not solve transport issues, as it is already overcrowded.
- The current public transport provision is inadequate and there is insufficient park and ride provision.
- Funding is not yet secure for the Metrolink stop at Cop Road and potential park and ride and an investment case needs to be developed. There are concerns on weather this is feasible.
- There are a lack of parking spaces in this area.
- The scale of development is of a concern from a cumulative traffic impact perspective due to close geographic proximity of other proposed allocated development sites in the immediate local area.

- 2.1.2 Oldham Council officers, as part of design development within workshops, identified that access to the allocation should be considered interdependently with Broadbent Moss and consider a north-south link road between the two. Cop Road should be retained to link Moorside with Shaw and the opportunity to improve or remove access from Bullcote Lane should be considered.
- 2.1.3 The impact of employment (industrial) traffic should be carefully considered. For the eastern parcel, Vulcan Street provides the most logical access point with an appropriate loop placed to provide relief. Access via Ripponden Road at the junction with Wilkes Street is not feasible due to level changes and alternative access should be investigated. The potential for a new Metrolink stop within the allocation should be investigated due to the large development potential and influence of the allocation.

3. Existing Network Conditions and Allocation Access

3.1 Vehicular Access

Figure 2. Indicative Allocation Concept Plan - Broadbent Moss



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

3.1.1 Bullcote Lane/Cop Road is a single-lane, two-way interurban road that connects Shaw with Sholver, and runs across the southern boundary of the proposed – BEAL VALLEY allocation, and the northern boundary of the allocation. Bullcote Lane/Cop Road, as an interurban road, does not provide footpaths and has no street lighting, presenting a potential safety concern for walkers and cyclists on this road, compounded further by high hedgerows that bound the carriageway and therefore reduce visibility on corners. This road is subject to a 30mph speed limit.

3.1.2 Moss Lane is located to the west of the proposed development and currently comprises a two-way urban street which is fully lit, but provides narrow pedestrian footpaths on either side. The street serves numerous industrial units and other employment-based land uses. There is also on-street parking by cars, LGVs and HGVs associated with the surrounding industrial land uses.

- 3.1.3 Meek Street is located southwest of the proposed development, and currently comprises a two-way suburban street which is fully lit but provides pedestrian footpaths only on one side. The street serves numerous industrial units and other employment-based land uses. There is also on-street parking by cars, LGVs and HGVs associated with the surrounding industrial land uses.
- 3.1.4 Both Meek Street and Moss Lane connect to the B6194 Higginshaw Lane, which is a single lane, two-way urban carriageway restricted to a 30mph speed limit (enforced by speed cameras) with multiple points of access to serve surrounding dwellings and businesses. Higginshaw Lane forms a main road corridor between Shaw and central Oldham, and passes west of the allocation.
- 3.1.5 Vulcan Street is located to the south of the proposed development and currently comprises a two-way suburban street which is fully lit and has standard width pedestrian footpaths either side. The street serves multiple pre-existing dwellings, and while existing dwellings on Vulcan Street are able to accommodate garages, there are still notable levels of on-street parking.
- 3.1.6 Broadbent Road is two-way residential street with narrow footpaths, full street lighting and a 20mph speed limit. These roads also present carriageway width restrictions and on-street parking.
- 3.1.7 Green Park View is located to the east of the proposed development and currently comprises a two-way suburban street which is fully lit and has ample pedestrian footpaths either side. An unused spur with footpaths facing the proposed allocation currently exists, and appears to form an access arrangement for a potential future development. While existing dwellings on Green Park View are able to accommodate garages, there are still notable levels of on-street parking.
- 3.1.8 Both Broadbent Road and Green Park View connect to the A672 Ripponden Road, which is a single lane, two-way carriageway urban road restricted to a 30mph speed limit with multiple points of access to serve surrounding dwellings and businesses. A672 Ripponden Road forms a main road corridor between Sholver and central Oldham, and passes east of the allocation.

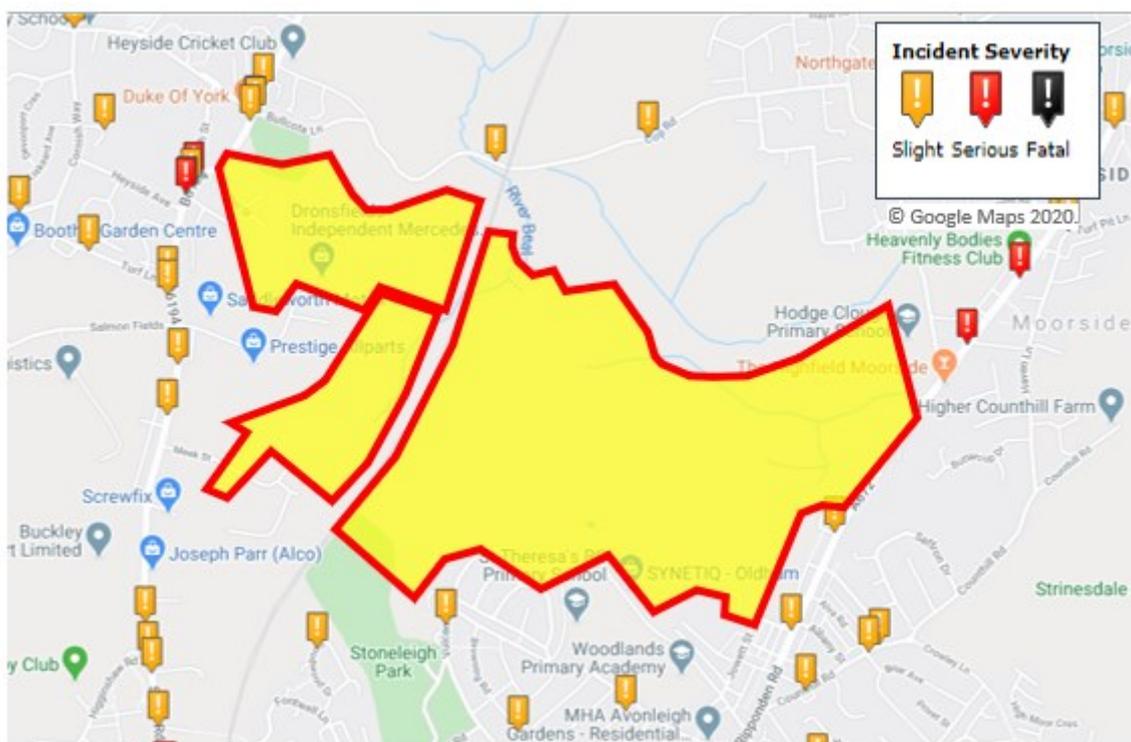
3.2 Accidents and Collision Overview

- 3.2.1 **Table 1** and **Figure 3** show the number of vehicle collisions over the last 5 years in a 1km area surrounding the Broadbent Moss allocation. There have been a total of 33 accidents over the last 5 years with no fatal accidents.

Table 1. Collision data within 1km of allocation within the last 5 year

Fatal	Serious	Slight	Total
0	4	29	33

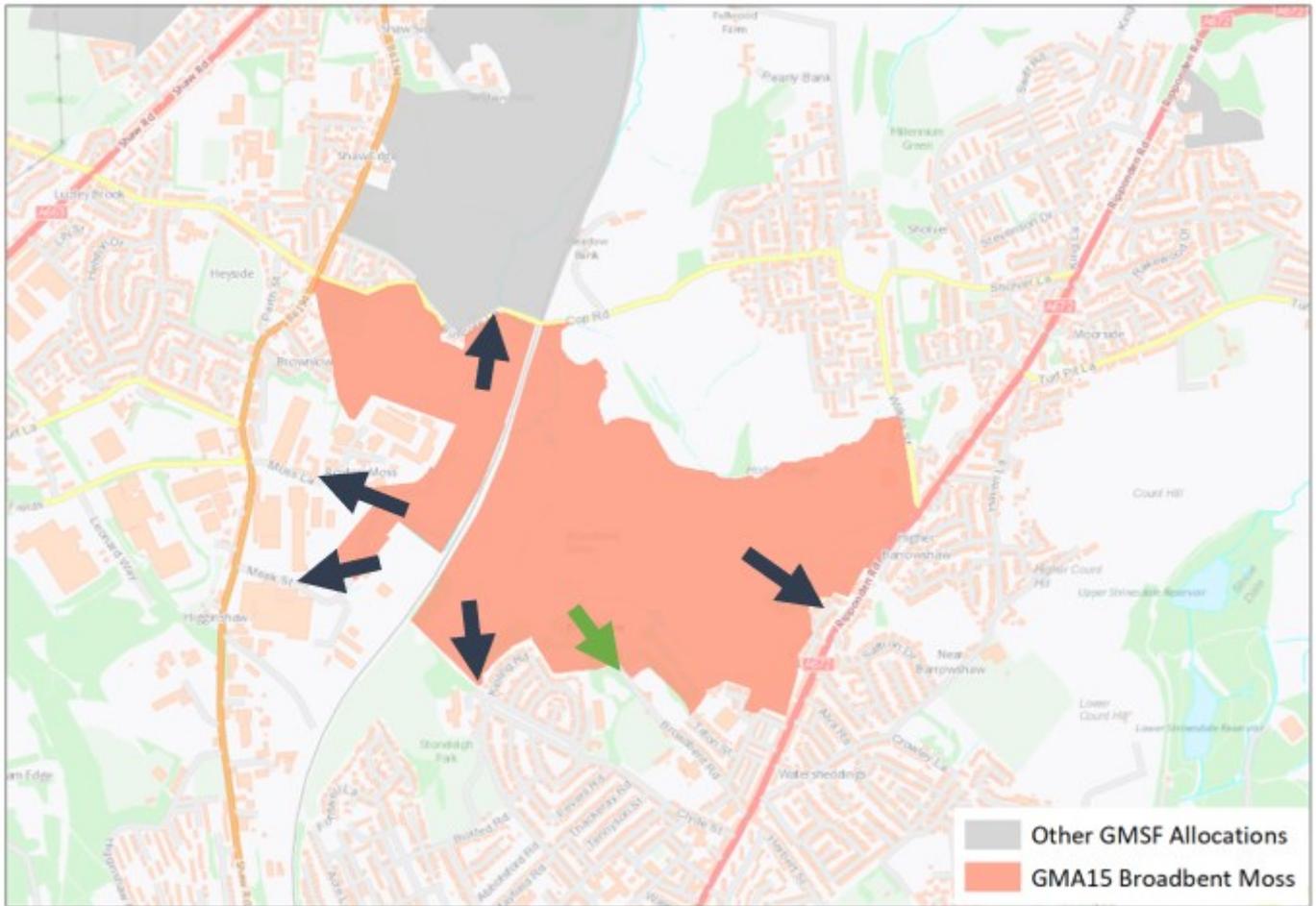
Figure 3. Map of collision data within 1km of the allocation within the last 5 years



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

4. Proposed Access to the Allocation

Figure 4. Allocation Location with Access Arrangements



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

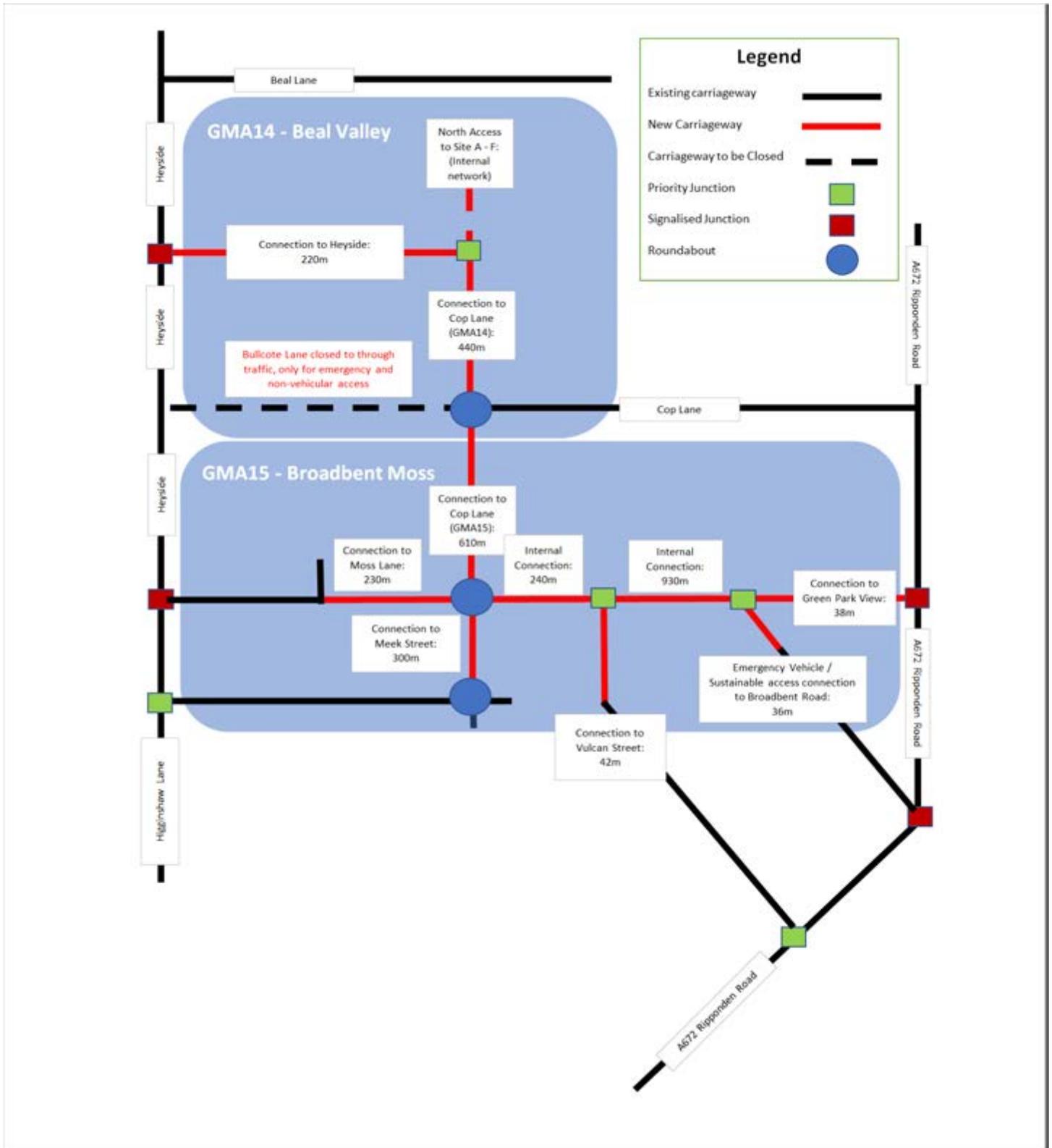
- 4.1.1 Following consideration of the indicative concept plan (**Figure 2**) for the Broadbent Moss allocation, access into the allocation would comprise of five primary vehicular accesses onto Meek Street, Moss Lane, Bullcote Lane/Cop Road, Vulcan Street and Green Park View, allowing the distribution of allocation trips onto both the B6194 and A672 corridors. A further emergency vehicle (only) access point and pedestrian and cycle access has also been identified for a new connection to Broadbent Road.
- 4.1.2 The impact of employment-based trips, especially HGVs, has been carefully considered with regard to the selection of potential access points for the allocation. The employment area is expected to

serve as an extension of the Business Employment Area to the west, with enhancements proposed to existing access points leading to the B6194 Higginshaw Lane. Moss Lane currently provides a signal controlled crossroads, with improvements considered for the allocation access arm in order to allow this junction to cater for additional employment traffic.

- 4.1.3 Meek Street is currently a three-arm priority junction, but features pre-existing ghost-island right-turn facilities and flares on the minor arm. Of specific concern is the condition of the Meek Street carriageway itself, which only features pedestrian access on one side. Due to the width of Meek Street, this can be rectified through the provision of a second footpath without compromising the necessary width required for vehicles on the carriageway.
- 4.1.4 Regarding access onto Bullcote Lane, this is to be considered in the context of the adjacent Beal Valley allocation, as this is to form part of a wider spine road that will create a new north/south corridor between the two developments. In this, the proposed access arrangements for the – BEAL VALLEY allocation are interrelated and should also be considered in relation to access points to the allocation due to the interconnectivity between the two allocations. The route through the GM14 allocation to its proposed access at Heyside is therefore been a material consideration in this assessment.
- 4.1.5 A review of Bullcote Lane west of the proposed spine road has determined that the width of the carriageway, and existing traffic issues at its junction with Heyside has determined this route to be unsuitable as primary access for both the – BEAL VALLEY and allocations. It is therefore proposed that Bullcote Lane be closed to through traffic to the west of the new spine road, with access to Heyside instead being achieved via the new – BEAL VALLEY Heyside access, and the Moss Lane and Meek Street accesses.
- 4.1.6 Cop Road would remain open to traffic bound for Sholver, and would connect to the spine road at a three-arm standard roundabout, while a new three-arm priority junction north of the roundabout would connect to Bullcote Lane to form as a pedestrian and cycle route (**Appendix 2**). This second access point will also serve a secondary role as an emergency access, offering alternate routing for allocation trips and emergency vehicles in the event the primary access is obstructed.

- 4.1.7 Access to the eastern residential parcel is proposed from two enhanced accesses to the A672 Ripponden Road via Vulcan Street and Green Park View. For the Green Park View access onto the A672, this is to be upgraded from its current arrangement – a three-arm priority junction – to a signalised junction. This is to include the provision of upgraded pedestrian and cycle crossing control and widening of footpaths on the A672 to SFA standards.
- 4.1.8 Access onto Vulcan Street will join the local road network at a four-arm priority junction adjacent to the Willowpark Primary Academy, connecting to the existing junction between Whetstone Hill Road, Vulcan Street and Kipling Road.
- 4.1.9 Due to the residential situation and width of all three eastern plot accesses, HGV movements from the employment parcel of the development should be restricted to Meek Street, Moss Lane and the – BEAL VALLEY Heyside accesses as the geometries for these junctions have been designed to accommodate HGVs.
- 4.1.10 Access arrangements for the allocation (in context with the Beal Valley allocation) are further illustrated in **Figure 5**:

Figure 5. Indicative – Broadbent Moss and Beal Valley Accesses and principal internal road network



5. Multi-modal accessibility

5.1 Overview

- 5.1.1 The current accessibility of the Broadbent Moss allocation using Greater Manchester's Accessibility Level model (GMAL) has been identified as comprising areas of level 1, 2, 3 and 4 for accessibility giving it a below average rating. Note that GMAL rating based on pre-COVID-19 pandemic figures, therefore may not be representative of latest transport accessibility rating.
- 5.1.2 Greater Manchester Accessibility Levels (GMAL) are a detailed and accurate measure of the accessibility of a point to both the conventional public transport network (i.e. bus, Metrolink and rail) and Greater Manchester's Local Link (flexible transport service), taking into account walk access time and service availability. The method is essentially a way of measuring the density of the public transport provision at any location within the Greater Manchester region. The [GMAL methodology](#) is derived from the Public Transport Accessibility Level (PTAL) approach developed by the London Borough of Hammersmith and Fulham but modified to consider flexible transport service provision (Local Link) and to reflect local service provision levels (different accessibility levels) within Greater Manchester.
- 5.1.3 The accessibility index score is categorized into eight levels, 1 to 8, where level 8 represents a high level of accessibility and level 1 a low level of accessibility.

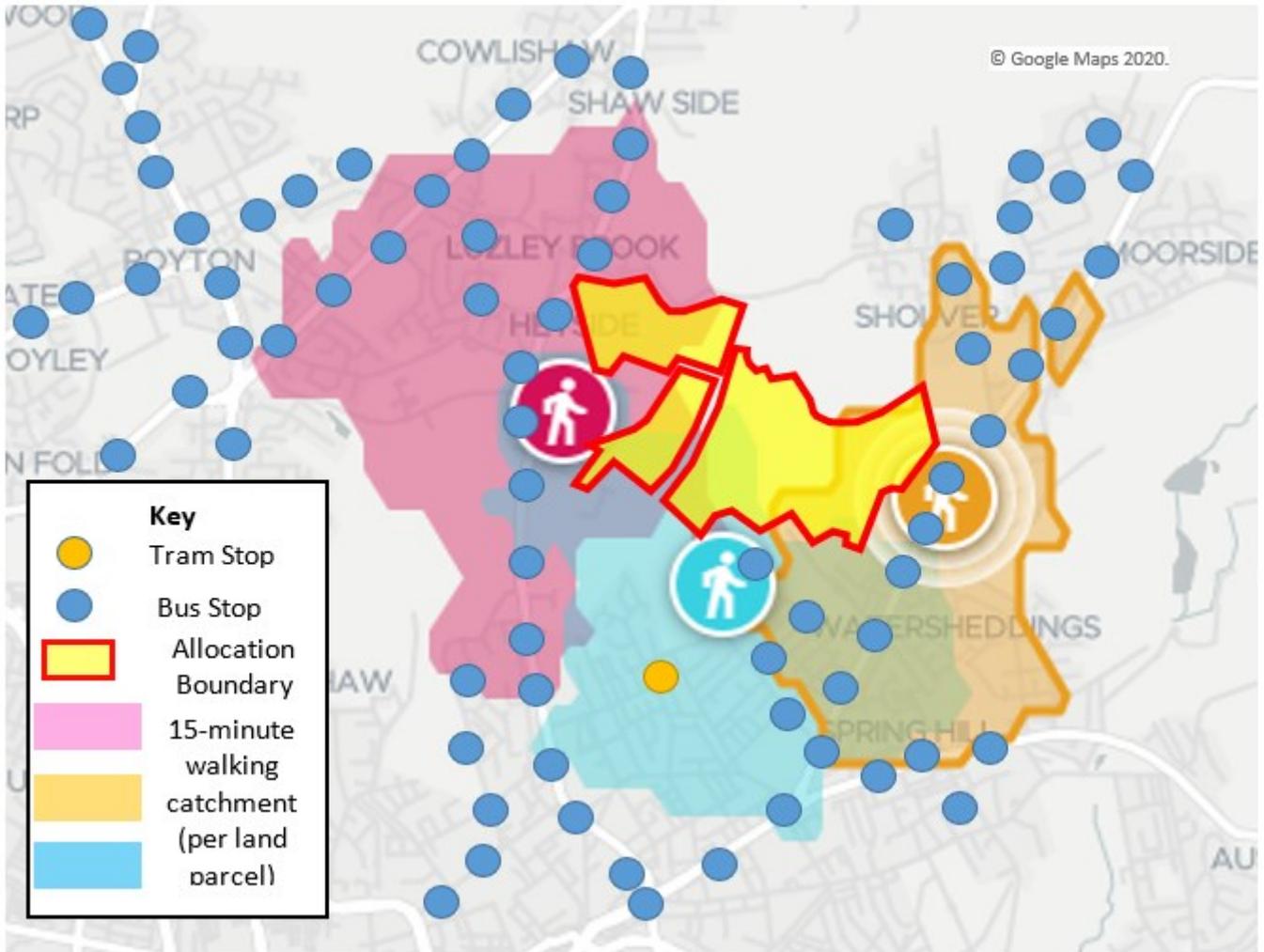
5.2 Walking and Cycling

- 5.2.1 The main local destinations likely to generate walking and cycling trips are Oldham Town Centre to the south of the allocation (3km), the local shops at Shaw/Crompton (2.5km), local shops at Royton (2km), E-act Royton and Crompton academy (1.2km), Crompton Primary School (2.5km), St Theresa's R C Primary School (0.3km), Woodlands Primary Academy (0.3km), Hodge Clough Primary School (1.7km), Littlemoor Primary School (1.1km), and St Joseph's R C Primary School (1.2km).
- 5.2.2 While the B6194 Higginshaw Road and A672 Ripponden Road provide footpaths on both sides of the carriageway, footpaths on the southbound carriageway of the A672 are narrower than standard width, while those on the northbound carriageway are standard width. Although both

roads provide full streetlighting, there are limited crossing facilities – extending to isolated pedestrian islands – and no facilities for cyclists.

- 5.2.3 For Meek Street and Moss Lane, these provide narrower than standard width footpaths, and only footpaths on one side at the allocation end of Meek Street. Again, while there is full streetlighting, there are no dedicated pedestrian crossing or cycle facilities.
- 5.2.4 Vulcan Street, due to the presence of the Willowpark Primary Academy, has wider than standard footpaths, as well as full streetlighting, but there are no dedicated pedestrian crossing or cycle facilities.
- 5.2.5 Bullcote Lane / Cop Road provides no walking or cycling facilities, and thus presents a significant safety concern for pedestrian and cycle trips between Shaw and Sholver.
- 5.2.6 Though SFA may resolve some pedestrian/cycle issues, localised improvements may be required in the vicinity of the new access.
- 5.2.7 There are multiple Public Rights of Way (PRoW) that cross the proposed allocation. This, therefore, allows for easy integration of these routes into the allocation in order to provide dedicated pedestrian and cycle routes away from traffic.
- 5.2.8 **Figure 6** shows the current level of accessibility for the Broadbent Moss allocation using the Travel Time Platform online database, which illustrates the 15 minute walking time from the proposed allocation access via the local road network and any available pedestrian through-routes.

Figure 6. 15 minute walking catchment with public transport provision



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

5.2.9 In terms of local pedestrian facilities, there are local bus stops situated along both the B6194 Higginshaw Road and the A672 Ripponden Road, which are all within a walkable distance.

5.2.10 The site benefits from being located on a proposed section of the Bee Network, which intends to improve cycling and walking facilities and infrastructure along primary routes within the Manchester area. With regard to the allocation, a section of the Bee Network passes across the proposed allocation along what is currently Bullcote Lane/Cop Road between Shaw and Sholver, and should therefore be integrated into this site so as to provide suitable pedestrian and cycle access towards both Sholver and Shaw.

5.3 Public Transport

5.3.1 The B6194 Heyside, as a main arterial route between Oldham and Shaw, is served by multiple, frequent bus routes operated by First Group; these include the following:

- Route 58: Rochdale to Oldham (average frequency: 60 minutes)
- Route 181: Milnrow/Wren’s Nest to Piccadilly Gardens (average frequency: 60 minutes)

5.3.2 Furthermore, multiple bus services operate on the A672 Ripponden Road between Oldham and Moorside. These are operated by First Group and Transdev; and include the following:

- Route 83: Sholver to Piccadilly Gardens (average frequency: 10 minutes)
- Route 356: Ashton-under-Lyne to Oldham via Greenfield (average frequency: 60 minutes)

5.3.3 The Rochdale Metrolink Line runs through the centre of the proposed allocation, and is accessible to the north at Shaw & Crompton Metrolink stop, and to the south at Derker Metrolink stop, operating the following route:

- Rochdale Metrolink (Pink Line): Rochdale Town Centre to East Didsbury (average frequency: 10 minutes)

5.3.4 **Table 2** identifies the current accessibility of public transport for the future employees of the Broadbent Moss, exploring the proximity, and the frequency of travel during peak hours.

Table 2. Accessibility of and proximity to Public Transport

Mode	Nearest Stop/ Station	Distance (km)*	Peak Hour Frequency (Mins)
Bus	Turf Lane	0.1	30
Rail	Mills Hill	5.4	30
Metro	Derker	2.0	6

5.4 Proposed

5.4.1 In consideration of the provision of existing pedestrian and cycling infrastructure in the adjacent residential streets, our main recommendation in this regard is that a permeable network for

pedestrian and cyclist priority within the development is required including sufficient secure cycle parking for all dwellings and employment land uses.

- 5.4.2 Given the location of the allocation and its close proximity to the Derker, Watersheddings, Long Sight and Sholver local areas, the internal walking and cycle network should be linked to high quality routes connecting through to these areas, including the proposed Bee Network. Existing PRowS that either pass near or cross the proposed site should be positively upgraded, with both PRowS and the internal pedestrian/cycle network of the site being constructed to the standards set out by the Bee Network.
- 5.4.3 Widening of pedestrian footpaths should also be undertaken along the entire length of the A672 Ripponden Road, and footpaths should be implemented on Bullcote Lane / Cop Road between Shaw and Sholver, with these improvements again being to Bee Network standards. These improvements should also be made to Meek Street and Moss Lane in order to ensure safe pedestrian and cycle access to and from the allocation.
- 5.4.4 Derker Metrolink stop provides significant opportunity for development to the south of the allocation and, therefore, efforts should be made to connect the allocation to Derker town centre. However, as the central and southern sections of the allocation are beyond acceptable walking times from the existing Metrolink stops, a new Metrolink stop has been proposed adjacent to Bullcote Lane which will provide connections for both the Beal Valley and Broadbent Moss allocations, which also includes a sizeable Park & Ride facility. This service is necessary to support both BEAL VALLEY and allocations in terms of access by sustainable means and with regards mitigating the transport impacts of the development. Potential contributions as to the cost of delivering this scheme should be considered at the detailed planning stage, specifically whether the costs of this scheme are to be allocated to the site developer.
- 5.4.5 With regard to public transport, the Broadbent Moss allocation has been identified as potentially benefiting from either the diversion of existing or the creation of a new bus service within the site itself, as due to the size of the allocation many residences and other aspects of the development are likely to be significant distance from the nearest public transport mode at the boundary. Of the local bus services operating in the area, Route 83 and Route 181, both operated by First Group between Sholver (Route 83) and Wrens Nest (Route 181) and Piccadilly Gardens, should be extended into the proposed allocation with a frequency of up to 10 minutes. Route 83 currently

operates at a 10 minute frequency along the A672 Ripponden Road, while Route 181 operates every 60 minutes to Piccadilly Gardens and Shaw along Heyside/A6194 Higginshaw Road. Therefore, these services appear to be suitable candidates for extension into the allocation. Introduction of this service within the allocation should be done at the earliest opportunity in order to allow initial residents and employment tenants a sustainable transport alternative.

- 5.4.6 Additional to improvements to the internal walking network within the site, improvements should be made to connecting Public Rights of Way (PRoW), which should be upgraded to a standard that reflects those being implemented by the Bee Network in order to suitably accommodate both pedestrian and cycle users.
- 5.4.7 A particular scheme of sustainable access is recommended to be implemented to provide a suitable pedestrian and cycle connection to, and along Broadbent Road. Although this route was initially considered as a potential vehicular access within the master planning undertaken for the allocation, it has been determined to be unsuitable for this purposes (except for as a route or emergency vehicles). Consequently the opportunity arises to utilise this route to address the significant need to provide an attractive route for walking and cycling through to Sholver area . A new connection and improvements along the existing highway should be undertaken to provide a route that is attractive to these users.

6. Parking

- 6.1.1 It is not necessary to consider in detail the parking standards for residential units relevant to the site at this stage of assessment as there are no particular constraints on achieving likely minimum parking standards that may be in application at the time the site is brought forward. Accommodation of Electric Vehicle (EV) parking, while an important factor in developing more efficient transport connections for the allocation, should be considered at the detailed design stage, potentially as an integration of specific house design.
- 6.1.2 A broad assumption has been made that a maximum of 2 spaces per dwelling is likely to be proportionate however other alternative local policy requirements are likely to be equally deliverable and can be considered at the planning application stage.
- 6.1.3 National Planning Policy Framework (NPPF) is clear that such standards should only be set where there is a clear and compelling justification that they are necessary. This may be either for

managing the local road network conditions, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with chapter 11 of NPPF).

7. Allocation Trip Generation and Distribution

7.1.1 Future trip generation to/from the site (i.e. how many people and vehicles will enter or leave the site) was estimated by applying a set of GM-wide trip rates to the agreed development quantum for each site. The distribution of trips (i.e. where they are going to or coming from) was derived by selecting nearby zones with similar land use characteristics as a proxy and using the existing distribution in the model.

Table 3. Development Quantum: Broadbent Moss

Residential	Houses	87	856	1,356
Residential	Apartments	10	95	95
Industrial	e.g. B2/B8 etc.	21,720	21,720	21,720
Total		97	951	1,451

Table 4. Allocation Traffic Generation: Broadbent Moss*

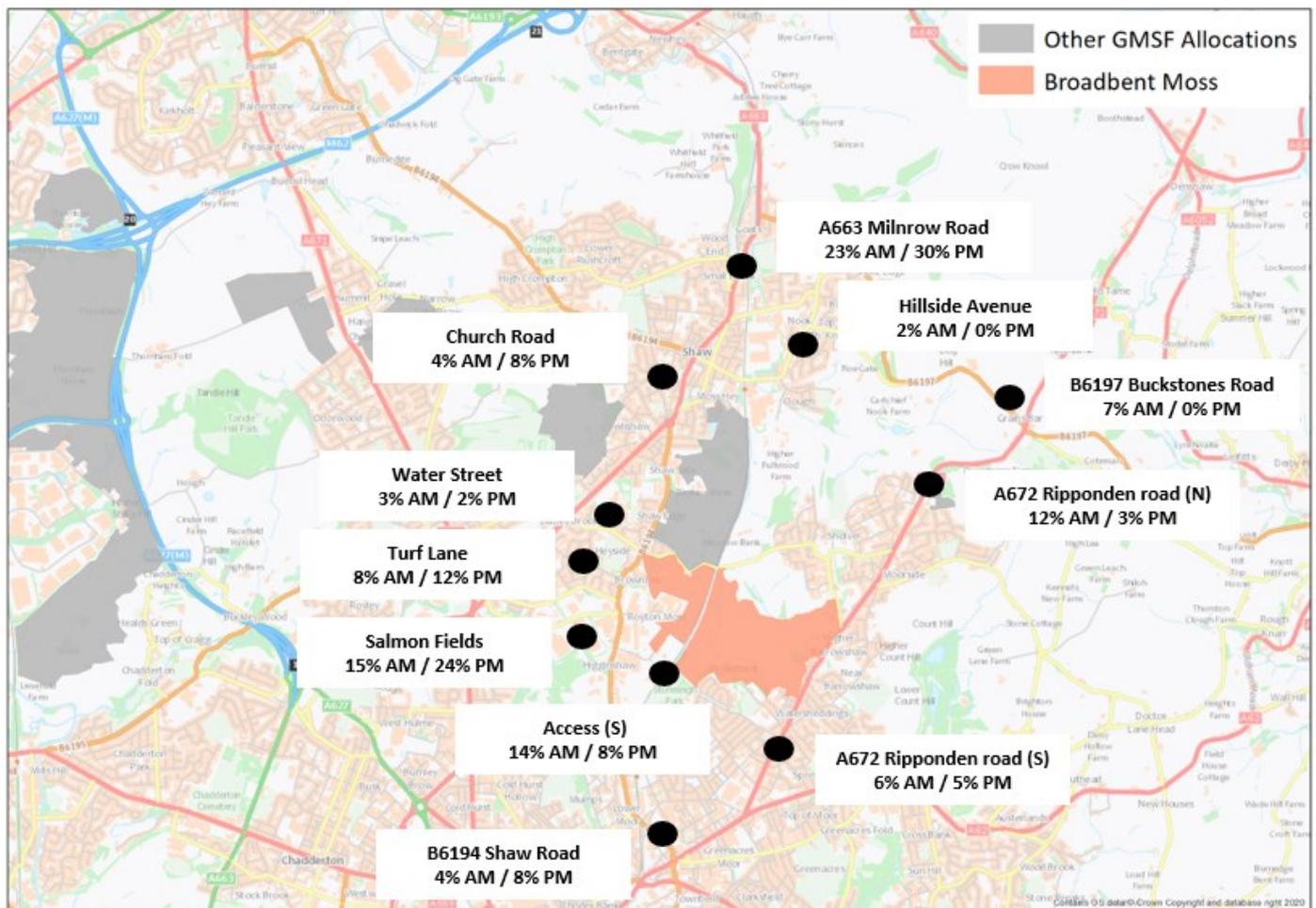
	AM Peak Hour		AM Peak Hour		PM Peak Hour		PM Peak Hour	
	0800	0900	0800	0900	1700	1800	1700	1800
	Departures		Arrivals		Departures		Arrivals	
2025 GMSF Constrained	70		78		77		55	
2025 GMSF High-Side	83		97		77		56	
2040 GMSF Constrained	294		128		185		305	
2040 GMSF High-Side	366		208		246		310	
2040+ Post-GMSF trips (1,451 dwellings)	563		320		378		476	

*Units are in PCU (passenger car units/hr)

Table 5. Allocation Traffic Distribution, 2040 GMSF High-Side (Origin/Destination Combined): Broadbent Moss

Route	AM Peak Hour	PM Peak Hour
B6194 Shaw Road	4%	8%
Salmon Fields	15%	24%
Turf Lane	8%	12%
Water Street	3%	2%
Church Road	4%	8%
A663 Milnrow Road	23%	30%
Hillside Avenue	2%	0%
B6197 Buckstones Road	7%	0%
A672 Ripponden road (North)	12%	3%
A672 Ripponden road (South)	6%	5%
Southern Allocation Access	14%	8%

**Figure 7. Allocation Traffic Distribution, 2040 GMSF High-Side (Origin/Destination Combined):
Broadbent Moss**

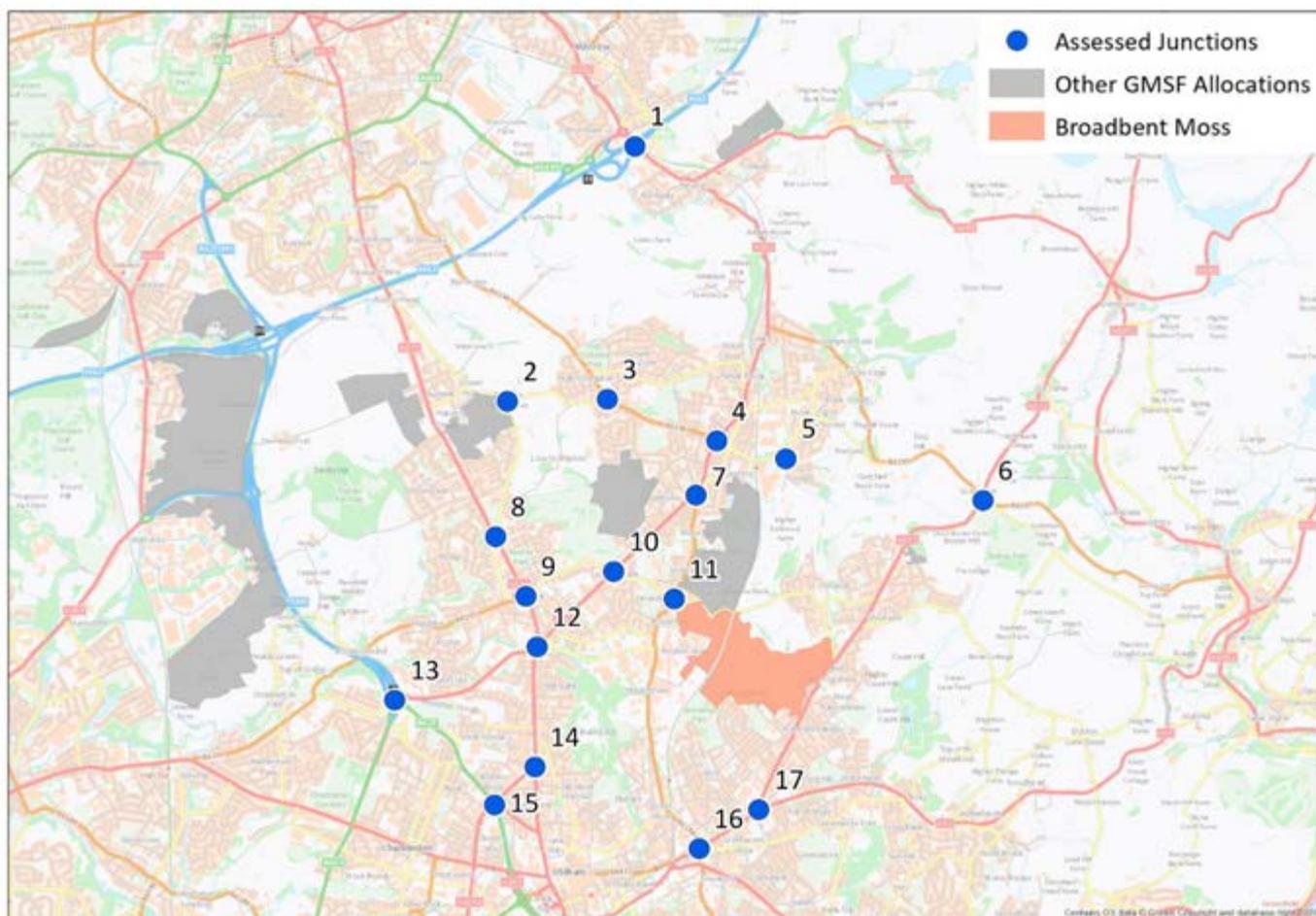


Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

8. Existing Highway Network Review

8.1.1 The B6194 Higginshaw Road and the A672 Ripponden Road run north to south to the east and west of the Broadbent Moss allocation, providing main routes between Shaw and Sholver, and the centre of Oldham. SYSTRA identified a number of junctions in proximity to the site where additional traffic could have an impact on their operation based on existing conditions.

Figure 8. Key junctions assessed



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

1. A640 Elizabethan Way / A6193 Sir Isaac Newton Way
2. Castleton Road / Thornham Road / Narrowgate Brow
3. B6194 Rochdale Road / Thornham Road
4. A663 Crompton Way / Rochdale Road / Beal Lane
5. Beal Lane / Hillside Avenue
6. A672 Ripponden / B6197 Grains Road / Oldham Road / Buckstones Road
7. A663 Shaw Road / B6194 Oldham Road / Church Road
8. A671 Oldham Road / Dogford Road / A671 Rochdale Road / Rochdale Lane
9. A671 Rochdale Road / B6195 High Barn Road / A671 Oldham Road / B6195 Middleton Road
10. A663 Shaw Road / High Barn Road / Blackshaw Lane

11. B6194 Heyside / Water Street
12. A663 Shaw Road / A671 Oldham Road
13. A627 (M) / A627 Chadderton Way / A663 Broadway / Burnley Lane
14. A671 Oldham Road / A671 Rochdale Road / A6048 Featherstall Road
15. Featherstall Road / A627 Oldham Road / Chadderton Way Roundabout
16. A62 Huddersfield Road / Cross Street / B6194 Shaw Road
17. A672 Ripponden Road / A62 Huddersfield Road

8.1.2 It should be noted that the signalised junction A62 Bottom o' th' moor/Brook St/A62 Oldham Road/Lees Rd in the centre of Oldham was not assessed as predicted development trips across these junctions were not as severe as those across the junctions listed above, therefore there was no need to review these junctions at this stage. However, at the Transport Assessment stage, it may be necessary to widen the scope of assessed junctions to include these locations.

9. Treatment of Cumulative Impacts

9.1.1 The constrained and high side model runs take account of traffic associated with all GMSF allocations. Within a 2km buffer of the Broadbent Moss allocation are the Stakehill, Kingsway South, Beal Valley, Cowlshaw, Hanging Chadder and Newhey Quarry allocations. Therefore, at the local level, the transport impacts of the site need to be considered cumulatively with the above-stated GMSF allocations.

- – Stakehill: 1,991 AM Peak / 1,670 PM Peak
- – Kingsway South: 323 AM Peak / 353 PM Peak
- – Beal Valley: 287 AM Peak / 310 PM Peak
- – Broadbent Moss: 574 AM Peak / 556 PM Peak
- – Cowlshaw: 169 AM Peak / 240 PM Peak
- – Hanging Chadder: 125 AM Peak / 134 PM Peak
- – Newhey Quarry: 177 AM Peak / 195 PM Peak

- 9.1.2 Since production of this Locality Assessment, allocations Kingsway South has have been removed from the GMSF, with a number of other allocations undergoing amendments to quantum or allocation geography. The impact of this change has not been considered in this assessment, as the withdrawal of these allocations came after modelling results were produced. These changes may materially impact treatment of cumulative impacts and proposed mitigations.
- 9.1.3 Furthermore, although the Thornham Old Road allocation is illustrated on mapping, the assessment and cumulative impacts of this allocation have not been included in the junction assessments presented in the following sections due to it being considered non-deliverable and therefore not taken forward for further development.

10. Allocation Access Assessment

- 10.1.1 This site access arrangement has been developed to illustrate that there is a practical option for site access in this location and to develop indicative cost estimations. It is assumed that a detailed design consistent with Greater Manchester’s best practice Streets for all highway design principles will be required at the more detailed planning application stage.
- 10.1.2 Due to the role of the proposed highway network within the site, which will have a role in local traffic distribution, the full traffic impact of all GMSF flows are recorded below, and not just those pertaining to the allocation.

Table 6. Allocation Access Junction Capacity Analysis: Broadbent Moss

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	GMSF Flows AM	GMSF Flows PM
Meek Street Access Junction	N/A	N/A	63%	59%	69	45
Moss Lane Access Junction	65%	70%	66%	72%	133	186
Bullcote Lane / Cop Road Junction	N/A	N/A	20%	20%	239	214
Green Park View Access Junction	N/A	N/A	38%	54%	74	50
Vulcan Street Road Access Junction	N/A	N/A	13%	15%	61	63

11. Impact of Allocation Before Mitigation on the Local Road Network

- 11.1.1 In order to understand a worst case impact of the GMSF, the ‘high side’ runs from the GMVDM were used to derive with GMSF development flows for 2040. These flows were then entered into junction based models for the junctions identified in **Section 9**. Flows from a 2040 reference case scenario (including approved Local Plan development from the respective districts) were also extracted to provide a comparison between the operation of those junctions in the 2040 reference case and the 2040 with GMSF development scenarios.
- 11.1.2 The ‘with GMSF’ scenario has been assessed against a Reference Case which assumes background growth and includes the housing and employment commitments from the districts. These assessments were then used to identify the junctions where there was considered to be a substantial impact, relative to the operation of the junction in the 2040 reference case, and hence where mitigation was considered to be required in order to bring GMSF sites forward. For the purposes of GMSF, it was been agreed that where mitigation is required, it should mitigate the impacts back to the reference case scenario. It should be noted that mitigating back to this level of impact may not mean that the junction operates within capacity by 2040, and any subsequent mitigation schemes developed based on impacts caused through development trips from this allocation are only designed to mitigate the impact of GMSF traffic only, and are not intended to solve pre-existing congestion on the local network.
- 11.1.3 This section looks at the impact on the network at the junctions highlighted in **Section 9**. Signalised junctions were assessed in detail using industry-standard modelling software LINSIG version 3. Where possible, traffic signal information was requested from TfGM in order to ensure that the local junction models reflected (as far as possible), the operation of the junctions on the ground. Junctions 9 software was used to assess priority and roundabout junctions. **Table 7** below provides a comparison between the operation of the in scope junctions in the 2040 reference case and the 2040 ‘high side’ scenarios, as well as the site development flows through each respective junction. The table shows a comparison between the ratio of flow to capacity on the worst case arm at each junction as well as the total development flows through the junction.
- 11.1.4 For reference, a figure of between 85% and 99% illustrates that the junction is nearing its operational capacity, and a figure of 100% or over illustrates that flows exceed the operational capacity at the junction.

Table 7. Results of Local Junction Capacity Analysis Before Mitigation: Broadbent Moss

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	Allocation Flows AM	Allocation Flows PM
2. Castleton Road / Thornham Road / Narrowgate Brow	29%	24%	34%	24%	4	4
3. B6194 Rochdale Road / Thornham Road	53%	41%	58%	43%	31	43
4. A663 Crompton Way / Rochdale Road / Beal Lane	93%	105%	155%	111%	177	136
5. Beal Lane / Hillside Avenue	14%	12%	15%	13%	2	2
6. A672 Ripponden / B6197 Grains Road / Oldham Road / Buckstones Road	110%	103%	113%	102%	21	14
7. A663 Shaw Road / B6194 Oldham Road / Church Road	64%	67%	68%	67%	109	189
8. A671 Oldham Road / Dogford Road / A671 Rochdale Road / Rochdale Lane	73%	77%	77%	77%	1	1
9. A671 Rochdale Road / B6195 High Barn Road / A671 Oldham Road / B6195 Middleton Road	117%	93%	95%	94%	12	16
10. A663 Shaw Road / High Barn Road / Blackshaw Lane	110%	94%	111%	93%	15	9
11. B6194 Heyside / Water Street	81%	81%	72%	61%	25	29

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	Allocation Flows AM	Allocation Flows PM
12. A663 Shaw Road / A671 Oldham Road	137%	134%	137%	139%	186	225
14. A671 Oldham Road / A671 Rochdale Road / A6048 Featherstall Road	62%	58%	63%	59%	12	22
15. Featherstall Road / A627 Oldham Road / Chadderton Way Roundabout	73%	81%	75%	82%	12	22
16. A62 Huddersfield Road / Cross Street / B6194 Shaw Road	94%	95%	92%	95%	58	47
17. A672 Ripponden Road / A62 Huddersfield Road	80%	88%	78%	88%	35	28

12. Transport Interventions Tested on the Local Road Network

12.1.1 While in isolation this allocation would be unlikely to present significant implications on the surrounding road network, its potential cumulative impact with Stakehill, Kingsway South, Beal Valley, Cowlshaw, Hanging Chadder and Newhey Quarry allocations by 2040 (as outlined in **Section 10**) has resulted in several mitigation schemes being considered at junctions likely to see material impacts as a result of traffic introduced by these allocations.

12.1.2 As previously noted, Kingsway South has since been removed from the GMSF since the production of this Locality Assessment document and modelling outputs.

Table 8. Approach to Mitigation: Broadbent Moss

Junction	Mitigation Approach
4. A663 Crompton Way / Rochdale Road / Beal Lane	Cumulative impact, substantial for this allocation - mitigation proposed
11. B6194 Heyside / Water Street	Cumulative impact, substantial for this allocation – mitigation proposed
12. A663 Shaw Road / A671 Oldham Road	Cumulative impact, substantial for this allocation – mitigation proposed

12.1.3 These schemes were then coded into the GMVDM, in advance of a second ‘with mitigation’ run of the model. The outcomes of this model run in relation to the Stakehill, Kingsway South, Beal Valley, Cowlshaw, Hanging Chadder and Newhey Quarry allocations are presented in the following section.

12.1.4 In consideration of the provision of existing pedestrian and cycling infrastructure in the adjacent residential streets, our main recommendation in this regard is that a permeable network for pedestrian and cyclist priority within the development is required including sufficient secure cycle parking for all dwellings.

13. Impact of interventions on the Local Road Network

13.1.1 In order to understand whether the mitigation developed for the allocation (and all other allocations within the GMSF) is sufficient to mitigate the worst-case impacts of the GMSF identified in **Section 12**, a second run of the GMVDM with all identified mitigation included, was undertaken. Where a significant flow change was observed the junction models were rerun to check that the mitigation identified in **Section 13** is still sufficient to mitigate allocation impacts and that all other in scope junctions continue to operate satisfactorily in light of any reassignment due to mitigation schemes.

13.1.2 **Table 9** below provides a comparison between the operation of the in-scope junctions in the 2040 reference case and the 2040 'high side' with mitigation scenarios, as well as the allocation development flows through each respective junction. The table shows a comparison between the ratio of flow to capacity on the worst-case arm at each junction as well as the total development flows through the junction.

Table 9. Results of Local Junction Capacity Analysis After Mitigation: Broadbent Moss

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	Allocation Flows AM	Allocation Flows PM
4. A663 Crompton Way / Rochdale Road / Beal Lane	74%	112%	75%	112%	177	136
9. A671 Rochdale Road / B6195 High Barn Road / A671 Oldham Road / B6195 Middleton Road	88%	89%	80%	92%	12	16

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	Allocation Flows AM	Allocation Flows PM
11. B6194 Heyside / Water Street	37%	29%	41%	30%	25	29
12. A663 Shaw Road / A671 Oldham Road	122%	106%	113%	109%	186	225

14. Impact and mitigation on the Strategic Road Network

14.1 Overview

14.1.1 This chapter covers those impacts where traffic generated by the GMSF allocations meets the Strategic Road Network (SRN). Junctions at the interface between the Local Road Network (LRN) and the Strategic Road Network (SRN) have been assessed using a similar approach to that described in the preceding chapters. Wider issues relating to the SRN mainline are being assessed separately as described below.

14.1.2 SYSTRA is currently consulting with Highways England on behalf of TfGM and the Combined Authority in relation to the wider impacts of the GMSF allocations on the Strategic Road Network (SRN). This consultation is ongoing and it is expected that it will allow Highways England to gain a strategic understanding of where there is an interaction between network stress points and GMSF allocation demand. This will facilitate further discussion and transfer of information between TfGM and Highways England in reaching agreement and/or common ground on improvement measures.

14.2 Impact of Allocation Before Mitigation on the Strategic Road Network

14.2.1 The cumulative impacts of this and other allocations in this area have been considered likely to result in implications for the operation of the SRN in key locations.

Table 10. Results of Strategic Junction Capacity Analysis Before Mitigation: Broadbent Moss

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	Allocation Flows AM	Allocation Flows PM
1. A640 Elizabethan Way / A6193 Sir Isaac Newton Way	130%	140%	136%	142%	103	114
13. A627 (M) / A627 Chadderton Way / A663 Broadway / Burnley Lane	131%	132%	137%	137%	83	57

14.3 Specific SRN Junction Mitigation Measures

- 14.3.1 In consideration of the cumulative allocation impacts on the SRN at the A6193/A640 junction, which forms part of the wider M62 Junction 21 interchange, mitigation measures have included the addition of a second lane to the roundabout circulatory, and changes to the lane designations that favour movements accessing the M62, as well as a two-lane merge section of approximately 80m on the A640 (S) to allow for the safe merging of vehicles turning right from the A6193.
- 14.3.2 For the A627(M) / Chadderton Way / A663 Broadway Interchange, mitigation measures have included the addition of a third lane on the southbound access from the A627 (M) north, thereby reducing the amount of queuing that is experienced on the slip road that could potentially extend onto the A627 (M) carriageway. The results of this mitigation are supplied in **Table 11** below.

14.4 Impact of Interventions on the SRN

Table 11. Results of Local Junction Capacity Analysis After Mitigation: Broadbent Moss

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	Allocation Flows AM	Allocation Flows PM
1. A640 Elizabethan Way / A6193 Sir Isaac Newton Way	78%	81%	72%	80%	103	114
13. A627 (M) / A627 Chadderton Way / A663 Broadway / Burnley Lane	122%	128%	125%	127%	83	57

14.4.1 While the mitigations proposed do improve the cumulative impact of GMSF proposals upon the Strategic Road Network, following consultation these mitigations have been identified as Supporting Strategic Interventions due to the distance from the site to the SRN.

15. Final list of interventions

Table 12. Interventions List: Broadbent Moss

Mitigation	Description
Allocation Access	
Moss Lane Access Junction	Signalised Junction Improvement– See Appendix 1
Bullcote Lane Junction	New Standard Roundabout junction– See Appendix 2
Green Park View Access Junction	Signalised Junction assumed
Vulcan Street Road Access Junction	Priority Junction assumed
Meek Street Access Junction	Carriageway and pedestrian facilities improvements
Broadbent Road (Ped/Cycle access)	Sustainable access scheme including wider pedestrian / cycle improvements along Broadbent Road
Necessary Strategic interventions	
New Metrolink Stop and P&R facility adjacent to – BEAL VALLEY and	Proposed by TfGM for direct Metrolink access to both – Beal Valley and developments, including a sizeable Park & Ride facility
Key Internal Highway network – Spine Road.	660m of internal spine road network to be dedicated as a key local highway (See Figure 5), identified to have a through route function that will serve as a wider strategic highways link with bus access.
Metrolink Overbridge	Standard width road bridge as part of new internal spine road network should spine road arrangement prove unsuitable with level crossing
Necessary Local Mitigations	
Improvement of A663 Crompton Way / Rochdale Road / Beal Lane	An indicative scheme was developed as a potential improvement scheme at this location. See Appendix 3
Improvement of A663 Shaw Road / A671 Oldham Road junction	An indicative scheme was developed as a potential improvement scheme at this location. See Appendix 4
Improvement of B6194 Heyside / Water Street / Bullcote Lane junction	Severance of Bullcote lane – (resulting operational improvement to B6194 Heyside / Water Street / Bullcote Lane

	junction). See Appendix 2. Note this does not include the roundabout shown.
Provision of bus services within the allocation	Extension of existing bus service (Route 83 and Route 181) into the centre of the allocation at earliest possible opportunity to provide competitive sustainable transport alternative
Vulcan Street Traffic Calming	Traffic calming to address local highways concerns.
Permeable network for pedestrian and cyclist priority within the development, including connection of Bee Network along Cop Road	Assumed full permeability of cycle and pedestrian access, as well as direct connections to PRoWs either bounding or near the development and improvement of walking/cycling facilities on Heyside and Cop Road. Should be built or upgraded to the standards outlined in the Bee Network, as well as providing connections to the nearest section of the Bee Network
Supporting Strategic Interventions	
Improvement of A6193 Sir Isaac Newton Way / A640 Elizabethan Way roundabout interchange	An indicative scheme was developed as a potential improvement scheme at this location. See Appendix 5
Improvement of A627 (M) / Chadderton Way / A663 Broadway interchange	An indicative scheme was developed as a potential improvement scheme at this location. See Appendix 6
Improvement of A640 Huddersfield Road / A640 Newhey Road / A663 Shaw Road / Cedar Lane	Enhancements and efficiencies to the operation of the signal-controlled junction is promoted by way of updating the signal controller to MOVA control.

Necessary Strategic Mitigations

New Metrolink Stop and P&R facility adjacent to – Beal Valley and allocations

15.1.1 The Shaw and Crompton Metrolink stop provides opportunities for access to the far north of the allocation, which can, in combination with supporting necessary opportunities for walking and cycling connections to Shaw town centre, for a level of supporting access by sustainable means for the allocation. However, as the central and southern sections of the allocation are beyond acceptable walking times from the existing Metrolink stops, a new stop has been proposed adjacent to Bullcote Lane which will provide connections for both the Beal Valley and Broadbent Moss allocations, which also includes a sizeable Park & Ride facility.

15.1.2 The introduction of the Metrolink stop is expected to contribute to resolving the general issue regarding congestion on the surrounding road corridors, specifically Oldham Road, as this is the main thoroughfare into the centre of Oldham as well as supporting access to the allocation by sustainable means.

Internal Spine Road Highways Arrangement

15.1.3 660m of internal spine road network to be dedicated as a key local highway (See Figure 5), identified to have a through route function that will serve as a wider strategic highways link with bus access required. This could be delivered as part of an internal highways arrangement, though through route function would require safeguarding for future strategic use.

Internal Spine Road Metrolink Over Bridge

15.1.4 Depending upon design and arrangement, the above spine road may require a standard width road crossing over the proposed Metrolink line where a level crossing would be deemed unsuitable.

Necessary Local Mitigations

A663 Crompton Way / Rochdale Road / Beal Lane

15.1.5 At the A663 Crompton Way / Rochdale Road / Beal Lane junction, a mitigation scheme has been proposed to add extra lanes onto the A663 Crompton Way (South) arm and the B6194 Rochdale Road (West) arm in order to increase capacity. The A663 additional lane would allow for the separation of left-turn, ahead and right-turn movements in order to improve the turning movements of this arm, while the additional lane on the B6194 would allow separate right-turn movements from this arm.

15.1.6 This transport intervention is purely a highway infrastructural intervention prepared to illustrate that options may be available at this location – further detailed consideration would be required at the time of a planning application to ensure development of an option suitable for all users including pedestrians, cyclists and bus users. High frequency services between Oldham and Shaw/Rushcroft are already established along the corridor with bus stops located within accessible walking distance. The introduction of this mitigation scheme is expected to contribute to resolving the general issue regarding congestion in the centre of Shaw.

A663 Shaw Road / A671 Oldham Road

- 15.1.7 At the A663 Shaw Road / A671 Oldham Road junction, a mitigation scheme has been proposed to add a free-flow arm between the A663 Broadway and the A671 Rochdale Road in order to remove west to north movements from the main junction flow, while also providing an additional lane for ahead movements onto the A663 Shaw Road.
- 15.1.8 This transport interventions is purely a highway infrastructural intervention prepared to illustrate that options may be available at this location – further detailed consideration would be required at the time of a planning application to ensure development of an option suitable for all users including pedestrians, cyclists and bus users. High frequency services between Oldham and Rochdale are already established along the corridor with bus stops located within accessible walking distance.
- 15.1.9 The introduction of this mitigation scheme is expected to contribute to resolving the general issue regarding congestion on the surrounding road corridors, specifically Oldham Road, as this is the main thoroughfare into the centre of Oldham.

B6194 Heyside / Water Street / Bullcote Lane

- 15.1.10 At the B6194 Heyside / Water Street / Bullcote Lane junction, a mitigation scheme has been proposed to close through access on Bullcote Lane between Shaw and Sholver, thereby removing through traffic and development trips from the Beal Valley and Broadbent Moss allocations. The Bullcote Lane arm would remain in situ so as to access the adjacent bowling green. This mitigation option has been considered with regard to matters of safety for traffic exiting this arm due to the below standard width of Bullcote Lane.
- 15.1.11 This transport interventions is purely a highway infrastructural intervention and does not take account of the impact public transport improvements could have along the B6194. High frequency services between Oldham and Shaw/Rushcroft are already established along the corridor with bus stops located within accessible walking distance.
- 15.1.12 The introduction of this mitigation scheme is expected to resolve the issue of unsuitable access arrangements on Bullcote Lane.

Provision of bus services within the allocation

15.1.13 Due to the size of the proposed allocation, bus services should be introduced to serve one or more of the proposed land parcels that are to form the overall allocation so as to provide a competitive public transport alternative for residents and visitors to the site.

15.1.14 The introduction of public transport services within the allocation should be done at the earliest possible opportunity so as to allow for the provision of sustainable transport alternatives to the first new residents. Promotion of sustainable transport alternatives will also help to answer concerns regarding increased pollution from added vehicular trips on the local road network.

Permeable network for pedestrian and cyclist priority within the development

15.1.15 In order to promote and encourage sustainable transport modes, as well as providing safe and efficient accessibility for non-vehicular traffic, the development is to both provide ease of access for pedestrian and cyclist traffic into and out of the site, as well as connecting and improving Public Rights of Way that either directly connect or pass near the proposed site. This is to include upgrading of the local PRow routes to meet the standards of the proposed Bee Network and, wherever possible, connect directly to sections of the Bee Network.

15.1.16 Furthermore, pedestrian and cycle facilities in the areas surrounding the allocation should be improved wherever possible in order to allow for safe accessibility by non-vehicular users to both all parts of the development, but also the adjacent residential, employment and retail areas.

15.1.17 This scheme also includes widening of footpaths along the A672 Ripponden Road, and the introduction of suitable pedestrian and cycle facilities along Cop Road towards Sholver so that they meet SFA standards and provide safe access for pedestrian, cycle and horse-rider traffic. Promotion of sustainable transport alternatives will also help to answer concerns regarding increased pollution from added vehicular trips on the local road network.

Supporting Strategic Interventions

A6193 Sir Isaac Newton Way / A640 Elizabethan Way / A640 Newhey Road

15.1.18 At the A6193 Sir Isaac Newton Way / A640 Elizabethan Way, a mitigation scheme has been proposed to add an additional lane to the roundabout circulatory in order to provide more capacity for turning movements to and from the A640 from the A6193. This has also included the

provision of an 80m merging space on the A640 south of the junction to allow for safe merging for vehicles exiting the junction.

15.1.19 Due to its proximity to M62 Junction 21, and the presence of existing queues on the A6193 that cause congestion at the junction itself, the introduction of this mitigation is expected to resolve these issues.

A627(M) / Chadderton Way / A663 Broadway Interchange

15.1.20 At the A627 (M) Chadderton Way interchange, mitigation measures have included the addition of a third lane on the southbound access from the A627 (M) north, thereby reducing the amount of queuing that is experienced on the slip road that could potentially extend onto the A627 (M) carriageway.

A640 Huddersfield Road / A640 Newhey Road / A663 Shaw Road / Cedar Lane

15.1.21 Enhancements and efficiencies to the operation of the signal-controlled junction is promoted by way of updating the signal controller to MOVA control.

16. Greater Manchester Transport Strategy Interventions

16.1.1 Site Specific

1.1.1. Further to the site-specific interventions outlined within **Section 16**, Oldham Council and TfGM have jointly considered measures to support sustainable travel and to contribute towards the achievement of Greater Manchester's 'Right Mix' ambition.

1.1.2. The Right Mix initiative forms part of the Greater Manchester Transport Strategy 2040, and is proposes that by 2040, 50% of trips are to be undertaken by sustainable modes and no net increase in motor-vehicle traffic. The Right Mix vision is comprised of evidence-based targets which will be adjusted over time in order to reflect the progress of meeting such targets, and the interventions set out for walking, cycling and public transport for the allocation will contribute to the Right Mix target of reducing growth in motor vehicle traffic in Greater Manchester.

16.1.2 Oldham

- 1.1.3. In addition to the site-specific interventions set out in this Locality Assessment, there are a number of other measures already planned by Oldham Council and Transport for Greater Manchester to support sustainable travel, and to contribute to the achievement of Greater Manchester's 'Right Mix' ambition.
- 1.1.4. Transport for Greater Manchester is currently producing a business case for early delivery of a Quality Bus Transit scheme between Rochdale, Oldham and Ashton, which will include significant improvements to the quality, frequency and reliability of the bus service, as well as localised public realm enhancements which it is hoped will lead to an increase in bus patronage along the route. If successful, the concept would be rolled out to other routes in the City Region.
- 1.1.5. TfGM is also leading a study to complete a business case for the early delivery of the Cop Road Metrolink stop, which would improve access to Rochdale and Oldham and, from there, the Regional Centre.
- 1.1.6. In addition, Oldham Council is progressing 'Accessible Oldham' a £6 million Local Growth Deal package to regenerate and improve the connectivity of Oldham town centre. The scheme includes upgraded pedestrian areas and cycling routes, better access to bus and Metrolink stops and improvements to the highway network.
- 1.1.7. Oldham Council have successfully bid for funding from the Mayor of Greater Manchester's Cycling and Walking Challenge Fund – a £160 million initiative to deliver the infrastructure to encourage more people to cycle and walk across the region. This scheme is to come forward in a series of Bee Network developments within the Oldham area.
- 1.1.8. Outside of the town centre, Network Rail, in association with TfGM, have secured funding for the "Access for All" scheme from the Department for Transport in order to upgrade Mill Hill Rail Station to improve access for mobility impaired passengers, improving accessibility by rail in both Manchester and Rochdale directions. TfGM are also investing in the increase of capacity at the Mill Hill Park & Ride facilities through Growth Deal 3.
- 1.1.9. Oldham Council have mediated between Network Rail and TfGM with regard to off-site highway works, and NR are now providing a new controlled pedestrian facility to link the two schemes together, although the facilities chosen have not been considered ideal for this proposal.

Furthermore, there is some dispute regarding car park development at Mill Hill station as it contravenes bus only restrictions and conflicts with bus movements.

17. Phasing Plan

- 17.1.1 The initial locality assessments were based on information on new site allocations consolidated by TfGM based on inputs from each of the Districts. This initial exercise focused on the development quanta to be delivered at the end of the plan period, i.e. by 2040.
- 17.1.2 During the course of the locality assessment work in late 2019 / early 2020, the Districts provided input on their expected phasing of the sites focusing on the milestone years of 2025 and 2040. The expected 2025 development quanta were tested along with those for 2040 to assess their deliverability in terms of transport network capacity. In some cases, the development phasing was amended by the Districts as a result of the technical analysis undertaken. All other schemes will require implementation between 2025 and 2040, with a more precise implementation timeframe for these schemes being ascertained through a similar process to that detailed in **Section 12 to 14** as part of the five-year review of the plan.
- 17.1.3 Based on the proposed forecast used for modelling within this Locality Assessment, 6% of the development quantum (97 dwellings) for the Broadbent Moss allocation is expected to come forward by 2025, and 65% of the development quantum (951 dwellings) by 2040. The full development quantum is expected to come forward following the end of the current GMSF plan period after 2040. This is outlined in table 13.
- 17.1.4 Following minor amendment to the assumed allocation quantum, GM15 Broadbent moss is expected to comprise of 874 Dwellings (GMSF Plan Period) & 21,720 sqm B2 Industrial/B8 Warehousing, table 13.1. With a further 501 dwellings post GMSF plan period.

Table 13. Allocation Phasing as modelled: Broadbent Moss

Allocation Phasing	2020 25	2025 30	2030 37	2037+	Total
Parcel 1	97	951	0	1,356	1,356
Parcel 2	0	0	0	95	95
Parcel 3	21720	21720	0	21,720	21,720
Total	97	951	0	1,451	1,451

Table 13.1 Allocation Phasing – Updated Policy Allocation Proposal - Broadbent Moss

Allocation Phasing	2020 25	2025 30	2030 37	Total
Parcel 1	0	143	47	
Parcel 2	0	54	181	
Parcel 3	0	150	299	
Total	0	347	527	874

Table 14. Indicative intervention delivery timetable: Broadbent Moss

Mitigation	2020 2025	2025 2030	2030 2037
Allocation Access			
Moss Lane Access Junction improvement		✓	
Bullcote Lane Junction	✓		
Green Park View Access Junction		✓	
Vulcan Street Access connection		✓	
Meek Street Access improvement		✓	
Boardbent Road (Ped/Cycle access)		✓	
Necessary Strategic interventions			
New Metrolink Stop and P&R facility adjacent to – Beal Valley and allocations		✓	
Key Highway spine road network with through route function	✓		
Metrolink Overbridge	✓		
Necessary Local Mitigations			
Improvement of A663 Crompton Way / Rochdale Road / Beal Lane		✓	
Improvement of A663 Shaw Road / A671 Oldham Road		✓	
Improvement of B6194 Heyside / Water Street / Bullcote Lane		✓	
Provision of bus services within the allocation		✓	

Permeable network for pedestrian and cyclist priority within the development, including connection of Bee Network along Cop Road		✓	
Supporting Strategic Interventions			
Improvement of A6193 Sir Isaac Newton Way / A640 Elizabethan Way roundabout interchange		✓	
Improvement of A627 (M) / Chadderton Way / A663 Broadway interchange		✓	
A640 Huddersfield Road / A640 Newhey Road / A663 Shaw Road / Cedar Lane		✓	

18. Summary and Conclusions

- 18.1.1 GMSF allocation Broadbent Moss is a development located on what is currently open land and isolated farm buildings within the Royton South ward.
- 18.1.2 Assessments undertaken have considered the potential impact of this development on the surrounding road network, both in isolation and in cumulative impact with allocations Stakehill, Beal Valley , Hanging Chadder and Newhey Quarry. Both in isolation and cumulatively, the development has the potential to present increased congestion at existing areas of concern raised in **Section 3**. Furthermore, not all of the proposed site buildout is to be delivered before the end of the current GMSF plan period.
- 18.1.3 In response to potential concerns regarding congestion at key junctions, mitigation schemes have been considered at the A663 Crompton Way / Rochdale Road / Beal Lane (**Mitigation Option 1**), A663 Shaw Road / A671 Oldham Road (**Mitigation Option 2**), B6194 Heyside / Water Street / Bullcote Lane (**Mitigation Option 3**). These have been tested, and illustrate significant improvements to traffic flows only across these junctions, both with and without the cumulative impact of the GMSF allocations. These schemes have only been developed in outline detail to inform viability and allocations policy.

- 18.1.4 Strategic Road Network cumulative impact concerns have been assessed with mitigation options at A6193 Sir Isaac Newton Way / A640 Elizabethan Way / A640 Newhey Road roundabout interchange (**Mitigation Option 4**), and A627 (M) / Chadderton Way / A663 Broadway interchange (**Mitigation Option 5**) and A640 Huddersfield Road / A640 Newhey Road / A663 Shaw Road / Cedar Lane having been developed. These mitigations are viewed as supporting strategic mitigations due to distance from the allocation.
- 18.1.5 Based on the information contained within this report, we conclude that the traffic impacts of the site are considered to be less than severe subject to the implementation of localised mitigation at a discrete number of locations. The “High-Side” modelling work indicates that in general other junctions within the vicinity of the site will either operate within capacity in 2040 with GMSF development, or that in some cases junctions operating over capacity in the future year would not be materially worsened by development traffic.
- 18.1.6 At this stage, the modelling work is considered to be a ‘worst case’ scenario as it does not take full account of the extensive opportunities for active travel and public transport improvements in the local area, and that junctions which are considered to operate over capacity in the 2040 model years, both with and without mitigation, are attributed not to the introduction of development trips, but to the cumulative impact of wider growth. The objective of mitigation scenarios is to suitably accommodate the proposed development trips for this allocation, rather than fully amending wider traffic concerns.
- 18.1.7 Further detailed work will be necessary to identify the specific interventions required to ensure the network works effectively based on transport network conditions at the time of the planning application. All final design solutions should be consistent with Greater Manchester’s best practice Streets for All highway design principles.
- 18.1.8 However, the mitigation schemes proposed should be considered in conjunction with continued investment into sustainable transport alternatives, including pedestrian, cycling and public transport, in order to reduce the overall number of additional vehicles being introduced onto the local road network. This, combined with the mitigation schemes, could potentially resolve a number of issues raised regarding pollution and safety in relation to the Broadbent Moss allocation.

18.1.9 This is an initial indication that the allocation is deliverable and to inform viability, and that further detailed work will be necessary to identify the specific interventions required to ensure the network works effectively based on transport network conditions at the time of the planning application.

Appendix 1 – Indicative Allocation Access Option (West Access – Moss Lane)

**GM15 - BROADBENT MOSS
MOSS LANE IMPROVEMENTS INDICATIVE DESIGN PROPOSAL**



Please note that this design is based on indicative measurements taken from OS map in addition to guidelines from Google Maps. This design is subject to further improvement.

Appendix 2 – Indicative Allocation Access Option (North Access – Bullcote Lane)

GM14 / 15 - BEAL VALLEY / BROADBENT MOSS BULLCOTE LANE IMPROVEMENTS AND SITE ACCESS INDICATIVE PROPOSAL



Comments:

1. Bullcote Lane access to be severed from west, possible cul-de-sac as shown.
2. Illustrative roundabout option for the straightening of Cop Road/Bullcote Lane and its integration with Beal Valley / Broadbent Moss development. Geometries and alignments are shown for indicative purposes only.

KEY:

- Pedestrian Desire Lines
- Emergency Access Route

Please note that this design is based on indicative measurements based on OS map. This design is subject to further improvement.

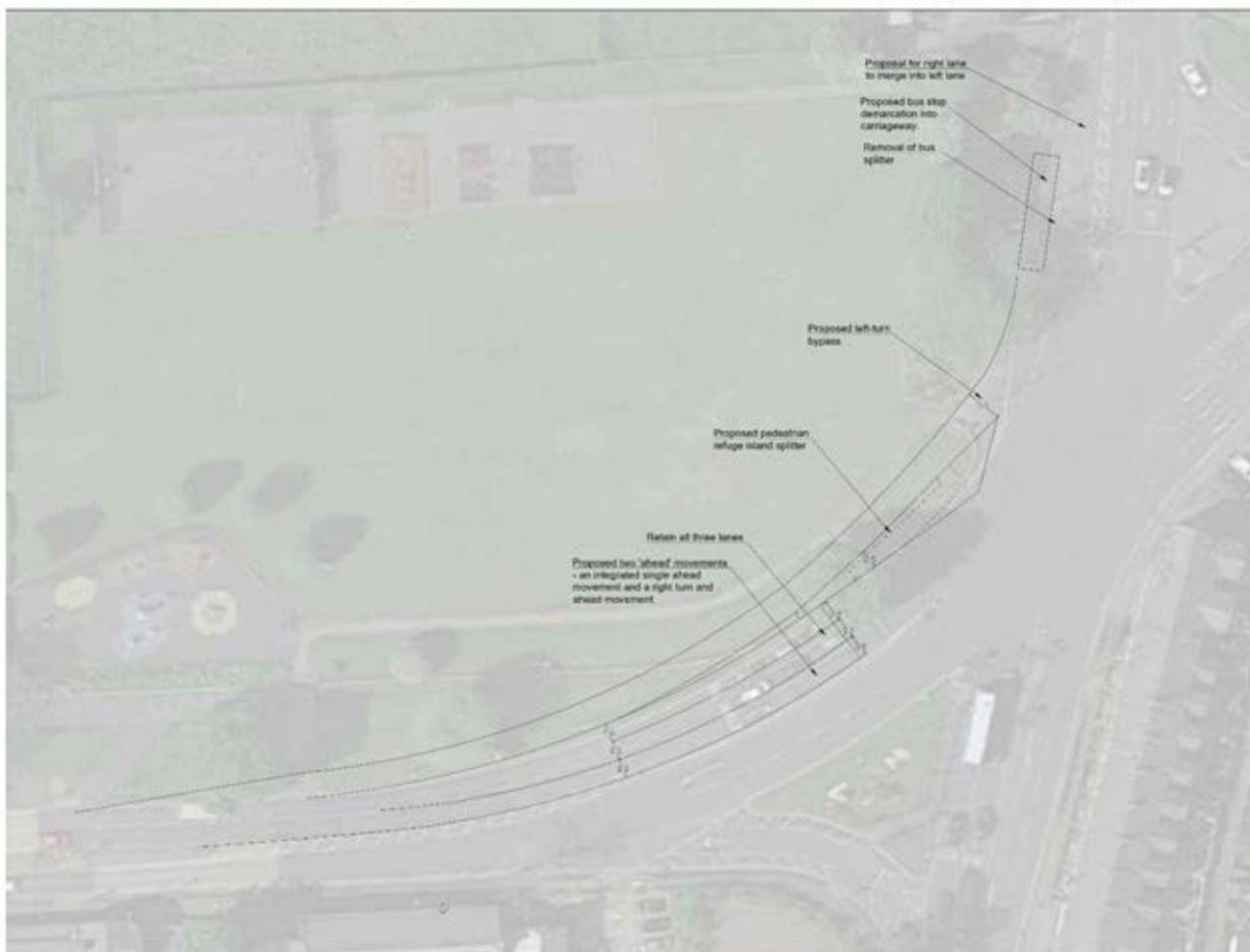
Appendix 3 – Indicative Mitigation Option 1 (A663 Crompton Way / Rochdale Road)

OLDHAM NORTH SITES - INDICATIVE MITIGATION PROPOSAL A663 CROMPTON WAY / B6194 ROCHDALE ROAD



Please note that this design is based on indicative measurements taken from OS map in addition to guidelines from Google Maps. This design is subject to further improvement.

GM14/15/16/17 and 21 - OLDHAM NORTH SITES INDICATIVE MITIGATION PROPOSAL - A671 / A663



Please note that this design is based on indicative measurements taken from OS map in addition to guidelines from Google Maps. This design is subject to further improvement.

Appendix 5 – Indicative Mitigation Option 4 (A6193 Sir Isaac Newton Way / A640 Elizabethan Way)



GM14/15/16/17 and 21 - OLDHAM NORTH SITES INDICATIVE MITIGATION PROPOSAL - CHADDERTON WAY



Please note that this design is based on indicative measurements taken from OS map in addition to guidelines from Google Maps. This design is subject to further improvement.

Greater Manchester Spatial Framework

Locality Assessment:

Chew Brook Vale

(Robert Fletchers) (GMA 15)

Version 4: November 2020

Identification Table	
Client	Oldham Council
Allocation	Chew Brook Vale (Robert Fletchers)
File name	Chew Brook Vale (Robert Fletchers) – Locality Assessment
Reference number	108724
Confidentiality	Confidential
Number of pages	36

Approval					
Version	Role	Name	Position	Date	Modifications
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Allocation Data	
Allocation Reference No.	GMA15
Allocation Name	Chew Brook Vale (Robert Fletchers)
Authority	Oldham Council
Ward	Saddleworth South
Modlling Analysis	171 houses, 2,500 sqm office & 6,000 sqm leisure and retail
Policy Allocation Proposal	171 houses, 6,000sqm leisure and retail (GMSF Plan Period)
Allocation Timescale	0-5 years <input type="checkbox"/> 6-15 years <input checked="" type="checkbox"/> 16 + years <input type="checkbox"/>

Glossary

“2025 GMSF Constrained” - is the 2025 forecast case in which the model adjusts the input demand based on how the cost of travel changes from the base year to the future. For example, for a shopping trip undertaken by car which becomes more congested in future, changes might be travel via a different route, mode, location or time of day.

“2040 GMSF Constrained” - as above, but for a 2040 forecast year

“2025 GMSF High-Side” - is the 2025 forecast case in which the model does not adjust the input demand based on how the cost of travel changes. In this scenario congestion does not lead to a reassignment of traffic, and therefore road traffic flow will generally be higher.

“2040 GMSF High-Side” - as above, but for a 2040 forecast year

“2025 Reference Case” - is the Do Minimum scenario which includes delivery of all transport schemes already committed and assumed to be completed by 2025

“2040 Reference Case” - is the Do Minimum scenario which includes delivery of all transport schemes already committed and assumed to be completed by 2040

AADT - Annual average daily traffic, is a measure used in transportation planning to quantify how busy the road is

Bee Network - is a proposal for Greater Manchester to become the very first city-region in the UK to have a fully joined-up cycling and walking network: the most comprehensive in Britain covering 1,800 miles.

Bus Rapid Transit - is a bus-based public transport system designed to improve capacity and reliability relative to a conventional bus system. Typically, a BRT system includes roadways that are dedicated to buses, and gives priority to buses at junctions where buses may interact with other traffic

Existing Land Supply - these are allocations across the county that have been identified by each local planning authority across Greater Manchester and are available for development

Greater Manchester Variable Demand Model (GMVDM) - the multi-modal transport model for Greater Manchester. This transport model provides estimates of future year transport demand as well as the estimates of travel behaviour changes and new patterns that the Plan is likely to produce. These include

changes in choices of routes, travel mode, time of travel and changes in journey destinations for some activities such as work and shopping.

Local Road Network (LRN) - All other roads comprise the Local Road Network. The LRN is managed by the local highways authorities

National Trip End Model (NTEM) - is a Department for Transport forecast that ensures that measures of population, jobs and trips made by various mode are consistent across the whole of Great Britain.

Rapid transit services - refers to high frequency, high capacity metro style transport services including Metrolink and Bus Rapid Transit.

Strategic Road Network (SRN) - The Strategic Road Network comprises motorways and trunk roads, the most significant 'A' roads. The SRN is managed by Highways England.

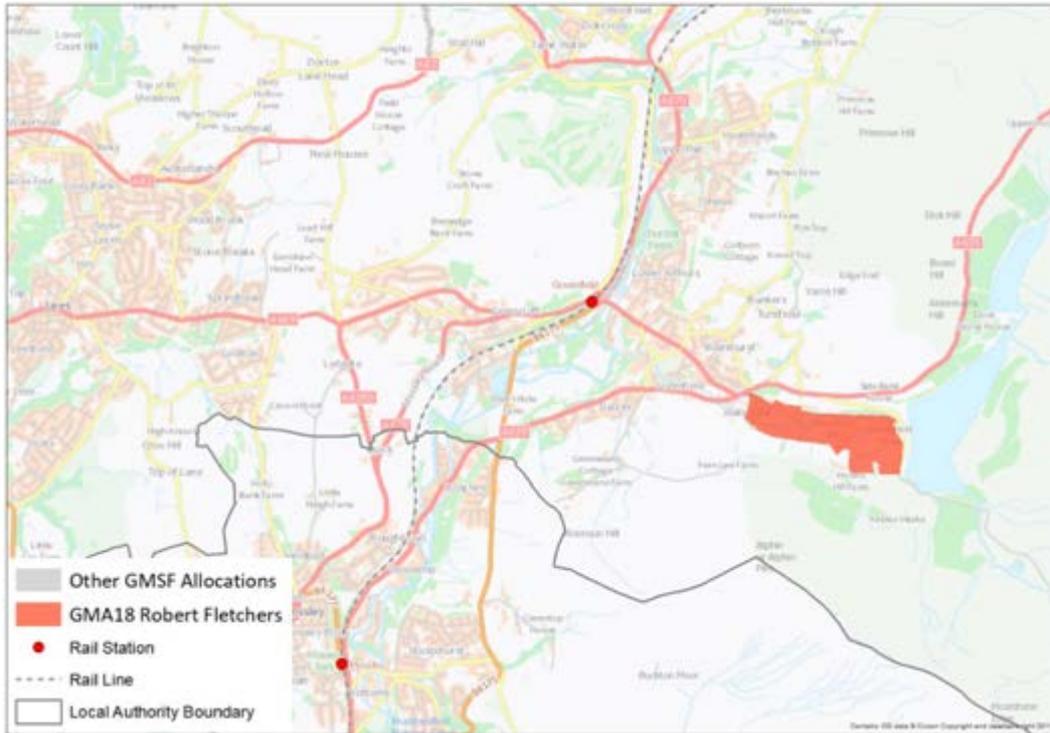
"TfGM" - Transport for Greater Manchester, the Passenger Transport Executive for Greater Manchester

Urban Traffic Control (UTC) - is a specialist form of traffic management that, by coordinating traffic signals in a centralised location, minimises the impact of stop times on the road user.

1. Allocation Location & Overview

- 1.1.1 This Locality Assessment (LA) is one of a series being prepared for proposed new allocations within Greater Manchester in order to confirm the potential impacts on both the local and strategic network, as well as identifying possible forms of mitigation or the promotion of sustainable alternatives to reduce this impact.
- 1.1.2 The Chew Brook Vale (Robert Fletchers) allocation is in the Metropolitan Borough of Oldham, consisting of up to 171 dwellings, 2,500sqm of office floorspace and 6,000sqm of leisure and retail land use, and is situated in the Saddleworth South ward.
- 1.1.3 The allocation is bounded by the A635 Holmfirth Road to the north and west, Dove Stone Reservoir to the east, and open land to the south. The existing land use of the allocation is predominantly open land, although there are some remote farm buildings and the Fletchers paper mill present.
- 1.1.4 Limited highway infrastructure is present within the allocation, including a through access road to the paper mill and Dove Stone Reservoir, and access arrangements are currently made from the A635 at a bridge across Chew Brook at the western end of the site, and Bank Lane to the north of the site. The A635 Holmfirth Road and Chew Valley Road runs from the west to the north of the allocation and comprises a single-carriageway urban road with narrow footpaths, streetlighting and a 30mph speed limit at the Greenfield end, and an interurban road with narrow footpaths that gradually loses streetlighting as it leaves Greenfield, while the speed limit increases initially to 40mph, then to 50mph beyond Bank Lane.
- 1.1.5 The allocation lies within the 2011 Census mid-layer super output area of Oldham 020. The scale of residential development (171 homes) is approximately 6% of the existing number of households in the area (2,825).

Figure 1. Site Location: Chew Brook Vale (Robert Fletcher's)



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

1.1.6 For the purposes of the testing the impact of the allocation through the strategic model, a total of 171 dwellings have been assumed to be built out by 2040. The GM transport modelling suite has a 2040 forecast year, as such it uses 2040 trajectory data as proxy for 2037 full build-out, this is not considered to materially impact on the analysis or conclusions of this report.

1.1.7 All phasing plans information contained in this Locality Assessment is indicative only and has only been used to understand the likely intervention delivery timetable. Final trajectory information is contained in the GMSF Allocation Topic Paper.

2. Justification for Allocation Selection

2.1.1 The Site Selection process has been led by the 10 Greater Manchester Authorities, including Oldham Council, and provided the starting point for the investigation of the preferred sites through the Locality Assessments.

2.1.2 Detail of the Site Selection process including the criteria used to identify the sites, and how this was used to select the most sustainable sites is considered within the GMSF Spatial Strategy.

3. Key Issues from Consultation

3.1.1 The Greater Manchester Plan for Homes, Jobs and Environment (Spatial Framework) consultation ran from 14th January to 18th March 2019. The comments made to the strategic allocation proposed at this location during the 2019 GMSF consultation relate to the following key transport themes; roads, public transport, air quality and active travel:

- Lack of housing numbers to generate the investment required in infrastructure, highway and community services
- Local congestion will become a major issue, particularly on weekends with people visiting the reservoir
- Lack of public transport access
- Limited and constrained emergency access
- Site access
- Concern that the area could not handle additional traffic in its current state.
- Traffic in Saddleworth has increased in recent years and Uppermill becomes a jam when road works are undertaken.
- Issues of parked vehicles on Uppermill.
- There is no room for the expansion of roads or footways.
- Existing two-way private access road towards Fletchers already has 4 vehicle bridges across Greenfield Brook. Concern about the impact of a spine/spur road and potential impacts.

3.1.2 A [full summary of all consultation responses](#) is available on the GMCA GMSF website.

4. Existing Network Conditions and Site Access

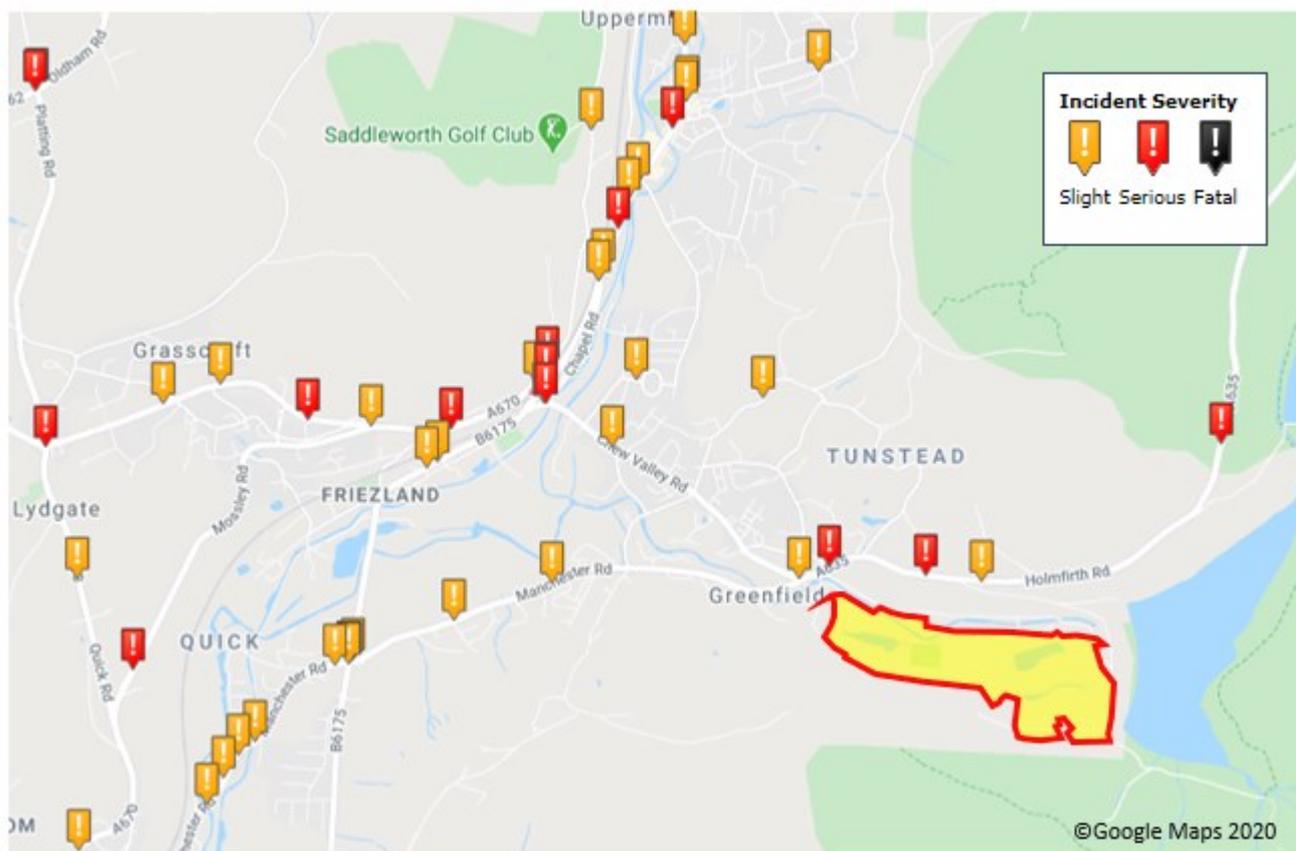
4.1 Vehicular Access

4.1.1 Currently, two existing access points onto the A635 are in use. To the west, the former access arrangements for the now redundant paper mill connect to the A635 north of the roundabout with Chew Valley Road, while to the north Bank Lane connects with the A635 north of the proposed site. Both accesses are at acute angles with restricted turning movements.

4.2 Accidents and Collision Overview

4.2.1 **Table 1** and **Figure 3** show the number of vehicle collisions over the last 5 years in a 1km area surrounding the – Chew Brook Vale (Robert Fletcher's) site. There have been a total of 33 accidents over the last 5 years with no fatal accidents.

Figure 2. Map of collision data within 1km of site within the last 5 years.



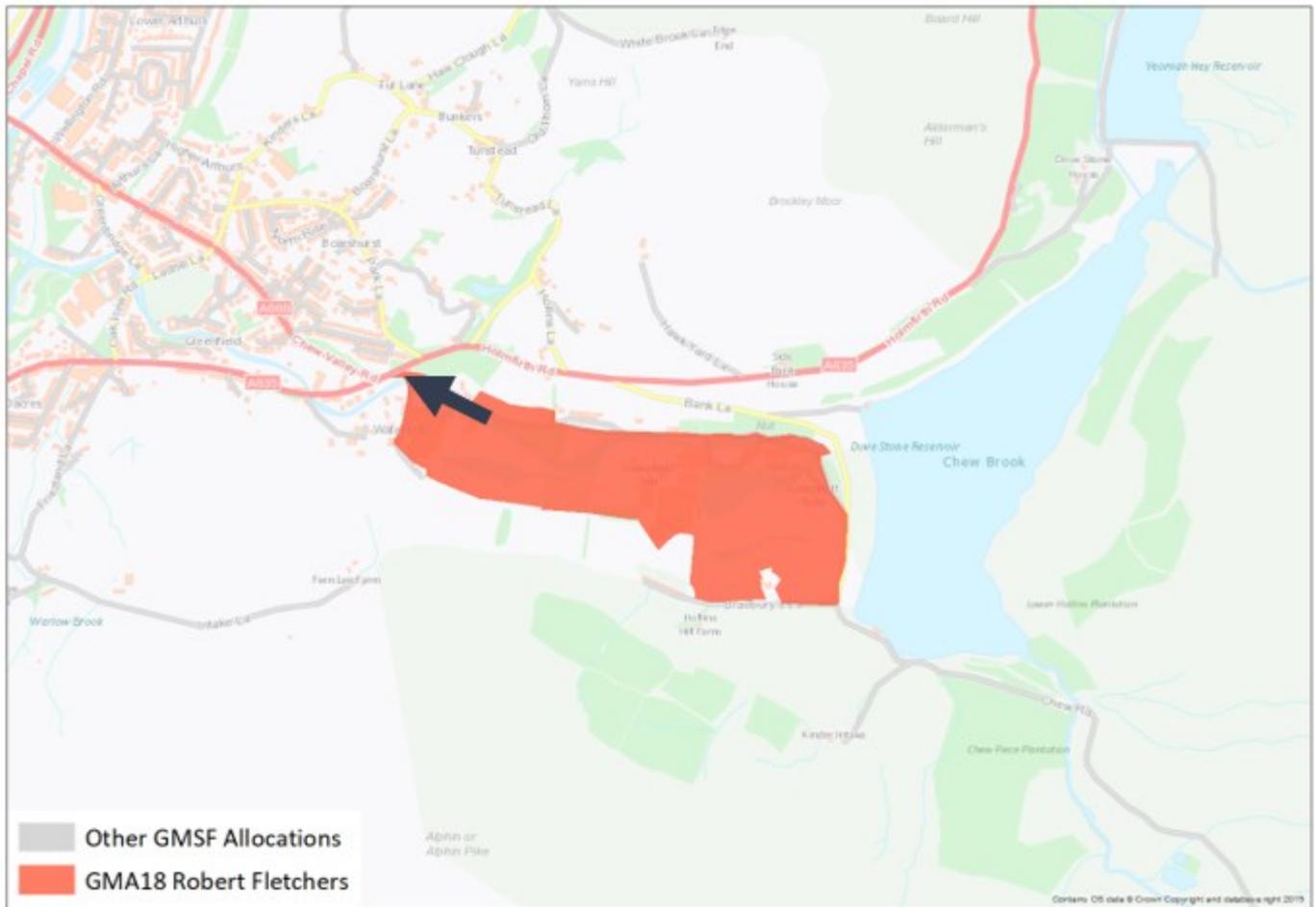
Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

Table 1. Collision data within 1km of site within the last 5 years.

Fatal	Serious	Slight	Total
0	14	31	45

5. Proposed Site Access

Figure 3. Site Location with Access Arrangements



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

- 5.1.1 Following discussions with Oldham Council, the need for the site to be accommodated through a new primary vehicular access was identified due to the limitations of the existing access points and internal highway network. Given the wider constraints of the allocation, the access point is proposed to be formed via a junction with A635 Manchester Road at or near its roundabout junction with Chew Valley Road. This would connect to a new spine road through the site to the redundant paper mill site and potentially Dove Stone Reservoir.
- 5.1.2 Initially, a number of access proposals were considered, including an access onto the A635 Manchester Road in the form of a new roundabout junction located in the vicinity of the existing mini-roundabout junction with Chew Valley Road. Including the provision of a new bridge structure providing access to Waterside via a new fourth arm from the existing roundabout.
- 5.1.3 An alternative access proposal has been considered (and subsequently discounted) to create a four-arm priority crossroads located at the existing junction between the A635 Holmfirth Road and Park Lane (**Appendix 1**), adjacent to the St Mary Greenfield Church. This access arrangement would include a wide radius to improve visibility for the minor arms, and form part of a link road that descends onto Waterside east of its current access onto the A635. However, this design is still subject to suitable topography within local area, and the proposed link road for site access is constrained by steep topography and visibility issues. For safety reasons it may be necessary to signalise this junction, however, this is not seen as necessary in traffic capacity terms and either option is unlikely to present significant capacity constraints due to the volume of traffic flow on the minor arms. The provision of a signalised option would introduce delay associated with the signal phasing to the existing priority A635 movement.
- 5.1.4 Due to the existing visibility issues, and a lack of space to allow for necessary improvements in capacity, the Bank Lane access onto the A635 Holmfirth Road was rejected as a possibility for improving access to the allocation from to the northeast. This instead will be considered in the future to be closed off depending on the infrastructure and connectivity within the allocation. Instead, all traffic entering both the – Chew Brook Vale (Robert Fletchers) allocation, including the pre-existing tourist area at the Dove Stone Reservoir basin, would need to utilise the main access and a proposed east-west spine road within the site boundary.

- 5.1.5 The issue of the steep topography and the physical and environmental constraints associated with Chew Brook, as well as the significant areas of mature woodlands surrounding the A635 are a fundamental risk to the deliverability of a suitable access strategy to the site. It cannot be satisfactorily determined whether the proposed access arrangement considered above, or an alternative scheme, could be practically delivered based on the limited information available through the desktop-based feasibility design assessment undertaken for this Locality Assessment. Further investigation, beyond the scope of this assessment, would be required, and likely to include site investigations and/or a 3-dimensional design to consider these issues and inform whether a practical solution can be found that is also deliverable. Such an investigation would need to be undertaken at the Transport Assessment stage.
- 5.1.6 An east-west spine road has been identified as being necessary to accommodate internal movement within the site, such that it is suitable to replace the existing narrow (approximately 3.5m) tree lined lane located along the northern edge of the site. This existing route would be unsuitable for levels of traffic associated with the development and widening would require the removal of trees along either the northern or southern boundary of the road, having significant environmental implications and a loss to the character of the area. Consequently, the general arrangement for a new access road is anticipated to follow the southern boundary of the allocation between Waterside in the west and Dove Stone Reservoir to the east, providing access to the constituent parts of the development. No detailed alignment for the route has been developed.

6. Multi-modal accessibility

6.1 Overview

- 6.1.1 The current accessibility of the – Chew Brook Vale (Robert Fletchers) site using Greater Manchester’s Accessibility Level model (GMAL) has been identified as comprising areas of level 1 for accessibility, giving it a lower rating.

6.1.2 Greater Manchester Accessibility Levels (GMAL) are a detailed and accurate measure of the accessibility of a point to both the conventional public transport network (i.e. bus, Metrolink and rail) and Greater Manchester's Local Link (flexible transport service), taking into account walk access time and service availability. The method is essentially a way of measuring the density of the public transport provision at any location within the Greater Manchester region. The [GMAL methodology](#) is derived from the Public Transport Accessibility Level (PTAL) approach developed by the London Borough of Hammersmith and Fulham but modified to consider flexible transport service provision (Local Link) and to reflect local service provision levels (different accessibility levels) within Greater Manchester.

The accessibility index score is categorized into eight levels, 1 to 8, where level 8 represents a high level of accessibility and level 1 a low level of accessibility.

6.2 Walking and Cycling

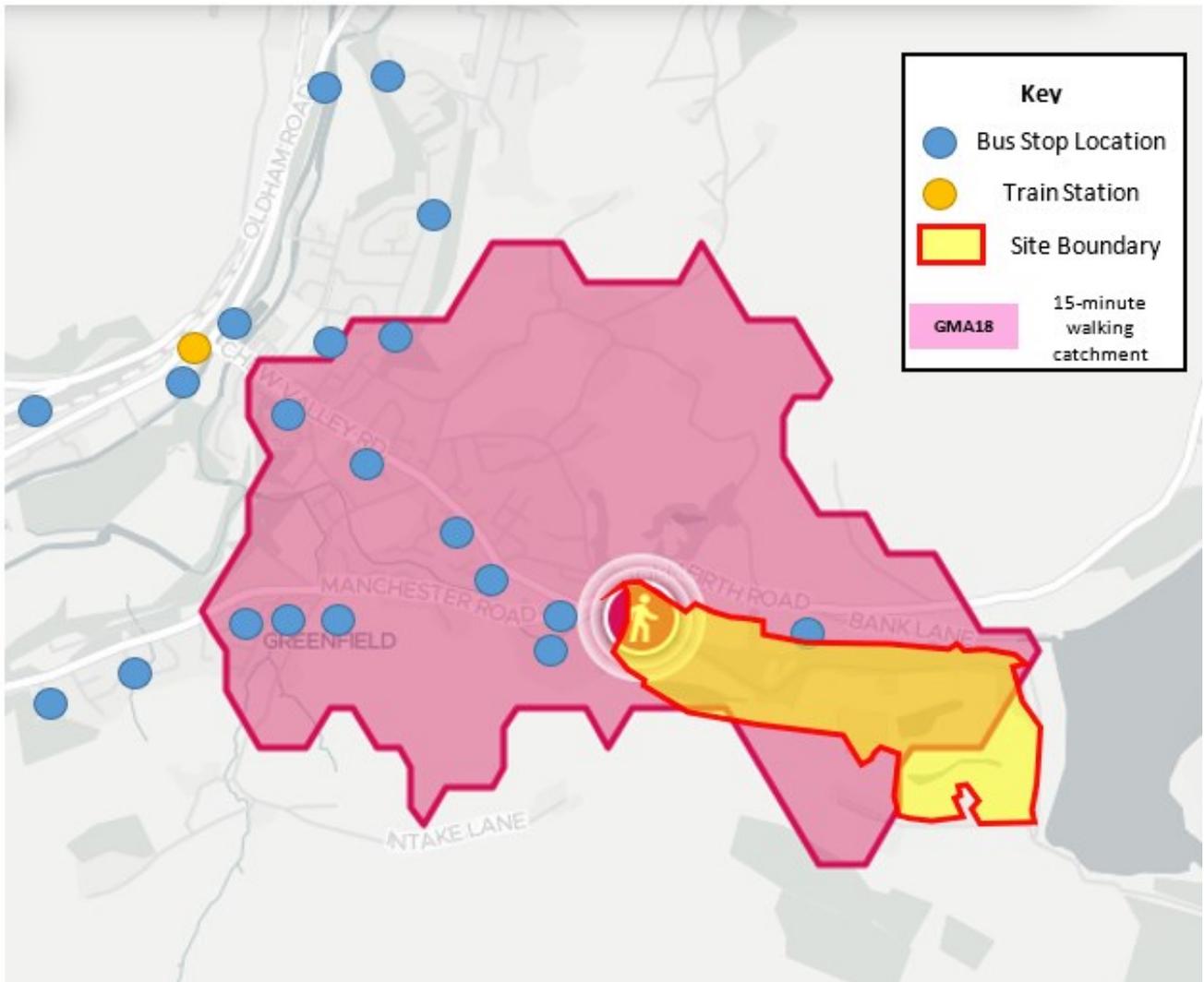
6.2.1 The main local destinations likely to generate walking and cycling trips are Greenfield village to the northwest of the site (0.6km), Greenfield Primary School (1.1km), Friezland Primary School (2.4km) and Greenfield St Mary's C.E (A) Primary School (0.2km).

6.2.2 The A635 provides footpaths which are narrower than SFA standards both west and east and no cycle facilities, although there is full streetlighting and pedestrian refuge islands at the Chew Valley Road mini-roundabout. Though SFA may resolve some pedestrian/cycle issues, localised improvements may be required in the vicinity of the new access.

6.2.3 Multiple Public Rights of Way (PRoW) cross the proposed site between Greenfield to the west and the surrounding countryside of Saddleworth Moor – PRoWs cannot, however, be used by cyclists unless they are designated as bridleways.

6.2.4 **Figure 4** shows the current level of accessibility for the – Chew Brook Vale (Robert Fletchers) site using the Travel Time Platform online database, which illustrates the 15-minute walking time from the proposed site access via the local road network and any available pedestrian through-routes.

Figure 4. 15 minute walking catchment with public transport provision



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

6.3 Public Transport

6.3.1 Connections to the National Rail network can be found at Greenfield station (1.4km west of the development). Services from Greenfield operate west to Manchester Piccadilly (average frequency: 60 minutes), and east to Huddersfield (average frequency: 60 minutes), with additional services towards Huddersfield during the peak hours.

6.3.2 Bus services are found at the Clarence Hotel stop immediately adjacent to the proposed access onto the A635 near Chew Valley Way, and are operated by First Group and Transdev Buses; this is served by the following routes:

- Route 180: Piccadilly Gardens to Greenfield (average frequency 30 minutes)
- Route 350: Ashton-under-Lyne to Oldham (average frequency: 30 minutes)
- Route 354: Ashton-under-Lyne to Carrcote (average frequency: 120 minutes)
- Route 357: Ashton-under-Lyne to Holmfirth (average frequency: 180 minutes)

6.3.3 The Clarence Hotel stop is located immediately adjacent to the proposed site access onto the A635 and provides frequent bus services into the centre of Ashton-under-Lyne. Greenfield’s railway station provides hourly services west to Manchester and east to Huddersfield and Leeds, but is beyond 15-minutes walking distance and therefore unsuitable for commuters wishing to walk to the station.

6.3.4 **Table 2** identifies the current accessibility of public transport for the future residents of the – Chew Brook Vale (Robert Fletchers) site, exploring the proximity, and the frequency of travel during peak hours

Table 2. Accessibility of and proximity to Public Transport.

Mode	Nearest Stop/ Station	Distance (km)*	Peak Hour Frequency (Mins)
Bus	Clarence Hotel	0.1	30
Rail	Greenfield	1.4	60

6.4 Proposed

6.4.1 In consideration of the provision of existing pedestrian and cycling infrastructure in the adjacent residential streets, our main recommendation in this regard is that a permeable network for pedestrian and cyclist priority within the development is required including sufficient secure cycle parking for all dwellings.

6.4.2 Given the location of the allocation and its proximity to the Greenfield local area, the internal walking and cycle network should be linked to high quality routes connecting through to these areas, including the proposed Bee Network. Existing PRoWs that either pass near or cross the proposed site should be positively upgraded, with both PRoWs and the internal pedestrian/cycle network of the site being constructed to the standards set out by the Bee Network.

- 6.4.3 On the basis that the proposed east-west spine road will accommodate vehicular traffic, the existing east-west lane within the site forms an important opportunity to support walking and cycling trips between areas of the development, the leisure activities at Dove Stone Reservoir, and Greenfield village through (via Chew Valley Rd) to Greenfield station. The natural east-west alignment of this route should form a core spine of access for active travel through the site and for onward travel to the local village and public transport.
- 6.4.4 The topography and historic layout of Greenfield village, and current highway design of this key route via Chew Valley Rd will require consideration to address any severance issues to pedestrians due to narrow footways, inconsistent provision on both sides of the carriageway and pinch points to access to all. A more transformational improvement package would be beneficial to support this as an active modes corridor however broader consideration of the principles of such a scheme are outside of the scope of this report.
- 6.4.5 Access for cycling to the allocation is likely to be particularly important given the mix of land uses (including leisure) and need to support travel to Greenfield station in a way that is not reliant on travel by private car. Improvement to cycle access within Greenfield, such as on the route between the site and Greenfield train station, could be modified to include cycle lanes (if and where possible) or introduce other priority measures for active travel.
- 6.4.6 Pedestrian provision, such as crossings, will also need to be introduced on the A635 to allow safe foot access to and from the site through to Greenfield village and for access to bus stops on the opposite side of the A635 road.
- 6.4.7 In consideration of further pedestrian and cycling infrastructure within the development and adjacent residential streets, pedestrian and cyclist priority should be given within the development including enough secure cycle parking for all dwellings. This should support permeability and connectivity of the site and support natural opportunities to connect adjacent walking and cycling routes and roads through the site benefiting accessibility of the wider area.
- 6.4.8 As the proposed site area currently benefits from existing Public Rights of Way, and in the interest of providing sustainable access for both pedestrians and cyclists to and from the site, these should be retained and enhanced. Enhancement should include the paving of existing PROWs in order to make them suitable to accommodate both cyclists and those of limited mobility (mobility

scooters/electric wheelchairs), and, where possible, lighting should be installed to provide improved visibility and safety for users.

- 6.4.9 Furthermore, as a section of the Bee Network passes immediately north of the allocation and proposes the improvement of pedestrian and cycling infrastructure on the A635 Holmfirth Road between Diggle, Greenfield and Mossley. Pedestrian and cycle access to and from the allocation should be integrated into this network in order to allow for improved cycle and pedestrian routes into the centre of Greenfield and west towards Mossley and Ashton-under-Lyne. Contributions to the potential implementation of the Bee Network in this area, as well as connections between the route and the allocation, could be made through a combination of GMSF, MCF and SFA contributions.
- 6.4.10 With regard to public transport, the needs of the allocation have been considered jointly with TfGM, and it has been identified that the allocation will need to be supported by the existing bus and public transport services which run adjacent the west of the allocation. Although existing bus services offer a good frequency of service in the context of the more rural location, the eastern parts of allocation will be more distant from these facilities reducing their attractiveness to users.
- 6.4.11 A potential extension to the existing bus services into the site was considered in order to allow improved public transport access for the entire allocation however this was identified not to be a viable consideration given the implications for route journey time and number of users generated by the allocation.

7. Parking

- 7.1.1 It is not necessary to consider in detail the parking standards for residential units relevant to the site at this stage of assessment as there are no particular constraints on achieving likely minimum parking standards that may be in application at the time the site is brought forward. Accommodation of Electric Vehicle (EV) parking, while an important factor in developing more efficient transport connections for the allocation, should be considered at the detailed design stage, potentially as an integration of specific house design.
- 7.1.2 A broad assumption has been made that a maximum of 2 spaces per dwelling is likely to be proportionate however other alternative local policy requirements are likely to be equally deliverable and can be considered at the planning application stage.
- 7.1.3 National Planning Policy Framework (NPPF) is clear that such standards should only be set where there is a clear and compelling justification that they are necessary. This may be either for managing the local road network conditions, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with chapter 11 of NPPF).
- 7.1.4 There are concerns, however, as to the potential for visitors to the Dove Stone Reservoir using the allocation for on-street parking on busy days, and thus the management of parking to ensure this doesn't occur – including double yellow lines – will need to be addressed at the detailed design stage.

8. Allocation Trip Generation and Distribution

8.1.1 Future trip generation to/from the site (i.e. how many people and vehicles will enter or leave the site) was estimated by applying a set of GM-wide trip rates to the agreed development quantum for each site. The distribution of trips (i.e. where they are going to or coming from) was derived by selecting nearby zones with similar land use characteristics as a proxy and using the existing distribution in the model.

8.1.2 The phasing information below was correct at time of starting this Locality Assessment. Since final modelling results were developed, revisions to this allocation has taken place in response to flood risk concerns, removing the potential employment space listed below of 2,500sqm. A detailed overview of phasing as assessed within strategic modelling and this document, alongside revisions which have since taken place can be found in section 18.

Table 3. Development Quantum: Chew Brook Vale (Robert Fletchers)

Residential	Houses	15	137
Residential	Apartments	4	34
Industrial	e.g. B2/B8 etc.	2,500sqm	2,500sqm
Total		19	171

Table 4. Allocation Traffic Generation: Chew Brook Vale (Robert Fletchers)*

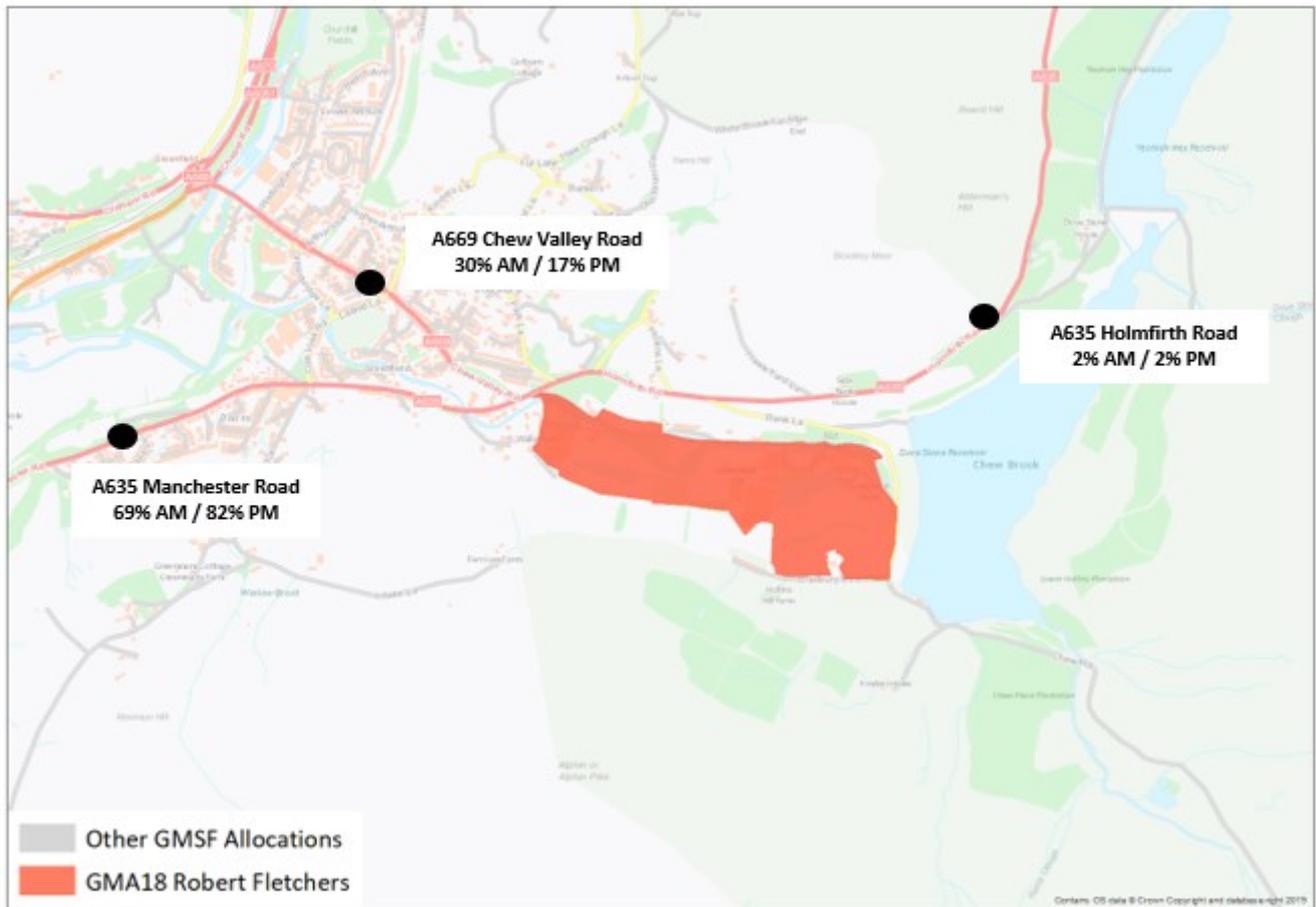
Year	AM Peak Hour Departures	AM Peak Hour Arrivals	PM Peak Hour Departures	PM Peak Hour Arrivals
2025 GMSF Constrained	21	30	28	15
2025 GMSF High-Side	26	35	28	16
2040 GMSF Constrained	62	40	48	61
2040 GMSF High-Side	74	54	54	61

*Units are in PCU (passenger car units/hr)

Table 5. Allocation Traffic Distribution, 2040 GMSF High-Side (Origin/Destination Combined): Chew Brook Vale (Robert Fletchers)

Route	AM Peak Hour	PM Peak Hour
A635 Manchester Road	69%	82%
A669 Chew Valley Road	30%	17%
A635 Holmfirth Road	2%	2%

**Figure 5. Allocation Traffic Distribution, 2040 GMSF High-Side (Origin/Destination Combined):
Chew Brook Vale (Robert Fletchers)**



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

9. Existing Highway Network Review

9.1.1 The A635 Holmfirth Road runs west to north to the west of the – Chew Brook Vale (Robert Fletchers) allocation, connecting Ashton-under-Lyne with Greenfields and Huddersfield. SYSTRA identified a number of junctions in proximity to the site where additional traffic could have an impact on their operation based on existing conditions.

1. A635 Manchester Road / A669 Chew Valley Road
2. A635 Manchester Road / B6175 Well-Hole Road
3. A670 Oldham Road / A669 Shaw Hall Bank Road
4. A6051 Chapel Road / A669 Chew Valley Road

Figure 6. Key junctions assessed



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

10. Treatment of Cumulative Impacts

10.1.1 The constrained and high side model runs take account of traffic associated with all GMSF sites. The level of trip generation from this development is, however, not seen as being likely to have specific cumulative interactions with other development sites due to the rural nature of the – Chew Brook Vale (Robert Fletcher's) allocation.

10.1.2 No impacts from specific surrounding GMSF sites were therefore identified as requiring further specific detailed consideration.

11. Allocation Access Assessment

11.1.1 This site access arrangement has been developed to illustrate that there is a practical option for site access in this location and to develop indicative cost estimations. It is assumed that a detailed design consistent with Greater Manchester’s best practice Streets for all highway design principles will be required at the more detailed planning application stage.

11.1.2 Due to the role of the proposed highway network within the site, which will have a role in local traffic distribution, the full traffic impact of all GMSF flows are recorded below, and not just those pertaining to the allocation.

Table 6. Site Access Junction Capacity Analysis: Chew Brook Vale (Robert Fletchers)

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	GMSF Flows AM	GMSF Flows PM
A635 Holmfirth Road Access Junction	N/A	N/A	48%	47%	128	115

12. Impact of Allocation Before Mitigation on the Local Road Network

12.1.1 In order to understand a worst case impact of the GMSF, the ‘high side’ runs from the GMVDM were used to derive with GMSF development flows for 2040. These flows were then entered into junction based models for the junctions identified in **Section 8**. Flows from a 2040 reference case scenario (including approved Local Plan development from the respective districts) were also extracted to provide a comparison between the operation of those junctions in the 2040 reference case and the 2040 with GMSF development scenarios.

12.1.2 The ‘with GMSF’ scenario has been assessed against a Reference Case which assumes background growth and includes the housing and employment commitments from the districts. Through discussions with TfGM and the Combined Authority, it has been agreed that where mitigation is required, it should mitigate the impacts back to a reference case scenario. It should be noted that mitigating back to this level of impact may not mean that the junction operates within capacity.

- 12.1.3 These assessments were then used to identify the junctions where there was considered to be a substantial impact, relative to the operation of the junction in the 2040 reference case, and hence where mitigation was considered to be required in order to bring GMSF sites forward. Through discussions with TfGM and the Combined Authority, it was been agreed that where mitigation is required, it should mitigate the impacts back to the reference case scenario. It should be noted that mitigating back to this level of impact may not mean that the junction operates within capacity by 2040.
- 12.1.4 This section looks at the impact on the network at the junctions highlighted in **Section 9**. Signalised junctions were assessed in detail using industry-standard modelling software LINSIG version 3. Where possible, traffic signal information was requested from TfGM in order to ensure that the local junction models reflected (as far as possible), the operation of the junctions on the ground. Junctions 9 software was used to assess priority and roundabout junctions. **Table 7** below provides a comparison between the operation of the in scope junctions in the 2040 reference case and the 2040 'high side' scenarios, as well as the site development flows through each respective junction. The table shows a comparison between the ratio of flow to capacity on the worst case arm at each junction as well as the total development flows through the junction.
- 12.1.5 For reference, a figure of between 85% and 99% illustrates that the junction is nearing its operational capacity, and a figure of 100% or over illustrates that flows exceed the operational capacity at the junction.

Table 7. Results of Local Junction Capacity Analysis Before Mitigation: Chew Brook Vale (Robert Fletchers)

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	Allocation Flows AM	Allocation Flows PM
1. A635 Manchester Road / A669 Chew Valley Road	17%	27%	13%	19%	128	115
2. A635 Manchester Road / B6175 Well-I-Hole Road	65%	49%	73%	85%	87	100
3. A670 Oldham Road / A669 Shaw Hall Bank Road	114%	132%	117%	136%	38	19
4. A6051 Chapel Road / A669 Chew Valley Road	46%	77%	45%	49%	38	19

13. Transport Interventions Tested on the Local Road Network

13.1.1 The A670 Oldham Road / A669 Shaw Hall Bank Road junction illustrates notable congestion, operating significantly over capacity during both peak periods by 2040. These issues are worsened by development traffic, although the overall proportional change in impact is relatively slight. Given the location of this junction, which is constrained by local topography and the presence of the railway, mitigation involving infrastructural changes to increase capacity appears not to be deliverable and given the scale of impact from development traffic no such scheme would also be proportional.

13.1.2 As such, a mitigation scheme has not been identified as necessary in support of the allocation, although Oldham Council are in the process of developing potential signalised control at this junction – this is to facilitate a new lift to the railway station from the A670 Oldham Road itself.

The details of this scheme, however, have yet to be finalised, and will likely be discussed at the Transport Assessment stage.

- 13.1.3 The development is unlikely to have a substantial impact on the capacity of the other junctions assessed in 2040 nor of wider locations given its context. No offsite highway mitigations have therefore been considered necessary with regard to the introduction of development trips from this site.

14. Impact of interventions on the Local Road Network

- 14.1.1 In order to understand whether the mitigation developed for the site (and all other sites within the GMSF) is sufficient to mitigate the worst-case impacts of the GMSF identified in **Section 12**, a second run of the GMVDM with all identified mitigation included, was undertaken. Where a significant flow change was observed the junction models were rerun to check that the mitigation identified in **Section 13** is still sufficient to mitigate site impacts and that all other in scope junctions continue to operate satisfactorily in light of any reassignment due to mitigation schemes.
- 14.1.2 However, with regard to the – Chew Brook Vale (Robert Fletchers) site, as stated in **Section 13**, this development has been considered unlikely to result in significant increases in congestion across the surrounding local highway network.

15. Impact and mitigation on Strategic Road Network

15.1 Overview

- 15.1.1 This chapter covers those impacts where traffic generated by the GMSF allocations meets the Strategic Road Network (SRN). Junctions at the interface between the Local Road Network (LRN) and the Strategic Road Network (SRN) have been assessed using a similar approach to that described in the preceding chapters. Wider issues relating to the SRN mainline are being assessed separately as described below.
- 15.1.2 SYSTRA is currently consulting with Highways England on behalf of TfGM and the Combined Authority in relation to the wider impacts of the GMSF allocations on the Strategic Road Network (SRN). This consultation is ongoing and it is expected that it will allow Highways England to gain a strategic understanding of where there is an interaction between network stress points and GMSF allocation demand which will facilitate further discussion and transfer of information between

TfGM and Highways England (yet to be defined) in reaching agreement and/or common ground relating to the acceptability of GMSF allocations in advance of Examination in Public (EiP).

15.1.3 Based on the proposed buildout of the site, and its distance from the nearest section of the Strategic Road Network (SRN), the – Chew Brook Vale (Robert Fletchers) allocation has been considered unlikely to present traffic impacts on the surrounding road network, therefore, no mitigation has been considered with regard to the introduction of development trips from this site.

16. Final list of interventions

Table 8. Interventions List: Chew Brook Vale (Robert Fletchers)

Mitigation	Description
Site Access	
A635 Holmfirth Road Access Junction	Proposed priority or traffic signalised junction, higher cost item assumed.
Access road	New 7.2m wide single carriageway, 1.1km in length to include standard width pedestrian and cycle facilities and to be future proofed with bus laybys for longer term provision of bus services
Bridge over Chew Brook	Approximately 35m span bridge over Chew Brook to provide linkage of site access to A635 Holmfirth Road access junction.
Necessary Local Mitigations	
Permeable network for pedestrian and cyclist priority within the development	Assumed full permeability of cycle and pedestrian access, as well as direct connections to PRoWs either bounding or near the development and improvement of walking/cycling facilities on A635 and Chew Valley Road. All pedestrian and cycle networks internal to the site, as well as connecting PRoWs, should be built or upgraded to the standards outlined in the Bee Network, as well as providing connections to the nearest section of the Bee Network

Sustainable access package of off site improvements to walking and cycling routes	Chew Valley Rd – Package of measures to support pedestrian and cycle access between allocation and Greenfield Railway Station via Chew Valley Rd delivered in accordance with standards outlined in the Bee Network wherever possible.
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- Necessary Local Mitigations

Permeable network for pedestrian and cyclist priority within the development

- 16.1.1 In order to promote and encourage sustainable transport modes, as well as providing safe and efficient accessibility for non-vehicular traffic, the development is to both provide ease of access for pedestrian and cyclist traffic into and out of the site, as well as connecting and improving Public Rights of Way that either directly connect or pass near the proposed site. This is to include upgrading of the local PRoW routes to meet the standards of the proposed Bee Network and, wherever possible, connect directly to sections of the Bee Network.
- 16.1.2 Furthermore, pedestrian and cycle facilities in the areas surrounding the allocation should be improved wherever possible in order to allow for safe accessibility by non-vehicular users to both all parts of the development, but also the adjacent residential, employment and retail areas.
- 16.1.3 This scheme also includes widening of footpaths along the A635 Holmfirth Road, Manchester Road and Chew Valley Road so that they meet SFA standards and provide safe access for pedestrian, cycle and horse-rider traffic. Promotion of sustainable transport alternatives will also help to answer concerns regarding increased pollution from added vehicular trips on the local road network.

Sustainable access package of off site improvements to walking and cycling routes

- 16.1.4 A package of measures will be necessary to promote and encourage walking and cycling between the allocation and Greenfield village facilities and onwards sustainable access to Greenfield Station via Chew Valley Rd.
- 16.1.5 Given the nature of the Chew Valley Rd corridor which is constrained in width and contains a mix of residential properties it may not be possible or necessary for improvements to, in all cases, fully meet the standards of the proposed Bee Network for walking and cycling facilities. However it is

recommended that this be considered as the starting point for a supporting scheme as the adopted standard, wherever is possible, so as to promote the route as a key corridor for walking and cycling through the village.

17. Greater Manchester Transport Strategy Interventions

Site Specific

- 17.1.1 Further to the site-specific interventions outlined within **Section 2**, Oldham Council and TfGM have jointly considered measures to support sustainable travel and to contribute towards the achievement of Greater Manchester's 'Right Mix' ambition.
- 17.1.2 The Right Mix initiative forms part of the Greater Manchester Transport Strategy 2040, and is proposes that by 2040, 50% of trips are to be undertaken by sustainable modes and no net increase in motor-vehicle traffic. The Right Mix vision is comprised of evidence-based targets which will be adjusted over time in order to reflect the progress of meeting such targets, and the interventions set out for walking, cycling and public transport for the allocation will contribute to the Right Mix target of reducing growth in motor vehicle traffic in Greater Manchester.

Oldham

- 17.1.3 In addition to the site-specific interventions set out in this Locality Assessment, there are a number of other measures already planned by Oldham Council and Transport for Greater Manchester to support sustainable travel, and to contribute to the achievement of Greater Manchester's 'Right Mix' ambition.
- 17.1.4 Transport for Greater Manchester is currently producing a business case for early delivery of a Quality Bus Transit scheme between Rochdale, Oldham and Ashton, which will include significant improvements to the quality, frequency and reliability of the bus service, as well as localised public realm enhancements which it is hoped will lead to an increase in bus patronage along the route. If successful, the concept would be rolled out to other routes in the City Region.
- 17.1.5 TfGM is also leading a study to complete a business case for the early delivery of the Cop Road Metrolink stop, which would improve access to Rochdale and Oldham and, from there, the Regional Centre.

- 17.1.6 In addition, Oldham Council is progressing 'Accessible Oldham' a £6 million Local Growth Deal package to regenerate and improve the connectivity of Oldham town centre. The scheme includes upgraded pedestrian areas and cycling routes, better access to bus and Metrolink stops and improvements to the highway network.
- 17.1.7 Oldham Council have successfully bid for funding from the Mayor of Greater Manchester's Cycling and Walking Challenge Fund – a £160 million initiative to deliver the infrastructure to encourage more people to cycle and walk across the region. This scheme is to come forward in a series of Bee Network developments within the Oldham area.
- 17.1.8 Outside of the town centre, Network Rail, in association with TfGM, have secured funding for the "Access for All" scheme from the Department for Transport in order to upgrade Mill Hill Rail Station to improve access for mobility impaired passengers, improving accessibility by rail in both Manchester and Rochdale directions. TfGM are also investing in the increase of capacity at the Mill Hill Park & Ride facilities through Growth Deal 3.
- 17.1.9 Oldham Council have mediated between Network Rail and TfGM with regard to off-site highway works, and NR are now providing a new controlled pedestrian facility to link the two schemes together, although the facilities chosen have not been considered ideal for this proposal. Furthermore, there is some dispute regarding car park development at Mill Hill station as it contravenes bus only restrictions and conflicts with bus movements.

18. Phasing Plan

- 18.1.1 The initial locality assessments were based on information on new site allocations consolidated by TfGM based on inputs from each of the Districts. This initial exercise focused on the development quanta to be delivered at the end of the plan period, i.e. by 2040.
- 18.1.2 During the course of the locality assessment work in late 2019 / early 2020, the Districts provided input on their expected phasing of the sites focusing on the milestone years of 2025 and 2040. The expected 2025 development quanta were tested along with those for 2040 to assess their deliverability in terms of transport network capacity. In some cases, the development phasing was amended by the Districts as a result of the technical analysis undertaken. All other schemes will require implementation between 2025 and 2040, with a more precise implementation timeframe

for these schemes being ascertained through a similar process to that detailed in **Section 12 to 14** as part of the five-year review of the plan.

18.1.3 Based on the initially proposed and modelled forecast, 11% of the development quantum (19 dwellings) for the – Chew Brook Vale (Robert Fletchers) site is expected to come forward by 2025. The full development quantum is expected to come forward by 2040.

18.1.4 Since modelling outputs were developed and this Locality Assessment document was produced, further revision of phasing has taken place in response to flood risk concerns. This has amounted to the removal of the proposed employment space, as detailed in table 9.5.

Table 9. Allocation Phasing: Chew Brook Vale (Robert Fletchers)

Allocation Phasing	2020 25	2025 30	2030 2038	2038+	Total
Residential	19	171	0	0	171
Employment	2,500sqm	0	0	0	2,500sqm
Leisure	6,000sqm	0	0	0	6,000sqm

Table 9.5 Allocation Phasing: Chew Brook Vale (Robert Fletchers)

Allocation Phasing	2020 25	2025 30	2030 2038	2038+	Total
Residential	19	171	0	0	171
Leisure	6,000sqm	0	0	0	6,000sqm

Table 10. Indicative intervention delivery timetable: Chew Brook Vale (Robert Fletchers)

Mitigation	2020 2025	2025 2030	2030 2038
Site Access			
A635 Holmfirth Road Access Junction	✓		
Access Road	✓		
Access Bridge		✓	
Necessary Local Mitigations			

Permeable network for pedestrian and cyclist priority within the development		✓	
Sustainable access package of off site improvements to walking and cycling routes		✓	

19. Summary & Conclusion

- 19.1.1 The GMSF allocation – Chew Brook Vale (Robert Fletchers) is a development consisting of 171 houses, 2,500 sqm office & 6,000 sqm leisure and retail land use located on what is currently open land with remote farm buildings and the redundant Chew Brook Vale (Robert Fletchers) paper mill between the town of Greenfields and the Dove Stone Reservoir.
- 19.1.2 The fundamental transport constraint associated with delivery of the allocation comprises the identification and design of a suitable point of vehicular access from the A635 Holmfirth Road, as well as the delivery of a spine road capable of providing vehicular access to the allocation, and potentially through to the tourist centre at Dove Stone Reservoir. A review of options for the site access undertaken as part of the Locality Assessment has identified several fundamental physical and environmental constraints to improving access, including the steep topography of the site which creates uncertainty regarding the deliverability of any of the options considered.
- 19.1.3 The level of design work required to ensure such an access could be practically delivered is beyond the scope of this assessment and is likely to require a level of detailed highway design based on

site survey and investigation. This design should include an outline of how the access will combine with the identified need for a new internal access road on an east/west axis. On this basis, the cost assumptions considered in this report are considered to carry significantly greater risks than for comparable Locality Assessment.

- 19.1.4 Based on the information contained within this report, we conclude that the traffic impacts of the site are considered to be less than severe subject to the implementation of localised mitigation at a discrete number of locations. The “High-Side” modelling work indicates that in general other junctions within the vicinity of the site will either operate within capacity in 2040 with GMSF development, or that in some cases junctions operating over capacity in the future year would not be materially worsened by development traffic.
- 19.1.5 While we have noted that the A670 Oldham Road / A669 Shaw Hall Bank Road junction illustrates notable congestion during the peak periods, due to its location, which is constrained by local topography and the presence of the railway, mitigation involving infrastructural changes to increase capacity have not been considered to be necessary— although Oldham Council are in early development of their own scheme to signalise the junction. Therefore, no mitigation strategies have been developed to accommodate off-site development traffic introduced by the allocation.
- 19.1.6 At this stage, the modelling work is considered to be a ‘worst case’ scenario as it does not take full account of the extensive opportunities for active travel and public transport improvements in the local area, and that junctions which are considered to operate over capacity in the 2040 model years, both with and without mitigation, are attributed not to the introduction of development trips, but to the cumulative impact of wider growth. The objective of mitigation scenarios is to suitably accommodate the proposed development trips for this allocation, rather than fully amending wider traffic concerns.
- 19.1.7 However, mitigation is required in the form of sustainable transport provision, including pedestrian, cycling and public transport, in order to ensure reduce the overall number of additional vehicles being introduced onto the local road network and to provide equitable access to the development for non-motorised users.
- 19.1.8 This is an initial indication that the deliverability of the allocation is uncertain due to issues with the site access strategy. High level costs established to inform viability are a particular risk in terms of the level of assumptions that have been necessary at this stage. Further detailed work will be

necessary to identify the detail of the interventions required to ensure the allocation can be accessed however no offsite issues with the wider highway network have been identified that would prevent such an allocation being made based on the assessed impacts on the transport network.

Appendix 1 – Site Access Option 1 (Northern Access – A635 Holfmirth Road)

GM18 - ROBERT FLETCHERS
SITE ACCESS INDICATIVE DESIGN PROPOSAL



Comment: Design subject to suitable topography within local area. Proposed link road for site access is constrained by steep topography and visibility issues.

ACHIEVABLE VISI: (LHS): 118m
ACHIEVABLE VISI: (RHS): 90m

Please note that this design is based on indicative measurements taken from OS map in addition to guidelines from Google Maps. This design is subject to further improvement.

Greater Manchester Spatial Framework

Locality Assessment:

Cowlshaw (GMA16)

Publication Version 2: November 2020

Identification Table	
Client	Oldham Council
Allocation	Cowlshaw
File name	GMA16 Oldham - Cowlshaw LA 021020
Reference number	GMA16 108724

Approval					
Version	Name		Position	Date	Modifications
0	Author	Ruairidh MacVeigh	Consultant	24/07/20	Base report
	Checked by	Nicky Agmial	Senior Consultant	29/07/20	
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1	Author	E. Hayes	TfGM	29/09/20	Consistency edits
	Checked By	J Betts	Oldham Council	30/09/20	
	Approved by	E Dryden-Stuart	Oldham Council	30/09/20	

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Allocation Data	
Allocation Reference No.	GMA16
Allocation Name	Cowlishaw
Authority	Oldham Council
Ward	Royton South
Modelling Analysis	465 Dwellings
Policy Allocation Proposal	465 Dwellings (GMSF Plan Period)
Allocation Timescale	0-5 years <input checked="" type="checkbox"/> 6-15 years <input checked="" type="checkbox"/> 16 + years <input type="checkbox"/>

Glossary

“2025 GMSF Constrained” - is the 2025 forecast case in which the model adjusts the input demand based on how the cost of travel changes from the base year to the future. For example, for a shopping trip undertaken by car which becomes more congested in future, changes might be travel via a different route, mode, location or time of day.

“2040 GMSF Constrained” - as above, but for a 2040 forecast year

“2025 GMSF High-Side” - is the 2025 forecast case in which the model does not adjust the input demand based on how the cost of travel changes. In this scenario congestion does not lead to a reassignment of traffic, and therefore road traffic flow will generally be higher.

“2040 GMSF High-Side” - as above, but for a 2040 forecast year

“2025 Reference Case” - is the Do Minimum scenario which includes delivery of all transport schemes already committed and assumed to be completed by 2025

“2040 Reference Case” - is the Do Minimum scenario which includes delivery of all transport schemes already committed and assumed to be completed by 2040

AADT - Annual average daily traffic, is a measure used in transportation planning to quantify how busy the road is

Bee Network - is a proposal for Greater Manchester to become the very first city-region in the UK to have a fully joined-up cycling and walking network: the most comprehensive in Britain covering 1,800 miles.

Bus Rapid Transit - is a bus-based public transport system designed to improve capacity and reliability relative to a conventional bus system. Typically, a BRT system includes roadways that are dedicated to buses, and gives priority to buses at junctions where buses may interact with other traffic

Existing Land Supply - these are allocations across the county that have been identified by each local planning authority across Greater Manchester and are available for development

Greater Manchester Variable Demand Model (GMVDM) - the multi-modal transport model for Greater Manchester. This transport model provides estimates of future year transport demand as well as the estimates of travel behaviour changes and new patterns that the Plan is likely to produce. These include

changes in choices of routes, travel mode, time of travel and changes in journey destinations for some activities such as work and shopping.

Local Road Network (LRN) - All other roads comprise the Local Road Network. The LRN is managed by the local highways authorities

National Trip End Model (NTEM) - is a Department for Transport forecast that ensures that measures of population, jobs and trips made by various mode are consistent across the whole of Great Britain.

Rapid transit services - refers to high frequency, high capacity metro style transport services including Metrolink and Bus Rapid Transit.

Strategic Road Network (SRN) - The Strategic Road Network comprises motorways and trunk roads, the most significant 'A' roads. The SRN is managed by Highways England.

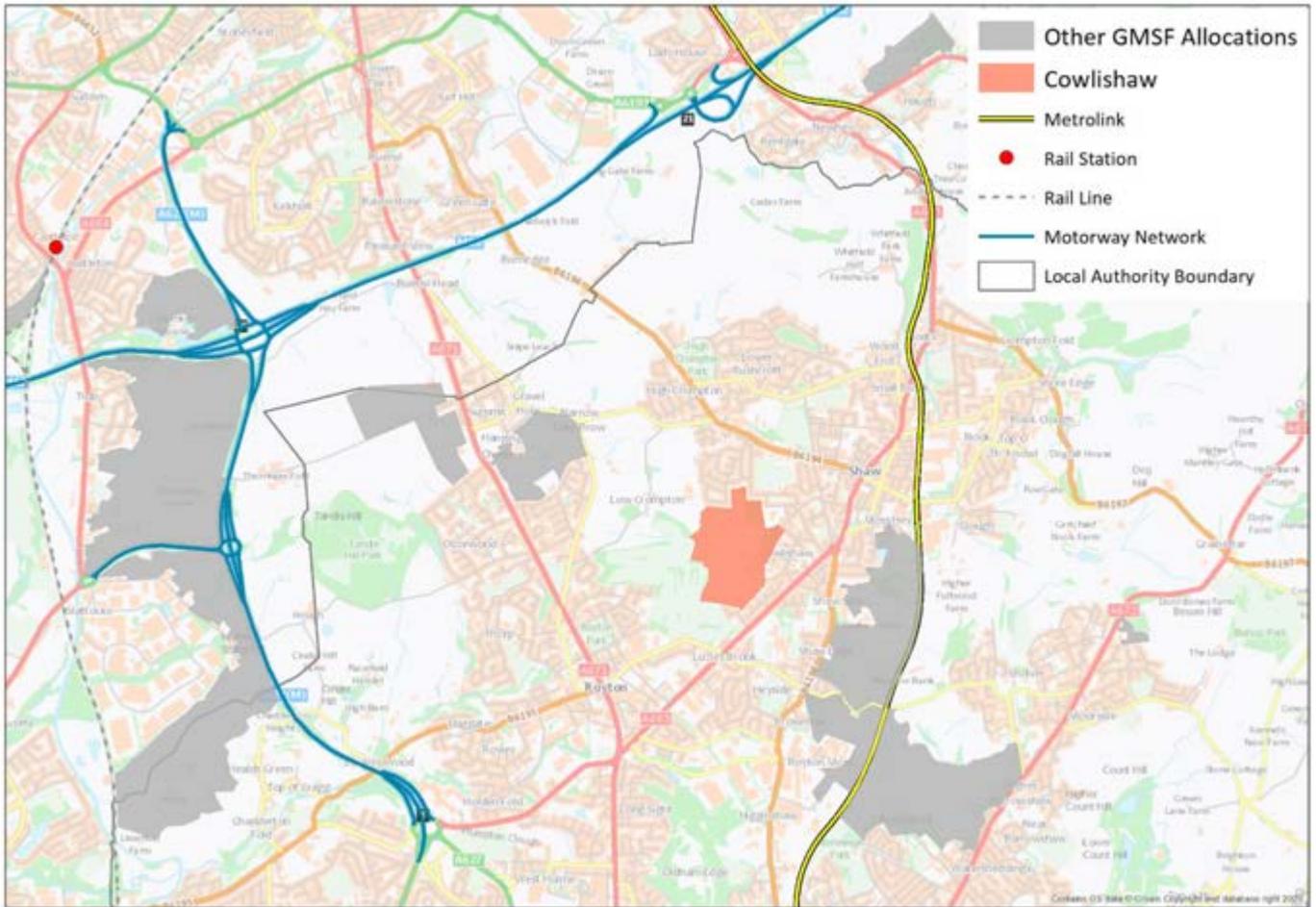
"TfGM" - Transport for Greater Manchester, the Passenger Transport Executive for Greater Manchester

Urban Traffic Control (UTC) - is a specialist form of traffic management that, by coordinating traffic signals in a centralised location, minimises the impact of stop times on the road user.

1. Allocation Location & Overview

- 1.1.1. This Locality Assessment (LA) is one of a series being prepared for proposed new allocations within Greater Manchester in order to confirm the potential impacts on both the local and strategic network, as well as identifying possible forms of mitigation or the promotion of sustainable alternatives to reduce this impact.
- 1.1.2. The Cowlshaw allocation is in the Metropolitan Borough of Oldham consisting of 465 dwellings, and is situated in the Royton South ward. The allocation is bounded by residential dwellings to the north, east and south, and Crompton and Royton Golf Club to the west.
- 1.1.3. The existing land use of the allocation is predominantly open land, although a series of small industrial units are present on Cocker Mill Lane at the southern end of the allocation. The eastern half of the allocation, bounding developments along Edward Road and Moor Street, is designated a priority habitat for broadleaved woodland, lowland fens wetland, and young trees woodland. From an elevation perspective, the allocation varies in height by approximately 15 metres from west to east.
- 1.1.4. Aside from Cocker Mill Lane's use as the primary access for the existing industrial units in the southern parcel of the allocation, no highway infrastructure is present. For the purposes of this assessment the access points to the three development parcels identified as part of the indicative high level concept plan have been assessed – the south allocation accessed via Cocker Mill Lane, the east allocation via Moor Street, and the north allocation via Denbigh Drive.
- 1.1.5. Denbigh Drive and Moor Street are residential streets with limited access and 30mph speed limits. Cocker Mill Lane, as a through route for HGVs accessing the existing industrial units, is wider and better suited for development traffic, directly connecting to the A663 Shaw Road.
- 1.1.6. The allocation lies within the 2011 Census mid-layer super output area of Oldham 005. The scale of residential development (465 homes) is approximately 7% of the existing number of households in the area (6,057).

Figure 1. Site Location



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

1.1.7. For the purposes of the testing the impact of the allocation through the strategic model, a total of 465 dwellings have been assumed to be built out by 2040. The GM transport modelling suite has a 2040 forecast year, as such it uses 2040 trajectory data as proxy for 2037 full build-out, this is not considered to materially impact on the analysis or conclusions of this report.

1.1.8. All phasing plans information contained in this Locality Assessment is indicative only and has only been used to understand the likely intervention delivery timetable. Final trajectory information is contained in the GMSF Allocation Topic Paper.

2. Justification for Allocation Selection

- 2.1.1. The Site Selection process has been led by the 10 Greater Manchester Authorities, including Oldham Council, and provided the starting point for the investigation of the preferred sites through the Locality Assessments.
- 2.1.2. Detail of the Site Selection process including the criteria used to identify the sites, and how this was used to select the most sustainable sites is considered within the GMSF Spatial Strategy.

3. Key Issues from Consultation

- 3.1.1. The Greater Manchester Plan for Homes, Jobs and Environment (Spatial Framework) consultation ran from 14th January to 18th March 2019. The comments made to the strategic allocation proposed at Cowlshaw during the 2019 GMSF consultation relate to the following key transport themes; roads, public transport, air quality and active travel:
- Traffic on Rochdale Road near to Crompton House High School is a concern.
 - Concern that local roads will be more congested.
 - Road congestion issues in local roads, particularly Manchester Road and Shaw Road
 - The scale of the development is not noted to be of concern from an individual or cumulative traffic impact prospective.
 - Access arrangements are unsatisfactory.
 - The site is accessible using public right of way (PROW) and recreational routes. These must be retained.
 - Some roads are too restricted and could cause difficulties for the emergency services.
 - Topography makes it difficult to envisage an elegant access solution.
 - Not close to public transport. More people will drive to Metrolink stop.
 - Public transport is not safe.
 - Travelling to Manchester from Shaw for work by bus takes up to an hour and a half due to poor services and congestion.
 - Issues on the M62/M60 increase congestion on the local roads and they are often used as cut throughs.
 - A663 cannot cope with increased traffic between the M62 and the M60.
 - Journey times to Shaw are significant and concern they will get worse with any development.
 - Parking is an issue.

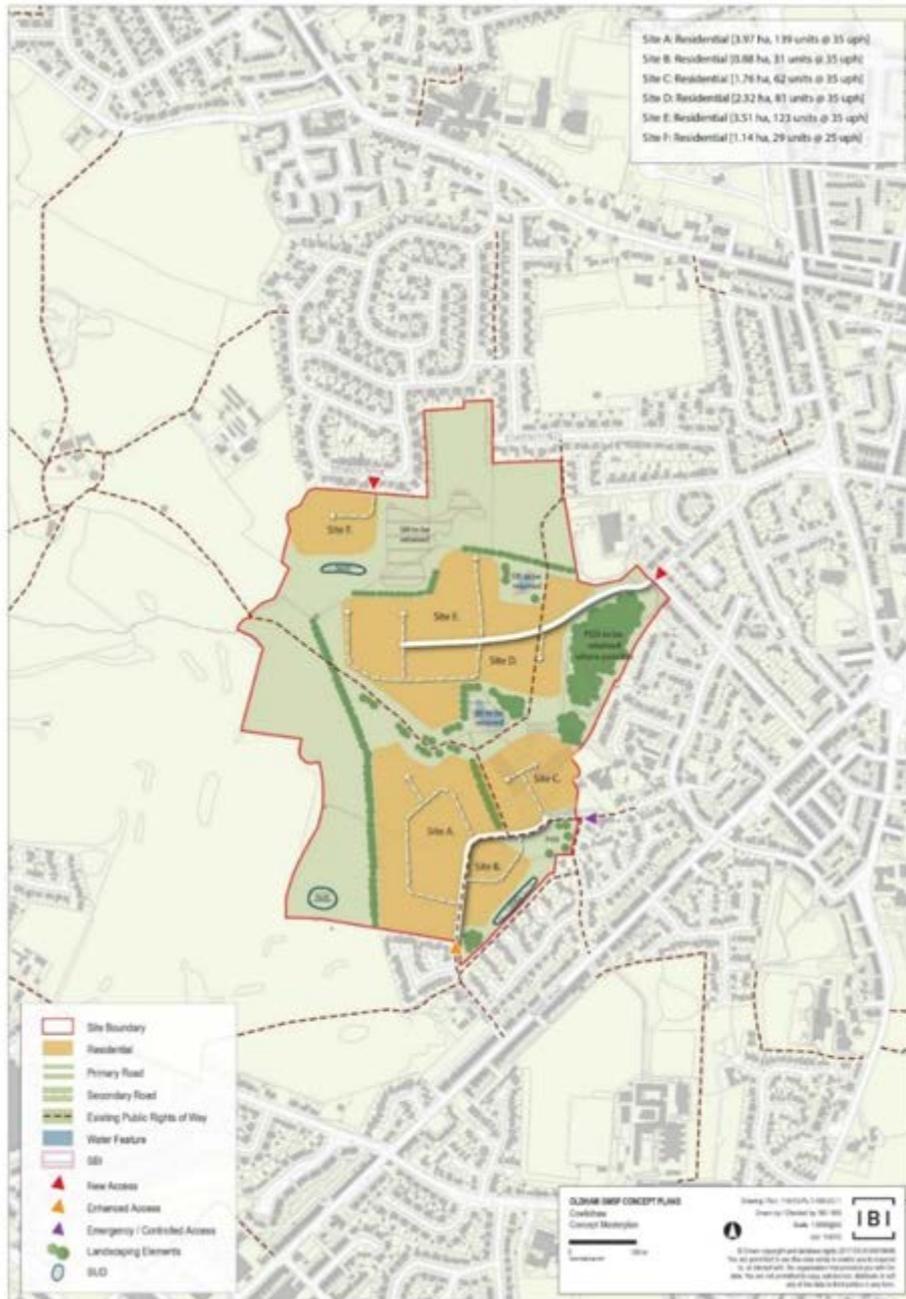
- Bottleneck on Oldham Road at the bottom of Bullcote Lane.
- Park and Ride facilities at the Metrolink are full very quickly and not everyone can get access.
- Metrolink is overcrowded during peak times and expensive.
- Metrolink is not reliable, especially in winter conditions.

3.1.2. Oldham Council officers, as part of design development within workshops, identified that access should be divided to reduce pressure on local road network. Rat running is a potential issue on Kings Road and several junctions off Shaw Road have capacity issues. Cocker Mill Lane will need to be upgraded to serve increased access onto the allocation. Access off Edward Road will be restricted due to ownership issues and access from Denbigh Drive should be restricted to maximum 40 dwellings due to restrictions on movement along Denbigh Drive from Rochdale Road.

4. Existing Network Condition and Allocation Access

Vehicular Access

Figure 2. Indicative Concept Plan



Please note that this is a high-level indicative concept plan and may change with the preparation of a more detailed masterplan and planning application.

- 4.1.1. Cocker Mill Lane is located to the south of the proposed development and currently comprises a two-way suburban street to the boundary of the existing residential developments, whereupon it becomes a single-track road connecting to a series of industrial units located to the northeast.
- 4.1.2. The A663 Shaw Road, to which Cocker Mill Lane connects, is a two-way interurban road connecting Shaw to the A627 (M) junction at Chadderton, avoiding the centre of Oldham.
- 4.1.3. At its eastern end Cocker Mill Lane meets the minor street known as Cowlshaw which provides a limited through access into the current allocation.
- 4.1.4. Kings Road and Moor Street are two-way residential streets with full streetlighting and wider than normal footpaths, but this invites significant on-street parking, with vehicles being either partially or fully parked on the footpaths. Immediately adjacent to the corner of Kings Road and Moor Street is undeveloped parkland occupied partially by woodland and a playground.
- 4.1.5. Denbigh Drive is located to the north of the proposed development and currently comprises a two-way residential street with full streetlighting and pedestrian footpaths. An unused spur with footpaths and lighting – situated between two dwellings – currently exists, and appears to have been built with the intention to form an access arrangement for a potential future development. The width of this access is limited with an approximately 5m wide carriageway and adjoining footpaths less than 2m in width.

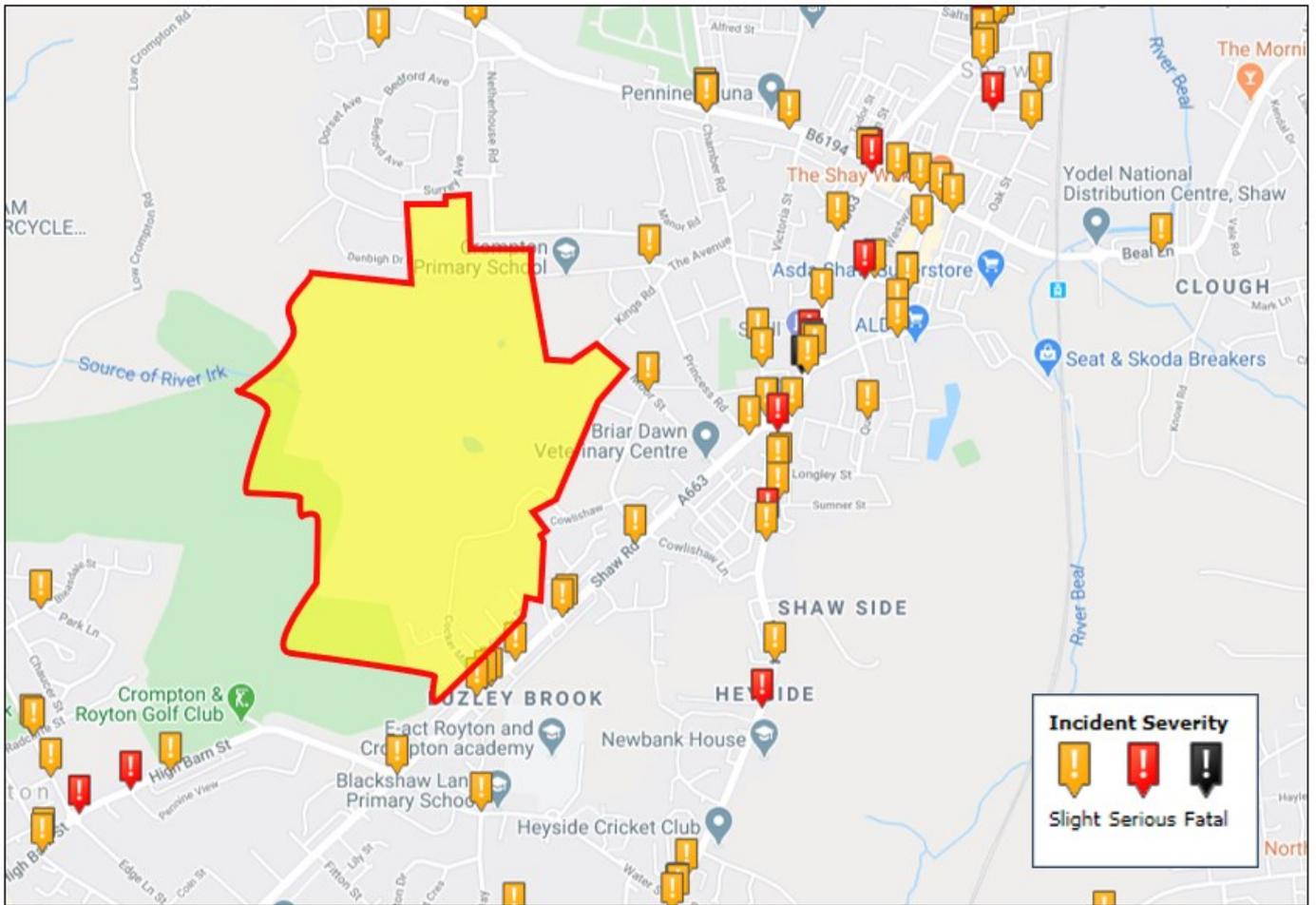
Accidents and Collision Overview

4.1.6. **Table 1** and **Figure 4** show the number of vehicle collisions over the last 5 years in a 1km area surrounding the Cowlshaw site. There have been a total of 70 accidents over the last 5 years, with one fatal incident reported in September 2017.

Table 1. Collision data within 1km of allocation within the last 5 years

Fatal	Serious	Slight	Total
1	9	60	70

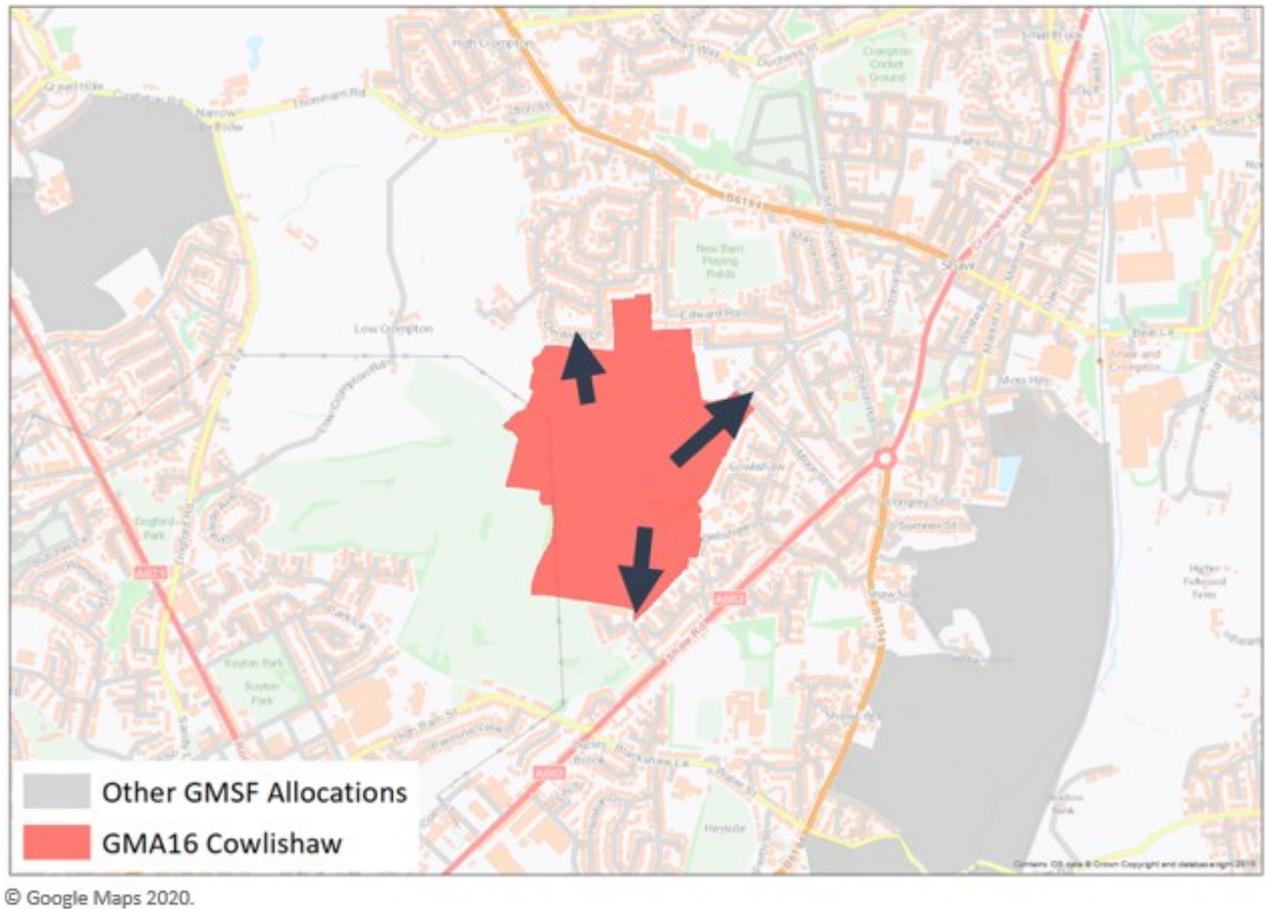
Figure 3. Map of collision data within 1km of allocation within the last 5 years



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

5. Proposed Allocation Access

Figure 4. Allocation Location with Access Arrangements



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

- 5.1.1. Based on the indicative concept plan (**Figure 2**) for the Cowlshaw site, access into the allocation would comprise of primary vehicular access to each parcel onto Cocker Mill Lane, Kings Road/Moor Street and Denbigh Drive. Each access would utilise existing carriageways that enter the proposed site boundary, and thus would only require infrastructural changes to make the carriageways and junctions onto the wider road network suitable for increased development trips, as well as integrating suitable cycle and pedestrian crossing facilities.
- 5.1.2. Access via Cocker Mill Lane would connect to the wider local road network via the A663 Shaw Road, which is currently a three-arm priority junction. This access arrangement has been assessed and considered suitable for the volume of traffic generated.

- 5.1.3. Access via Kings Road / Moor Street would connect to the wider local road network via Church Street to the east and the A663 Shaw Road to the south, and will require the creation of a new arm on what is currently the corner where Kings Road and Moor Street join. In consideration of flows entering and leaving the Cowlshaw allocation, this would likely take the form of a three-arm priority junction, but with the Moor Street approach arm being assigned as the minor arm of the junction for the purposes of allowing safe ahead movements into and out of the site. To achieve this access, relocation of the existing playground facility adjacent to Moor Street may be required.
- 5.1.4. The northern parcel of the allocation, presently accessed via Denbigh Drive, has been considered for standalone delivery of circa 20 dwellings. Following a review of the road width and suitability of the junction on Denbigh Drive, a number of concerns have been identified as to whether this location would be suitable to form a vehicle access to a residential estate of this scale. The road width at this location (assessed at 5m) falls slightly below the minimum width for two way traffic of 5.5m identified for this type of road by Manual for Streets. Existing footpath widths are also below the recommended minimum 2m width. Considering these constraints would apply over a short length of 25-30m, and at a junction, it is likely this would also be too great a distance to allow for formal shuttle arrangements to be put in place (with traffic signals). However given the low levels of traffic associated with the access would somewhat mitigate this point and an, alternative geometry solution could potentially be considered (subject to design standards) through the use of a shared space design to accommodate a the proposed small quantum of development from this access.
- 5.1.5. In consideration of the southern and eastern land parcels and their proposed development quantum, secondary access arrangements for each site should be made through the adjacent land parcel. Concerns regarding 'rat running' between Cocker Mill Lane and Kings Road via the development plots can be managed through the introduction of a gate or barrier if this is required. The role of this secondary access would therefore be limited be to provide an alternate emergency route into each land parcel for all vehicles in the event the primary access is obstructed.
- 5.1.6. A permeable network for pedestrian and cyclist priority within the development is required including sufficient secure cycle parking for all dwellings. This is explored further within **Section 5** of this report.
- 5.1.7. The site benefits from sitting adjacent to a proposed section of the Bee Network, which intends to improve cycling and walking facilities and infrastructure along primary routes within the

Manchester area. With regard to the allocation, a section of the Bee Network passes to the northwest of the site.

6. Multi-modal accessibility

Overview

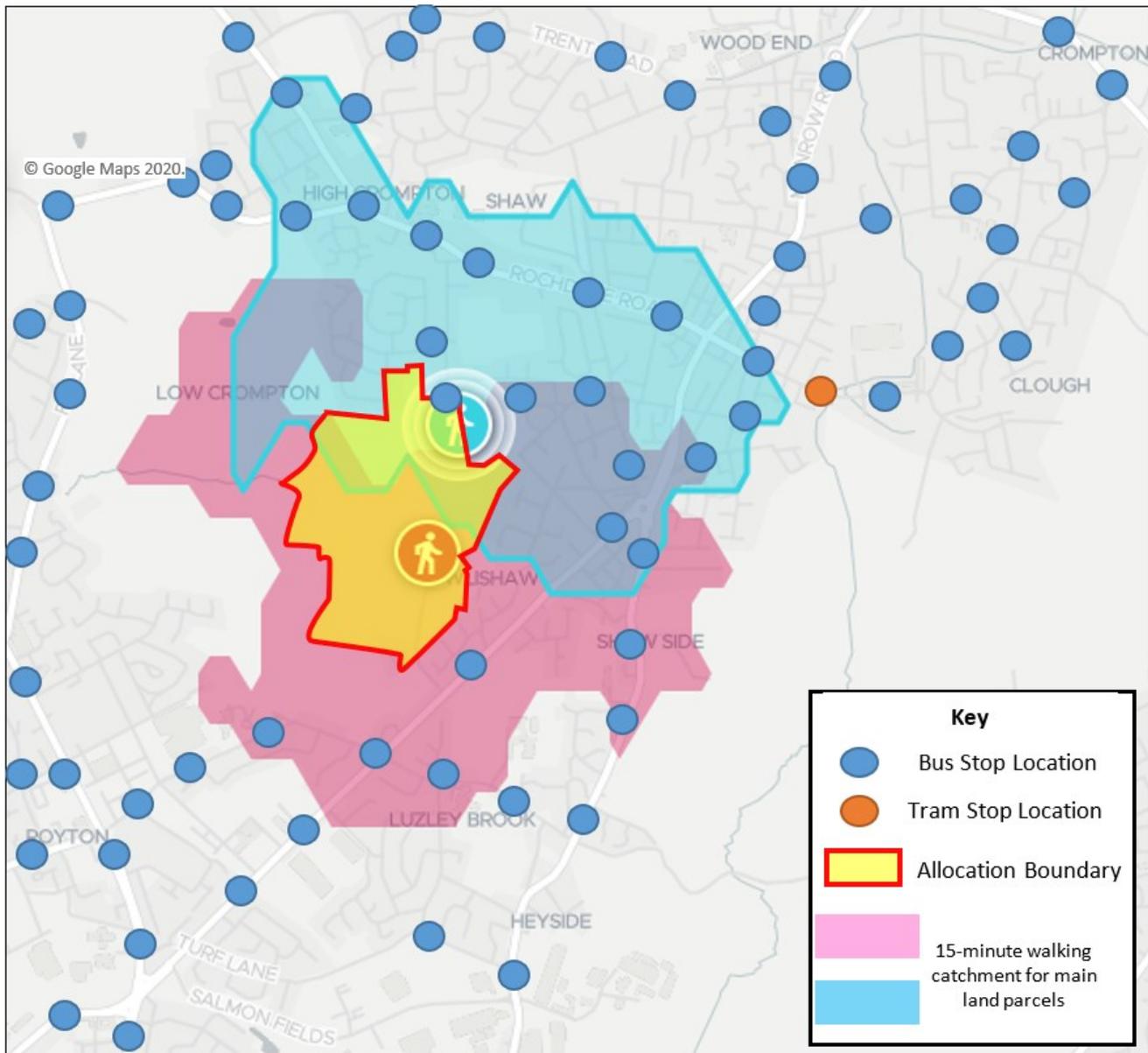
- 6.1.1. The current accessibility of the Cowlshaw site using Greater Manchester's Accessibility Level model (GMAL) has been identified as comprising areas of level 2, 3 and 4 for accessibility, giving it a lower rating.
- 6.1.2. Greater Manchester Accessibility Levels (GMAL) are a detailed and accurate measure of the accessibility of a point to both the conventional public transport network (i.e. bus, Metrolink and rail) and Greater Manchester's Local Link (flexible transport service), taking into account walk access time and service availability. The method is essentially a way of measuring the density of the public transport provision at any location within the Greater Manchester region. The [GMAL methodology](#) is derived from the Public Transport Accessibility Level (PTAL) approach developed by the London Borough of Hammersmith and Fulham but modified to consider flexible transport service provision (Local Link) and to reflect local service provision levels (different accessibility levels) within Greater Manchester.
- 6.1.3. The accessibility index score is categorized into eight levels, 1 to 8, where level 8 represents a high level of accessibility and level 1 a low level of accessibility.

Walking and Cycling

- 6.1.4. While the A663 provides standard width footpaths both north and south of the site, with full lighting and signalised crossing control, there are limited facilities for cyclists. Though SFA may resolve some pedestrian/cycle issues, localised improvements may be required in the vicinity of the new access
- 6.1.5. There are multiple PRowS within close proximity of the site, with at least one PRow crossing the centre of what is to become the main allocation – PRowS cannot, however, be used by cyclists unless they are designated as bridleways. Furthermore, the A663 does not provide cycling infrastructure such as cycle lanes.

- 6.1.6. The main local destinations likely to generate walking and cycling trips are Oldham Town Centre to the south of the allocation (4.6km) the local shops at Crompton (1.4km), local shops at Royton (2km), Crompton Primary School (0.1km), Crompton House C Of E School (1.2km) and Rushcroft Primary School (2km).
- 6.1.7. **Figure 5** shows the current level of accessibility for the Cowlshaw site using the Travel Time Platform online database, which illustrates the 15 minute walking time from the proposed site access via the local road network and any available pedestrian through-routes.
- 6.1.8. There are local bus stops situated along the A663 Shaw Road, all of which are within a walkable distance.

Figure 5. 15-minute walking catchment with public transport provision



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

Public Transport

6.1.9. The A663 Shaw Road, as a main arterial route between Oldham, Shaw and Rochdale, is served by frequent bus routes operated by First Group, which includes the following:

- Route 59: Piccadilly Gardens to Rushcroft (average frequency: 30 minutes)
- Route 182: Wrens Nest to Piccadilly Gardens (average frequency: 20 minutes)
- Route 408: Oldham to Wrens Nest (average frequency: 60 minutes)

6.1.10. The Cocker Mill Lane access is situated equidistantly between High Barn Road bus stop and Spring Vale Way bus stop, and provides services every 20 minutes to Shaw and every half hour to Oldham.

Table 2. Accessibility of and proximity to Public Transport

Mode	Nearest Stop/ Station	Distance (km)*	Peak Hour Frequency (Mins)
Bus	Springwood Hall Road	0.4	20
Metrolink	Shaw & Crompton	1.9	6

6.1.11. **Table 2** identifies the current accessibility of public transport for the future residents of the Cowlshaw site, exploring the proximity, and the frequency of travel during peak hours.

Proposed

6.1.12. In consideration of the provision of existing pedestrian and cycling infrastructure in the adjacent residential streets, our main recommendation in this regard is that a permeable network for pedestrian and cyclist priority within the development is required including sufficient secure cycle parking for all dwellings. The internal walking network for the site, as well as connections to adjacent Public Rights of Way (PRoW), should be upgraded to a standard that reflects those being implemented by the Bee Network in order to suitably accommodate both pedestrian and cycle users.

- 6.1.13. Given the location of the allocation and its close proximity to the Shaw, Luzley Brook and Royton local areas the internal walking and cycle network should be linked to high quality routes connecting through to these areas, including the proposed Bee Network for onward connections to towards both Rochdale and Oldham centres. Existing PRowWs that either pass near or cross the proposed site should be positively upgraded, with both PRowWs and the internal pedestrian/cycle network of the site being constructed to the standards set out by the Bee Network. These routes should also be integrated with Public Realm and Public Open Spaces to create desirable links across the land parcels to encourage use – incorporating both Sustainable Drainage Systems (SUDS) features and planting should also be considered.
- 6.1.14. Furthermore, as a section of the Bee Network passes to the northwest of the proposed allocation. Pedestrian and cycle access to and from the site should be integrated into this network in order to allow for improved cycle and pedestrian routes into the centres of Oldham and Rochdale. Contributions to the connection between the route and the allocation could be made through a combination of GMSF, MCF and SFA contributions.
- 6.1.15. Support should also be given to support cycle routes and connections to Metrolink services in Shaw, as well as the proposed allocation of a the new Metrolink stop at Cop Road, which is to be built in conjunction with the Beal Valley and Broad Bent Moss GMSF allocations.
- 6.1.16. Public Transport access to the allocation has been considered jointly with Transport for Greater Manchester as being unlikely to generate demand to attract new provision of bus services direct to the allocation. Due to the location of the allocation and existing levels of bus service provision on the A663 Shaw Road, the allocation can be accommodated by these services. To support access to public transport on this corridor further consideration of support to existing services should be given at the planning application stage to consider whether and detail support to service enhancement and augmentation to evening and weekend services is required.

7. Parking

- 7.1.1. It is not necessary to consider in detail the parking standards for residential units relevant to the allocation at this stage of assessment as there are no particular constraints on achieving likely minimum parking standards that may be in application at the time the allocation is brought forward. Accommodation of Electric Vehicle (EV) parking, while an important factor in developing

more efficient transport connections for the allocation, should be considered at the detailed design stage, potentially as an integration of specific house design.

7.1.2. A broad assumption has been made that a maximum of 2 spaces per dwelling is likely to be proportionate however other alternative local policy requirements are likely to be equally deliverable and can be considered at the planning application stage.

7.1.3. National Planning Policy Framework (NPPF) is clear that such standards should only be set where there is a clear and compelling justification that they are necessary. This may be either for managing the local road network conditions, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with chapter 11 of NPPF).

8. Allocation Trip Generation and Distribution

8.1.1. Future trip generation to/from the site (i.e. how many people and vehicles will enter or leave the site) was estimated by applying a set of GM-wide trip rates to the agreed development quantum for each site. The distribution of trips (i.e. where they are going to or coming from) was derived by selecting nearby zones with similar land use characteristics as a proxy and using the existing distribution in the model. These figures are illustrated in the following tables below.

8.1.2. Note, the below phasing information was correct at time of starting this Locality Assessment document. Total allocation quantum remains unchanged, however since initial modelling outputs were developed phasing has been amended to deliver fewer dwellings within the first 5-year period, full details of amended phasing is covered in section 18.

Table 3. Development Quantum

Residential	Houses	149	465
Residential	Apartments	0	0
Industrial	e.g. B2/B8 etc.	0	0
Total		149	465

Table 4. Allocation Traffic Generation *

Year	AM Peak Hour Departures	AM Peak Hour Arrivals	PM Peak Hour Departures	PM Peak Hour Arrivals
2025 GMSF Constrained	49	15	25	54
2025 GMSF High-Side	51	20	31	54
2040 GMSF Constrained	130	39	67	142
2040 GMSF High-Side	160	64	98	143

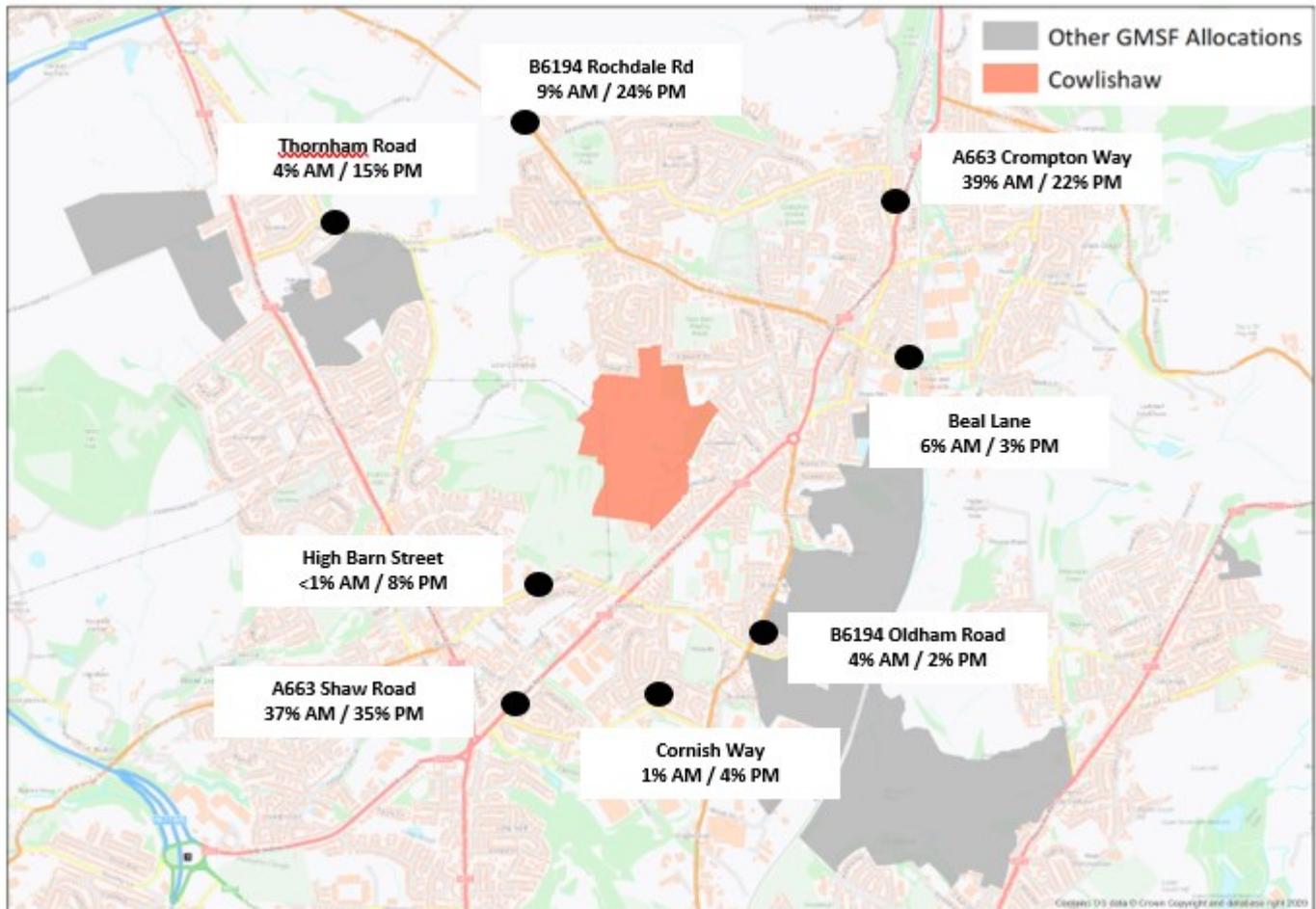
*Units are in PCU (passenger car units/hr)

Table 5. Allocation Traffic Distribution, 2040 GMSF High-Side (Origin/Destination Combined)

Route	AM Peak Hour	PM Peak Hour
Thornham Road	4%	1%
B6194 Rochdale Rd	9%	24%
A663 Crompton Way (North)	39%	22%
Beal Lane	6%	3%
B6194 Oldham Road	4%	2%
Cornish Way	1%	4%
A663 Shaw Road	37%	35%
High Barn Street	<1%	8%

Figure 6. Allocation Traffic Distribution, 2040 GMSF High-Side (Origin/Destination Combined)

Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.



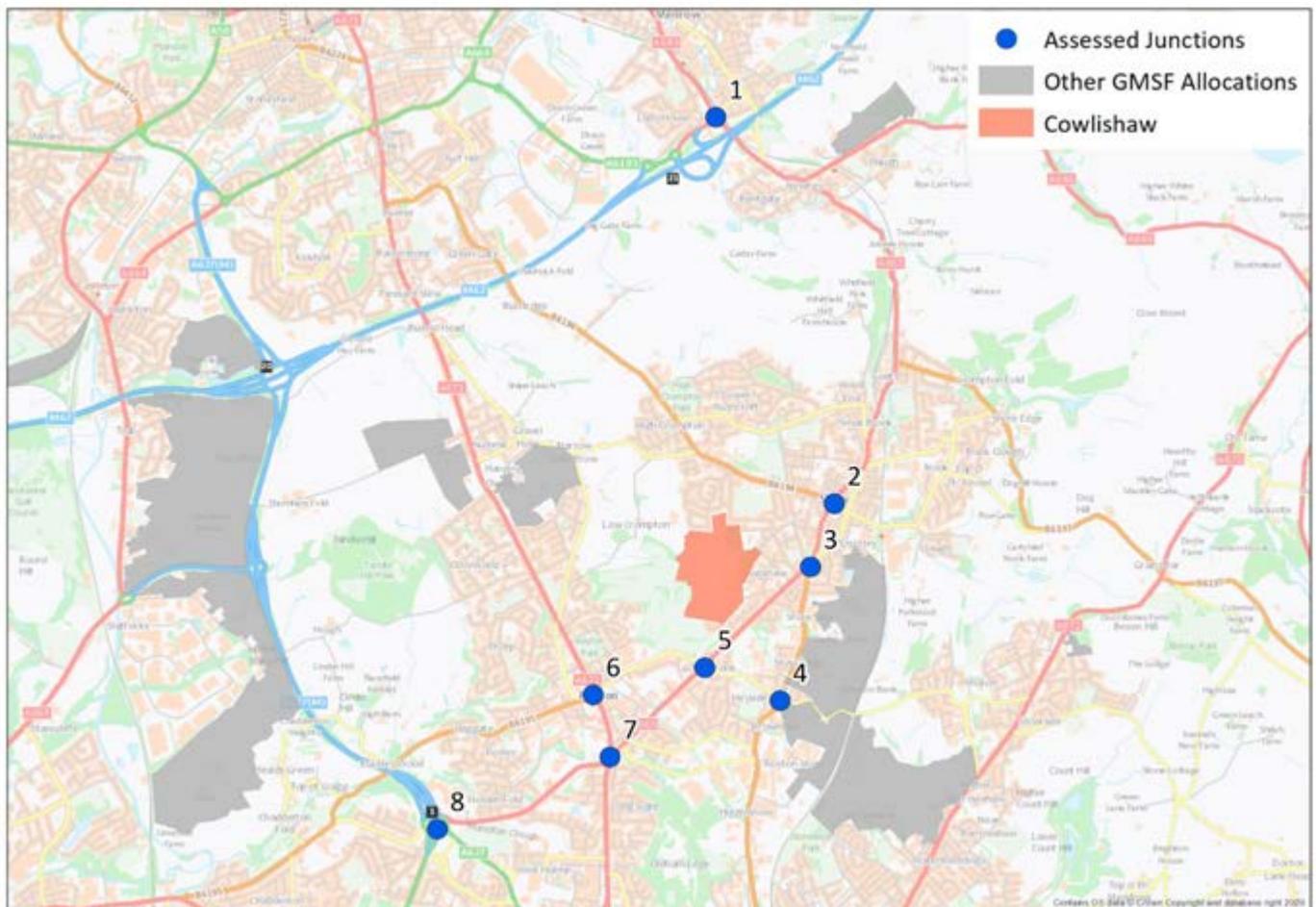
9. Existing Highway Network Review

9.1.1. The A663 Shaw Road runs southwest to northeast to the southeast of the Cowlishaw allocation, connecting the A627(M) Motorway with northern Oldham and Shaw. SYSTRA identified a number of junctions in proximity to the site where additional traffic could have an impact on their operation based on existing conditions.

1. A640 Elizabethan Way / A6193 Sir Isaac Newton Way
2. A663 Crompton Way / Rochdale Road / Beal Lane
3. A663 Shaw Road / B6194 Oldham Road / Church Road
4. B6194 Heyside / Water Street

- 5. A663 Shaw Road / High Barn Street / Blackshaw Lane
- 6. A671 Oldham Road / High Barn Street / Middleton Road
- 7. A663 Shaw Road / A671 Oldham Road
- 8. A627(M) / Chadderton Way / A663 Broadway Interchange

Figure 7. Key junctions assessed



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

10. Treatment of Cumulative Impacts

10.1.1. Since production of this Locality Assessment, allocations Kingsway South and Thornnham Old Road have been removed from the GMSF, the former being identified as Broad Location. The impact of this change has not been considered in this assessment, as the withdrawal of these allocations

came after modelling results were produced. These changes may materially impact treatment of cumulative impacts and proposed mitigations.

10.1.2. The constrained and high side model runs take account of traffic associated with all GMSF sites. Within a 2km buffer of the Cowlshaw development site are the Stakehill, Kingsway South, Beal Valley, Broadbent Moss, Hanging Chadder, Thornham Old Road and Newhey Quarry allocations. Therefore, at the local level, the transport impacts of the site need to be considered cumulatively with these other GMSF allocation.

10.1.3. The Cowlshaw development is forecast to generate approximately 169 to 240 two-way vehicle trips during the morning and evening peak hours. The Stakehill development is forecast to generate approximately 1,991 to 1,670 two-way vehicle trips during the morning and evening peak hours, the – Kingsway South development is forecast to generate approximately 323 to 353 two-way vehicle trips during the morning and evening peak hours, the Beal Valley allocation is forecast to generate approximately 209 to 310 two-way vehicle trips during the morning and evening peak hours, the Broadbent Moss allocation is forecast to generate approximately 422 to 556 two-way vehicle trips during the morning and evening peak hours, the Hanging Chadder allocation is forecast to generate approximately 125 to 134 two-way vehicle trips during the morning and evening peak hours, the Thornham Old Road allocation is forecast to generate approximately 289 to 310 two-way vehicle trips during the morning and evening peak hours, and the Newhey Quarry allocation is expected forecast to generate approximately 177 to 195 two-way vehicle trips during the morning and evening peak hours. The combined impact of these trips could have a more significant impact on the network than that of the site by itself; hence the combined impact has been assessed.

11. Allocation Access Assessment

11.1.1. This site access arrangement has been developed to illustrate that there is a practical option for site access in this location and to develop indicative cost estimations. It is assumed that a detailed design consistent with Greater Manchester's best practice Streets for all highway design principles will be required at the more detailed planning application stage.

11.1.2. Due to the role of the proposed highway network within the site, which will have a role in local traffic distribution, the full traffic impact of all GMSF flows are recorded below, and not just those pertaining to the allocation.

Table 6. Site Access Junction Capacity Analysis

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	GMSF Flows AM	GMSF Flows PM
Cocker Mill Lane Access Junction	N/A	N/A	14%	9%	202	133
Kings Road / Moor Street Access Junction	N/A	N/A	1%	10%	22	20

12. Impact of Allocation Before Mitigation on the Local Road Network

12.1.1. In order to understand a worst case impact of the GMSF, the ‘high side’ runs from the GMVDM were used to derive with GMSF development flows for 2040. These flows were then entered into junction based models for the junctions identified in **Section 8**. Flows from a 2040 reference case scenario (including approved Local Plan development from the respective districts) were also extracted to provide a comparison between the operation of those junctions in the 2040 reference case and the 2040 with GMSF development scenarios.

12.1.2. The ‘with GMSF’ scenario has been assessed against a Reference Case which assumes background growth and includes the housing and employment commitments from the districts. Through discussions with TfGM and the Combined Authority, it has been agreed that where mitigation is required, it should mitigate the impacts back to a reference case scenario. It should be noted that mitigating back to this level of impact may not mean that the junction operates within capacity.

12.1.3. These assessments were then used to identify the junctions where there was considered to be a substantial impact, relative to the operation of the junction in the 2040 reference case, and hence where mitigation was considered to be required in order to bring GMSF sites forward. Through discussions with TfGM and the Combined Authority, it was been agreed that where mitigation is required, it should mitigate the impacts back to the reference case scenario. It should be noted that

mitigating back to this level of impact may not mean that the junction operates within capacity by 2040.

12.1.4. This section looks at the impact on the network at the junctions highlighted in **Section 9**. Signalised junctions were assessed in detail using industry-standard modelling software LINSIG version 3. Where possible, traffic signal information was requested from TfGM in order to ensure that the local junction models reflected (as far as possible), the operation of the junctions on the ground. Junctions 9 software was used to assess priority and roundabout junctions. **Table 7** below provides a comparison between the operation of the in scope junctions in the 2040 reference case and the 2040 'high side' scenarios, as well as the site development flows through each respective junction. The table shows a comparison between the ratio of flow to capacity on the worst case arm at each junction as well as the total development flows through the junction.

12.1.5. For reference, a figure of between 85% and 99% illustrates that the junction is nearing its operational capacity, and a figure of 100% or over illustrates that flows exceed the operational capacity at the junction.

Table 7. Results of 2040 Local Junction Capacity Analysis Before Mitigation

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	Allocation Flows AM	Allocation Flows PM
2. A663 Crompton Way / Rochdale Road / Beal Lane	93%	105%	155%	111%	73	45
3. A663 Shaw Road / B6194 Oldham Road / Church Road	64%	67%	68%	67%	86	57
4. B6194 Heyside / Water Street	81%	81%	72%	61%	5	2
5. A663 Shaw Road / High Barn Street / Blackshaw Lane	110%	94%	111%	93%	109	125
6. A671 Oldham Road / High Barn Street / Middleton Road	117%	93%	95%	94%	8	22
7. A663 Shaw Road / A671 Oldham Road	137%	134%	137%	139%	98	90

13. Transport Interventions Tested on the Local Road Network

13.1.1. While in isolation this development would be unlikely to present significant implications on the surrounding road network, its potential cumulative impact other allocations by 2040 (as outlined in **Section 10**) may result in several mitigation schemes being considered at junctions likely to see material impacts as a result of traffic introduced by these allocations.

Table 8. Approach to Mitigation

Junction	Mitigation Approach
1. A663 Crompton Way / Rochdale Road / Beal Lane	Cumulative impact, but not substantial for this site – mitigation proposed
2. A671 Oldham Road / High Barn Street / Middleton Road	Cumulative impact, but not substantial for this site – mitigation proposed however identified as a supporting measure due to material changes in cumulative impact
3. A663 Shaw Road / A671 Oldham Road	Cumulative impact, but not substantial for this site – mitigation proposed

13.1.2. These schemes were then coded into the GMVDM, in advance of a second ‘with mitigation’ run of the model. The outcomes of this model run in relation to the other allocations are presented in the following section.

13.1.3. In consideration of the provision of existing pedestrian and cycling infrastructure in the adjacent residential streets, our main recommendation in this regard is that a permeable network for pedestrian and cyclist priority within the development is required including sufficient secure cycle parking for all dwellings.

14. Impact of interventions on the Local Road Network

14.1.1. In order to understand whether the mitigation developed for the site (and all other sites within the GMSF) is sufficient to mitigate the worst-case impacts of the GMSF identified in **Section 12**, a second run of the GMVDM with all identified mitigation included, was undertaken. Where a significant flow change was observed the junction models were rerun to check that the mitigation

identified in **Section 13** is still sufficient to mitigate site impacts and that all other in scope junctions continue to operate satisfactorily in light of any reassignment due to mitigation schemes.

14.1.2. **Table 9** below provides a comparison between the operation of the in-scope junctions in the 2040 reference case and the 2040 'high side' with mitigation scenarios, as well as the site development flows through each respective junction. The table shows a comparison between the ratio of flow to capacity on the worst-case arm at each junction as well as the total development flows through the junction.

Table 9. Results of 2040 Local Junction Capacity Analysis After Mitigation

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	Allocation Flows AM	Allocation Flows PM
1. A663 Crompton Way / Rochdale Road / Beal Lane	74%	112%	75%	112%	73	45
2. A671 Oldham Road / High Barn Street / Middleton Road	88%	89%	80%	92%	8	22
3. A663 Shaw Road / A671 Oldham Road	122%	106%	113%	109%	98	90

15. Impact and mitigation on Strategic Road Network

15.1.1. This chapter covers those impacts where traffic generated by the GMSF allocations meets the Strategic Road Network (SRN). Junctions at the interface between the Local Road Network (LRN) and the Strategic Road Network (SRN) have been assessed using a similar approach to that described in the preceding chapters. Wider issues relating to the SRN mainline are being assessed separately as described below.

15.1.2. SYSTRA is currently consulting with Highways England on behalf of TfGM and the Combined Authority in relation to the wider impacts of the GMSF allocations on the Strategic Road Network

(SRN). This consultation is ongoing and it is expected that it will allow Highways England to gain a strategic understanding of where there is an interaction between network stress points and GMSF allocation demand. This will facilitate further discussion and transfer of information between TfGM and Highways England in reaching agreement and/or common ground on improvement measures.

15.1.3. The cumulative impacts of this and other allocations in this area have been considered likely to result in implications for the operation of the SRN in key locations.

15.1.4. Since production of this Locality Assessment, allocations Kingsway South, now identified as a Broad Location, and Thornham Old Road have been removed from the GMSF. The impact of this change has not been considered in this assessment, as the withdrawal of these allocations came after modelling results were produced. These material changes may significantly impact the treatment of cumulative impacts and proposed mitigations.

Table 10. Results of Strategic Junction Capacity Analysis Before Mitigation

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	Allocation Flows AM	Allocation Flows PM
1. A6193 Sir Isaac Newton Way / A640 Elizabethan Way	130%	140%	136%	142%	73	46
8. A627(M) / Chadderton Way / A663 Broadway Interchange	131%	132%	137%	137%	81	68

15.1.5. In consideration of the cumulative site impacts on the SRN at the A6193/A640 junction, mitigation measures which forms part of the wider M62 Junction 21 interchange (prepared in association with other allocations), have included the addition of a second lane to the roundabout circulatory and changes to the lane designations that favour movements accessing the M62, as well as a two-lane merge section of approximately 80m on the A640 (S) to allow for the safe merging of vehicles turning right from the A6193 were tested.

15.1.6. For the A627(M) / Chadderton Way / A663 Broadway Interchange, mitigation measures have included the addition of a third lane on the southbound access from the A627 (M) north, thereby reducing the amount of queuing that is experienced on the slip road that could potentially extend onto the A627 (M) carriageway. The results of this mitigation are supplied in Table 11 below.

15.1.7. Through consultation with Oldham Metropolitan Borough Council these interventions were identified as likely to be disproportionate the demand generated by this allocation, and the distance from the allocation to the SRN. As such, these Strategic Road Network interventions should be seen as supporting measures which do not necessarily hinder the development of the allocation, though could be investigated as part of further work.

Table 11. Results of Strategic Junction Capacity Analysis After Mitigation

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	Allocation Flows AM	Allocation Flows PM
1. A6193 Sir Isaac Newton Way / A640 Elizabethan Way	78%	81%	72%	80%	73	46
8. A627(M) / Chadderton Way / A663 Broadway Interchange	122%	128%	125%	127%	81	68

16. Final list of interventions

Table 12. Interventions List

Mitigation	Description
Site Access	
Moor St / Kings Road / Site Access	Priority T-Junction - 3arm

Denbigh Drive / Site Access	Additional arm at priority junction
Necessary Local Mitigations	
Improvement of A663 Crompton Way / Rochdale Road / Beal Lane	Reconfiguration of existing junction to improve operation.
Improvement of A663 Shaw Road / A671 Oldham Road junction	Reconfiguration of existing junction to improve operation.
Permeable network for pedestrian and cyclist priority within the development	Assumed full permeability of cycle and pedestrian access. All pedestrian and cycle networks internal to the site, should be built or upgraded to the standards outlined in the Bee Network,
Upgrade of PRoW to Low Crompton to Bee Route standard	Improved connections along PRoW at Low Crompton (400m) to provide onward connections to the nearest sections of the Bee Network
Supporting strategic	
Improvement of A627(M) / Chadderton Way / A663 Broadway Interchange	Potential addition of a third lane on the southbound access from the A627 (M) north.

Necessary Local Mitigations

A663 Crompton Way / Rochdale Road / Beal Lane

16.1.1. At the A663 Crompton Way / Rochdale Road / Beal Lane junction, a mitigation scheme has been proposed to add extra lanes onto the A663 Crompton Way (South) arm and the B6194 Rochdale Road (West) arm in order to increase capacity. The A663 additional lane would allow for the separation of left-turn, ahead and right-turn movements in order to improve the turning movements of this arm, while the additional lane on the B6194 would allow separate right-turn movements from this arm.

16.1.2. This transport interventions is purely a highway infrastructural intervention prepared to illustrate that options may be available at this location – further detailed consideration would be required at the time of a planning application to ensure development of an option suitable for all users including pedestrians, cyclists and bus users. High frequency services between Oldham and Shaw/Rushcroft are already established along the corridor with bus stops located within accessible walking distance. The introduction of this mitigation scheme is expected to contribute to resolving the general issue regarding congestion in the centre of Shaw.

A663 Shaw Road / A671 Oldham Road

16.1.3. At the A663 Shaw Road / A671 Oldham Road junction, a mitigation scheme has been proposed to add a free-flow arm between the A663 Broadway and the A671 Rochdale Road in order to remove west to north movements from the main junction flow, while also providing an additional lane for ahead movements onto the A663 Shaw Road.

16.1.4. This transport interventions is purely a highway infrastructural intervention prepared to illustrate that options may be available at this location – further detailed consideration would be required at the time of a planning application to ensure development of an option suitable for all users including pedestrians, cyclists and bus users. High frequency bus services between Oldham and Rochdale are already established along the corridor with bus stops located within accessible walking distance.

16.1.5. The introduction of this mitigation scheme is expected to contribute to resolving the general issue regarding congestion on the surrounding road corridors, specifically the A671 Oldham Road, as this is the main thoroughfare into the centre of Oldham.

Permeable network for pedestrian and cyclist priority within the development

16.1.6. In order to promote and encourage sustainable transport modes, as well as providing safe and efficient accessibility for non-vehicular traffic, the development is to both provide ease of access for pedestrian and cyclist traffic into and out of the site, as well as connecting and improving Public Rights of Way that either directly connect or pass near the proposed site. This is to include upgrading of the local PRow routes to meet the standards of the proposed Bee Network and, wherever possible, connect directly to sections of the Bee Network.

16.1.7. Furthermore, pedestrian and cycle facilities in the areas surrounding the allocation should be improved wherever possible in order to allow for safe accessibility by non-vehicular users to both all parts of the development, but also the adjacent residential, employment and retail areas.

16.1.8. The introduction of this mitigation scheme is expected to answer concerns regarding the suitability of the A663 Shaw Road, in its current arrangement, to provide safe access for non-vehicular traffic due to it being narrow with no footpaths. Promotion of sustainable transport alternatives will also help to answer concerns regarding increased pollution from added vehicular trips on the local road network.

Upgrade of PRow to Low Crompton to Bee Route standard

16.1.9. Upgrade of the existing PRow between the development site and Low Crompton has been identified as improving westward connections onward to the Bee Network. This scheme would provide 400m length of surface walking and cycling route to Bee route standards

Supporting strategic Mitigations

A671 Rochdale Road / B6195 High Barn Road / A671 Oldham Road / B6195 Middleton Road

16.1.10. At the A671 Rochdale Road / B6195 High Barn Road / A671 Oldham Road / B6195 Middleton Road junction, a mitigation scheme has been proposed to revise the existing signal staging in order to allow extra time for traffic making right-turn movements out of the Middleton Road arm. This additional stage would include ahead movements and a right-turn indicative arrow in order to improve the turning movements of this arm.

16.1.11. This transport interventions is purely a highway infrastructural intervention and is proposed on the basis that public transport improvements along the A671 corridor would be insufficient, alone, to resolve future issues arising by 2040. High frequency services between Oldham and Rochdale are already established along the corridor with bus stops located within accessible walking distance.

16.1.12. The introduction of this mitigation scheme is expected to contribute to resolving the general issue regarding congestion on the Oldham Road.

A627(M) / Chadderton Way / A663 Broadway Interchange

16.1.13. At the A627 (M) Chadderton Way interchange, mitigation measures have included the addition of a third lane on the southbound access from the A627 (M) north, thereby reducing the amount of queuing that is experienced on the slip road that could potentially extend onto the A627 (M) carriageway.

17. Greater Manchester Transport Strategy Interventions

17.1.1. Further to the site-specific interventions outlined within **Section 2**, Oldham Council and TfGM have jointly considered measures to support sustainable travel and to contribute towards the achievement of Greater Manchester's 'Right Mix' ambition.

17.1.2. The Right Mix initiative forms part of the Greater Manchester Transport Strategy 2040, and it proposes that by 2040, 50% of trips are to be undertaken by sustainable modes and no net increase in motor-vehicle traffic. The Right Mix vision is comprised of evidence-based targets which will be adjusted over time in order to reflect the progress of meeting such targets, and the interventions set out for walking, cycling and public transport for the allocation will contribute to the Right Mix target of reducing growth in motor vehicle traffic in Greater Manchester.

17.1.3. In addition to the site-specific interventions set out in this Locality Assessment, there are a number of other measures already planned by Oldham Council and Transport for Greater Manchester to support sustainable travel, and to contribute to the achievement of Greater Manchester's 'Right Mix' ambition.

17.1.4. Transport for Greater Manchester is currently producing a business case for early delivery of a Quality Bus Transit scheme between Rochdale, Oldham and Ashton, which will include significant improvements to the quality, frequency and reliability of the bus service, as well as localised public realm enhancements which it is hoped will lead to an increase in bus patronage along the route. If successful, the concept would be rolled out to other routes in the City Region.

- 17.1.5. TfGM is also leading a study to complete a business case for the early delivery of the Cop Road Metrolink stop, which would improve access to Rochdale and Oldham and, from there, the Regional Centre.
- 17.1.6. In addition, Oldham Council is progressing 'Accessible Oldham' a £6 million Local Growth Deal package to regenerate and improve the connectivity of Oldham town centre. The scheme includes upgraded pedestrian areas and cycling routes, better access to bus and Metrolink stops and improvements to the highway network.
- 17.1.7. Oldham Council have successfully bid for funding from the Mayor of Greater Manchester's Cycling and Walking Challenge Fund – a £160 million initiative to deliver the infrastructure to encourage more people to cycle and walk across the region. This scheme is to come forward in a series of Bee Network developments within the Oldham area.
- 17.1.8. Outside of the town centre, Network Rail, in association with TfGM, have secured funding for the "Access for All" scheme from the Department for Transport in order to upgrade Mill Hill Rail Station to improve access for mobility impaired passengers, improving accessibility by rail in both Manchester and Rochdale directions. TfGM are also investing in the increase of capacity at the Mill Hill Park & Ride facilities through Growth Deal 3.
- 17.1.9. Oldham Council have mediated between Network Rail and TfGM with regard to off-site highway works, and NR are now providing a new controlled pedestrian facility to link the two schemes together, although the facilities chosen have not been considered ideal for this proposal. Furthermore, there is some dispute regarding car park development at Mill Hill station as it contravenes bus only restrictions and conflicts with bus movements.

18. Phasing Plan

- 18.1.1. The initial locality assessments were based on information on new site allocations consolidated by TfGM based on inputs from each of the Local Authorities. This initial exercise focused on the development quanta to be delivered at the end of the plan period, i.e. by 2040.
- 18.1.2. During the course of the locality assessment work in late 2019 / early 2020, the Local Authorities provided input on their expected phasing of the sites focusing on the milestone years of 2025 and 2040. The expected 2025 development quanta were tested along with those for 2040 to assess

their deliverability in terms of transport network capacity. In some cases, the development phasing was amended by the Local Authorities as a result of the technical analysis undertaken. All other schemes will require implementation between 2025 and 2040, with a more precise implementation timeframe for these schemes being ascertained through a similar process to that detailed in **Section 12 to 14** as part of the five-year review of the plan.

18.1.3. Based on the initially proposed and modelled forecast, 32% of the development quantum (149 dwellings) for the Cowlshaw site is expected to come forward by 2025. The full development quantum is expected to come forward by 2040.

18.1.4. Since modelling outputs were developed and this Locality Assessment document was produced, further revision of phasing has taken place as noted within the table below.

Table 13. Allocation Phasing

Allocation Phasing	2020 25	2025 30	2030 2037	2037+	Total
Parcel 1	149	465	0	0	465
Total	149	465	0	0	465
Updated phasing	95	465	0	0	465

Table 14. Indicative intervention delivery timetable

Mitigation	2020 2025	2025 2030	2030 2037
Site Access			
Moor St / Kings Road / Site Access	✓		
Denbigh Drive / Site Access	✓		
Necessary Local Mitigations			
Improvement of A663 Crompton Way / Rochdale Road / Beal Lane junction		✓	
Improvement of A663 Shaw Road / A671 Oldham Road junction		✓	
Permeable network for pedestrian and cyclist priority within the development	✓		
Upgrade of PRoW to Low Crompton to Bee Route standard		✓	
Supporting Strategic Interventions			
Improvement of A627(M) / Chadderton Way / A663 Broadway Interchange		✓	
Improvement of A671 Rochdale Road / B6195 High Barn Road / A671 Oldham Road		✓	

19. Summary & Conclusion

- 19.1.1. GMSF allocation Cowlshaw is a development located on what is currently open land adjacent to the A663 Shaw Road.
- 19.1.2. Assessments undertaken have considered the potential impact of this development on the surrounding road network, both in isolation and in cumulative impact with surrounding allocations. Both in isolation and cumulatively, the development has the potential to present increased congestion at existing areas of concern raised in **Section 3**.
- 19.1.3. In response to potential concerns regarding congestion at key junctions, mitigation schemes have been considered in a number of locations. These have been tested, and illustrate significant improvements to traffic flows only across these junctions, both with and without the cumulative impact of the GMSF allocations.
- 19.1.4. Based on the information contained within this report, we conclude that the traffic impacts of the site are considered to be less than severe subject to the implementation of localised mitigation at a discrete number of locations. The “High-Side” modelling work indicates that in general other junctions within the vicinity of the site will either operate within capacity in 2040 with GMSF development, or that in some cases junctions operating over capacity in the future year would not be materially worsened by development traffic.
- 19.1.5. At this stage, the modelling work is considered to be a ‘worst case’ scenario as it does not take full account of the extensive opportunities for active travel and public transport improvements in the local area, and that junctions which are considered to operate over capacity in the 2040 model years, both with and without mitigation, are attributed not to the introduction of development trips, but to the cumulative impact of wider growth. The objective of mitigation scenarios is to suitably accommodate the proposed development trips for this allocation, rather than fully amending wider traffic concerns.
- 19.1.6. However, the mitigation schemes proposed should be considered in conjunction with continued investment into sustainable transport alternatives, including pedestrian, cycling and public transport, in order to reduce the overall number of additional vehicles being introduced onto the local road network. This, combined with the mitigation schemes, could potentially resolve a number of issues raised regarding pollution and safety in relation to the Cowlshaw allocation.

19.1.7. This is an initial indication that the allocation is deliverable and to inform viability, and that further detailed work will be necessary to identify the specific interventions required to ensure the network works effectively based on transport network conditions at the time of the planning application.

Greater Manchester Spatial Framework

Locality Assessment:

Hanging Chadder (GMA17)

Identification Table	
Client	Oldham Council
Allocation	Hanging Chadder
File name	GMA17 Oldham - Hanging Chadder LA 021020
Reference number	GMA17 108724

Approval					
Version	Name		Position	Date	Modifications
0	Author	Ruairidh MacVeigh	Consultant	27/07/20	Base report
	Checked by	Nicky Agimal	Senior Consultant	29/07/20	
	Approved by	Chris Cox	Associate	12/08/20	
1	Author	E. Hayes	TfGM	29/09/20	Consistency edits
	Checked By	J. Betts	Oldham Council	30/09/2020	
	Approved by	E Dryden-Stuart	Oldham Council	30/09/2020	

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Allocation Data	
Allocation Reference No.	GMA17
Allocation Name	Hanging Chadder
Authority	Oldham Council
Ward	Royton North
Modelling Analysis	260 Dwellings
Policy Allocation Proposal	260 Dwellings (GMSF Plan Period)
Allocation Timescale	0-5 years <input type="checkbox"/> 6-15 years <input checked="" type="checkbox"/> 16 + years <input type="checkbox"/>

Glossary

“2025 GMSF Constrained” - is the 2025 forecast case in which the model adjusts the input demand based on how the cost of travel changes from the base year to the future. For example, for a shopping trip undertaken by car which becomes more congested in future, changes might be travel via a different route, mode, location or time of day.

“2040 GMSF Constrained” - as above, but for a 2040 forecast year

“2025 GMSF High-Side” - is the 2025 forecast case in which the model does not adjust the input demand based on how the cost of travel changes. In this scenario congestion does not lead to a reassignment of traffic, and therefore road traffic flow will generally be higher.

“2040 GMSF High-Side” - as above, but for a 2040 forecast year

“2025 Reference Case” - is the Do Minimum scenario which includes delivery of all transport schemes already committed and assumed to be completed by 2025

“2040 Reference Case” - is the Do Minimum scenario which includes delivery of all transport schemes already committed and assumed to be completed by 2040

AADT - Annual average daily traffic, is a measure used in transportation planning to quantify how busy the road is

Bee Network - is a proposal for Greater Manchester to become the very first city-region in the UK to have a fully joined-up cycling and walking network: the most comprehensive in Britain covering 1,800 miles.

Bus Rapid Transit - is a bus-based public transport system designed to improve capacity and reliability relative to a conventional bus system. Typically, a BRT system includes roadways that are dedicated to buses, and gives priority to buses at junctions where buses may interact with other traffic

Existing Land Supply - these are allocations across the county that have been identified by each local planning authority across Greater Manchester and are available for development

Greater Manchester Variable Demand Model (GMVDM) - the multi-modal transport model for Greater Manchester. This transport model provides estimates of future year transport demand as well as the estimates of travel behaviour changes and new patterns that the Plan is likely to produce. These include changes in choices of routes, travel mode, time of travel and changes in journey destinations for some activities such as work and shopping.

Local Road Network (LRN) - All other roads comprise the Local Road Network. The LRN is managed by the local highways authorities

National Trip End Model (NTEM) - is a Department for Transport forecast that ensures that measures of population, jobs and trips made by various mode are consistent across the whole of Great Britain.

Rapid transit services - refers to high frequency, high capacity metro style transport services including Metrolink and Bus Rapid Transit.

Strategic Road Network (SRN) - The Strategic Road Network comprises motorways and trunk roads, the most significant 'A' roads. The SRN is managed by Highways England.

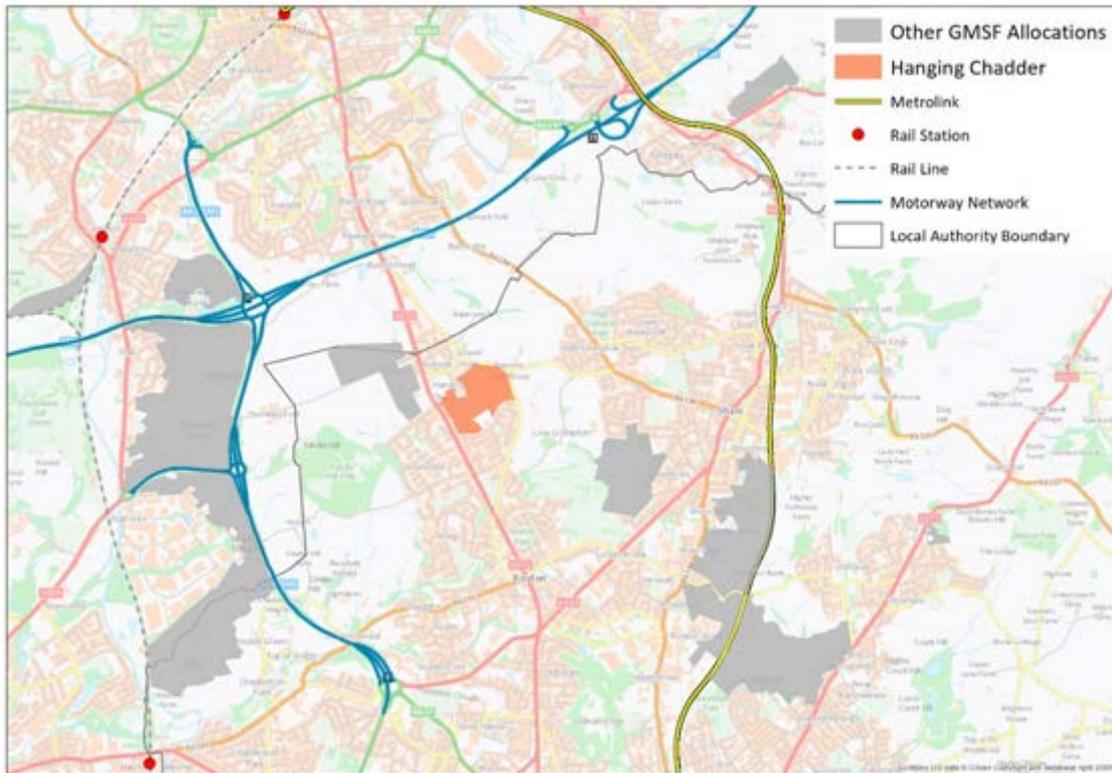
"TfGM" - Transport for Greater Manchester, the Passenger Transport Executive for Greater Manchester

Urban Traffic Control (UTC) - is a specialist form of traffic management that, by coordinating traffic signals in a centralised location, minimises the impact of stop times on the road user.

1. Allocation Location & Overview

- 1.1.1. This Locality Assessment (LA) is one of a series being prepared for proposed new allocations within Greater Manchester in order to confirm the potential impacts on both the local and strategic network, as well as identifying possible forms of mitigation or the promotion of sustainable alternatives to reduce this impact
- 1.1.2. The Hanging Chadder allocation is in the Metropolitan Borough of Oldham, consisting of up to 260 dwellings, and is situated in the Royton North ward. This allocation is comprised of three land parcels located on open land adjacent to the A671 Rochdale Road in the suburb of Royton.
- 1.1.3. The existing land use of the allocation is predominantly open land, although there are some remote farm buildings present.
- 1.1.4. No highway infrastructure is present within the allocation, however, access arrangements are expected to connect onto Castleton Road to the north and the A671 Rochdale Road to the southwest. The A671 Rochdale Road is a single-carriageway urban road with footpaths, streetlighting and a 30mph speed limit, while Castleton Road is an interurban road with footpaths, streetlighting and a 30mph speed limit. The allocation is expected to come forward in three land parcels, but the proposed layout is currently indicative and may be subject to change. Therefore, for the purposes of this assessment, two access points to the three development parcels identified as part of the indicative high level concept plan have been considered.
- 1.1.5. The allocation lies within the 2011 Census mid-layer super output area of Oldham 004. The scale of residential development (260 homes) is approximately 4% of the existing number of households in the area (6,040).

Figure 1. Allocation Location



Note that since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

- 1.1.6. For the purposes of the testing the impact of the allocation through the strategic model, a total of 260 dwellings have been assumed to be built out by 2040. The GM transport modelling suite has a 2040 forecast year, as such it uses 2040 trajectory data as proxy for 2037 full build-out, this is not considered to materially impact on the analysis or conclusions of this report.
- 1.1.7. All phasing plans information contained in this Locality Assessment is indicative only and has only been used to understand the likely intervention delivery timetable. Final trajectory information is contained in the GMSF Allocation Topic Paper.

2. Justification for Allocation Selection

- 2.1.1. The Site Selection process has been led by the 10 Greater Manchester Authorities, including Oldham Council, and provided the starting point for the investigation of the preferred sites through the Locality Assessments.
- 2.1.2. Detail of the Site Selection process including the criteria used to identify the sites, and how this was used to select the most sustainable sites is considered within the GMSF Spatial Strategy.

3. Key Issues from Consultation

- 3.1.1. The Greater Manchester Plan for Homes, Jobs and Environment (Spatial Framework) consultation ran from 14th January to 18th March 2019. The comments made during the 2019 GMSF consultation relate to the following key transport themes; roads, public transport, air quality and active travel:

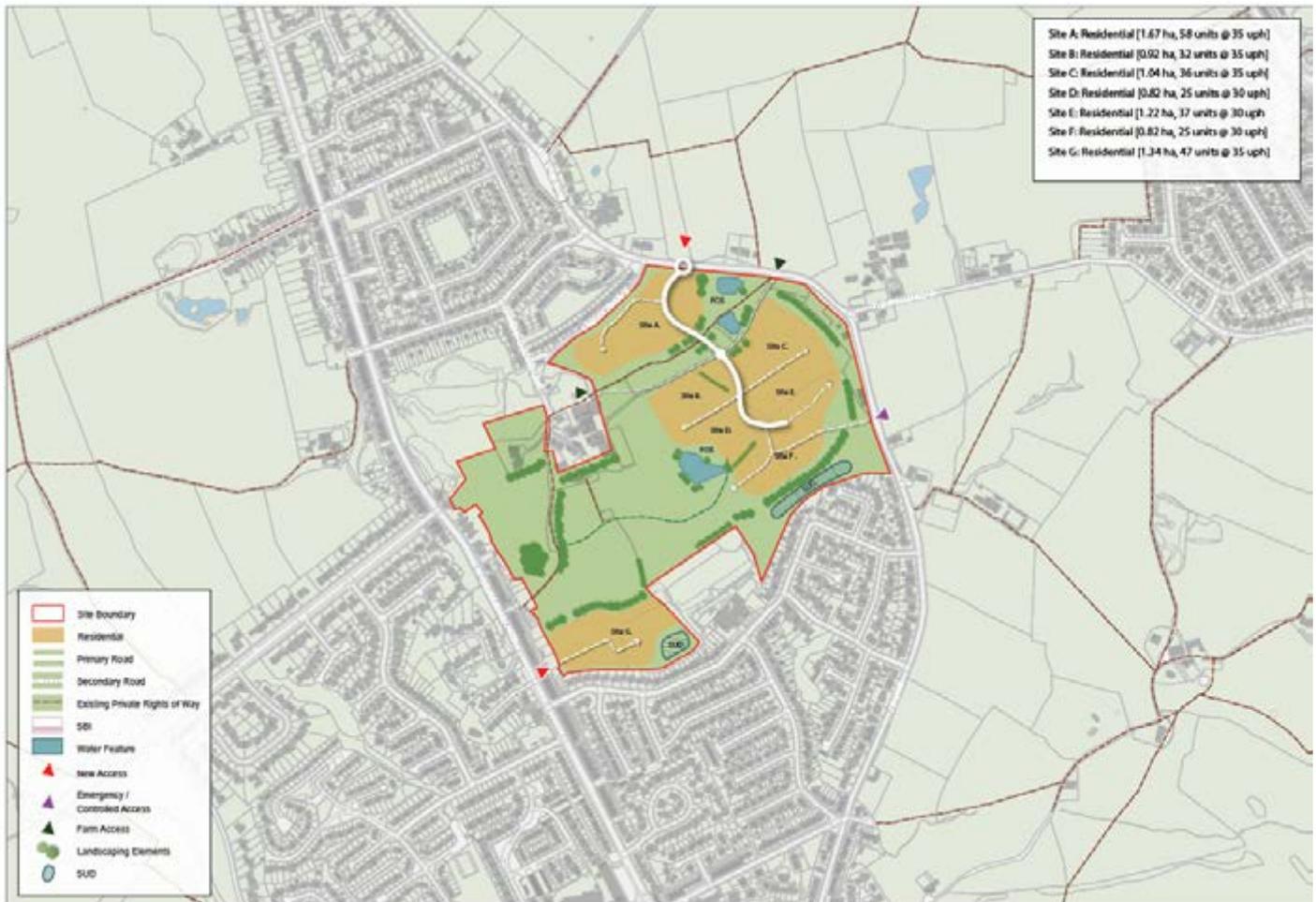
- Congestion is already an issue.
- Impact on local character, views and environment
- Constrained access and impact on local roads
- Oversubscribed local bus routes
- Concern over the number of vehicles using the junction of Thornham Old Road with Rochdale Road / Oldham Road.
- Issues with parked cars and HGVs along Thornham Old Road.
- Current lack of traffic management at Grasmere Road.
- Creation of Metrolink would force people parking on Rochdale Road to park elsewhere.
- Lack of public transport in the area.
- Concern on traffic congestion especially with no plans to extent the Metrolink to Royton.

3.1.2. Oldham Council officers, as part of design development within workshops, identified that access into the allocation is currently restricted and access would not be possible from Hanging Chadder Lane and access via Rochdale Road is restricted. A new access point would be needed from Castleton Road to serve the majority of the allocation. Access issues exist on Garden Terrace and movement on this thoroughfare should be avoided. Access to the south is not possible.

4. Existing Network Conditions and Allocation Access

Indicative Vehicular Access

Figure 2. Indicative Concept Plan



Note: All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

4.1.1. The A671 Rochdale Road is a single-carriageway urban road with a 30mph speed limit and provides access to multiple private farms, dwellings and businesses, and is the main corridor between Oldham and Rochdale.

4.1.2. Castleton Road comprises a two-way interurban road with footpaths and street lighting present, and is subject to a 30mph speed limit. This road is the main corridor between Castleton and Shaw.

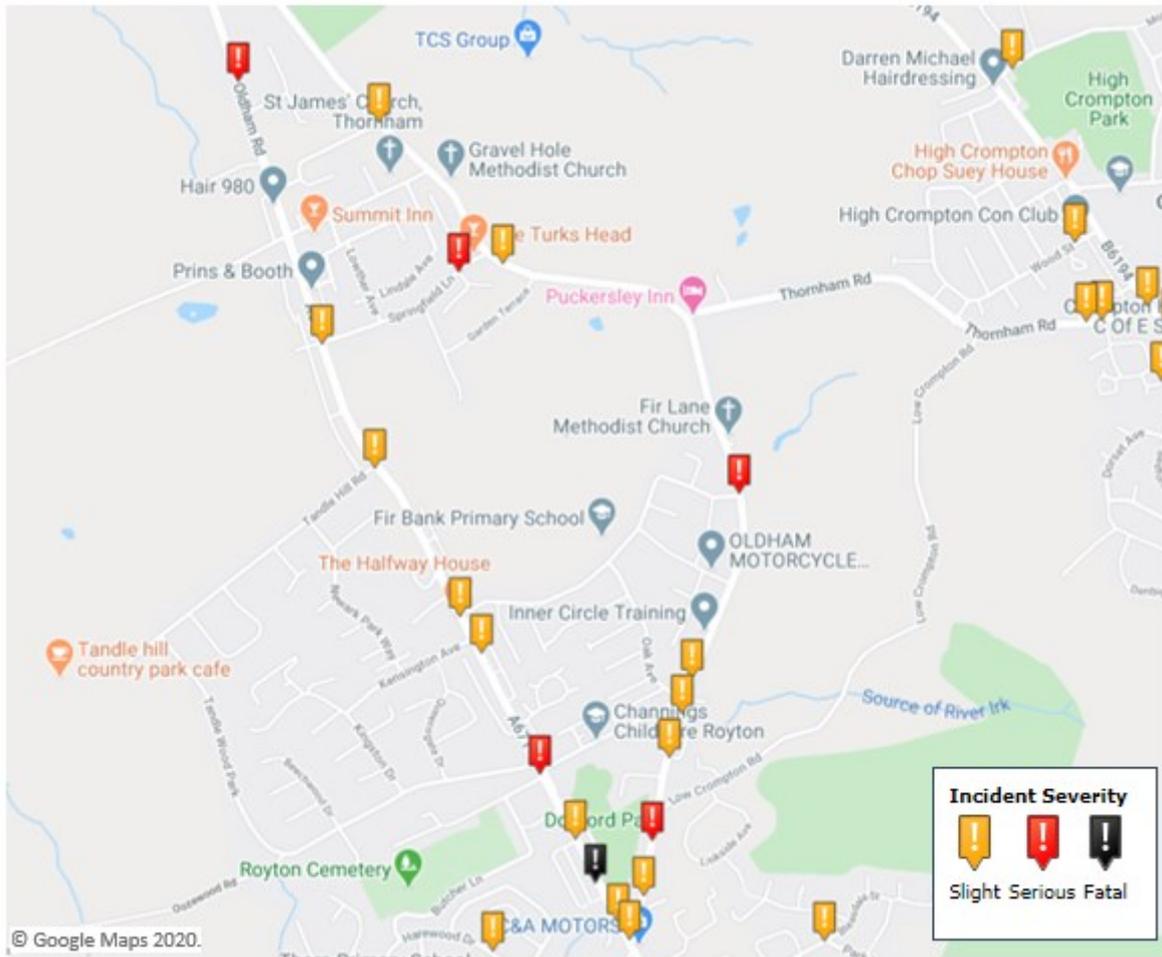
Accidents and Collision Overview

4.1.3. **Table 1** and **Figure 4** show the number of vehicle collisions over the last 5 years in a 1km area surrounding the Hanging Chadder allocation. There have been a total of 28 accidents over the last 5 years with one fatal incident reported in May 2014.

Table 1. Collision data within 1km of allocation within the last 5 years.

Fatal	Serious	Slight	Total
1	5	22	28

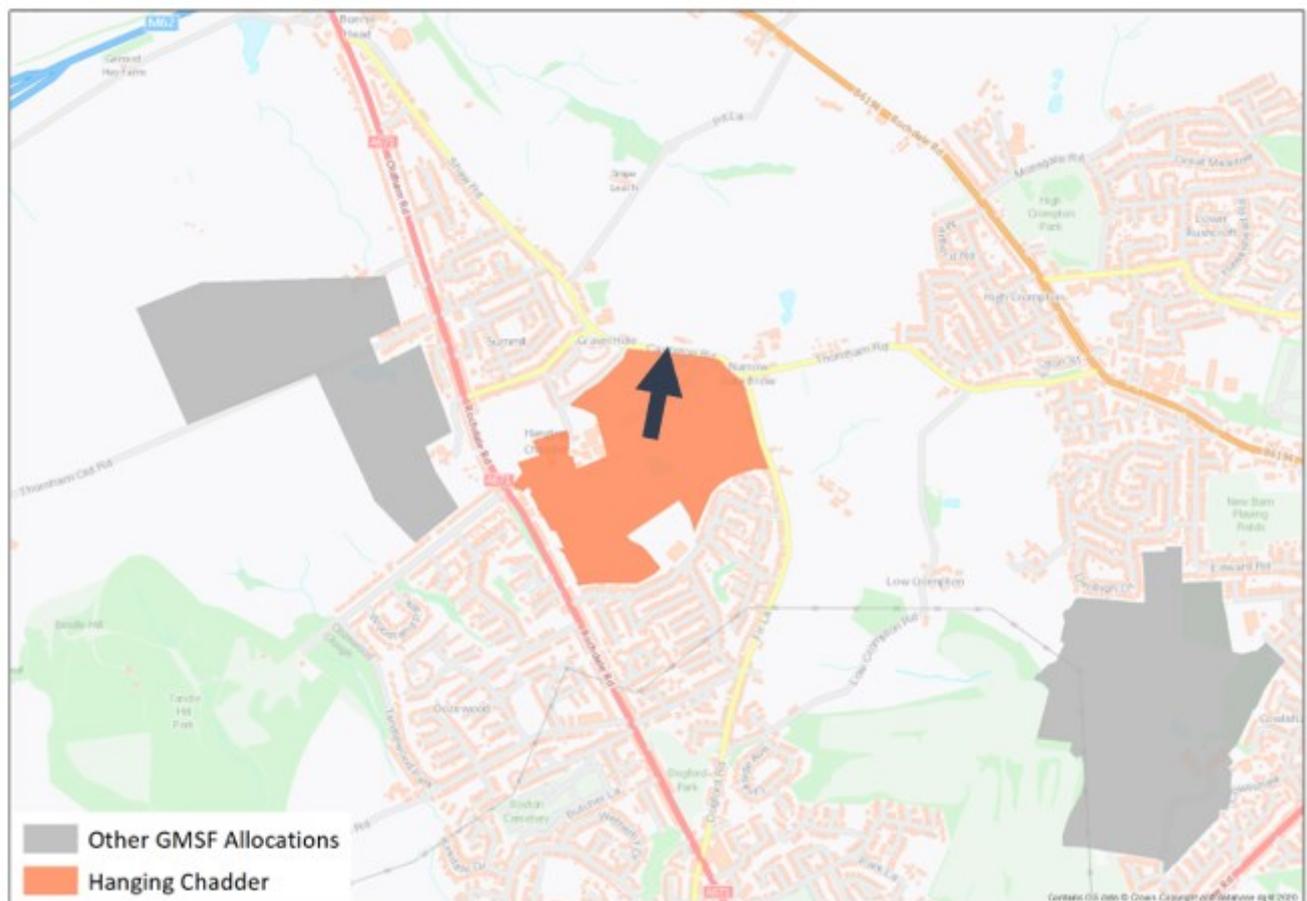
Figure 3. Map of collision data within 1km of allocation within the last 5 years.



5. Proposed Allocation Access

5.1.1. Based on the indicative concept plan (Figure 2) for the Hanging Chadder allocation, access into the allocation would comprise of two vehicular accesses, one access onto Castleton Road to the north – serving two of the three land parcels – and one access onto the A671 Rochdale Road to the west. However, the proposed three land parcel layout may be subject to change – with the site developer considering a possible revision to the allocation’s size and quantum – and thus the assessments undertaken in this Locality Assessment may not reflect the final scheme design. Until further confirmation from the site developer has been provided, assessment of the site accesses for this allocation are based on the current proposal for two accesses and three land parcels.

Figure 4. Allocation Location with Access Arrangements



Note: All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

5.1.2. Castleton Road would serve as the main access for the north and east land parcels, with the provision of a new roundabout junction being considered by the Indicative Concept Plan. This

option has been assessed in the Locality Assessment and is capable of being designed to provide sufficient capacity while presenting the safest form of junction given the speed and characteristics of the road.

- 5.1.3. In addition, a new secondary access is required for the northern land parcels due to the quantum of development. The indicative concept plan proposal for this is to have secondary access arrangements be made onto Castleton Road, which we consider appropriate – given its purpose, it is not necessary to consider the detail of the design at this stage. The role of this secondary access would be to provide an alternate routing into each land parcel for all vehicles in the event the primary access is obstructed.
- 5.1.4. For the southern parcel (plot G on the Indicative Concept Plan), an access point onto the A671 Rochdale Road has been proposed. However, the Indicative Concept Plan proposal for an access opposite Thorncliffe Avenue has been assessed as raising potential safety concerns due to the width available for the carriageway and the ability to implement suitable visibility splays.
- 5.1.5. A review of the necessary dimensions required for this junctions suggest a suitable solution is unlikely to be possible given the constrained width and limits of the visibility spay. The developer of the allocation has therefore been considering a modified indicative concept plan wherein all three land parcels are connected via a link road and served from a single access, while also increasing the overall development quantum. This approach would resolve this issue and it is not necessary for the Locality Assessment to consider further the details of the internal layout and masterplanning of the site as this appears achieved in principal, and even were it not, the affected overall quantum is relatively small. For avoidance of doubt however this assessment considers that a potential access point onto the A671 Rochdale Road, based on the above stated restrictions, is non-deliverable, and thus an alternative second access point for Plot G will need to be sought.
- 5.1.6. The issues which prevent this access point being used as a vehicular access do not however, prevent or otherwise limit its use for purposes of walking a cycling and a direct access for such users to the A671 is encouraged and is necessary to support the a permeable network for pedestrian and cycle access and priority. This should be accompanied by such access through the development This is explored further within Section 5 of this report.

5.1.7. While the allocation does not sit on any sections of the Bee Network, the design of the internal pedestrian/cycle access should reflect the standards being implemented by the Bee Network in order to suitably accommodate both pedestrian and cycle users.

6. Multi-modal accessibility

6.1.1. The current accessibility of the Hanging Chadder allocation using Greater Manchester's Accessibility Level model (GMAL) has been identified as comprising areas of level 4 and 5 for accessibility, giving it an average rating.

6.1.2. Greater Manchester Accessibility Levels (GMAL) are a detailed and accurate measure of the accessibility of a point to both the conventional public transport network (i.e. bus, Metrolink and rail) and Greater Manchester's Local Link (flexible transport service), taking into account walk access time and service availability. The method is essentially a way of measuring the density of the public transport provision at any location within the Greater Manchester region. The [GMAL methodology](#) is derived from the Public Transport Accessibility Level (PTAL) approach developed by the London Borough of Hammersmith and Fulham but modified to consider flexible transport service provision (Local Link) and to reflect local service provision levels (different accessibility levels) within Greater Manchester.

6.1.3. The accessibility index score is categorized into eight levels, 1 to 8, where level 8 represents a high level of accessibility and level 1 a low level of accessibility.

Walking and Cycling

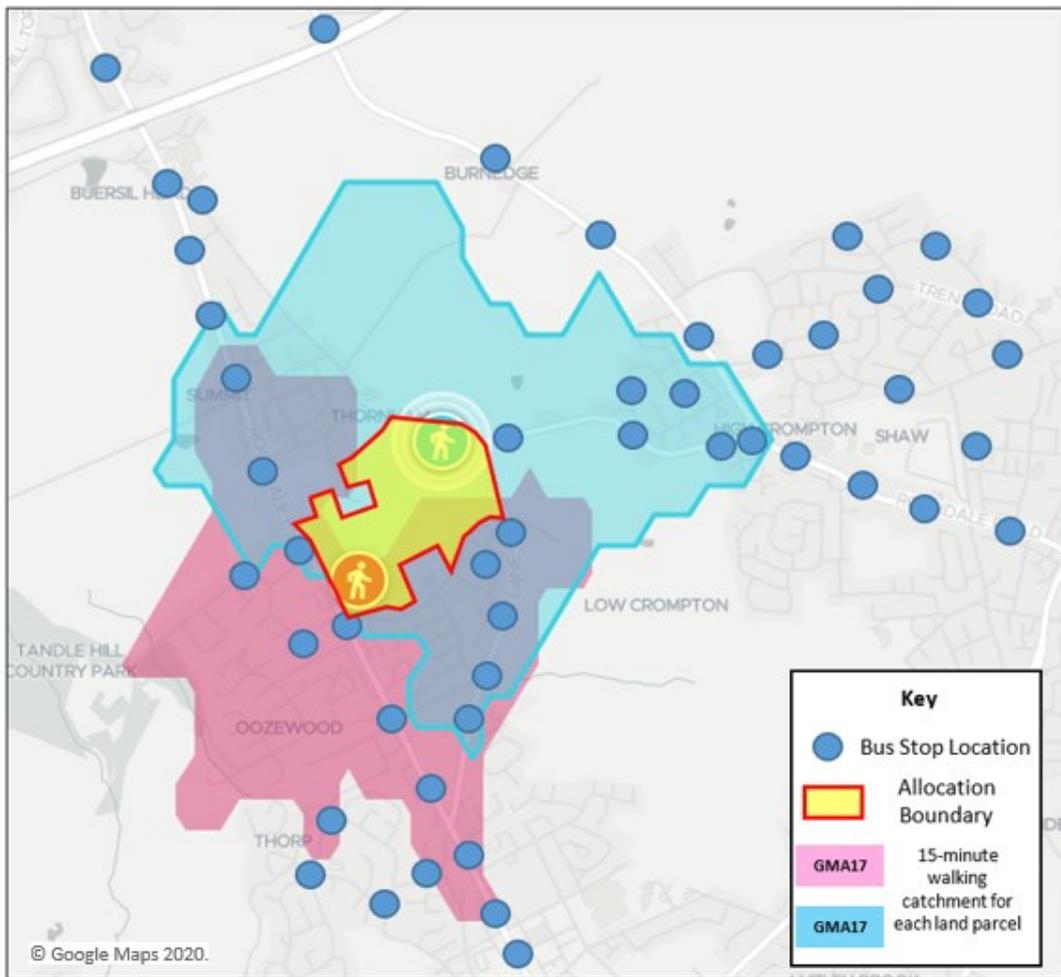
6.1.4. The main local destinations likely to generate walking and cycling trips are Oldham Town Centre to the south of the allocation (5.4km) the local shops at Royton (2.4km), Fir Bank Primary School (0.1km), Thornham Saint James' CE (Controlled) Primary School (0.1km) and St. Cuthbert's RC High School (1.1km).

6.1.5. The A671 Rochdale Road provides irregular width footpaths on either side of the carriageway, with the footpath on the southbound carriageway (closest to the allocation) being wider than standard widths, and the footpath on the northbound carriageway being narrower than standard. Otherwise, full lighting is provided, but there are no dedicated pedestrian crossings or crossing

islands, and there are limited cycling facilities. Though SFA may resolve some pedestrian/cycle issues, localised improvements may be required in the vicinity of the new access

1.1.8. **Figure 5** shows the current level of accessibility for the Hanging Chadder using the Travel Time Platform online database, which illustrates the 15 minute walking time from the proposed access via the local road network and any available pedestrian through-routes.

Figure 5. 15-minute walking catchment with public transport provision



Note: All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

1.1.9. The main concern regarding the cycle lanes on the A560 Stockport Road are on-street parking and carriageway width constraints on the approach to Woodley Station. The bridge across Woodley Station presents serious carriageway width restrictions, and thus only one footway is provided at this point, which is also of a width below SFA standards.

6.1.6. There is an existing PRow that runs west to east from the A671 Rochdale Road to Castleton Road, and continues north towards Rochdale as part of the Oldham Way – the surface conditions of this footpath are of poor quality and therefore require positive upgrading to make it suitable for regular use by allocation users.

Public Transport

6.1.7. The A671 Rochdale Road, as a main arterial route between Oldham and Rochdale, is served by frequent bus routes operated by First Group, which includes the following:

- Route 402: Oldham to Summit (average frequency: 60 minutes)
- Route 409: Rochdale to Ashton-under-Lyne (average frequency: 10 minutes)

6.1.8. The two Tandle Hill Road bus stops on the A671 Rochdale Road are located immediately adjacent to the proposed west access onto the A671 and are easily accessible. This stop provides peak time services to Oldham and Rochdale every 10 minutes.

Table 2. Accessibility of and proximity to Public Transport.

Mode	Nearest Stop/ Station	Distance (km)	Peak Hour Frequency (Mins)
Bus	Tandle Hill Road	0.1	10
Metrolink	Shaw and Crompton	3.2	6

Proposed

6.1.9. In consideration of the provision of existing pedestrian and cycling infrastructure in the adjacent residential streets, our main recommendation in this regard is that a permeable network for pedestrian and cyclist priority within the development is required including sufficient secure cycle parking for all dwellings.

- 6.1.10. Given the location of the allocation and its close proximity to the Castleton, Royton and Shaw local areas, the internal walking and cycle network should be linked to high quality routes connecting through to these areas, including the proposed Bee Network. Existing PRoWs that either pass near or cross the proposed allocation should be positively upgraded, with both PRoWs and the internal pedestrian/cycle network of the allocation being constructed to the standards set out by the Bee Network.
- 6.1.11. In terms of local pedestrian facilities, there are local bus stops situated along the A671 Rochdale Road which are all within a walkable distance. The allocation has been identified as potentially benefiting from the Rochdale-Oldham Quality bus transit corridor, which is anticipated to see a general improvement to service reliability and facilities such as shelters along the A671 Rochdale Road, as well as Real Time Information (RTI), although RTI may be delivered as an online service through phone apps or online browsers rather than information presented at the stops themselves.
- 6.1.12. With regard to public transport, the Hanging Chadder allocation has been identified as potentially benefiting from the Rochdale-Oldham Quality bus transit corridor, which is anticipated to see a general improvement to service reliability and facilities – such as the introduction of shelters – along the A671 Rochdale Road. In light of this, a contribution could be sought from the developers of the Hanging Chadder allocation developers to introduce these improvements, which are expected to be implemented by 2025.

7. Parking

- 7.1.1. It is not necessary to consider in detail the parking standards for residential units relevant to the allocation at this stage of assessment as there are no particular constraints on achieving likely minimum parking standards that may be in application at the time the allocation is brought forward. Accommodation of Electric Vehicle (EV) parking, while an important factor in developing more efficient transport connections for the allocation, should be considered at the detailed design stage, potentially as an integration of specific house design.
- 7.1.2. A broad assumption has been made that a maximum of 2 spaces per dwelling is likely to be proportionate however other alternative local policy requirements are likely to be equally deliverable and can be considered at the planning application stage.

7.1.3. National Planning Policy Framework (NPPF) is clear that such standards should only be set where there is a clear and compelling justification that they are necessary. This may be either for managing the local road network conditions, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with chapter 11 of NPPF).

8. Allocation Trip Generation and Distribution

8.1.1. Future trip generation to/from the allocation (i.e. how many people and vehicles will enter or leave the site) was estimated by applying a set of GM-wide trip rates to the agreed development quantum for each allocation . The distribution of trips (i.e. where they are going to or coming from) was derived by selecting nearby zones with similar land use characteristics as a proxy and using the existing distribution in the model. These figures are reflected in the following tables.

Table 3. Development Quantum

Residential	Houses	30	260
Residential	Apartments	0	0
Industrial	e.g. B2/B8 etc.	0	0
Total		30	260

Table 4. Allocation Traffic Generation *

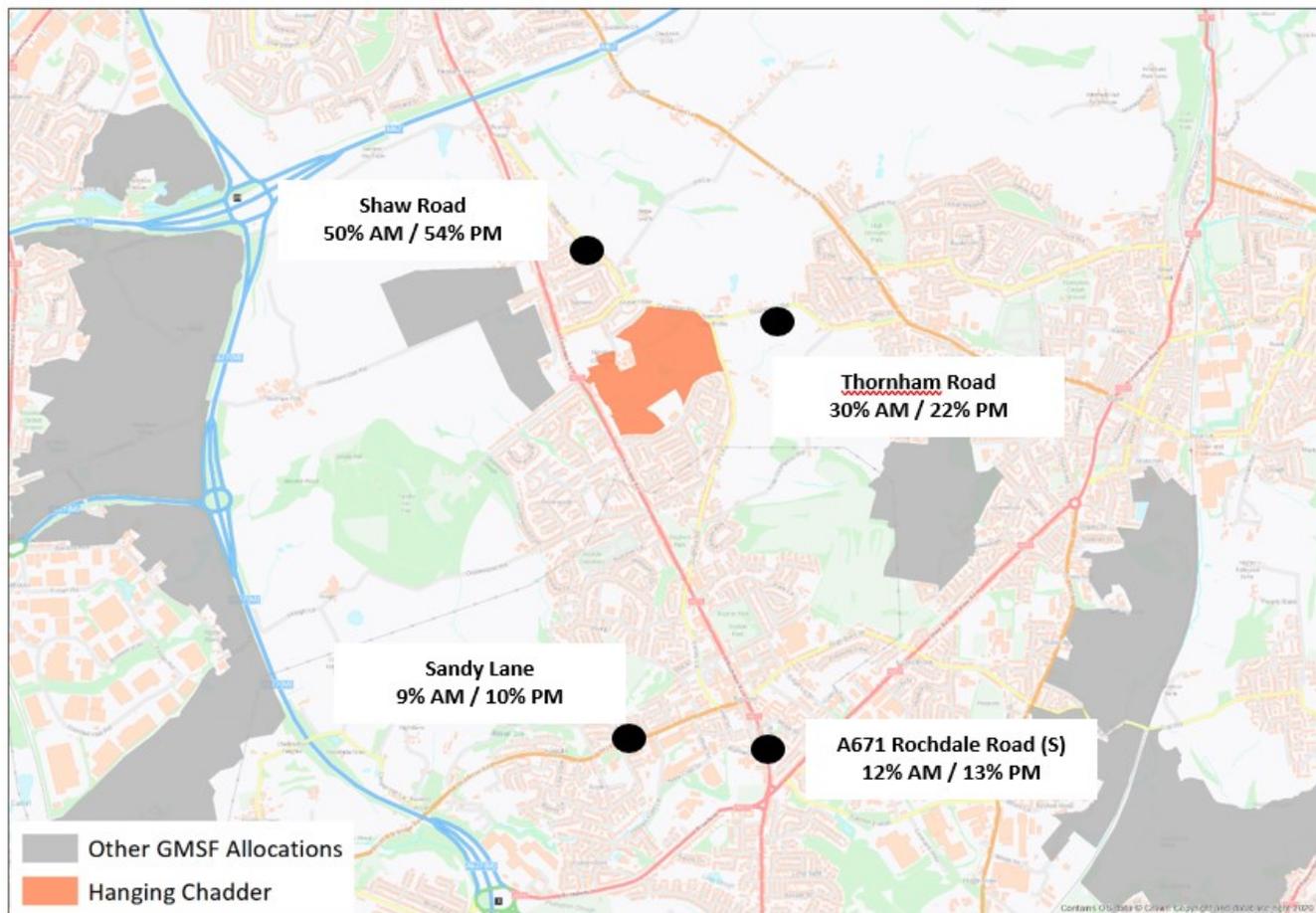
Year	AM Peak Hour Departures	AM Peak Hour Arrivals	PM Peak Hour Departures	PM Peak Hour Arrivals
2025 GMSF Constrained	9	3	5	10
2025 GMSF High-Side	10	4	6	10
2040 GMSF Constrained	68	20	35	75
2040 GMSF High-Side	90	36	55	80

*Units are in PCU (passenger car units/hr)

Table 5. Allocation Traffic Distribution, 2040 GMSF High-Side (Origin/Destination Combined)

Route	AM Peak Hour	PM Peak Hour
Shaw Road	50%	54%
Thornham Road	30%	22%
A671 Rochdale Road (South)	12%	13%
Sandy Lane	9%	10%

Figure 6. Allocation Traffic Distribution, 2040 GMSF High-Side (Origin/Destination Combined)



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

9. Existing Highway Network Review

9.1.1. The A671 Rochdale Road runs west of the proposed allocation, connecting Oldham to Rochdale. The A671 corridor is busy during peak periods and this has been assessed to consider locations particularly affected by traffic where it has been identified congestion is present during the peak hours.

9.1.2. SYSTRA identified a number of junctions in proximity to the allocation where additional traffic could have an impact on their operation based on existing conditions – as illustrated in **Figure 7**.

1. A6193 Sir Isaac Newton Way / A640 Elizabethan Way
2. A671 Oldham Road / Shaw Road

3. Castleton Road / Narrowgate Brow
4. A663 Crompton Way / Rochdale Road / Beal Lane
5. A671 Oldham Road / Dogford Road / A671 Rochdale Road / Rochdale Lane
6. A671 Rochdale Road / B6195 High Barn Road / A671 Oldham Road / B6195 Middleton Road
7. A663 Shaw Road / Blackshaw Lane / High Barn Road
8. A663 Shaw Road / A671 Oldham Road
9. A627(M) / Chadderton Way / A663 Broadway Interchange

Figure 7. Key junctions assessed



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

10. Treatment of Cumulative Impacts

- 10.1.1. The constrained and high side model runs take account of traffic associated with all GMSF allocations. Within a 2km buffer of the Hanging Chadder development allocation were the Stakehill, Kingsway South, Beal Valley, Broadbent Moss, Cowlshaw, and Newhey Quarry allocations. Therefore, at the local level, the transport impacts of the site need to be considered cumulatively with the above-stated GMSF allocations.
- 10.1.2. However, since production of this Locality Assessment, allocations at Kingsway South and Thornham Old Road have been removed from the GMSF. The impact of this change has not been considered in this assessment, as the withdrawal of these allocations came after modelling results were produced. These material changes are likely to significantly impact/reduced required treatment of cumulative impacts and proposed mitigations in this area.
- 10.1.3. In consideration of these nearby allocations in the modelling, each one was expected to generate the following number of two-way trips during the morning and evening peak hours:
- Stakehill: 1,991 AM Peak / 1,670 PM Peak
 - Kingsway South: 323 AM Peak / 353 PM Peak
 - Beal Valley: 209 AM Peak / 310 PM Peak
 - Broadbent Moss: 422 AM Peak / 556 PM Peak
 - Cowlshaw: 169 AM Peak / 240 PM Peak
 - Hanging Chadder: 125 AM Peak / 134 PM Peak
 - Newhey Quarry: 177 AM Peak / 195 PM Peak
- 10.1.4. Furthermore, although the Thornham Old Road allocation is illustrated on mapping, the assessment and cumulative impacts of this allocation have been considered separately due to the conclusion of that assessment that the allocation is not deliverable and therefore not taken forward for last stages of the cumulative assessment.

11. Allocation Access Assessment

11.1.1. This allocation access arrangement has been developed to illustrate that there is a practical option for an allocation access in this location and to develop indicative cost estimations. It is assumed that a detailed design consistent with Greater Manchester’s best practice Streets for all highway design principles will be required at the more detailed planning application stage.

11.1.2. Due to the role of the proposed highway network within the allocation, which will have a role in local traffic distribution, the full traffic impact of all GMSF flows are recorded below, and not just those pertaining to the allocation.

Table 6. Allocation Access Junction Capacity Analysis

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	GMSF Flows AM	GMSF Flows PM
Castleton Road Access Junction	N/A	N/A	15%	17%	125	135

12. Impact of Allocation before Mitigation on the Local Road Network

12.1.1. In order to understand a worst case impact of the GMSF, the ‘high side’ runs from the GMVDM were used to derive with GMSF development flows for 2040. These flows were then entered into junction based models for the junctions identified in Section 9. Flows from a 2040 reference case scenario (including approved Local Plan development from the respective districts) were also extracted to provide a comparison between the operation of those junctions in the 2040 reference case and the 2040 with GMSF development scenarios.

12.1.2. The ‘with GMSF’ scenario has been assessed against a Reference Case which assumes background growth and includes the housing and employment commitments from the local authorities. Through discussions with TfGM and the Combined Authority, it has been agreed that where mitigation is required, it should mitigate the impacts back to a reference case scenario. It should be noted that mitigating back to this level of impact may not mean that the junction operates within capacity. These assessments were then used to identify the junctions where there was considered to be a substantial impact, relative to the operation of the junction in the 2040 reference case, and hence where mitigation was considered to be required in order to bring GMSF

allocations forward. Through discussions with TfGM and the Combined Authority, it was been agreed that where mitigation is required, it should mitigate the impacts back to the reference case scenario. It should be noted that mitigating back to this level of impact may not mean that the junction operates within capacity by 2040.

12.1.3. This section looks at the impact on the network at the junctions highlighted in Section 9. Signalised junctions were assessed in detail using industry-standard modelling software LINSIG version 3. Where possible, traffic signal information was requested from TfGM in order to ensure that the local junction models reflected (as far as possible), the operation of the junctions on the ground. Junctions 9 software was used to assess priority and roundabout junctions. Table 7 below provides a comparison between the operation of the in scope junctions in the 2040 reference case and the 2040 'high side' scenarios, as well as the allocation development flows through each respective junction. The table shows a comparison between the ratio of flow to capacity on the worst case arm at each junction as well as the total development flows through the junction. For reference, a figure of between 85% and 99% illustrates that the junction is nearing its operational capacity, and a figure of 100% or over illustrates that flows exceed the operational capacity at the junction.

Table 7. Results of Local Junction Capacity Analysis Before Mitigation

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	GMSF Flows AM	GMSF Flows PM
2. A671 Oldham Road / Shaw Road	22%	16%	16%	14%	62	70
3. Castleton Road / Narrowgate Brow	31%	34%	34%	34%	62	54
4. A663 Crompton Way / Rochdale Road / Beal Lane	93%	105%	155%	111%	7	10
5. A671 Oldham Road / Dogford Road / A671 Rochdale Road / Rochdale Lane	61%	69%	65%	71%	21	38
6. A663 Shaw Road / Blackshaw Lane / High Barn Road	110%	94%	111%	93%	9	1
7. A671 Rochdale Road / B6195 High Barn Road / A671 Oldham Road / B6195 Middleton Road	117%	93%	95%	94%	14	23
8. A663 Shaw Road / A671 Oldham Road	137%	134%	137%	139%	14	23

13. Transport Interventions Tested on the Local Road Network

13.1.1. While in isolation this allocation would be unlikely to present significant implications on the surrounding road network, its potential cumulative impact with other allocations by 2040 (as outlined in Section 10) has resulted in several mitigation schemes being considered at junctions likely to see material impacts as a result of traffic introduced by these allocations.

Table 8. Approach to Mitigation

Junction	Mitigation Approach
4. A663 Crompton Way / Rochdale Road / Beal Lane	Cumulative impact, but not substantial for this allocation – mitigation proposed, mitigation proposed however identified as supporting measure due to material changes in cumulative impact
7. A671 Oldham Road / High Barn Street / Middleton Road	Cumulative impact, but not substantial for this allocation – mitigation proposed, mitigation proposed however identified as supporting measure due to material changes in cumulative impact
8. A663 Shaw Road / A671 Oldham Road	Cumulative impact, mitigation proposed however identified as supporting measure due to material changes in cumulative impact

13.1.2. These schemes were then coded into the GMVDM, in advance of a second ‘with mitigation’ run of the model. The outcomes of this model run in relation to the other allocations are presented in the following section.

13.1.3. In consideration of the provision of existing pedestrian and cycling infrastructure in the adjacent residential streets, our main recommendation in this regard is that a permeable network for pedestrian and cyclist priority within the development is required including sufficient secure cycle parking for all dwellings.

14. Impact of Interventions on the Local Road Network

14.1.1. In order to understand whether the mitigation developed for the allocation (and all other allocations within the GMSF) is sufficient to mitigate the worst-case impacts of the GMSF identified in Section 12, a second run of the GMVDM with all identified mitigation included, was undertaken. Where a significant flow change was observed the junction models were rerun to check that the mitigation identified in Section 13 is still sufficient to mitigate allocation impacts and that all other in scope junctions continue to operate satisfactorily in light of any reassignment due to mitigation schemes.

14.1.2. Table 9 below provides a comparison between the operation of the in-scope junctions in the 2040 reference case and the 2040 'high side' with mitigation scenarios, as well as the allocation development flows through each respective junction. The table shows a comparison between the ratio of flow to capacity on the worst-case arm at each junction as well as the total development flows through the junction.

Table 9. Results of 2040 Local Junction Capacity Analysis After Mitigation

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	GMSF Flows AM	GMSF Flows PM
4. A663 Crompton Way / Rochdale Road / Beal Lane	74%	112%	75%	112%	7	10
7. A671 Oldham Road / High Barn Street / Middleton Road	88%	89%	80%	92%	14	23
8. A663 Shaw Road / A671 Oldham Road	122%	106%	113%	109%	14	23

15. Impact and Mitigation on the Strategic Road Network

Overview

15.1.1. This chapter covers those impacts where traffic generated by the GMSF allocations meets the Strategic Road Network (SRN). Junctions at the interface between the Local Road Network (LRN) and the Strategic Road Network (SRN) have been assessed using a similar approach to that described in the preceding chapters. Wider issues relating to the SRN mainline are being assessed separately as described below.

15.1.2. SYSTRA is currently consulting with Highways England on behalf of TfGM and the Combined Authority in relation to the wider impacts of the GMSF allocations on the Strategic Road Network (SRN). This consultation is ongoing and it is expected that it will allow Highways England to gain a strategic understanding of where there is an interaction between network stress points and GMSF allocation demand. This will facilitate further discussion and transfer of information between TfGM and Highways England in reaching agreement and/or common ground on improvement measures.

15.1.3. The cumulative impacts of this and other allocations in this area have been considered likely to result in implications for the operation of the SRN in key locations.

Table 10. Results of Strategic Junction Capacity Analysis Before Mitigation

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	GMSF Flows AM	GMSF Flows PM
1. A6193 Sir Isaac Newton Way / A640 Elizabethan Way	130%	140%	136%	142%	20	16
9. A627(M) / Chadderton Way / A663 Broadway Interchange	131%	132%	137%	137%	12	10

15.1.4. In consideration of the cumulative allocation impacts on the SRN at the A6193/A640 junction, which forms part of the wider M62 Junction 21 interchange, mitigation measures prepared in association with other allocations, have included the addition of a second lane to the roundabout

circulatory, and changes to the lane designations that favour movements accessing the M62, as well as a two-lane merge section of approximately 80m on the A640 (S) to allow for the safe merging of vehicles turning right from the A6193.

15.1.5. For the A627(M) / Chadderton Way / A663 Broadway Interchange, mitigation measures have included the addition of a third lane on the southbound access from the A627 (M) north, thereby reducing the amount of queuing that is experienced on the slip road that could potentially extend onto the A627 (M) carriageway. The results of this mitigation are supplied in Table 11 below.

15.1.6. Through consultation with Oldham Metropolitan Borough Council these interventions were identified as likely to be disproportion to the demand generated by this allocation, and the distance from the allocation to the SRN. As such, these Strategic Road Network interventions should be seen as supporting measures which do not necessarily hinder the development of the allocation, though could be investigated as part of further work.

Table 11. Results of Strategic Junction Capacity Analysis After Mitigation

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	GMSF Flows AM	GMSF Flows PM
1. A6193 Sir Isaac Newton Way / A640 Elizabethan Way	78%	81%	72%	80%	20	16
9. A627(M) / Chadderton Way / A663 Broadway Interchange	122%	128%	125%	127%	12	10

16. Final list of interventions

Table 12. Interventions List

Mitigation	Description
Allocation Access	
Castleton Road Access Junction	Standard Roundabout junction assumed.
Necessary Local Mitigations	
Permeable network for pedestrian and cyclist priority within the development	Assumed full permeability of cycle and pedestrian access, as well as direct connections to PRoWs either bounding or near the development. All pedestrian and cycle networks internal to the allocation , as well as connecting PRoWs, should be built or upgraded to the standards outlined in the Bee Network, as well as providing connections to the nearest section of the Bee Network
Cycle connection along A671 to Bee Network	Cycle Route along 400m section of the A671 between Grasmere Rd and Fir Bank Road –to the standards outlined in the Bee Network
General Traffic Management Improvements	General traffic management improvements for TROs etc.
Supporting Strategic interventions	
A627(M) / Chadderton Way / A663 Broadway Interchange	Potential addition of a third lane on the southbound access from the A627 (M) north.
Rochdale-Oldham Quality bus transit corridor	Proposed by TfGM for frequent bus services between Rochdale and Oldham

Rochdale-Oldham Quality bus transit corridor

- 16.1.1. The Rochdale-Oldham Quality bus transit corridor is anticipated to see a general improvement to service reliability and facilities along the A671 Rochdale Road.
- 16.1.2. The introduction of the Quality bus transit corridor is expected to answer concerns regarding unreliable bus operations within the area surrounding the Hanging Chadder . Promotion of sustainable transport alternatives will also help to answer concerns regarding increased pollution from added vehicular trips on the local road network.

Permeable network for pedestrian and cyclist priority within the development

- 16.1.3. In order to promote and encourage sustainable transport modes, as well as providing safe and efficient accessibility for non-vehicular traffic, the development is to both provide ease of access for pedestrian and cyclist traffic into and out of the allocation , as well as connecting and improving Public Rights of Way that either directly connect or pass near the proposed allocation . This is to include upgrading of the local PRow routes to meet the standards of the proposed Bee Network and, wherever possible, connect directly to sections of the Bee Network.
- 16.1.4. Furthermore, pedestrian and cycle facilities in the areas surrounding the allocation should be improved wherever possible in order to allow for safe accessibility by non-vehicular users to both all parts of the development, but also the adjacent residential, employment and retail areas.
- 16.1.5. The introduction of this mitigation scheme is expected to answer concerns regarding the suitability of the A671 Rochdale Road, in its current arrangement, to provide safe access for non-vehicular traffic due to it being narrow with no footpaths. Promotion of sustainable transport alternatives will also help to answer concerns regarding increased pollution from added vehicular trips on the local road network.

Cycle Connection to Bee Network - A671

- 16.1.6. The precise route that such a connection would take has not been identified at this stage however a 400m section of the A671 between Grasmere Rd and Fir Bank Road has been identified as a likely route for an on carriageway connection between the allocation and the proposed Bee Network

A627(M) / Chadderton Way / A663 Broadway Interchange

16.1.7. At the A627 (M) Chadderton Way interchange, mitigation measures have included the addition of a third lane on the southbound access from the A627 (M) north, thereby reducing the amount of queuing that is experienced on the slip road that could potentially extend onto the A627 (M) carriageway.

17. Greater Manchester Transport Strategy Interventions

17.1.1. Further to the site-specific interventions outlined within Section 2, Oldham Council and TfGM have jointly considered measures to support sustainable travel and to contribute towards the achievement of Greater Manchester's 'Right Mix' ambition.

17.1.2. The Right Mix initiative forms part of the Greater Manchester Transport Strategy 2040, and is proposes that by 2040, 50% of trips are to be undertaken by sustainable modes and no net increase in motor-vehicle traffic. The Right Mix vision is comprised of evidence-based targets which will be adjusted over time in order to reflect the progress of meeting such targets, and the interventions set out for walking, cycling and public transport for the allocation will contribute to the Right Mix target of reducing growth in motor vehicle traffic in Greater Manchester.

17.1.3. In addition to the site-specific interventions set out in this Locality Assessment, there are a number of other measures already planned by Oldham Council and Transport for Greater Manchester to support sustainable travel, and to contribute to the achievement of Greater Manchester's 'Right Mix' ambition.

17.1.4. Transport for Greater Manchester is currently producing a business case for early delivery of a Quality Bus Transit scheme between Rochdale, Oldham and Ashton, which will include significant improvements to the quality, frequency and reliability of the bus service, as well as localised public realm enhancements which it is hoped will lead to an increase in bus patronage along the route. If successful, the concept would be rolled out to other routes in the City Region.

17.1.5. TfGM is also leading a study to complete a business case for the early delivery of the Cop Road Metrolink stop, which would improve access to Rochdale and Oldham and, from there, the Regional Centre.

17.1.6. In addition, Oldham Council is progressing 'Accessible Oldham' a £6 million Local Growth Deal package to regenerate and improve the connectivity of Oldham town centre. The scheme includes

upgraded pedestrian areas and cycling routes, better access to bus and Metrolink stops and improvements to the highway network.

- 17.1.7. Oldham Council have successfully bid for funding from the Mayor of Greater Manchester's Cycling and Walking Challenge Fund – a £160 million initiative to deliver the infrastructure to encourage more people to cycle and walk across the region. This scheme is to come forward in a series of Bee Network developments within the Oldham area.
- 17.1.8. Outside of the town centre, Network Rail, in association with TfGM, have secured funding for the "Access for All" scheme from the Department for Transport in order to upgrade Mill Hill Rail Station to improve access for mobility impaired passengers, improving accessibility by rail in both Manchester and Rochdale directions. TfGM are also investing in the increase of capacity at the Mill Hill Park & Ride facilities through Growth Deal 3.
- 17.1.9. Oldham Council have mediated between Network Rail and TfGM with regard to off-site highway works, and NR are now providing a new controlled pedestrian facility to link the two schemes together, although the facilities chosen have not been considered ideal for this proposal. Furthermore, there is some dispute regarding car park development at Mill Hill station as it contravenes bus only restrictions and conflicts with bus movements.

18. Phasing Plan

- 18.1.1. The initial locality assessments were based on information on new allocations consolidated by TfGM based on inputs from each of the Local Authorities . This initial exercise focused on the development quanta to be delivered at the end of the plan period, i.e. by 2040.
- 18.1.2. During the course of the locality assessment work in late 2019 / early 2020, the Local Authorities provided input on their expected phasing of the allocation s focusing on the milestone years of 2025 and 2040. The expected 2025 development quanta were tested along with those for 2040 to assess their deliverability in terms of transport network capacity. In some cases, the development phasing was amended by the Local Authorities as a result of the technical analysis undertaken. All other schemes will require implementation between 2025 and 2040, with a more precise implementation timeframe for these schemes being ascertained through a similar process to that detailed in Section 12 to 14 as part of the five-year review of the plan.

18.1.3. Based on the proposed forecast, 11% of the development quantum (30 dwellings) for the Hanging Chadder is expected to come forward by 2025. The full development quantum is expected to come forward by 2040.

Table 13. Allocation Phasing

Allocation Phasing	2020 25	2025 30	2030 2037	2037+	Total
Hanging Chadder	30	260	0	0	260
Total	30	260	0	0	260

Table 14. Indicative intervention delivery timetable

Mitigation	2020 2025	2025 2030	2030 2037
Allocation Access			
Castleton Road Access Junction	✓		
Necessary Local Mitigations			
Permeable network for pedestrian and cyclist priority within the development	✓		
Cycle connection along A671 to Bee Network		✓	
General Traffic Management Improvements	✓		
Supporting Strategic			
Improvement of A627(M) / Chadderton Way / A663 Broadway Interchange		✓	
Rochdale-Oldham Quality bus transit corridor contribution	✓		

19. Summary & Conclusions

- 19.1.1. GMSF Allocation Hanging Chadder is an allocation consisting of 260 dwellings located on what is currently open land and isolated farm buildings within the Royton North ward – this allocation was initially expected to come forward as three land parcels, two served by one access onto Castleton Road, and the third by a separate access onto the A671 Rochdale Road.
- 19.1.2. Assessments undertaken have considered the potential impact of this allocation on the surrounding road network, both in isolation and in cumulative impact with other. Both in isolation and cumulatively, the allocation has the potential to present increased congestion at existing areas of concern raised in Section 3 unless adequately mitigated.
- 19.1.3. A notable transport constraint associated with delivery of the allocation comprises the identification and design of a suitable point of vehicular access from Plot G onto the A671 Rochdale Road. A review of options for the site access undertaken as part of the Locality Assessment has identified several fundamental physical constraints to implementing this access, including width and the creation of standard visibility splays. The proposal to develop this allocation in three land parcels, as outlined in the indicative concept plan, may be subject to change by the site developer, and therefore the final layout and access proposals may change beyond the current GMSF study. Given the small scale of the affected plot relative to the allocation as a whole and potential to reconstitute access to it through from other parts of the development this is not seen as fundamental issue for the allocation.
- 19.1.4. In response to potential concerns regarding congestion at key junctions, mitigation schemes have been considered in a number of locations. These have been tested, and illustrate significant improvements to traffic flows only across these junctions, both with and without the cumulative impact of the GMSF allocations.
- 19.1.5. Based on the information contained within this report, we conclude that the traffic impacts of the allocation are considered to be less than severe subject to the implementation of localised mitigation at a discrete number of locations. The “High-Side” modelling work indicates that in general other junctions within the vicinity of the allocation will either operate within capacity in 2040 with GMSF development, or that in some cases junctions operating over capacity in the future year would not be materially worsened by development traffic.

- 19.1.6. At this stage, the modelling work is considered to be a 'worst case' scenario as it does not take full account of the extensive opportunities for active travel and public transport improvements in the local area, and that junctions which are considered to operate over capacity in the 2040 model years, both with and without mitigation, are attributed not to the introduction of development trips, but to the cumulative impact of wider growth. The objective of mitigation scenarios is to suitably accommodate the proposed development trips for this allocation, rather than fully amending wider traffic concerns.
- 19.1.7. However, the mitigation schemes proposed should be considered in conjunction with continued investment into sustainable transport alternatives, including pedestrian, cycling and public transport, in order to reduce the overall number of additional vehicles being introduced onto the local road network. This, combined with the mitigation schemes, could potentially resolve a number of issues raised regarding pollution and safety in relation to the Hanging Chadder allocation.
- 19.1.8. This is an initial indication that the allocation is deliverable and to inform viability, and that further detailed work will be necessary to identify the specific interventions required to ensure the network works effectively based on transport network conditions at the time of the planning application.

Greater Manchester Spatial Framework

Locality Assessment:

Land South of Coal Pit Lane

(Ashton Road Corridor) (GMA 18)

Publication Version 2: November 2020

Identification Table	
Client	Oldham Council
Allocation	Land south of Coal Pit Lane (Ashton Road Corridor)
File name	GMA18 Land south of Coal Pit Lane (Ashton Road Corridor) LA 021020
Reference number	GMA18 108724

Approval					
Version	Role	Name	Position	Date	Modifications
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Allocation Data	
Allocation Reference No.	GMA18
Allocation Name	Land south of Coal Pit Lane (Ashton Road Corridor)
Authority	Oldham Council
Ward	Medlock Vale
Modelling Analysis	264 Dwellings
Policy Allocation Proposal	255 Dwellings (GMSF Plan Period) with a further 18 Dwellings identified within the baseline housing supply at Danisher Lane.
Policy Allocation Proposal	255
Allocation Timescale	0-5 years <input type="checkbox"/> 6-15 years <input checked="" type="checkbox"/> 16 + years <input type="checkbox"/>

Glossary

“2025 GMSF Constrained” - is the 2025 forecast case in which the model adjusts the input demand based on how the cost of travel changes from the base year to the future. For example, for a shopping trip undertaken by car which becomes more congested in future, changes might be travel via a different route, mode, location or time of day.

“2040 GMSF Constrained” - as above, but for a 2040 forecast year

“2025 GMSF High-Side” - is the 2025 forecast case in which the model does not adjust the input demand based on how the cost of travel changes. In this scenario congestion does not lead to a reassignment of traffic, and therefore road traffic flow will generally be higher.

“2040 GMSF High-Side” - as above, but for a 2040 forecast year

“2025 Reference Case” - is the Do Minimum scenario which includes delivery of all transport schemes already committed and assumed to be completed by 2025

“2040 Reference Case” - is the Do Minimum scenario which includes delivery of all transport schemes already committed and assumed to be completed by 2040

AADT - Annual average daily traffic, is a measure used in transportation planning to quantify how busy the road is

Bee Network - is a proposal for Greater Manchester to become the very first city-region in the UK to have a fully joined-up cycling and walking network: the most comprehensive in Britain covering 1,800 miles.

Bus Rapid Transit - is a bus-based public transport system designed to improve capacity and reliability relative to a conventional bus system. Typically, a BRT system includes roadways that are dedicated to buses, and gives priority to buses at junctions where buses may interact with other traffic

Existing Land Supply - these are allocations across the county that have been identified by each local planning authority across Greater Manchester and are available for development

Greater Manchester Variable Demand Model (GMVDM) - the multi-modal transport model for Greater Manchester. This transport model provides estimates of future year transport demand as well as the estimates of travel behaviour changes and new patterns that the Plan is likely to produce. These include changes in choices of routes, travel mode, time of travel and changes in journey destinations for some activities such as work and shopping.

Local Road Network (LRN) - All other roads comprise the Local Road Network. The LRN is managed by the local highways authorities

National Trip End Model (NTEM) - is a Department for Transport forecast that ensures that measures of population, jobs and trips made by various mode are consistent across the whole of Great Britain.

Rapid transit services - refers to high frequency, high capacity metro style transport services including Metrolink and Bus Rapid Transit.

Strategic Road Network (SRN) - The Strategic Road Network comprises motorways and trunk roads, the most significant 'A' roads. The SRN is managed by Highways England.

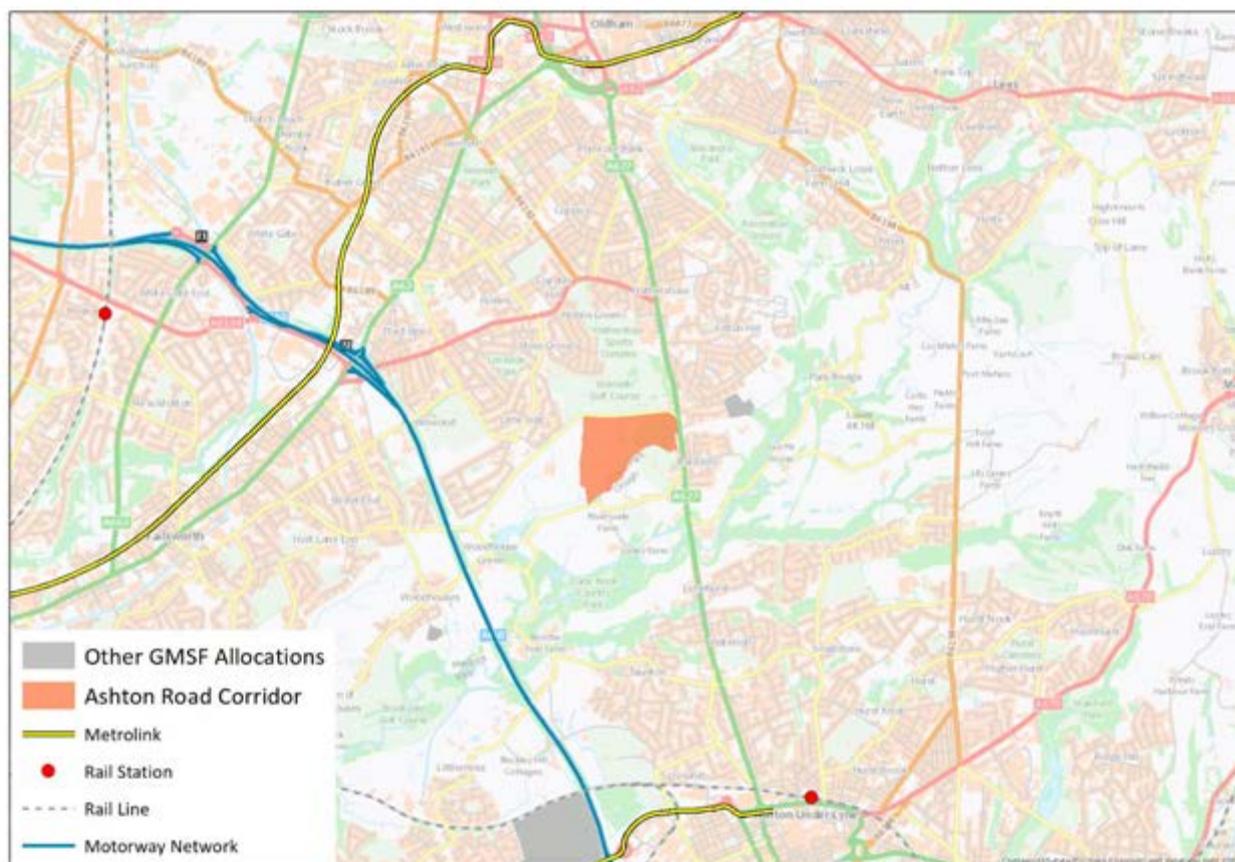
"TfGM" - Transport for Greater Manchester, the Passenger Transport Executive for Greater Manchester

Urban Traffic Control (UTC) - is a specialist form of traffic management that, by coordinating traffic signals in a centralised location, minimises the impact of stop times on the road user.

1. Allocation Location & Overview

- 1.1.1 This Locality Assessment (LA) is one of a series being prepared for proposed new allocations within Greater Manchester in order to confirm the potential impacts on both the local and strategic network, as well as identifying possible forms of mitigation or the promotion of sustainable alternatives to reduce this impact.
- 1.1.2 The – Ashton Road Corridor allocation is in the Metropolitan Borough of Oldham, consisting of up to 273 dwellings in total, 255 of which are to be allocated under GMSF, with a further 18 already within the baseline land supply, and is situated in the Medlock Vale ward.
- 1.1.3 This allocation originally consisted of two land parcels, the first being on the present site south of Coal Pit Lane, and the second to the east of the A627 at Bardsley Vale. The Bardsley Vale site, however, was discounted due to a range of constraints, including unfavourable access arrangements that presented safety concerns, the presence of gas mains within the site, and ecological issues – specifically regarding the presence of a Site of Biological Importance (SBI). In order to accommodate the housing that was to occupy the Bardsley Vale site, the parcel south of Coal Pit Lane was extended south to increase its capacity.
- 1.1.4 The allocation is bounded by Coal Pit Lane to the north, the A627 Ashton Road to the east, Oldham Rugby Union Football Club to the south and fields to the west. The existing land use of the allocation is predominantly open land, although there are some remote farm buildings present.
- 1.1.5 No highway infrastructure is present within the allocation, however, access arrangements are expected to consist of an access to the north onto Coal Pit Lane and east onto the A627 Ashton Road. Coal Pit Lane is an interurban single-carriageway road with no streetlighting or walking facilities, and a speed limit of 30mph, while the A627 Ashton Road is a single-carriageway urban road with footpaths, streetlighting and a 30mph speed limit.
- 1.1.6 The allocation lies within the 2011 Census mid-layer super output area of Oldham 033. The scale of residential development (273 homes, including 18 in the baseline land supply) is approximately 10% of the existing number of households in the area (2,520).

Figure 1. Site Location – Ashton Road Corridor



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

1.1.7 For the purposes of the testing the impact of the allocation through the strategic model, a total of 264 dwellings have been assumed to be built out by 2040. The GM transport modelling suite has a 2040 forecast year, as such it uses 2040 trajectory data as proxy for 2037 full build-out, this is not considered to materially impact on the analysis or conclusions of this report.

1.1.8 All phasing plans information contained in this Locality Assessment is indicative only and has only been used to understand the likely intervention delivery timetable. Final trajectory information is contained in the GMSF Allocation Topic Paper.

2. Justification for Allocation Selection

- 2.1.1 The Site Selection process has been led by the 10 Greater Manchester Authorities, including Oldham Council, and provided the starting point for the investigation of the preferred sites through the Locality Assessments.
- 2.1.2 Detail of the Site Selection process including the criteria used to identify the sites, and how this was used to select the most sustainable sites is considered within the GMSF Spatial Strategy.

3. Key Issues from Consultation

3.1.1 The Greater Manchester Plan for Homes, Jobs and Environment (Spatial Framework) consultation ran from 14th January to 18th March 2019. The comments made to the strategic allocation proposed at this location during the 2019 GMSF consultation relate to the following key transport themes; roads, public transport, air quality and active travel:

- Traffic is already bad in this area due to the volume of traffic on Ashton Road;
- There are highways safety issues particularly around the junction at Smokies – this is used primarily for ‘rat running’ by Failsworth bound traffic avoiding the M60 (A62 junction), Coal Pit Lane and Hollins Rd;
- Unsure the local road network could support proposed development (i.e. Coal Pit Lane, Bardsley Vale Avenue) – would potentially require new infrastructure, as considered by the local highway authority
- The increase in traffic will cause an increase in air pollution;
- None of the access points into the sites are suitable, the Bardsley Vale site is situated halfway down a steep hill, is narrow and has a blind spot and Coal Pit Lane has no footpaths and is a busy country lane;
- Development will create a "rat run" for traffic going from Coal Pit Lane, Ashton Road to Glodwick and further afield;
- There will be disruptions on the road when putting in supporting infrastructure (power, broadband and drainage);
- Bus services here are unreliable and were reduced in 2018;
- These sites are nowhere near existing Metrolink / rail stations or motorway junctions, though connectivity to Hollinwood could be created via Coal Pit Lane, Woodhouses cluster and Albert St development using some existing infrastructure and MCF schemes;

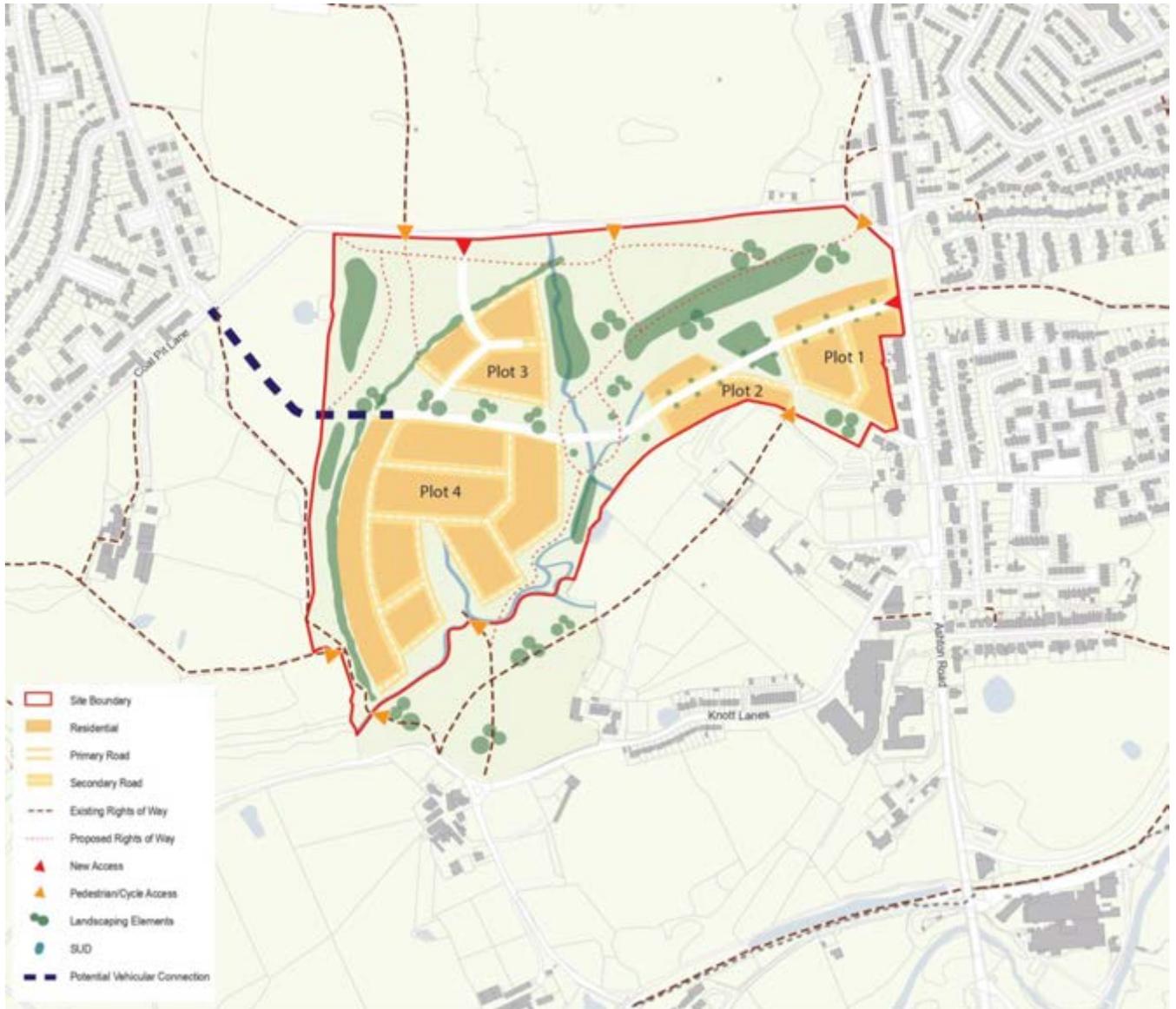
- The roads here are already in awful condition and are poorly maintained;
- Additional access could be provided from Park Bridge Road subject to improvement works to the road and the junction between Ashton Road and Park Bridge Road; and
- The site is not observed to be of significant concern due to both the scale of the proposed quantum of development and it not being located within close proximity to the SRN.

3.1.2 A [full summary of all consultation responses](#) is available on the GMCA GMSF website.

4. Existing Network Conditions and proposed Allocation Access

4.1 Indicative Vehicular Access

Figure 2. Indicative Concept Plan – Ashton Road Corridor



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

4.1.1 The allocation is bounded by A627 Ashton Road to the east of the site which forms a single-carriageway urban road with a 30mph speed limit and provides access to multiple private farms, dwellings and businesses. The route is the major corridor into the borough from the south linking Oldham Town Centre with Tameside but does not provide for a formalised vehicular access to the allocation.

4.1.2 Coal Pit Lane, to the north of the allocation, comprises a two-way interurban road with no footpaths or street lighting present and is subject to a 30mph speed limit. This road is constrained in carriageway width to circa 5.5m along much of its length. An informal vehicular access field access and a number of informal pedestrian routes provided limited access to the allocation from Coal Pitt Lane.

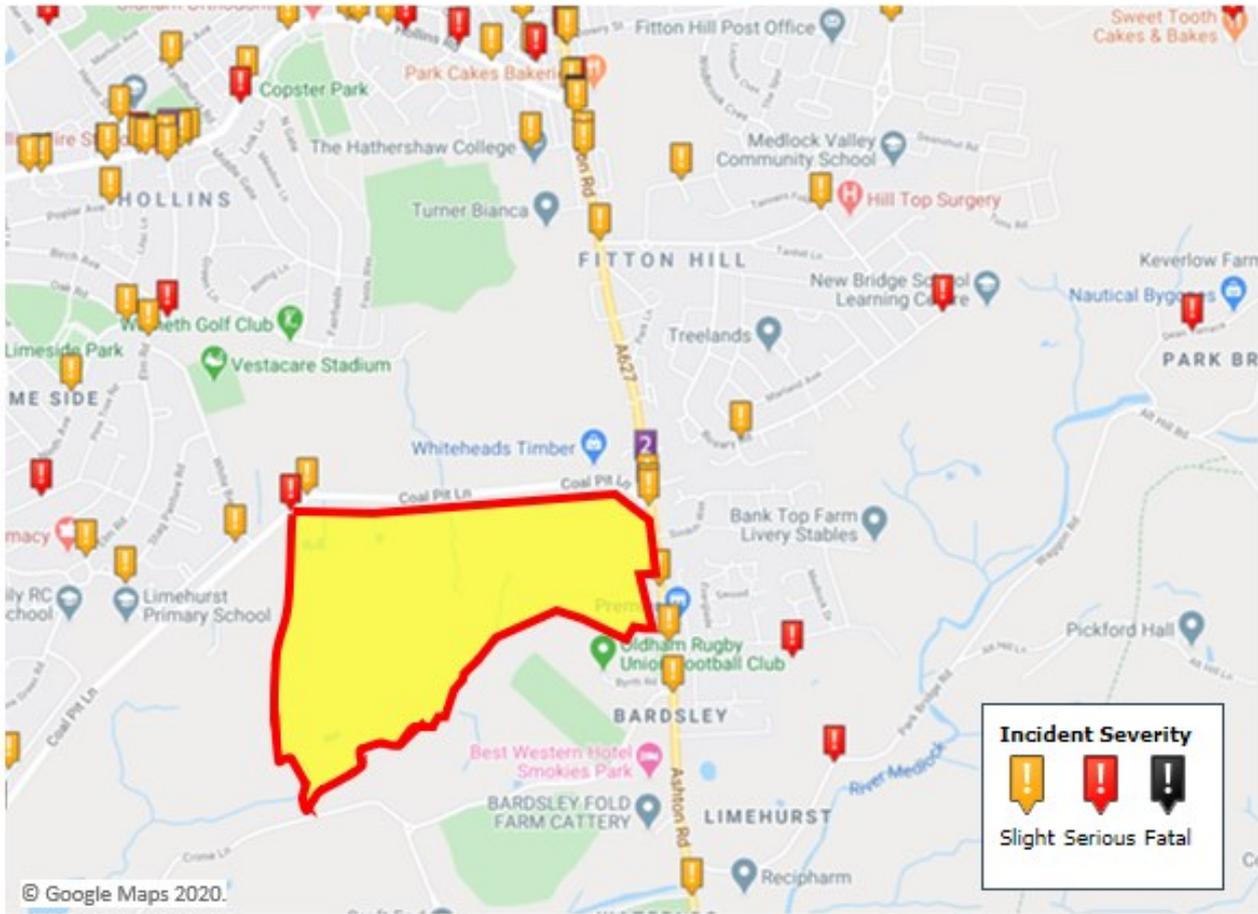
4.2 Accidents and Collision Overview

4.2.1 **Table 1** and **Figure 3** show the number of vehicle collisions over the last 5 years in a 1km area surrounding the – Ashton Road Corridor site. There have been a total of 75 accidents over the last 5 years with one fatal incident reported in October 2018.

Table 1. Collision data within 1km of site within the last 5 years.

Fatal	Serious	Slight	Total
1	23	51	75

Figure 3. Location map- Collision data within 1km of site within the last 5 years.

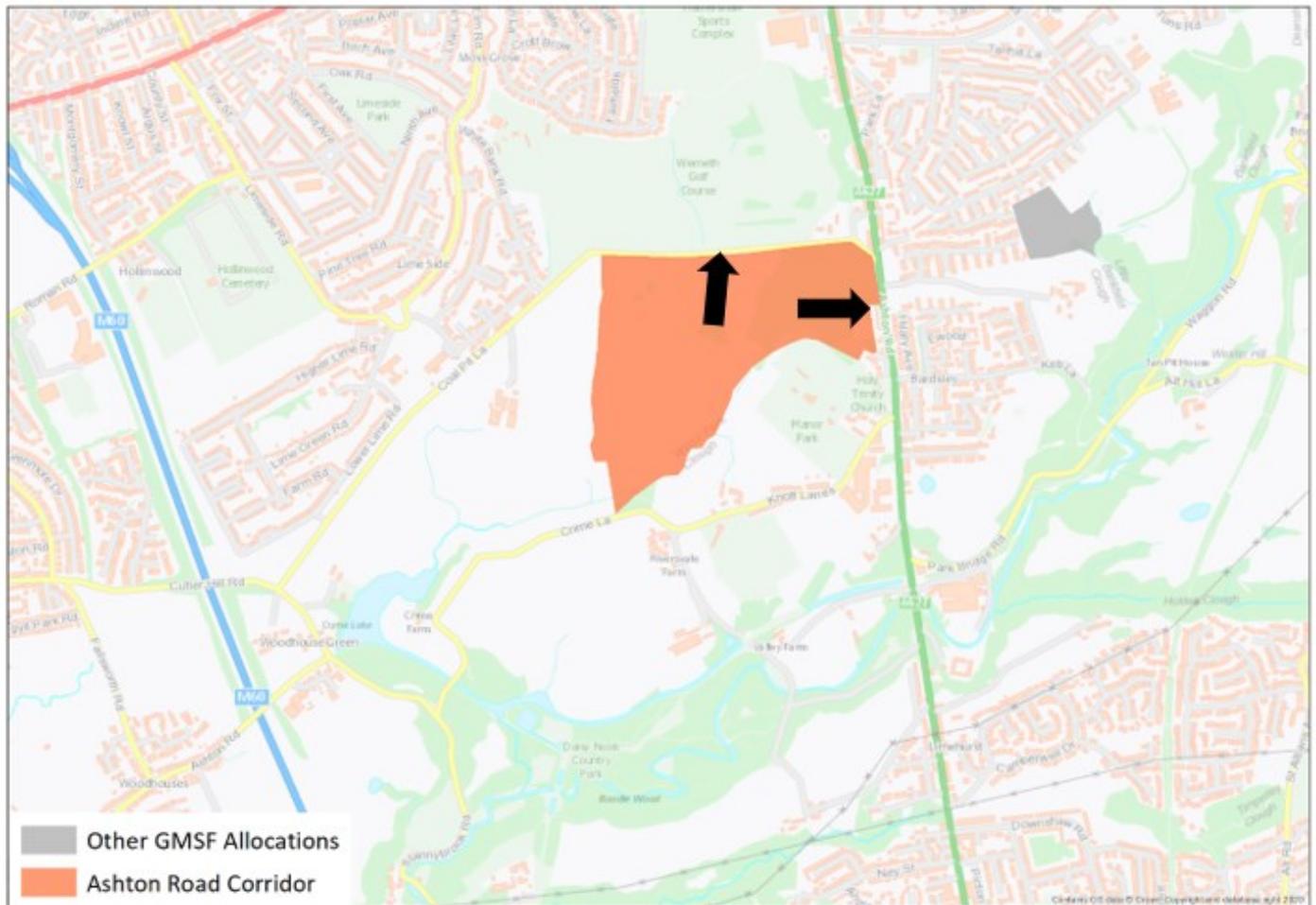


Note: All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

5. Proposed Allocation Access to the Allocation

Figure 4. Allocation Location with Access Arrangements

Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.



- 5.1.1 Based on the indicative concept plan (**Figure 2**) for the – Ashton Road Corridor site, access into the allocation would comprise of two vehicular accesses, one onto Coal Pit Lane to the north, and one onto the A627 Ashton Road to the east, adjacent to Simkin Way.
- 5.1.2 With regard to the Coal Pit Lane access, this is to be implemented in order to alleviate potential traffic impacts on the A627 Ashton Road junction. While we have noted that Coal Pit Lane presents carriageway width restrictions, as well as having no dedicated pedestrian/cycle facilities in the vicinity of the site, a potential access onto this road could be delivered as long as a clear pedestrian/cycle route connecting the site to the surrounding areas is presented.

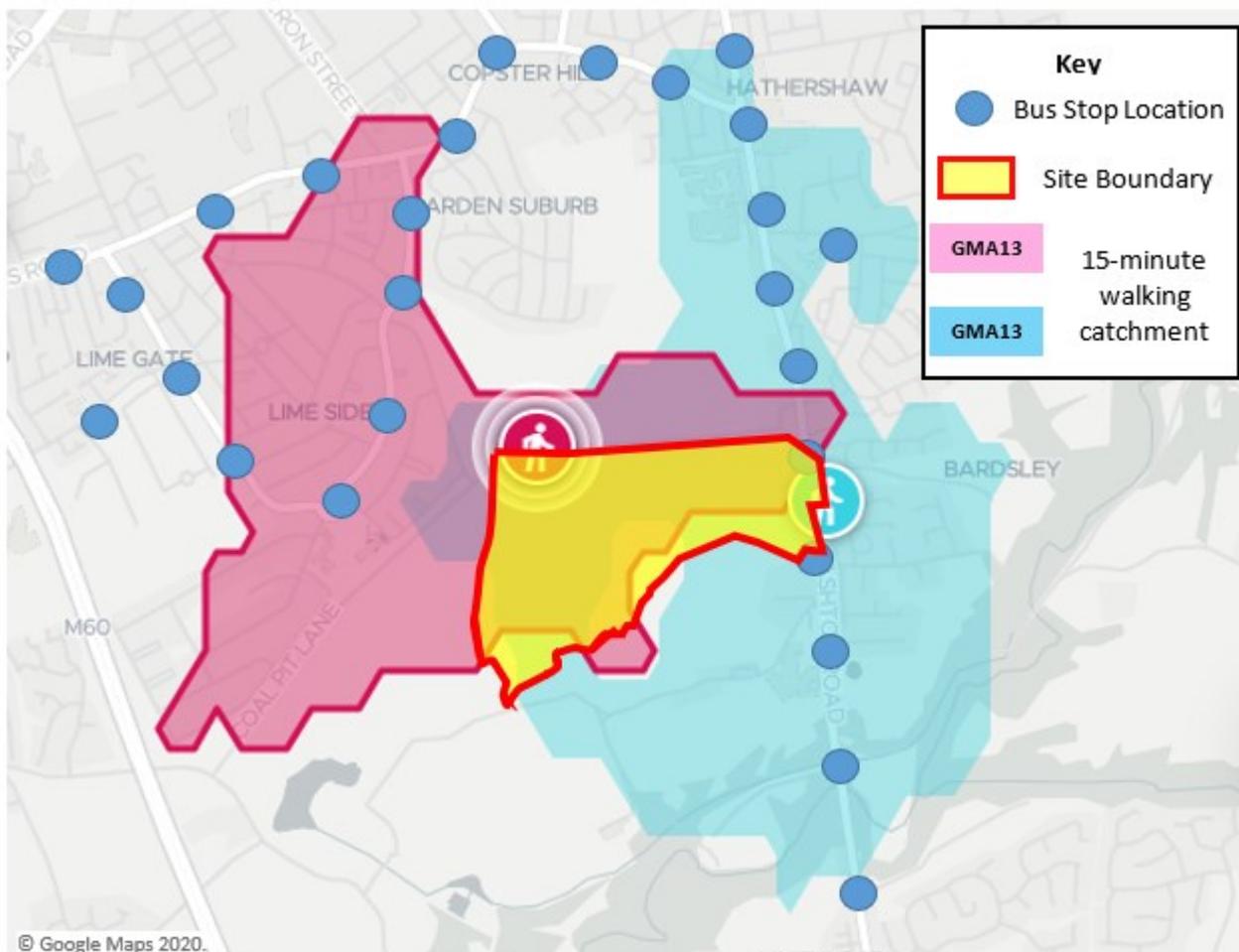
- 5.1.3 Therefore, the concept plan needs to ensure that there is a clear pedestrian/cycle route that connects the pedestrian desire lines (for all non-motorised users) from east to west parallel to Coal Pit Lane. This option is likely to be preferred over the creation of dedicated pedestrian/cycle facilities along the full length of Coal Pit Lane itself and result in a more amenable route for users. West of the proposed site access on Coal Pit Lane, new pedestrian/cycle facilities will be required along the carriageway itself to connect to existing residential developments on White Bank Road. To support this, the Coal Pit Lane access will generally benefit from being positioned as far west as possible – near to the proposed site boundary as can be practically permitted – this would align with an existing Public Right of Way (PRoW) so that pedestrian/cycle crossing facilities meet with this at one place.
- 5.1.4 A longer term aspiration is held by Oldham Council, not directly linked with delivery of GMSF growth, for the internal road network for the allocation to be designed in a manner that allows for easy upgrade to A-road standards to provide a through spine road to improve east/west corridor connections between the A627 and Hollinwood – as represented in **Figure 2**. This would consist of a wide single carriageway with an adequate verge width and frontage design that allows for a future upgrade of this main spine.
- 5.1.5 In terms of local pedestrian facilities, there are local bus stops situated along the A627 Ashton Road which are all within a walkable distance. The site has been identified as potentially benefiting from the Ashton-Oldham Quality bus transit corridor, which is anticipated to see a general improvement to service reliability and facilities such as shelters along the A627 Ashton Road, as well as Real Time Information (RTI).
- 5.1.6 Additionally, a permeable network for pedestrian and cyclist priority within the development is required including sufficient secure cycle parking for all dwellings. This is explored further within **Section 5** of this report.
- 5.1.7 While the site does not sit on any sections of the Bee Network, the design of the internal pedestrian/cycle access, as well as the proposed east/west pedestrian/cycle corridor parallel to Coal Pit Lane, should reflect the standards being implemented by the Bee Network in order to suitably accommodate both pedestrian and cycle users. These walking and cycling routes could also be integrated into the possible spine road passing through the site from east to west.

6. Multi-modal accessibility

6.1 Overview

- 6.1.1 The current accessibility of the – Ashton Road Corridor site using Greater Manchester’s Accessibility Level model (GMAL) has been identified as comprising areas of level 2 and 3 for accessibility, giving it a lower rating.
- 6.1.2 Greater Manchester Accessibility Levels (GMAL) are a detailed and accurate measure of the accessibility of a point to both the conventional public transport network (i.e. bus, Metrolink and rail) and Greater Manchester’s Local Link (flexible transport service), taking into account walk access time and service availability. The method is essentially a way of measuring the density of the public transport provision at any location within the Greater Manchester region. The GMAL methodology is derived from the Public Transport Accessibility Level (PTAL) approach developed by the London Borough of Hammersmith and Fulham but modified to consider flexible transport service provision (Local Link) and to reflect local service provision levels (different accessibility levels) within Greater Manchester.
- 6.1.3 The accessibility index score is categorized into eight levels, 1 to 8, where level 8 represents a high level of accessibility and level 1 a low level of accessibility.
- 6.1.4 **Figure 5** shows the current level of accessibility for the – Ashton Road Corridor site using the Travel Time Platform online database, which illustrates the 15 minute walking time from the proposed site access via the local road network and any available pedestrian through-routes.

Figure 5. 15-minute walking catchment with public transport provision



Note: All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

6.2 Walking and Cycling

6.2.1 The A627 provides the main walking and cycling route to the site and benefits from standard width footpaths both north and south of the site, including full lighting and signalised crossing point controls. The A627, however, has no facilities for cyclists and does not provide cycling infrastructure such as cycle lanes. Coal Pit Lane along the northern edge of the site lacks footways or alternative suitable walking and cycling provision and as such is not a suitable route for pedestrians and cycle users.

- 6.2.2 There are multiple Public Rights of Way (PRoW) within close proximity of the site, with at least one PRoW bounding the proposed western and southern perimeter – PRoWs cannot, however, be used by cyclists unless they are designated as bridleways. The surface conditions of this footpath are of poor quality and therefore require positive upgrading to make it suitable for regular use by allocation users.
- 6.2.3 National Cycle Route 626 (NCN626) runs 2.7km east of the site, linking Oldham with Ashton-under-Lyne via Park Bridge Road. While this offers an attractive route away from traffic, it cannot be easily accessed from the – Ashton Road Corridor site as no dedicated cycle paths or bridleways connect the two. Contributions to the potential improvement of connections between the allocation and NCN626 could be made through a combination of GMSF, MCF, SFA, the Alexandra Park development and third party developments in the area.
- 6.2.4 The main local destinations likely to generate walking and cycling trips are the local shops at Hathershaw (1.6km), The Hathershaw College (1.3km), Holy Family RC Primary School (0.6km), Limehurst Primary School (0.6km), and Lyndhurst Primary School (1.5km).
- 6.2.5 It has been identified by Oldham Council that other funding opportunities may resolve some pedestrian/cycle issues in the area, however localised improvements are likely to be required in the vicinity of the new access and uncommitted improvements cannot be relied upon to provide sustainable access to the development.

6.3 Public Transport

- 6.3.1 The Coal Pit Lane bus stop on the A627 Ashton Road is located immediately adjacent to the proposed site access onto the A627 and is easily accessible. This stop provides peak time services to Ashton, Oldham and Rochdale every 10 minutes.
- 6.3.2 The A627 Ashton Road, as a main arterial route between Oldham and Ashton, is served by frequent bus routes operated by First Group, which includes Route 409: Rochdale to Ashton-under-Lyne (average frequency: 10 minutes)
- 6.3.3 **Table 2** identifies the current accessibility of public transport for the future residents of the – Ashton Road Corridor site, exploring the proximity, and the frequency of travel during peak hours.

Table 2. Accessibility of and proximity to Public Transport

Mode	Nearest Stop/ Station	Distance (km)	Peak Hour Frequency (Mins)
Bus	Coal Pit Lane	0.1	10
Metrolink	Failsworth	4.3	6

6.4 Proposed

- 6.4.1 In consideration of the provision of existing pedestrian and cycling infrastructure in the adjacent residential streets, our main recommendation in this regard is that a permeable network for pedestrian and cyclist priority within the development is required including sufficient secure cycle parking for all dwellings.
- 6.4.2 Given the location of the allocation and its close proximity to the Fitton Hill, Limeside and Bardsley local areas the internal walking and cycle network should be linked to high quality routes connecting through to these areas, including the proposed Bee Network. Existing PRoWs that either pass near or cross the proposed site should be positively upgraded, with both PRoWs and the internal pedestrian/cycle network of the site being constructed to the standards set out by the Bee Network.
- 6.4.3 PRoWs that are to be positively upgraded will be dependent on existing land uses and issues of land ownership, with specific note being of two existing PRoWs that cross what is currently Werneth Golf Club from Coal Pit Lane – adjacent to the proposed site access. Discussions would have to be made with the Golf Club administration at the detailed planning stage as to the potential for upgrading footpaths across the club’s grounds.
- 6.4.4 As stated in **Section 5**, the long term proposal for the allocation is for it to form part of an east-west link road through the site between the A627 Ashton Road and White Bank Road, with connections to the existing Coal Pit Lane. The provision of this new carriageway could result in the downgrade of Coal Pit Lane as a through route for vehicular traffic, to instead be converted for use as a dedicated pedestrian and cycle route. However, these proposals are to be developed and delivered outside of this current GMSF study, and the potential deliverability of these options will need to be considered at the detailed planning stage, as well as whether the costs of this scheme are to be allocated to the site developer.

- 6.4.5 In the event these longer term aspirations do not come forward, the proposed site access onto Coal Pit Lane has been designed to integrate standard width footpaths between the proposed access and the wider road network at White Bank Road, providing suitable non-vehicular access to Failsworth and other local destinations. These proposals are set out in **Appendix 1**.
- 6.4.6 With regard to public transport, the – Ashton Road Corridor site has been identified as potentially benefiting from the Ashton-Oldham Quality bus transit corridor, which is anticipated to see a general improvement to service reliability and facilities – such as the introduction of shelters – along the A627 Ashton Road. In light of this, a contribution could be sought from the developers of the – Ashton Road Corridor site developers to introduce these improvements, which are expected to be implemented by 2025 – this contribution would be shared by other development sites in proximity to the proposed corridor, including – South of Rosary Road.

7. Parking

- 7.1.1 It is not necessary to consider in detail the parking standards for residential units relevant to the site at this stage of assessment as there are no particular constraints on achieving likely minimum parking standards that may be in application at the time the site is brought forward. Accommodation of Electric Vehicle (EV) parking, while an important factor in developing more efficient transport connections for the allocation, should be considered at the detailed design stage, potentially as an integration of specific house design.
- 7.1.2 A broad assumption has been made that a maximum of 2 spaces per dwelling is likely to be proportionate however other alternative local policy requirements are likely to be equally deliverable and can be considered at the planning application stage.
- 7.1.3 National Planning Policy Framework (NPPF) is clear that such standards should only be set where there is a clear and compelling justification that they are necessary. This may be either for managing the local road network conditions, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with chapter 11 of NPPF).

8. Allocation Trip Generation and Distribution

- 8.1.1 Future trip generation to/from the site (i.e. how many people and vehicles will enter or leave the site) was estimated by applying a set of GM-wide trip rates to the agreed development quantum

for each site. The distribution of trips (i.e. where they are going to or coming from) was derived by selecting nearby zones with similar land use characteristics as a proxy and using the existing distribution in the model.

8.1.2 Note modelling has been performed against an initially assumed development quantum of 273 in total, this includes the 18 dwelling baseline land supply at Denisher Lane, alongside the full GMSF development quantum of 225. Further changes to development quantum may have taken place since this Locality Assessment was produced.

Table 3. Development Quantum: Ashton Road Corridor

Residential	Houses	48	221
Residential	Apartments	12	53
Industrial	e.g. B2/B8 etc.	0	0
Total		60	273

Table 4. Allocation Traffic Generation: Ashton Road Corridor*

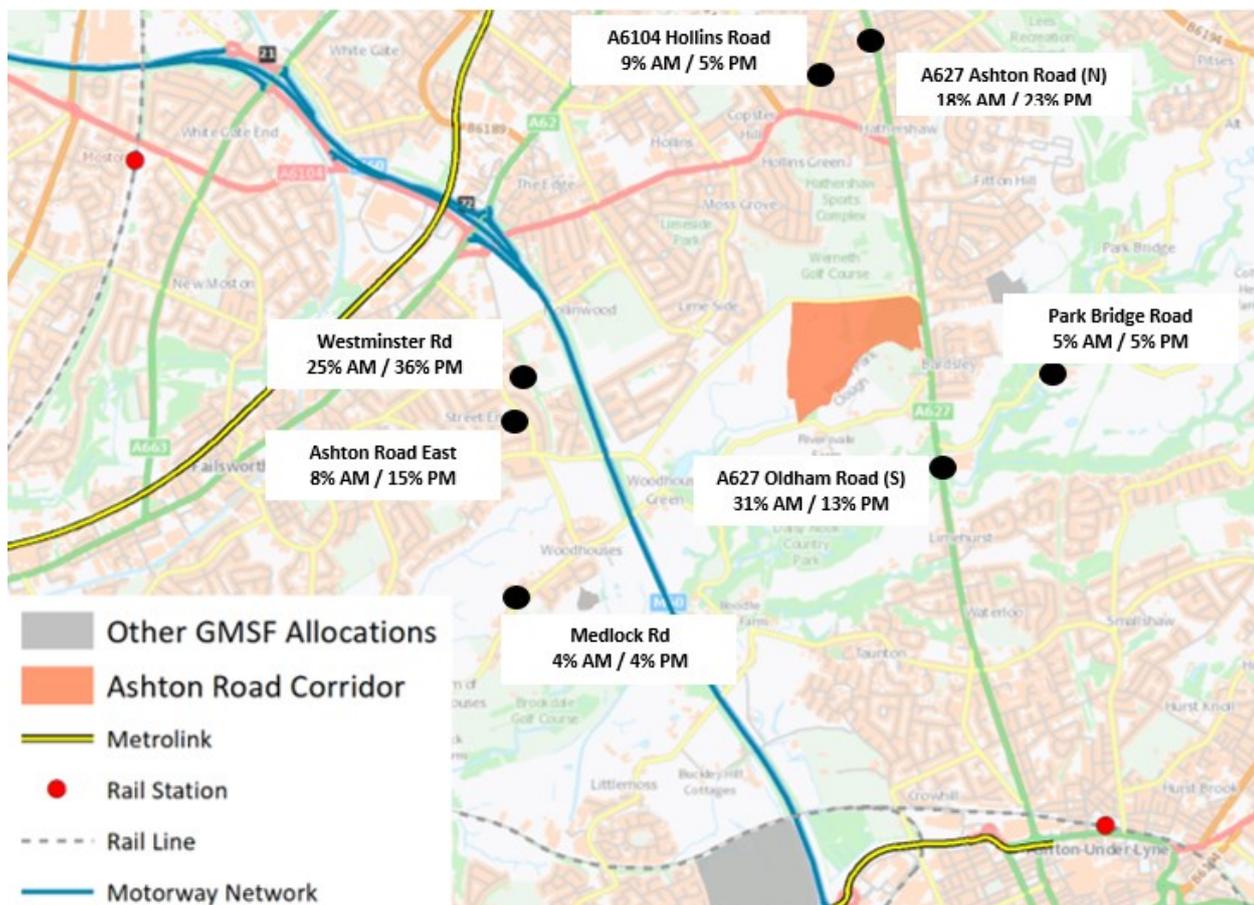
Year	AM Peak Hour Departures	AM Peak Hour Arrivals	PM Peak Hour Departures	PM Peak Hour Arrivals
2025 GMSF Constrained	18	5	9	20
2025 GMSF High-Side	19	7	12	20
2040 GMSF Constrained	70	19	34	77
2040 GMSF High-Side	84	32	51	77

*Units are in PCU (passenger car units/hr)

Table 5. Allocation Traffic Distribution, 2040 GMSF High-Side (Origin/Destination Combined): Ashton Road Corridor

Route	AM Peak Hour	PM Peak Hour
A6104 Hollins Road	9%	5%
A627 Ashton Road (N)	18%	23%
Park Bridge Road	5%	5%
A627 Oldham Road (S)	31%	13%
Medlock Rd	4%	4%
Ashton Road East	8%	15%
Westminster Rd	25%	36%

**Figure 6. Allocation Traffic Distribution, 2040 GMSF High-Side (Origin/Destination Combined):
Ashton Road Corridor**



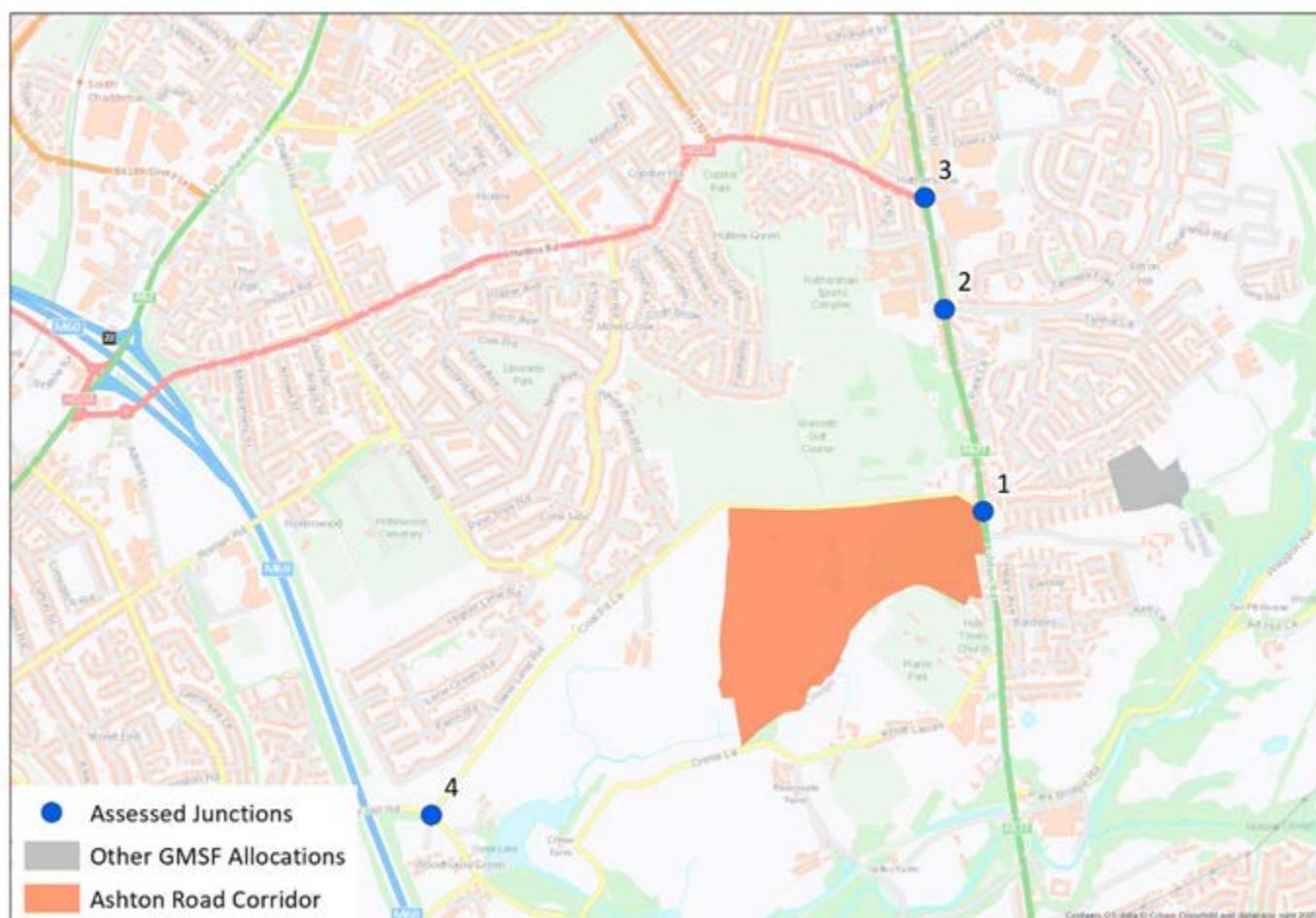
Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

9. Existing Highway Network Review

9.1.1 The A627 Ashton Road runs north to south to the east of the – Ashton Road Corridor site, connecting Oldham with Ashton-under-Lyne. SYSTRA identified a number of junctions in proximity to the site where additional traffic could have an impact on their operation based on existing conditions. These are set out in Figure 7 below.

1. A627 Ashton Road / Coal Pit Lane (Priority T-Junction)
2. A627 Ashton Road / Fir Tree Avenue (Signalised T-Junction)
3. A627 Ashton Road / A6104 Hathershaw Lane / Beehive Street (Signalised Crossroads)
4. Cutler Hill Road / Coal Pit Lane

Figure 7. Key junctions assessed



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

10. Treatment of Cumulative Impacts

- 10.1.1 The constrained and high side model runs take account of traffic associated with all GMSF sites. Within a 2km buffer of the Ashton Road Corridor development site are the South of Rosary Road and Woodhouses Cluster developments. Therefore, at the local level, the transport impacts of the site need to be considered cumulatively with the GMSF allocations – South of Rosary Road and – Woodhouses Cluster.
- 10.1.2 The Ashton Road Corridor development is forecast to generate approximately 89 to 128 two-way vehicle trips during the morning and evening peak hours. The South of Rosary Road allocation is expected to generate approximately 22 to 31 two-way vehicle trips during the morning and evening peak hours, while the Woodhouses Cluster allocation is expected to generate

approximately 53 to 71 two-way vehicle trips during the morning and evening peak hours. The combined impact of these trips could have a more significant impact on the network than that of the site by itself; hence the combined impact has been assessed.

10.1.3 Note: Since production of this Locality Assessment, has undergone significant revision of quantum. The impact of this change has not been considered in this assessment, as the amendments of these allocations came after modelling results were produced. These significant changes will materially impact treatment of cumulative impacts and proposed mitigations.

11. Allocation Access Assessment

11.1.1 This site access arrangement has been developed to illustrate that there is a practical option for site access in this location and to develop indicative cost estimations. It is assumed that a detailed design consistent with Greater Manchester’s best practice Streets for all highway design principles will be required at the more detailed planning application stage.

11.1.2 Due to the role of the proposed highway network within the site, which will have a role in local traffic distribution, the full traffic impact of all GMSF flows are recorded below, and not just those pertaining to the allocation.

Table 6. Site Access Junction Capacity Analysis: Ashton Road Corridor

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	GMSF Flows AM	GMSF Flows PM
A627 Ashton Road Access Junction	6%	4%	9%	6%	165	135
Coal Pit Lane Access Junction	N/A	N/A	4%	8%	63	129

12. Impact of Allocation Before Mitigation on the Local Road Network

- 12.1.1 In order to understand a worst case impact of the GMSF, the 'high side' runs from the GMVDM were used to derive with GMSF development flows for 2040. These flows were then entered into junction based models for the junctions identified in **Section 8**. Flows from a 2040 reference case scenario (including approved Local Plan development from the respective districts) were also extracted to provide a comparison between the operation of those junctions in the 2040 reference case and the 2040 with GMSF development scenarios.
- 12.1.2 The 'with GMSF' scenario has been assessed against a Reference Case which assumes background growth and includes the housing and employment commitments from the districts.
- 12.1.3 These assessments were then used to identify the junctions where there was considered to be a substantial impact, relative to the operation of the junction in the 2040 reference case, and hence where mitigation was considered to be required in order to bring GMSF sites forward. For the purposes of GMSF, it was agreed that where mitigation is required, it should mitigate the impacts back to the reference case scenario. It should be noted that mitigating back to this level of impact may not mean that the junction operates within capacity by 2040.
- 12.1.4 This section looks at the impact on the network at the junctions highlighted in **Section 9**. Signalised junctions were assessed in detail using industry-standard modelling software LINSIG version 3. Where possible, traffic signal information was requested from TfGM in order to ensure that the local junction models reflected (as far as possible), the operation of the junctions on the ground. Junctions 9 software was used to assess priority and roundabout junctions. **Table 7** below provides a comparison between the operation of the in scope junctions in the 2040 reference case and the 2040 'high side' scenarios, as well as the site development flows (in PCUs) through each respective junction. The table shows a comparison between the ratio of flow to capacity on the worst case arm at each junction as well as the total development flows through the junction.
- 12.1.5 For reference, a figure of between 85% and 99% illustrates that the junction is nearing its operational capacity, and a figure of 100% or over illustrates that flows exceed the operational capacity at the junction.

Table 7. Results of 2040 Local Junction Capacity Analysis Before Mitigation: Ashton Road Corridor

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	GMSF Flows AM	GMSF Flows PM
1. A627 Ashton Road / Coal Pit Lane	104%	164%	107%	162%	42	40
2. A627 Ashton Road / Fir Tree Avenue	64%	73%	65%	73%	33	39
3. A627 Ashton Road / A6104 Hathershaw Lane / Beehive Street	55%	61%	56%	62%	33	39
4. Cutler Hill Road / Coal Pit Lane	104%	116%	105%	116%	43	74

13. Transport Interventions Tested on the Local Road Network

- 13.1.1 While in isolation this development would be unlikely to present significant implications on the surrounding road network, its potential cumulative impact with the – South of Rosary Road and – Woodhouses Cluster sites by 2040 (as outlined in Section 10) has resulted in several mitigation schemes being considered at junctions likely to see material impacts as a result of traffic introduced by these sites.
- 13.1.2 As this locality assessment was being finalised a number of substantive changes to GM22 Woodhouses Cluster allocation were made. The final result of these changes amount to a substantial reduction in allocation quantum from 130 dwellings to 30 for that allocation, retaining only the southern land parcel at Bottomfield Farm.
- 13.1.3 These changes came too late to amend the traffic modelling used for this and other GMSF allocations. It should be noted that revision of quantum at this allocation will result in changes to the forecast traffic flows used to examine the impact of this allocation and to identify the mitigations set out within the locality assessment.

13.1.4 It is likely that these changes are sufficiently significant to materially affect the scope of cumulative impact of GMSF allocations, on junction mitigations proposed (with specific to mitigation proposed at Cutler Hill Road / Coal Pit Lane).

Table 8. Approach to Mitigation: Ashton Road Corridor

Junction	Mitigation Approach
1. A627 Ashton Road / Coal Pit Lane	An indicative scheme was developed as a potential improvement scheme at this location.
4. Cutler Hill Road / Coal Pit Lane	An indicative scheme was developed as a potential improvement scheme at this location, however identified as a supporting measure due to material changes in cumulative impact

13.1.5 These schemes were then coded into the GMVDM, in advance of a second ‘with mitigation’ run of the model. The outcomes of this model run in relation to the – South of Rosary Road and – Woodhouses Cluster sites are presented in the following section.

13.1.6 In consideration of the provision of existing pedestrian and cycling infrastructure in the adjacent residential streets, our main recommendation in this regard is that a permeable network for pedestrian and cyclist priority within the development is required including sufficient secure cycle parking for all dwellings.

13.1.7 With regard to public transport, the – Ashton Road Corridor site has been identified as potentially benefiting from the Ashton-Oldham Quality bus transit corridor, which is anticipated to see a general improvement to service reliability and facilities along the A627 Ashton Road.

14. Impact of interventions on the Local Road Network

14.1.1 In order to understand whether the mitigation developed for the site (and all other sites within the GMSF) is sufficient to mitigate the worst-case impacts of the GMSF identified in **Section 12**, a second run of the GMVDM with all identified mitigation included, was undertaken. Where a significant flow change was observed the junction models were rerun to check that the mitigation identified in **Section 13** is still sufficient to mitigate site impacts and that all other in scope junctions continue to operate satisfactorily in light of any reassignment due to mitigation schemes.

14.1.2 **Table 9** below provides a comparison between the operation of the in-scope junctions in the 2040 reference case and the 2040 ‘high side’ with mitigation scenarios, as well as the site development flows through each respective junction. The table shows a comparison between the ratio of flow to capacity on the worst-case arm at each junction as well as the total development flows through the junction.

Table 9. Results of 2040 Local Junction Capacity Analysis After Mitigation: Ashton Road Corridor

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	GMSF Flows AM	GMSF Flows PM
1. A627 Ashton Road / Coal Pit Lane	74%	112%	75%	112%	42	40
4. Cutler Hill Road / Coal Pit Lane	83%	91%	84%	91%	43	74

15. Impact and mitigation on Strategic Road Network

15.1 Overview

15.1.1 This chapter covers those impacts where traffic generated by the GMSF allocations meets the Strategic Road Network (SRN). Junctions at the interface between the Local Road Network (LRN) and the Strategic Road Network (SRN) have been assessed using a similar approach to that described in the preceding chapters. Wider issues relating to the SRN mainline are being assessed separately as described below.

15.1.2 SYSTRA is currently consulting with Highways England on behalf of TfGM and the Combined Authority in relation to the wider impacts of the GMSF allocations on the Strategic Road Network (SRN). This consultation is ongoing and it is expected that it will allow Highways England to gain a strategic understanding of where there is an interaction between network stress points and GMSF allocation demand which will facilitate further discussion and transfer of information between TfGM and Highways England (yet to be defined) in reaching agreement and/or common ground relating to the acceptability of GMSF allocations in advance of Examination in Public (EiP).

15.1.3 Based on the proposed buildout of the site, and its distance from the nearest section of the Strategic Road Network (SRN), the – Ashton Road Corridor allocation has been considered unlikely to present traffic implications without the introduction of mitigation on the SRN. This also considers a cumulative impact with the – South of Rosary Road and – Woodhouses Cluster development trips.

15.1.4 The nearest SRN junction to the – Ashton Road Corridor development is M60 Junction 22 (3.2km northwest).

16. Final list of interventions

Table 10. Interventions List: – Ashton Road Corridor

Mitigation	Description
Site Access	
Coal Pit Lane Access Junction	Priority junction assumed including provision of walking and cycling route along Coal Pitt Lane (west).
A627 Ashton Road Junction	Priority junction assumed
Necessary Local Mitigations	
Improvement of Coal Pit Lane/A627 Ashton Road junction	An indicative scheme was developed as a potential improvement scheme at this location.
Permeable network for pedestrian and cyclist priority within the development	Assumed full permeability of cycle and pedestrian access, as well as direct connections to PRowS either bounding or near the development and improvement of walking/cycling facilities on Coal Pit Lane. All pedestrian and cycle networks internal to the site, as well as connecting PRowS, should be built or upgraded to the standards outlined in the Bee Network, as well as providing connections to the nearest section of the Bee Network
Supporting Strategic	
Ashton-Oldham Quality bus transit corridor	Proposed by TfGM for frequent bus services between Ashton, Oldham and Rochdale

Improvement of Coal Pit Lane/A627 Ashton Road Junction including localised improvement of Coal Pit Lane

- 16.1.1 At the A627 Ashton Road / Coal Pit Lane junction, a mitigation scheme has been proposed to provide an additional lane approach for the Coal Pit Lane arm of the junction, as well as straightening the approach for improve suitability for turning movements.
- 16.1.2 This transport interventions is purely a highway infrastructural intervention and does not take account of the impact public transport improvements could have along the A627 corridor. High frequency services between Ashton and Oldham are already established along the corridor with bus stops located within accessible walking distance.
- 16.1.3 The introduction of this mitigation scheme is expected to answer concerns regarding uncertainty as to the local road network's ability to support the proposed development (i.e. Coal Pit Lane, Bardsley Vale Avenue). This mitigation scheme, however, does not consider the integration of pedestrian or cyclist crossing facilities, and these are to be developed at the detailed planning stage.

Ashton-Oldham Quality bus transit corridor

- 16.1.4 The Ashton-Oldham Quality bus transit corridor is anticipated to see a general improvement to service reliability and facilities along the A627 Ashton Road.

The introduction of the Quality bus transit corridor is expected to answer concerns regarding unreliable bus operations within the area surrounding the Ashton Road Corridor allocation. Promotion of sustainable transport alternatives will also help to answer concerns regarding increased pollution from added vehicular trips on the local road network.

Permeable network for pedestrian and cyclist priority within the development

- 16.1.5 In order to promote and encourage sustainable transport modes, as well as providing safe and efficient accessibility for non-vehicular traffic, the development is to both provide ease of access for pedestrian and cyclist traffic into and out of the site, as well as connecting and improving Public Rights of Way that either directly connect or pass near the proposed site. This is to include upgrading of the local PRoW routes to meet the standards of the proposed Bee Network and, wherever possible, connect directly to sections of the Bee Network.

- 16.1.6 Furthermore, pedestrian and cycle facilities in the areas surrounding the allocation should be improved wherever possible in order to allow for safe accessibility by non-vehicular users to both all parts of the development, but also the adjacent residential, employment and retail areas.
- 16.1.7 The introduction of this mitigation scheme is expected to answer concerns regarding the suitability of Coal Pit Lane, in its current arrangement, to provide safe access for non-vehicular traffic due to it being narrow with no footpaths. Promotion of sustainable transport alternatives will also help to answer concerns regarding increased pollution from added vehicular trips on the local road network.

17. Greater Manchester Transport Strategy Interventions

17.1 Site Specific

- 17.1.1 Further to the site-specific interventions outlined within **Section 16**, Oldham Council and TfGM have jointly considered measures to support sustainable travel and to contribute towards the achievement of Greater Manchester's 'Right Mix' ambition.
- 17.1.2 The Right Mix initiative forms part of the Greater Manchester Transport Strategy 2040, and is proposes that by 2040, 50% of trips are to be undertaken by sustainable modes and no net increase in motor-vehicle traffic. The Right Mix vision is comprised of evidence-based targets which will be adjusted over time in order to reflect the progress of meeting such targets, and the interventions set out for walking, cycling and public transport for the allocation will contribute to the Right Mix target of reducing growth in motor vehicle traffic in Greater Manchester.

17.2 Oldham

- 17.2.1 In addition to the site-specific interventions set out in this Locality Assessment, there are a number of other measures already planned by Oldham Council and Transport for Greater Manchester to support sustainable travel, and to contribute to the achievement of Greater Manchester's 'Right Mix' ambition.
- 17.2.2 Transport for Greater Manchester is currently producing a business case for early delivery of a Quality Bus Transit scheme between Rochdale, Oldham and Ashton, which will include significant improvements to the quality, frequency and reliability of the bus service, as well as localised public realm enhancements which it is hoped will lead to an increase in bus patronage along the route. If successful, the concept would be rolled out to other routes in the City Region.

- 17.2.3 TfGM is also leading a study to complete a business case for the early delivery of the Cop Road Metrolink stop, which would improve access to Rochdale and Oldham and, from there, the Regional Centre.
- 17.2.4 In addition, Oldham Council is progressing 'Accessible Oldham' a £6 million Local Growth Deal package to regenerate and improve the connectivity of Oldham town centre. The scheme includes upgraded pedestrian areas and cycling routes, better access to bus and Metrolink stops and improvements to the highway network.
- 17.2.5 Oldham Council have successfully bid for funding from the Mayor of Greater Manchester's Cycling and Walking Challenge Fund – a £160 million initiative to deliver the infrastructure to encourage more people to cycle and walk across the region. This scheme is to come forward in a series of Bee Network developments within the Oldham area.
- 17.2.6 Outside of the town centre, Network Rail, in association with TfGM, have secured funding for the "Access for All" scheme from the Department for Transport in order to upgrade Mill Hill Rail Station to improve access for mobility impaired passengers, improving accessibility by rail in both Manchester and Rochdale directions. TfGM are also investing in the increase of capacity at the Mill Hill Park & Ride facilities through Growth Deal 3.
- 17.2.7 Oldham Council have mediated between Network Rail and TfGM with regard to off-site highway works, and NR are now providing a new controlled pedestrian facility to link the two schemes together, although the facilities chosen have not been considered ideal for this proposal. Furthermore, there is some dispute regarding car park development at Mill Hill station as it contravenes bus only restrictions and conflicts with bus movements.

18. Phasing Plan

- 18.1.1 The initial locality assessments were based on information on new site allocations consolidated by TfGM based on inputs from each of the Districts. This initial exercise focused on the development quanta to be delivered at the end of the plan period, i.e. by 2040.
- 18.1.2 During the course of the locality assessment work in late 2019 / early 2020, the Districts provided input on their expected phasing of the sites focusing on the milestone years of 2025 and 2040. The expected 2025 development quanta were tested along with those for 2040 to assess their deliverability in terms of transport network capacity. In some cases, the development phasing was amended by the Districts as a result of the technical analysis undertaken.
- 18.1.3 Based on the initially proposed and modelled forecast, 22% of the development quantum (60 dwellings) for the – Ashton Road Corridor site is expected to come forward by 2025. The full development quantum is expected to come forward by 2040.
- 18.1.4 Since modelling outputs were developed and this Locality Assessment document was produced, further revision phasing has taken place as noted below. This figure excludes the 18 dwellings deliverable under the baseline land supply.

Table 11. Modelled Allocation Phasing: Ashton Road Corridor

GMSF Allocation Phasing	2020 25	2025 30	2030 2038	2038+	Total
Parcel 1	60	274	0	0	273
Total	60	274	0	0	273
Updated GMSF phasing	0	124	131	0	255

Table 12. Indicative intervention delivery timetable: Ashton Road Corridor

Mitigation	2020 2025	2025 2030	2030 2038
Site Access			
Coal Pit Lane Access Junction	✓		
A627 Ashton Road Junction	✓		
Necessary Local Mitigations			
Improvement of Coal Pit Lane/A627 Ashton Road junction	✓		
Beeline standard route along Coal Pit Lane between Access Junction and White Bank Road (260m).	✓		
Permeable network for pedestrian and cyclist priority within the development	✓		
Supporting Strategic Mitigations			
Ashton-Oldham Quality bus transit corridor contribution	✓		

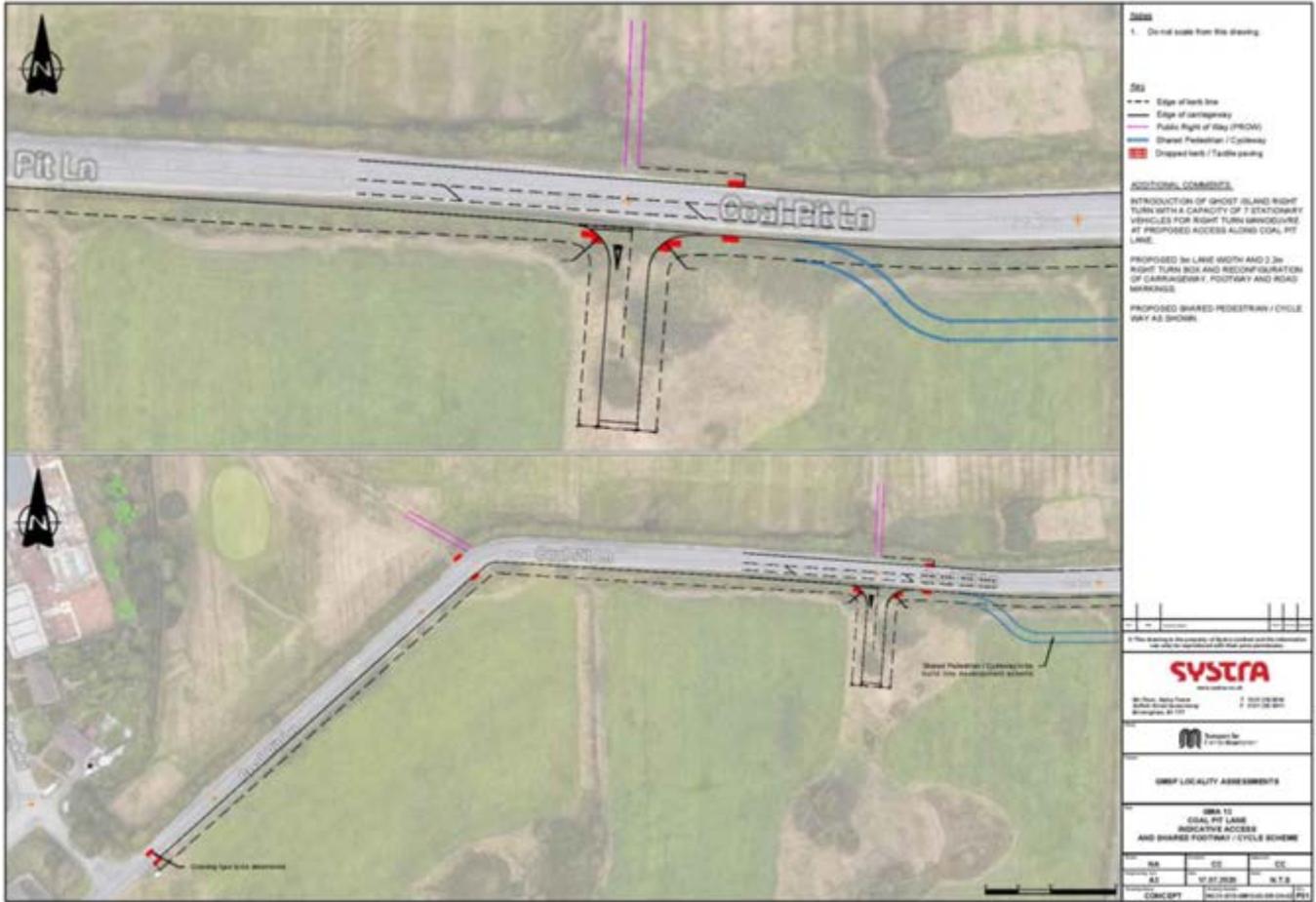
19. Summary & Conclusion

- 19.1.1 GMSF allocation – Ashton Road Corridor is a development located on what is currently open land adjacent to the A627 Ashton Road and Coal Pit Lane.
- 19.1.2 Assessments undertaken have considered the potential impact of this development on the surrounding road network, both in isolation and in cumulative impact with allocations – South of Rosary Road and – Woodhouses Cluster. Both in isolation and cumulatively, the development has the potential to present increased congestion at existing areas of concern raised in **Section 3**.
- 19.1.3 A constraining factor as to the delivery of the allocation comprises the width restrictions identified on Coal Pit Lane, as well as the provision of pedestrian and cycle access to adjacent residential, employment and retail areas. While a longer-term aspiration exists with the allocation to provide a link road through the site, and the possible conversion of Coal Pit Lane to dedicated pedestrian and cycle access, vehicular access options onto Coal Pit Lane have also included the provision of standard width footpaths and widening of the carriageway in order to allow for safe pedestrian and cycle access towards Failsworth.
- 19.1.4 In response to potential concerns regarding congestion at key junctions, mitigation schemes have been considered at both the A627 Ashton Road / Coal Pit Lane junction (**Mitigation Option 1**) and the Cutler Hill Road / Coal Pit Lane junction (**Mitigation Option 2**). These have been tested, and illustrate significant improvements to traffic flows only across these junctions, both with and without the cumulative impact of the GMSF allocations.
- 19.1.5 Based on the information contained within this report, we conclude that the traffic impacts of the site are considered to be less than severe subject to the implementation of localised mitigation at a discrete number of locations. The “High-Side” modelling work indicates that in general other junctions within the vicinity of the site will either operate within capacity in 2040 with GMSF development, or that in some cases junctions operating over capacity in the future year would not be materially worsened by development traffic.

- 19.1.6 At this stage, the modelling work is considered to be a 'worst case' scenario as it does not take full account of the extensive opportunities for active travel and public transport improvements in the local area. Junctions which are considered to operate over capacity in the 2040 model years, both with and without mitigation, are attributed not to the introduction of development trips, but to the cumulative impact of wider growth. The objective of mitigation scenarios is to suitably accommodate the proposed development trips for this allocation, rather than fully amending wider traffic concerns.
- 19.1.7 However, the mitigation schemes proposed should be considered in conjunction with continued investment into sustainable transport alternatives, including pedestrian, cycling and public transport, in order to reduce the overall number of additional vehicles being introduced onto the local road network. This, combined with the mitigation schemes, could potentially resolve a number of issues raised regarding pollution and safety in relation to the – Ashton Road Corridor allocation.
- 19.1.8 This is an initial indication that the allocation is deliverable and to inform viability, and that further detailed work will be necessary to identify the specific interventions required to ensure the network works effectively based on transport network conditions at the time of the planning application.

Appendix 1 – Indicative Site Access Option (Coal Pit Lane With Pedestrian/Cycle Access Arrangements)

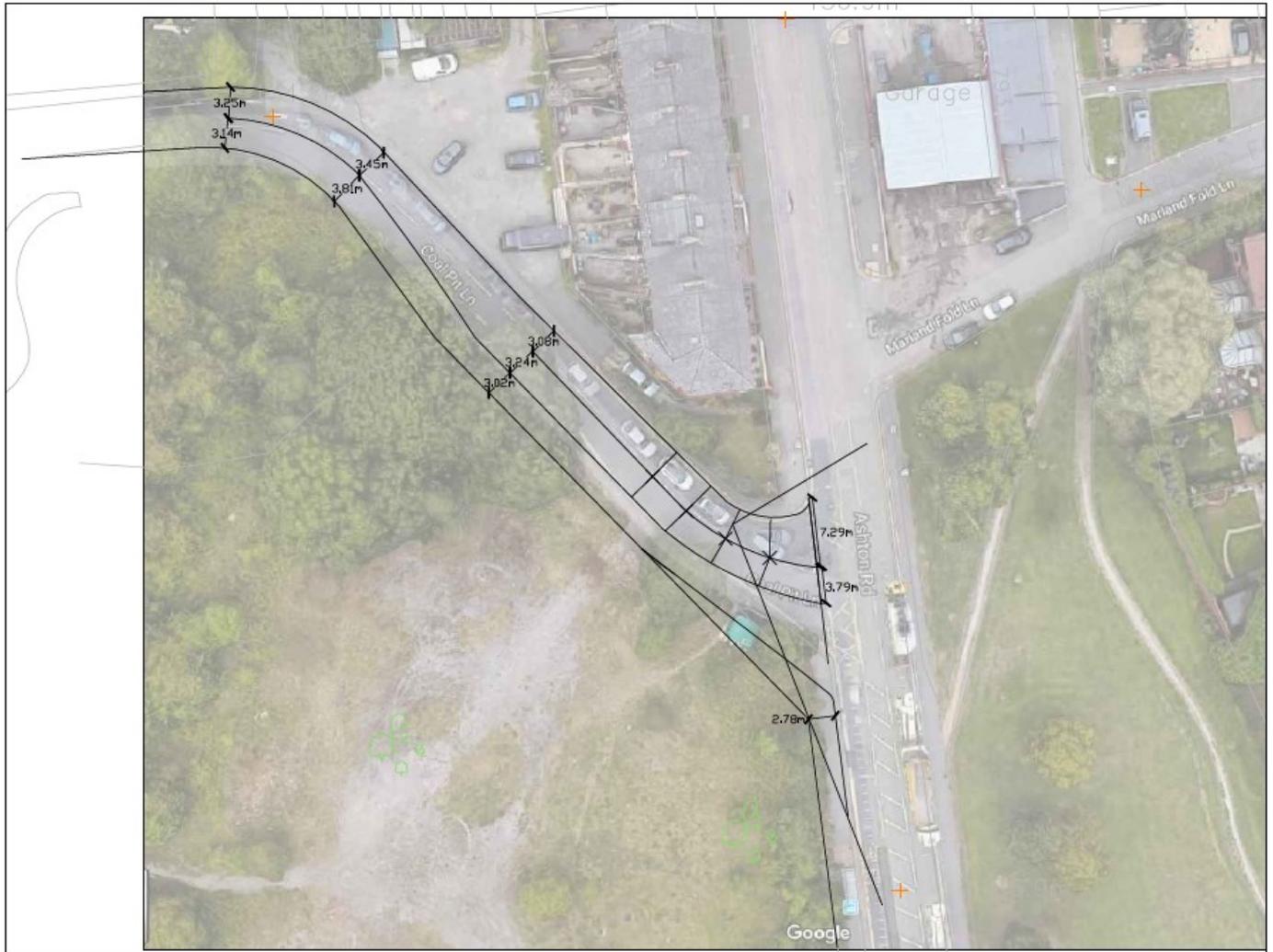
[Illustrative/Typical Layout]



Appendix 2 – Indicative Mitigation Option 1 (A627 Ashton Road – Coal Pit Lane)

[Illustrative/Typical Layout]

GM13/GM19 - MITIGATION OPTION 1 - COAL PIT LANE (INDICATIVE DESIGN)



INTRODUCTION OF ADDITIONAL LANE ON APPROACH AT COAL PIT LANE AND RECONFIGURATION OF CARRIAGEWAY, FOOTWAY AND ROAD MARKINGS.

Greater Manchester Spatial Framework

Locality Assessment:

South of Rosary Road (GMA 19)

Publication Version 2: November 2020

Identification Table	
Client	Oldham Council
Allocation	South of Rosary Road
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Reference number	GMA19 108724

Approval					
Version	Role	Name	Position	Date	Modifications
0	Author	Ruairidh MacVeigh	Consultant	21/07/20	Base report
	Checked by	Nicky Agimal	Senior Consultant	30/07/20	
	Approved by	Chris Cox	Associate	14/87/20	
1	Author	E Hayes	TfGM	29/09/20	Consistency edits
	Checked By	J Betts	Oldham Council	30/09/20	
	Approved by	E Dryden-Stuart	Oldham Council	30/09/20	

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Allocation Data	
Allocation Reference No.	GMA19
Allocation Name	South of Rosary Road
Authority	Oldham Council
Ward	Medlock Vale
Modelling Analysis	60 Dwellings
Policy Allocation Proposal	60 Dwellings (GMSF Plan Period)
Allocation Timescale	0-5 years <input type="checkbox"/> 6-15 years <input checked="" type="checkbox"/> 16 + years <input type="checkbox"/>

Glossary

“2025 GMSF Constrained” - is the 2025 forecast case in which the model adjusts the input demand based on how the cost of travel changes from the base year to the future. For example, for a shopping trip undertaken by car which becomes more congested in future, changes might be travel via a different route, mode, location or time of day.

“2040 GMSF Constrained” - as above, but for a 2040 forecast year

“2025 GMSF High-Side” - is the 2025 forecast case in which the model does not adjust the input demand based on how the cost of travel changes. In this scenario congestion does not lead to a reassignment of traffic, and therefore road traffic flow will generally be higher.

“2040 GMSF High-Side” - as above, but for a 2040 forecast year

“2025 Reference Case” - is the Do Minimum scenario which includes delivery of all transport schemes already committed and assumed to be completed by 2025

“2040 Reference Case” - is the Do Minimum scenario which includes delivery of all transport schemes already committed and assumed to be completed by 2040

AADT - Annual average daily traffic, is a measure used in transportation planning to quantify how busy the road is

Bee Network - is a proposal for Greater Manchester to become the very first city-region in the UK to have a fully joined-up cycling and walking network: the most comprehensive in Britain covering 1,800 miles.

Bus Rapid Transit - is a bus-based public transport system designed to improve capacity and reliability relative to a conventional bus system. Typically, a BRT system includes roadways that are dedicated to buses, and gives priority to buses at junctions where buses may interact with other traffic

Existing Land Supply - these are allocations across the county that have been identified by each local planning authority across Greater Manchester and are available for development

Greater Manchester Variable Demand Model (GMVDM) - the multi-modal transport model for Greater Manchester. This transport model provides estimates of future year transport demand as well as the estimates of travel behaviour changes and new patterns that the Plan is likely to produce. These include

changes in choices of routes, travel mode, time of travel and changes in journey destinations for some activities such as work and shopping.

Local Road Network (LRN) - All other roads comprise the Local Road Network. The LRN is managed by the local highways authorities

National Trip End Model (NTEM) - is a Department for Transport forecast that ensures that measures of population, jobs and trips made by various mode are consistent across the whole of Great Britain.

Rapid transit services - refers to high frequency, high capacity metro style transport services including Metrolink and Bus Rapid Transit.

Strategic Road Network (SRN) - The Strategic Road Network comprises motorways and trunk roads, the most significant 'A' roads. The SRN is managed by Highways England.

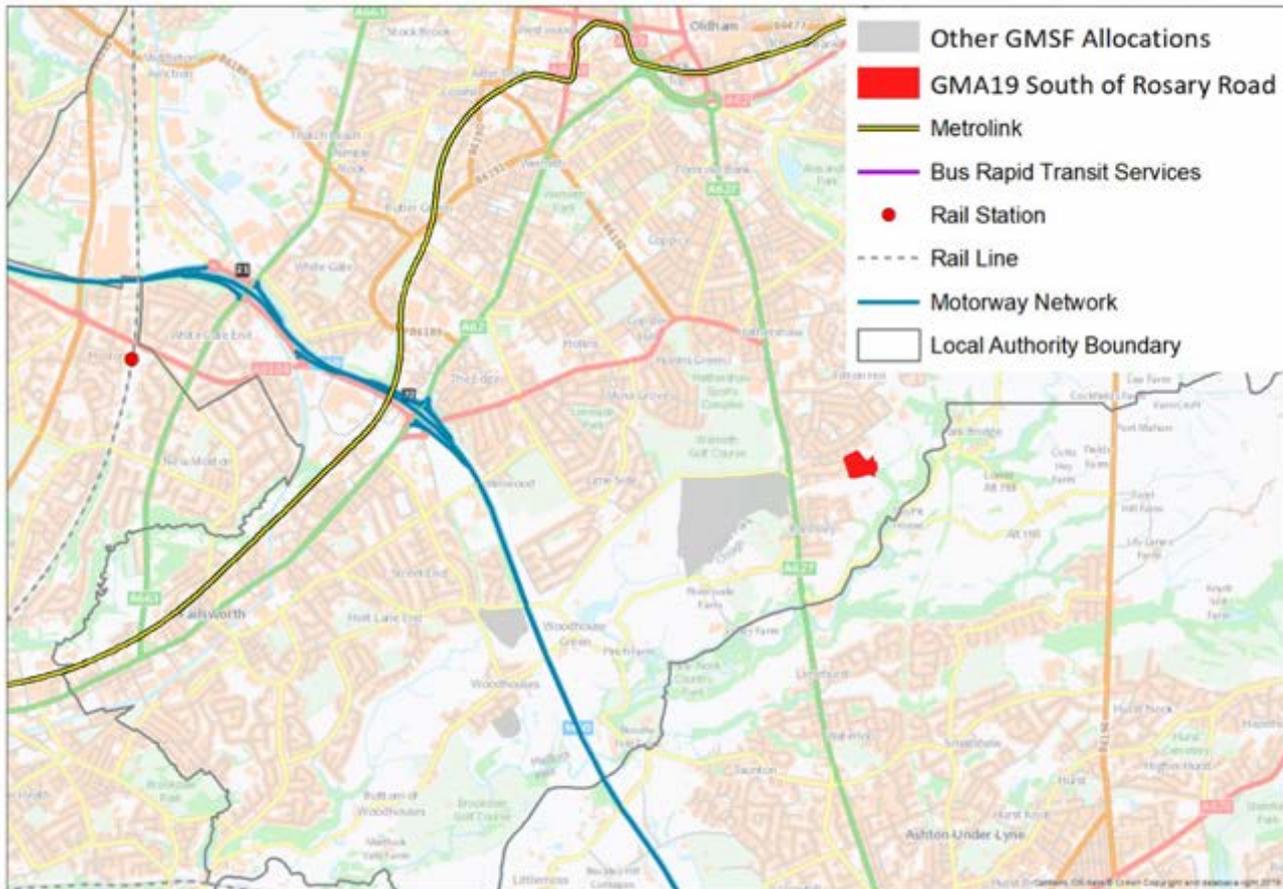
"TfGM" - Transport for Greater Manchester, the Passenger Transport Executive for Greater Manchester

Urban Traffic Control (UTC) - is a specialist form of traffic management that, by coordinating traffic signals in a centralised location, minimises the impact of stop times on the road user.

1. Allocation Location & Overview

- 1.1.1 This Locality Assessment (LA) is one of a series being prepared for proposed new allocations within Greater Manchester in order to confirm the potential impacts on both the local and strategic network, as well as identifying possible forms of mitigation or the promotion of sustainable alternatives to reduce this impact.
- 1.1.2 The – South of Rosary Road allocation is in the Metropolitan Borough of Oldham, consisting of up to 60 dwellings, and is situated in the Medlock Vale.
- 1.1.3 The allocation is bounded by existing residential developments to the north and west on Rosary Road and Mills Farm Close, respectively, and to the east by the former site of the Centre for Professional Development, which was closed and demolished in 2011. The land on which the allocation is situated was used for grazing land by adjacent farms, and more recently was utilised by United Utilities for drainage improvements.
- 1.1.4 No highway infrastructure is present within the allocation, however, Mills Farm Close to the west of the allocation has been suggested as a potential means of access. The allocation is also bounded to the west by St Cuthbert’s Fold, a residential street with limited access with 30mph speed limits. Mills Farm Close connects to Rosary Road, while St Cuthbert’s Fold connects to Simkin Way which leads directly onto the A627 Ashton Road.
- 1.1.5 The allocation lies within the 2011 Census mid-layer super output area of Oldham 029. The scale of residential development (60 homes) is approximately 0.8% of the existing number of households in the area (7,484).

Figure 1. Location - South of Rosary Road



- 1.1.6 Note: Since initial publication a number of allocations have undergone revision or withdrawal boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.
- 1.1.7 For the purposes of the testing the impact of the allocation through the strategic model, a total of 60 dwellings have been assumed to be built out by 2040. The GM transport modelling suite has a 2040 forecast year, as such it uses 2040 trajectory data as proxy for 2037 full build-out, this is not considered to materially impact on the analysis or conclusions of this report.
- 1.1.8 All phasing plans information contained in this Locality Assessment is indicative only and has only been used to understand the likely intervention delivery timetable. Final trajectory information is contained in the GMSF Allocation Topic Paper.

2. Justification for Allocation Selection

2.1.1 The Site Selection process has been led by the 10 Greater Manchester Authorities, including Oldham Council, and provided the starting point for the investigation of the preferred sites through the Locality Assessments.

2.1.2 Detail of the Site Selection process including the criteria used to identify the sites, and how this was used to select the most sustainable sites is considered within the GMSF Spatial Strategy.

3. Key Issues from Consultation

3.1.1 The Greater Manchester Plan for Homes, Jobs and Environment (Spatial Framework) consultation ran from 14th January to 18th March 2019. The comments made to the strategic allocation proposed at – South of Rosary Road during the 2019 GMSF consultation relate to the following key transport themes; roads, public transport, air quality and active travel:

- Existing levels of congestion;
- Existing waiting times at junctions onto Ashton Road;
- Concerns raised regarding use of Simkin Way and Mills Farm Close as access points due to width and matters of on-street parking;
- Potential for development trips to add to current issues of safety on Rosary Road;
- Preferred access would be the land at former Marland Fold School / CPD allocation to the north-east;
- Needs better connections to Ashton Road; and
- No footways in Saint Cuthbert's Fold

3.1.2 These issues have been considered as part of the movement and access strategy considered within this Locality Assessment.

4. Existing Network Conditions and Site Access

4.1 Vehicular Access

4.1.1 Rosary Road comprises a two-way urban road with footpaths and full street lighting, and is subject to a 30mph speed limit.

4.1.2 Mills Farm Close and St Cuthberts Fold are both two-way residential streets with footpaths, full street lighting and a 20mph speed limit. These roads also present carriageway width restrictions and on-street parking

4.1.3 The local context of the site is set out in Figure 2 overleaf.

Figure 2. Allocation Location – Local Context



Note: Since initial publication a number of allocations have undergone revision or withdrawal boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

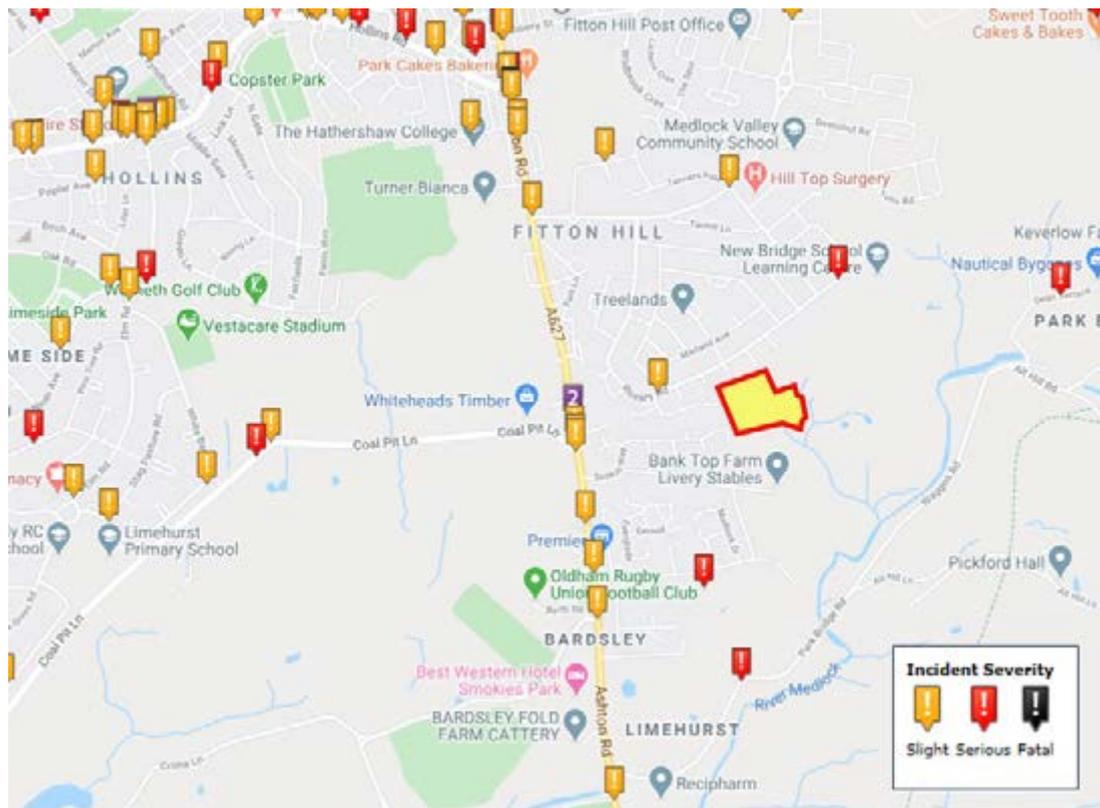
4.2 Accidents and Collision Overview

4.2.1 **Table 1** and **Figure 3** show the number of vehicle collisions over the last 5 years in a 1km area surrounding the GM19 – South of Rosary Road allocation. There have been a total of 75 accidents over the last 5 years with one fatal incident reported in October 2018.

Table 1. Collision data within 1km of site within the last 5 years.

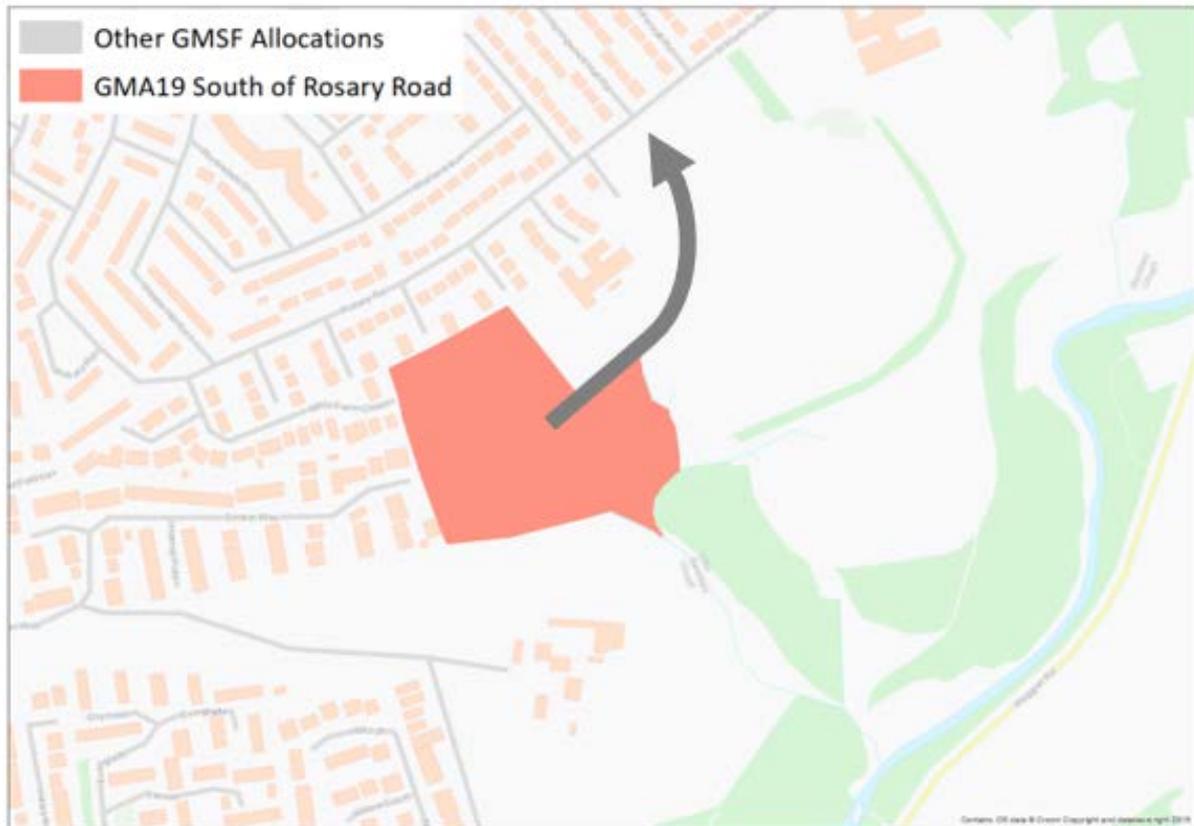
Fatal	Serious	Slight	Total
1	23	51	75

Figure 3. Location map- Collision data within 1km of allocation within the last 5 years.



5. Proposed Access to the Allocation

Figure 4. Site Location with Access Arrangements



Note: Since initial publication a number of allocations have undergone revision or withdrawal boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

- 5.1.1 Based on the current situation of the proposed site, the ideal primary access arrangement, in consideration of the development quantum and suitability of surrounding roads, would be onto Rosary Road via an access created by United Utilities when the area was being used for drainage improvement. This gravel track extends from the proposed site to Rosary Road across what was formerly the Centre for Professional Development, and utilises the priority junction formerly used to access the centre's car park.
- 5.1.2 Site access proposals onto Rosary Road have been considered in conjunction with several residential developments identified as part of the 2019 Strategic Housing Land Availability Assessment (SHLAA), including a 48 dwelling development on the former site of the Centre for Professional Development (SHA2029), and a primary school that is to be sited between the allocation and Rosary Road with a capacity of 32 students between the years of 0-10 (SHA2041).

Both of these developments have been factored into the assessment of site access arrangements which are discussed in **Section 11**.

- 5.1.3 In consideration of the condition of the surrounding local road network, there is a significant concern regarding the potential for rat running within adjacent residential streets, a concern exacerbated by significant on-street parking. While Rosary Road – as a designated bus route – does not allow for on-street parking, potential exists for development trips to use Springwood Hall Road as a shortcut to reach the wider road network at Fir Tree Avenue.
- 5.1.4 While this matter will need to be addressed at the detailed design stage, considerations could be made to implement parking management on Springwood Hall Road – including double-yellow lines – or possibly severing access from Springwood Hall Road onto Rosary Road adjacent to the site access, thereby removing through traffic concerns. In light of this, a contribution could be sought from the developers of the – South of Rosary Road allocation developers to introduce these measures.
- 5.1.5 Though Mills Farm Close and St Cuthberts Fold directly bound the site, a review of the carriageway widths and the presence of on-street parking consider that these roads are unsuitable for use as either primary or secondary access. However, as a PRoW runs immediately adjacent to both Mills Farm Close and St Cuthberts Fold, these two streets could be opened up for pedestrian and cycle access.
- 5.1.6 In terms of local pedestrian facilities, there are local bus stops situated immediately adjacent to the proposed primary access onto Rosary Road, as well as along the A627 Ashton Road; which are all within a walkable distance. The site has been identified as potentially benefiting from the Ashton-Oldham Quality bus transit corridor, which is anticipated to see a general improvement to service reliability and facilities such as shelters along the A627 Ashton Road, as well as Real Time Information (RTI), although RTI may be delivered as an online service through phone apps or online browsers rather than information presented at the stops themselves.
- 5.1.7 Additionally, a permeable network for pedestrian and cyclist priority within the development is required including sufficient secure cycle parking for all dwellings. This is explored further within **Section 6** of this report.

5.1.8 While the site does not sit on any sections of the Bee Network, the design of the internal pedestrian/cycle access should reflect the standards being implemented by the Bee Network in order to suitably accommodate both pedestrian and cycle users.

6. Multi-modal accessibility

6.1 Overview

6.1.1 The current accessibility of the – South of Rosary Road site using Greater Manchester’s Accessibility Level model (GMAL) has been identified as comprising areas of level 3 and 4 for accessibility, giving it an average rating.

6.1.2 Greater Manchester Accessibility Levels (GMAL) are a detailed and accurate measure of the accessibility of a point to both the conventional public transport network (i.e. bus, Metrolink and rail) and Greater Manchester’s Local Link (flexible transport service), taking into account walk access time and service availability. The method is essentially a way of measuring the density of the public transport provision at any location within the Greater Manchester region. The [GMAL methodology](#) is derived from the Public Transport Accessibility Level (PTAL) approach developed by the London Borough of Hammersmith and Fulham but modified to consider flexible transport service provision (Local Link) and to reflect local service provision levels (different accessibility levels) within Greater Manchester.

6.1.3 The accessibility index score is categorized into eight levels, 1 to 8, where level 8 represents a high level of accessibility and level 1 a low level of accessibility.

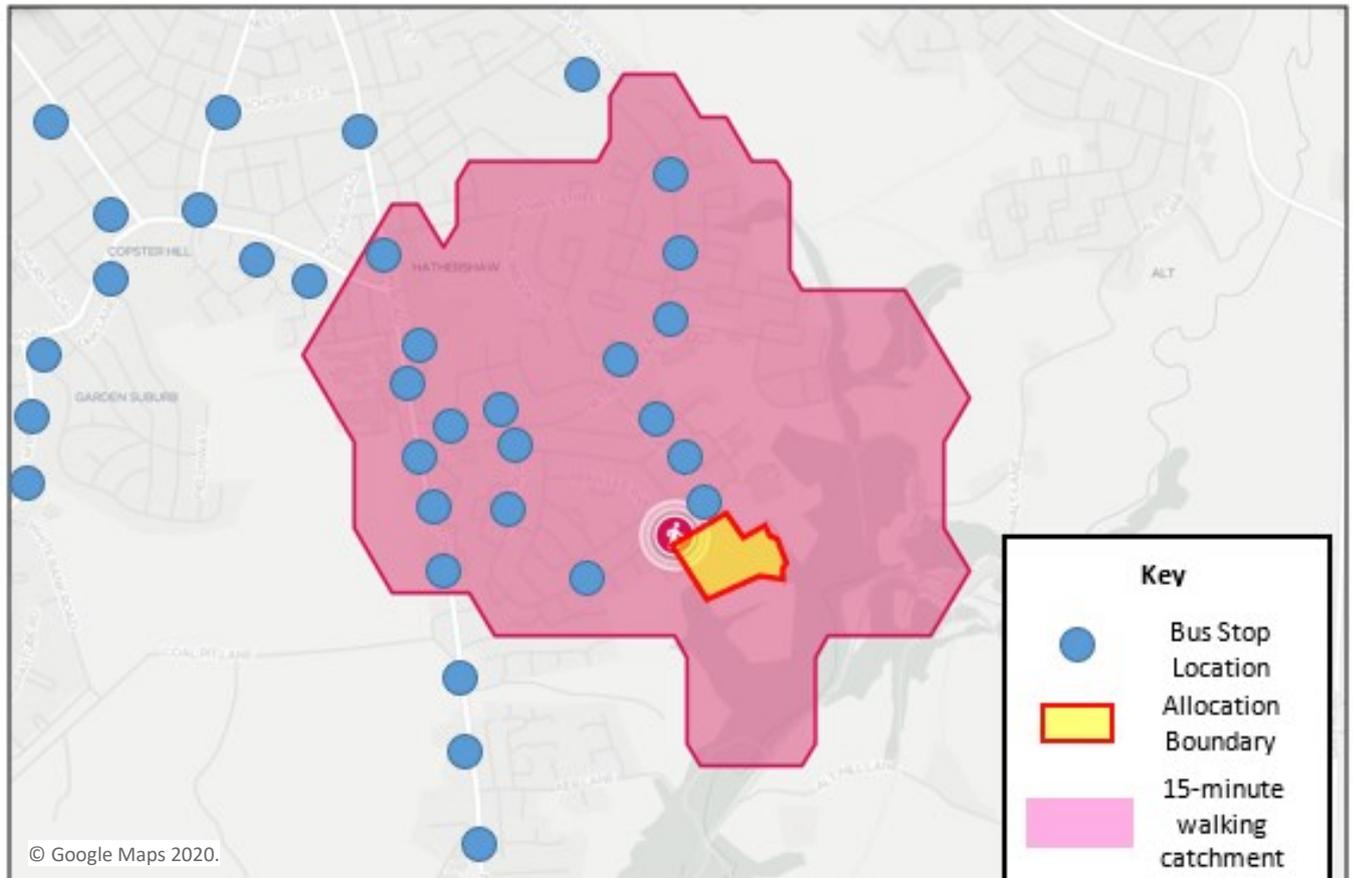
6.2 Walking and Cycling

6.2.1 The main local destinations likely to generate walking and cycling trips are Oldham Town Centre to the east of the allocation (3.8km) the local shops at Fitton Hill (1.4km), Hathershaw College (1.1km) and Medlock Valley Community School (1.1km) and St Martins Primary School (0.8km).

6.2.2 While the A627 provides standard width footpaths both north and south of the site, with full lighting and signalised crossing control, there are limited facilities for cyclists. Though SFA may resolve some pedestrian/cycle issues, localised improvements may be required in the vicinity of the new access

- 6.2.3 National Cycle Route 626 (NCN626) runs 500m east of the site, linking Oldham with Ashton-under-Lyne via Park Bridge Road. This offers an attractive route away from traffic, and is within easy distance from the – South of Rosary Road site due to the presence of several connecting PRowS. However, the condition of these routes varies from unpaved tracks to on-street via Park Bridge Road, and there are no dedicated cycle paths or bridleways. Contributions to the potential improvement of connections between the allocation and NCN626 could be made through a combination of GMSF, MCF, SFA and third party developments in the area.
- 6.2.4 There are multiple Public Rights of Way (PRow) within close proximity of the site, with at least one PRow bounding the proposed western and southern perimeter – PRowS cannot, however, be used by cyclists unless they are designated as bridleways. The A627 and Rosary Road do not provide cycling infrastructure such as cycle lanes.
- 6.2.5 **Figure 5** shows the current level of accessibility for the – South of Rosary Road allocation using the Travel Time Platform online database, which illustrates the 15 minute walking time from the proposed site access via the local road network and any available pedestrian through-routes.

Figure 5. 15-minute walking catchment and public transport provision



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

6.3 Public Transport

6.3.1 The A627 Ashton Road, as a main arterial route between Oldham and Ashton, is served by frequent bus routes, which includes the following:

- Route 396: Newton Heath to Ashton-under-Lyne (average frequency: 60 minutes)
- Route 409: Rochdale to Ashton-under-Lyne (average frequency: 10 minutes)
- Route 419: Middleton to Ashton-under-Lyne (average frequency: 60 minutes)

6.3.2 In addition, the following bus route serves Rosary Road directly:

- Route 396: Newton Heath to Ashton-under-Lyne (average frequency: 60 minutes)
- Route 425: Hathershaw to Oldham (Oldham direction only) (average frequency: 15 minutes)

6.3.3 The Springwood Hall Road bus stop on Rosary Road is located immediately adjacent to the proposed site access. This stop provides services to Ashton and Oldham every 20 minutes during the day, and every 30 minutes in the evenings.

Table 2. Accessibility of and proximity to Public Transport

Mode	Nearest Stop/ Station	Distance (km)*	Peak Hour Frequency (Mins)
Bus	Springwood Hall Road	0.1	20
Rail	Ashton-under-Lyne	4.8	30
Metrolink	King Street	3	6

6.3.4 **Table 2** identifies the current accessibility of public transport for the future residents of the – South of Rosary Road site, exploring the proximity, and the frequency of travel during peak hours.

6.3.5 With regard to public transport, high quality bus services operating in the vicinity of the allocation are able to provide suitable connections to wider rail and Metrolink services in both Oldham and Ashton, with onward connectivity to regional centres both within and beyond the Greater Manchester area.

6.4 Proposed

6.4.1 In consideration of the provision of existing pedestrian and cycling infrastructure in the adjacent residential streets, our main recommendation in this regard is that a permeable network for pedestrian and cyclist priority within the development is required including sufficient secure cycle parking for all dwellings.

6.4.2 Given the location of the allocation and its close proximity to the Fitton Hill local area, the internal walking and cycle network should be linked to high quality routes connecting through to this area, including the proposed Bee Network. Existing PRoWs that either pass near or cross the proposed site should be positively upgraded, with both PRoWs and the internal pedestrian/cycle network of the site being constructed to the standards set out by the Bee Network.

6.4.3 The allocation provides an opportunity to better link existing and proposed residential developments surrounding the A627 and Fitton Hill with NCN626 via connections through the site

which may provide a more appropriate option for a north-south cycling and walking routes than a direct upgrade of the A627. Some limited offsite improvements to existing routes may however be required.

6.4.4 With regard to public transport, the – South of Rosary Road site has been identified as potentially benefiting from the Ashton-Oldham Quality bus transit corridor, which is anticipated to see a general improvement to service reliability and facilities – such as the introduction of shelters – along the A627 Ashton Road. In light of this, a contribution could be sought from the developers of the – South of Rosary Road site developers to introduce these improvements, which are expected to be implemented by 2025 – this contribution would be shared by other development sites in proximity to the proposed corridor, including – Land South of Coal Pit Lane (Ashton Road)

7. Parking

7.1.1 It is not necessary to consider in detail the parking standards for residential units relevant to the site at this stage of assessment as there are no particular constraints on achieving likely minimum parking standards that may be in application at the time the site is brought forward.

Accommodation of Electric Vehicle (EV) parking, while an important factor in developing more efficient transport connections for the allocation, should be considered at the detailed design stage, potentially as an integration of specific house design.

7.1.2 A broad assumption has been made that a maximum of 2 spaces per dwelling is likely to be proportionate however other alternative local policy requirements are likely to be equally deliverable and can be considered at the planning application stage.

7.1.3 National Planning Policy Framework (NPPF) is clear that such standards should only be set where there is a clear and compelling justification that they are necessary. This may be either for managing the local road network conditions, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with chapter 11 of NPPF).

8. Allocation Trip Generation and Distribution

8.1.1 Future trip generation to/from the site (i.e. how many people and vehicles will enter or leave the site) was estimated by applying a set of GM-wide trip rates to the agreed development quantum for each site. The distribution of trips (i.e. where they are going to or coming from) was derived by selecting nearby zones with similar land use characteristics as a proxy and using the existing distribution in the model.

Table 3. Development Quantum: South of Rosary Road

Use	Use Sub Category	Development Quantum 2025	Development Quantum 2040
Residential	Houses	0	60
Residential	Apartments	0	0
Industrial	e.g. B2/B8 etc.	0	0
Total		0	60

Table 4. Allocation Traffic Generation: South of Rosary Road *

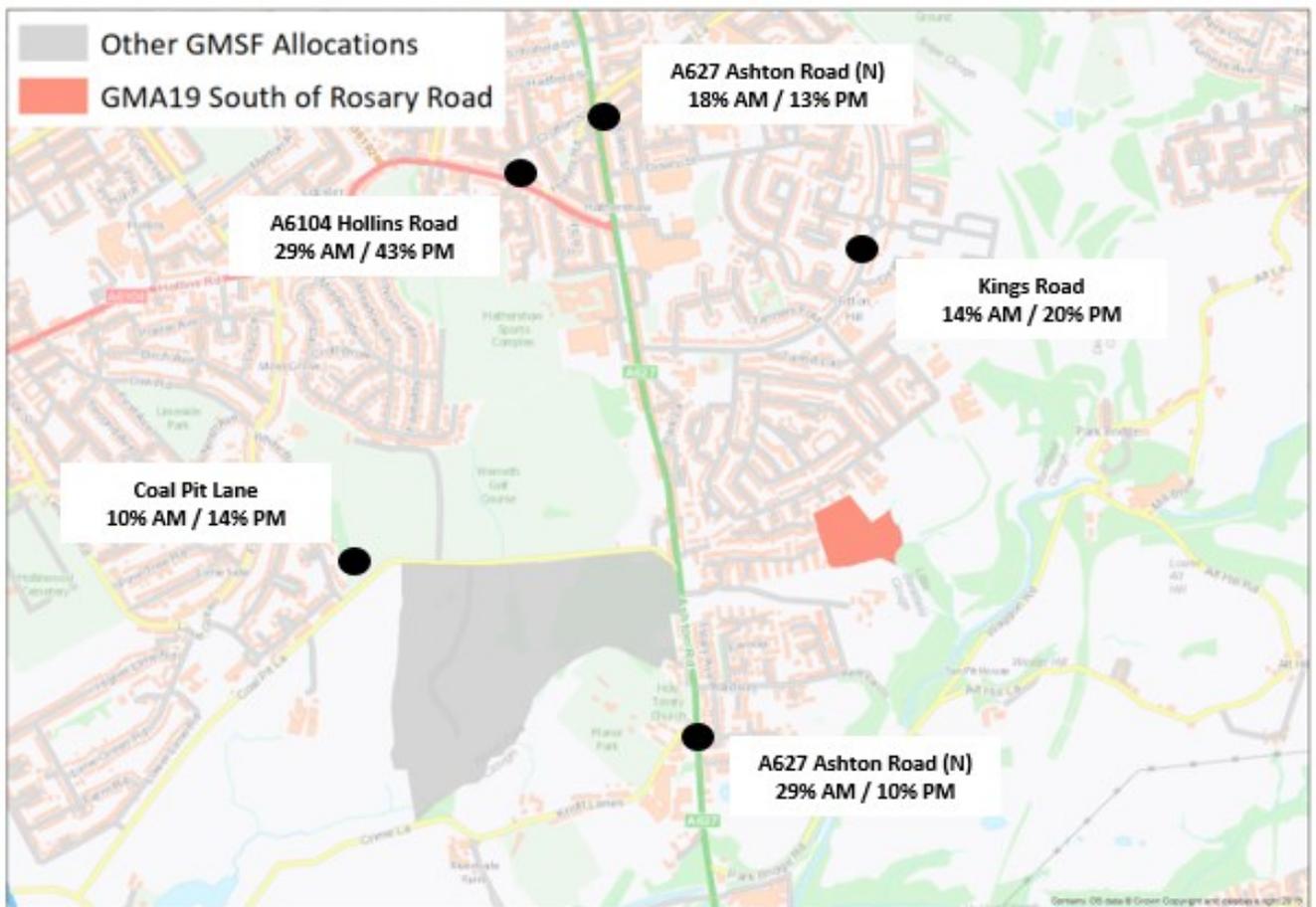
Year	AM Peak Hour Departures	AM Peak Hour Arrivals	PM Peak Hour Departures	PM Peak Hour Arrivals
2025 GMSF Constrained	0	0	0	0
2025 GMSF High-Side	0	0	0	0
2040 GMSF Constrained	17	5	8	18
2040 GMSF High-Side	21	8	13	18

*Units are in PCU (passenger car units/hr)

Table 5. Allocation Traffic Distribution, 2040 GMSF High-Side (Origin/Destination Combined): South of Rosary Road

Route	AM Peak Hour	PM Peak Hour
A6104 Hollins Road	29%	43%
A627 Ashton Road (N)	18%	13%
Kings Road	14%	20%
A627 Ashton Road (S)	29%	10%
Coal Pit Lane	10%	14%

Figure 6. Allocation Traffic Distribution, 2040 GMSF High-Side (Origin/Destination Combined)



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

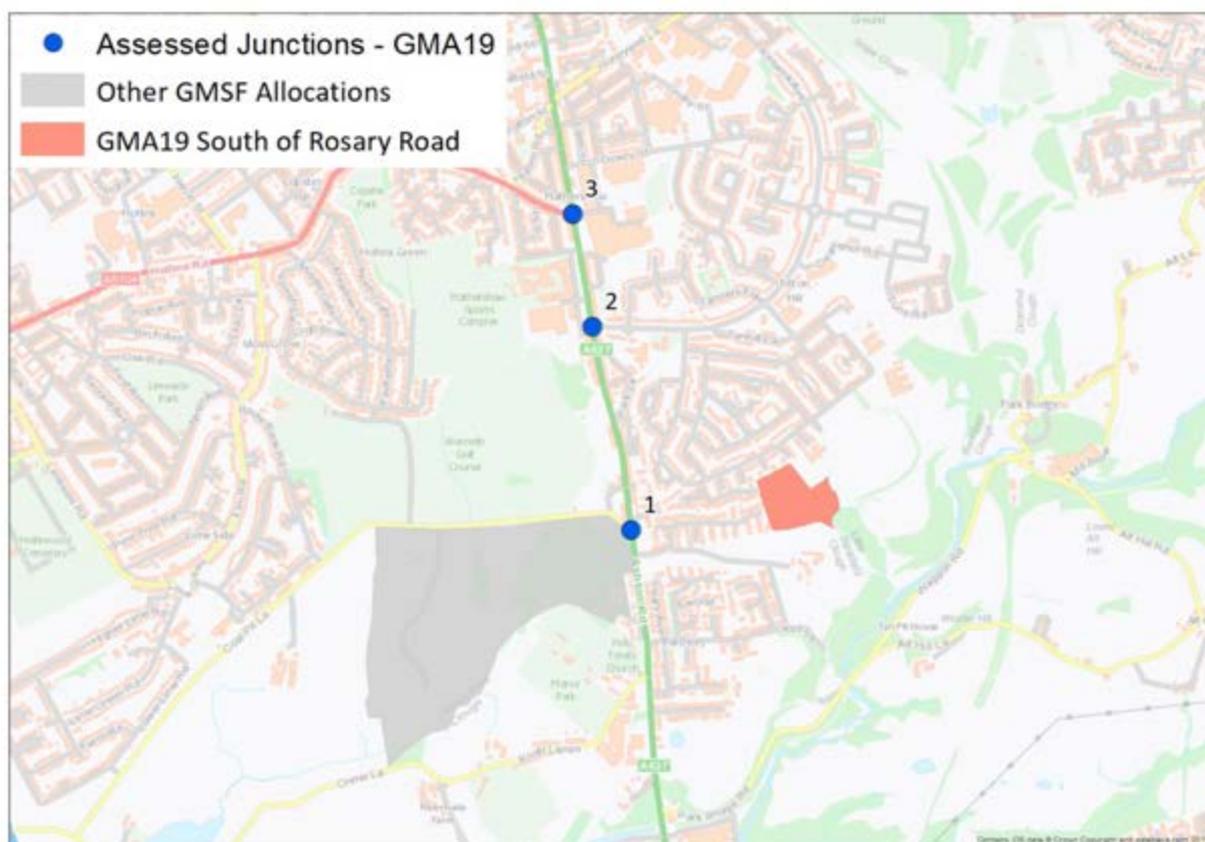
9. Existing Highway Network Review

9.1.1 The A627 Ashton Road runs north to south to the east of the – South of Rosary Road site, connecting Oldham with Ashton-under-Lyne. SYSTRA identified a number of junctions in proximity to the site where additional traffic could have an impact on their operation based on existing conditions.

1. A627 Ashton Road / Coal Pit Lane (Priority T-Junction)
2. A627 Ashton Road / Fir Tree Avenue (Signalised T-Junction)
3. A627 Ashton Road / A6104 Hathershaw Lane / Beehive Street (Signalised Crossroads)

9.1.2 The location of the junction is shown in **Figure 7** below.

Figure 7. Key junctions assessed



Note: Since initial publication a number of allocations have undergone revision or withdrawal. All boundaries shown are illustrative. For definitive boundary information refer to the GMSF allocation mapping.

10. Treatment of Cumulative Impacts

- 10.1.1 The constrained and high side model runs take account of traffic associated with all GMSF sites. Within a 2km buffer of the – South of Rosary Road allocation site is the – Land South of Coal Pit Lane (Asthon Road) allocation. Therefore, at the local level, the transport impacts of the site need to be considered cumulatively with this GMSF allocation.
- 10.1.2 The – South of Rosary Road approximately 22 to 31 two-way vehicle trips during the morning and evening peak hours. The – Land South of Coal Pit Lane (Asthon Road) allocation is expected to generate approximately 89 to 128 two-way vehicle trips during the morning and evening peak hours. The combined impact of these trips could have a more significant impact on the network than that of the site by itself; hence the combined impact has been assessed.
- 10.1.3 Furthermore, the potential impact of the allocation has also been considered cumulatively with residential developments identified as part of the 2019 Strategic Housing Land Availability Assessment (SHLAA) that are to utilise the same access point as the allocation – as detailed in **Section 5**.

11. Allocation Access Assessment

- 11.1.1 This site access arrangement has been developed to illustrate that there is a practical option for site access in this location and to develop indicative cost estimations. It is assumed that a detailed design consistent with Greater Manchester's best practice Streets for all highway design principles will be required at the more detailed planning application stage.
- 11.1.2 Due to the role of the proposed highway network within the site, which will have a role in local traffic distribution, the full traffic impact of all GMSF flows are recorded below, and not just those pertaining to the allocation. Furthermore, trips associated with proposed SHLAA sites that are proposed to utilise the same access as the allocation have also been factored into this assessment.

Table 6. Site Access Junction Capacity Analysis: South of Rosary Road

Junction	GMSF High AM	GMSF High PM	GMSF High + SHLAA Trips AM	GMSF High + SHLAA Trips PM	GMSF Flows AM	GMSF Flows PM
Rosary Road Access Junction	4%	3%	12%	6%	29	31

12. Impact of Allocation Before Mitigation on the Local Road Network

- 12.1.1 In order to understand a worst case impact of the GMSF, the ‘high side’ runs from the GMVDM were used to derive with GMSF development flows for 2040. These flows were then entered into junction based models for the junctions identified in **Section 8**. Flows from a 2040 reference case scenario (including approved Local Plan development from the respective districts) were also extracted to provide a comparison between the operation of those junctions in the 2040 reference case and the 2040 with GMSF development scenarios.
- 12.1.2 The ‘with GMSF’ scenario has been assessed against a Reference Case which assumes background growth and includes the housing and employment commitments from the districts. Through discussions with TfGM and the Combined Authority, it has been agreed that where mitigation is required, it should mitigate the impacts back to a reference case scenario. It should be noted that mitigating back to this level of impact may not mean that the junction operates within capacity.
- 12.1.3 These assessments were then used to identify the junctions where there was considered to be a substantial impact, relative to the operation of the junction in the 2040 reference case, and hence where mitigation was considered to be required in order to bring GMSF sites forward. Through discussions with Oldham and the Combined Authority, it was been agreed that where mitigation is required, it should mitigate the impacts back to the reference case scenario. It should be noted that mitigating back to this level of impact may not mean that the junction operates within capacity by 2040.

12.1.4 This section looks at the impact on the network at the junctions highlighted in **Section 9**.

Signalised junctions were assessed in detail using industry-standard modelling software LINSIG version 3. Where possible, traffic signal information was requested from TfGM in order to ensure that the local junction models reflected (as far as possible), the operation of the junctions on the ground. Junctions 9 software was used to assess priority and roundabout junctions. **Table 7** below provides a comparison between the operation of the in scope junctions in the 2040 reference case and the 2040 'high side' scenarios, as well as the site development flows through each respective junction. The table shows a comparison between the ratio of flow to capacity on the worst case arm at each junction as well as the total development flows through the junction.

12.1.5 For reference, a figure of between 85% and 99% illustrates that the junction is nearing its operational capacity, and a figure of 100% or over illustrates that flows exceed the operational capacity at the junction.

Table 7. Results of 2040 Local Junction Capacity Analysis Before Mitigation: South of Rosary Road

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	Allocation Flows AM	Allocation Flows PM
1. A627 Ashton Road / Coal Pit Lane	104%	164%	107%	162%	9	6
2. A627 Ashton Road / Fir Tree Avenue	64%	73%	65%	73%	20	17
3. A627 Ashton Road / A6104 Hathershaw Lane / Beehive Street	55%	61%	56%	62%	11	11

13. Transport Interventions Tested on the Local Road Network

- 13.1.1 While in isolation this development would be unlikely to present significant implications on the surrounding road network, its potential cumulative impact with the – Land South of Coal Pit Lane (Ashton Road) allocation by 2040 (as outlined in **Section 10**) has resulted in several mitigation schemes being considered at junctions likely to see material impacts as a result of traffic introduced by these sites.
- 13.1.2 As this Locality Assessment was being finalised – Land South of Coal Pit Lane (Ashton Road) allocation was reduced in quantum slightly since the final round of modelling, with – Woodhouse, also sitting close to this allocation, being reducing in quantum significantly. These changes came too late to amend the traffic modelling used for this and other GMSF allocations. It should be noted that revision of quantum at this allocation will result in changes to the forecast traffic flows used to examine the impact of this allocation and to identify the mitigations set out within the locality assessment.
- 13.1.3 It is likely that these changes are sufficiently significant to materially affect the scope of cumulative impact of GMSF allocations, on junction mitigations proposed (with specific to mitigation proposed at A627 Ashton Road / Coal Pit Lane).

Table 8. Approach to Mitigation: South of Rosary Road

Junction	Mitigation Approach
1. A627 Ashton Road / Coal Pit Lane	Cumulative impact, but not substantial for this allocation – mitigation proposed however identified as a supporting measure due to material changes in cumulative impact

- 13.1.4 These schemes were then coded into the GMVDM, in advance of a second ‘with mitigation’ run of the model. The outcomes of this model run in relation to the – Land South of Coal Pit Lane (Ashton Road) allocation are presented in the following section.
- 13.1.5 In consideration of the provision of existing pedestrian and cycling infrastructure in the adjacent residential streets, our main recommendation in this regard is that a permeable network for pedestrian and cyclist priority within the development is required including sufficient secure cycle parking for all dwellings.
- 13.1.6 With regard to public transport, the – South of Rosary Road site has been identified as potentially benefiting from the Ashton-Oldham Quality bus transit corridor, which is anticipated to see a general improvement to service reliability and facilities along the A627 Ashton Road.

14. Impact of interventions on the Local Road Network

- 14.1.1 In order to understand whether the mitigation developed for the site (and all other sites within the GMSF) is sufficient to mitigate the worst-case impacts of the GMSF identified in **Section 12**, a second run of the GMVDM with all identified mitigation included, was undertaken. Where a significant flow change was observed the junction models were rerun to check that the mitigation identified in **Section 13** is still sufficient to mitigate site impacts and that all other in scope junctions continue to operate satisfactorily in light of any reassignment due to mitigation schemes.
- 14.1.2 **Table 9** below provides a comparison between the operation of the in-scope junctions in the 2040 reference case and the 2040 ‘high side’ with mitigation scenarios, as well as the site development flows through each respective junction. The table shows a comparison between the ratio of flow to capacity on the worst-case arm at each junction as well as the total development flows through the junction.
- 14.1.3 As this locality assessment was being finalised a number of substantive changes to surrounding allocations were made. These changes came too late to amend the traffic modelling used for this and other GMSF allocations. It should be noted that revision of quantum at this allocation will result in changes to the forecast traffic flows used to examine the impact of this allocation and to identify the mitigations set out within the locality assessment.

14.1.4 It is likely that these changes are sufficiently significant to affect the scope of the junction mitigations proposed, enabling the site to be delivered without intervention at A627 Ashton Road / Coal Pit Lane.

Table 9. Results of 2040 Local Junction Capacity Analysis After Mitigation: South of Rosary Road

Junction	Reference Case AM	Reference Case PM	GMSF High AM	GMSF High PM	Allocation Flows AM	Allocation Flows PM
1. A627 Ashton Road / Coal Pit Lane	74%	112%	75%	112%	9	6

15. Impact and mitigation on Strategic Road Network

- 15.1.1 This chapter covers those impacts where traffic generated by the GMSF allocations meets the Strategic Road Network (SRN). Junctions at the interface between the Local Road Network (LRN) and the Strategic Road Network (SRN) have been assessed using a similar approach to that described in the preceding chapters. Wider issues relating to the SRN mainline are being assessed separately as described below.
- 15.1.2 SYSTRA is currently consulting with Highways England on behalf of TfGM and the Combined Authority in relation to the wider impacts of the GMSF allocations on the Strategic Road Network (SRN). This consultation is ongoing and it is expected that it will allow Highways England to gain a strategic understanding of where there is an interaction between network stress points and GMSF allocation demand which will facilitate further discussion and transfer of information between TfGM and Highways England (yet to be defined) in reaching agreement and/or common ground relating to the acceptability of GMSF allocations in advance of Examination in Public (EiP).
- 15.1.3 Based on the proposed buildout of the site, and its distance from the nearest section of the Strategic Road Network (SRN), the – South of Rosary Road allocation has been considered unlikely to present traffic implications without the introduction of mitigation on the SRN. This also considers a cumulative impact with the – Land South of Coal Pit Lane (Ashton Road) allocation trips.

15.1.4 The nearest SRN junction to the – South of Rosary Road allocation is M60 Junction 22 (3.8km northwest).

16. Final list of interventions

Table 10. Interventions List: South of Rosary Road

Mitigation	Description
Site Access	
Rosary Road Access Junction	Priority junction assumed
Necessary Local Mitigations	
Permeable network for pedestrian and cyclist priority within the development and upgrade of PRoW connections to Bardsey Bridleway .	Assumed full permeability of cycle and pedestrian access, as well as provision if improvements to PRoWs near to the development (125m). All pedestrian and cycle networks internal to the site, as well as connecting PRoWs, should be built or upgraded to the standards outlined in the Bee Network, as well as providing connections to the nearest section of the Bee Network
Minor Traffic Management Improvements	Minor traffic management improvements in order to address local highway concerns.
Supporting Strategic Mitigations	
Ashton-Oldham Quality bus transit corridor	Proposed by TfGM for frequent bus services between Ashton, Oldham and Rochdale

Ashton-Oldham Quality bus transit corridor

16.1.1 The Ashton-Oldham Quality bus transit corridor is anticipated to see a general improvement to service reliability and facilities along the A627 Ashton Road.

16.1.2 The introduction of the Quality bus transit corridor is expected to answer concerns regarding unreliable bus operations within the area surrounding the – South of Rosary Road allocation.

Promotion of sustainable transport alternatives will also help to answer concerns regarding increased pollution from added vehicular trips on the local road network.

Permeable network for pedestrian and cyclist priority within the development

- 16.1.3 In order to promote and encourage sustainable transport modes, as well as providing safe and efficient accessibility for non-vehicular traffic, the development is to both provide ease of access for pedestrian and cyclist traffic into and out of the site, as well as connecting and improving Public Rights of Way that either directly connect or pass near the proposed site. This is to include upgrading of the local PRow routes to meet the standards of the proposed Bee Network and, wherever possible, connect directly to sections of the Bee Network.
- 16.1.4 Furthermore, pedestrian and cycle facilities in the areas surrounding the – South of Rosary Road allocation should be improved wherever possible in order to allow for safe accessibility by non-vehicular users to both all parts of the development, but also the adjacent residential, employment and retail areas. A scheme to provide a surfaced route upgrading the existing PRow connections to Bardsey Bridleway has been identified.

17. Greater Manchester Transport Strategy Interventions

Site Specific

- 17.1.1 Further to the site-specific interventions outlined within **Section 2**, Oldham Council and TfGM have jointly considered measures to support sustainable travel and to contribute towards the achievement of Greater Manchester's 'Right Mix' ambition.
- 17.1.2 The Right Mix initiative forms part of the Greater Manchester Transport Strategy 2040, and is proposes that by 2040, 50% of trips are to be undertaken by sustainable modes and no net increase in motor-vehicle traffic. The Right Mix vision is comprised of evidence-based targets which will be adjusted over time in order to reflect the progress of meeting such targets, and the interventions set out for walking, cycling and public transport for the allocation will contribute to the Right Mix target of reducing growth in motor vehicle traffic in Greater Manchester.

Oldham

- 17.1.3 In addition to the site-specific interventions set out in this Locality Assessment, there are a number of other measures already planned by Oldham Council and Transport for Greater Manchester to support sustainable travel, and to contribute to the achievement of Greater Manchester's 'Right Mix' ambition.
- 17.1.4 Transport for Greater Manchester is currently producing a business case for early delivery of a Quality Bus Transit scheme between Rochdale, Oldham and Ashton, which will include significant improvements to the quality, frequency and reliability of the bus service, as well as localised public realm enhancements which it is hoped will lead to an increase in bus patronage along the route. If successful, the concept would be rolled out to other routes in the City Region.
- 17.1.5 TfGM is also leading a study to complete a business case for the early delivery of the Cop Road Metrolink stop, which would improve access to Rochdale and Oldham and, from there, the Regional Centre.
- 17.1.6 In addition, Oldham Council is progressing 'Accessible Oldham' a £6 million Local Growth Deal package to regenerate and improve the connectivity of Oldham town centre. The scheme includes upgraded pedestrian areas and cycling routes, better access to bus and Metrolink stops and improvements to the highway network.
- 17.1.7 Oldham Council have successfully bid for funding from the Mayor of Greater Manchester's Cycling and Walking Challenge Fund – a £160 million initiative to deliver the infrastructure to encourage more people to cycle and walk across the region. This scheme is to come forward in a series of Bee Network developments within the Oldham area.
- 17.1.8 Outside of the town centre, Network Rail, in association with TfGM, have secured funding for the "Access for All" scheme from the Department for Transport in order to upgrade Mill Hill Rail Station to improve access for mobility impaired passengers, improving accessibility by rail in both Manchester and Rochdale directions. TfGM are also investing in the increase of capacity at the Mill Hill Park & Ride facilities through Growth Deal 3.
- 17.1.9 Oldham Council have mediated between Network Rail and TfGM with regard to off-site highway works, and NR are now providing a new controlled pedestrian facility to link the two schemes

together, although the facilities chosen have not been considered ideal for this proposal. Furthermore, there is some dispute regarding car park development at Mill Hill station as it contravenes bus only restrictions and conflicts with bus movements.

18. Phasing Plan

- 18.1.1 The initial locality assessments were based on information on allocations proposed in the Draft Plan 2019.. This initial exercise focused on the development quanta to be delivered at the end of the plan period, i.e. by 2040.
- 18.1.2 During the course of the locality assessment work in late 2019 / early 2020, the Districts provided input on their expected phasing of the sites focusing on the milestone years of 2025 and 2040. The expected 2025 development quanta were tested along with those for 2040 to assess their deliverability in terms of transport network capacity. In some cases, the development phasing was amended by the Districts as a result of the technical analysis undertaken. All other schemes will require implementation between 2025 and 2040, with a more precise implementation timeframe for these schemes being ascertained through a similar process to that detailed in **Section 12 to 14** as part of the five-year review of the plan.
- 18.1.3 Based on the proposed forecast, none of the development quantum for the – South of Rosary Road site is expected to come forward by 2025. The full development quantum is expected to come forward by 2040.

Table 11. Allocation Phasing: South of Rosary Road

Allocation Phasing	2020 25	2025 30	2030 2038	2038+	Total
Parcel 1	0	60	0	0	60
Total	0	60	0	0	60

Table 12. Indicative intervention delivery timetable: South of Rosary Road

Mitigation	2020 2025	2025 2030	2030 2038
Site Access			
Rosary Road Access Junction		✓	
Necessary Local Mitigations			
Permeable network for pedestrian and cyclist priority within the development & PRow improvements		✓	
Minor Traffic Management Improvements	✓		
Supporting Strategic Mitigations			
Ashton-Oldham Quality bus transit corridor contribution		✓	

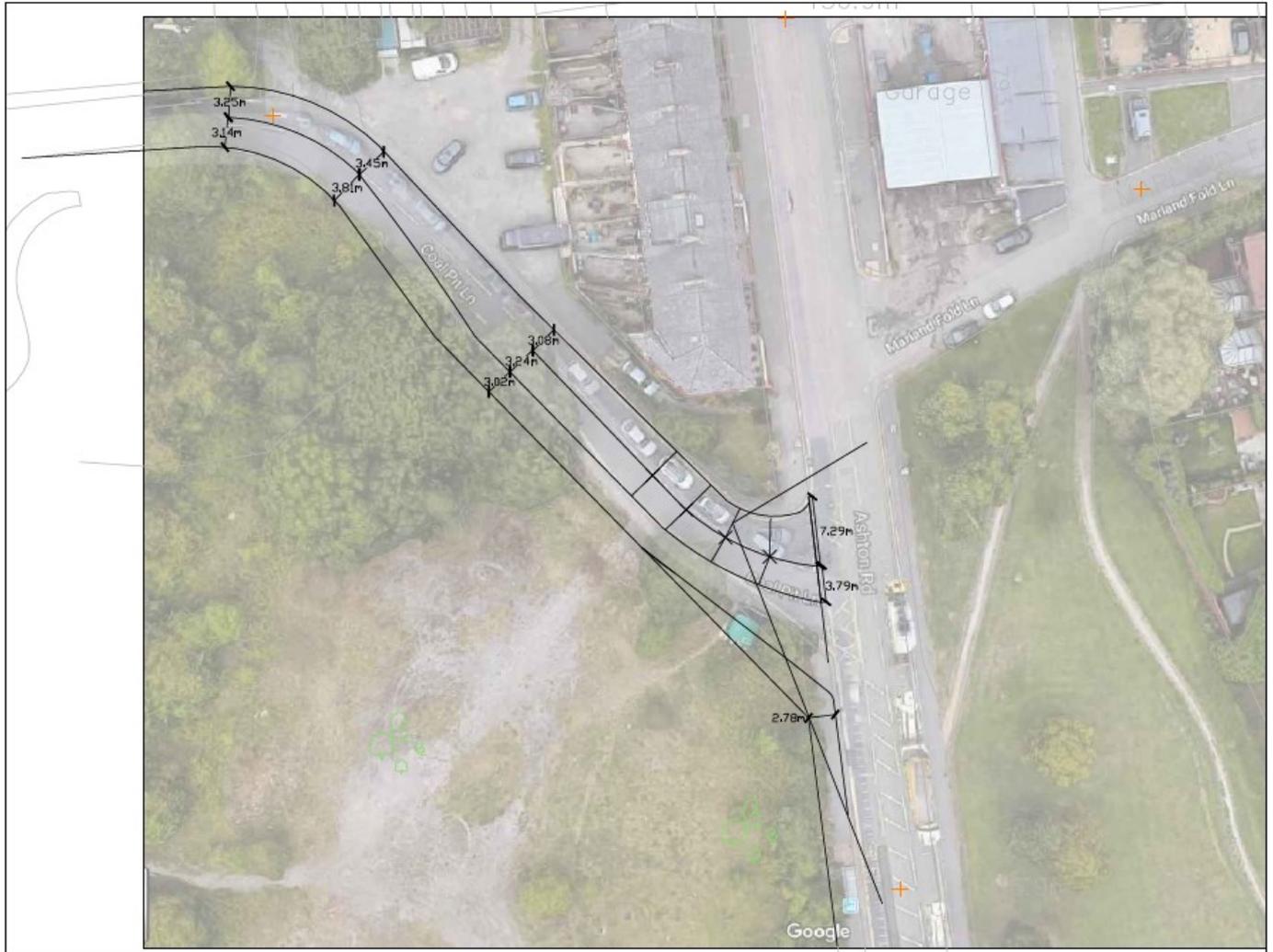
19. Summary & Conclusion

- 19.1.1 GMSF allocation – South of Rosary Road is a development located on what is currently open land adjacent to Mills Farm Close.
- 19.1.2 Assessments undertaken have considered the potential impact of this development on the surrounding road network, both in isolation and in cumulative impact with the – Land South of Coal Pit Lane (Ashton Road) allocation. Furthermore, non-GMSF developments expected to use the same site access as the allocation have also been included in the assessment of local junctions. Cumulatively, the development has the potential to present increased congestion at existing areas of concern raised in **Section 3**.
- 19.1.3 In response to potential concerns regarding congestion at key junctions, a mitigation scheme has been considered at the A627 Ashton Road / Coal Pit Lane junction (**Mitigation Option 1**). This has been tested, and illustrates significant improvements to traffic flows across this junction, both with and without the cumulative impact of the GMSF allocations. However since the development of this mitigation, significant changes to adjacent GMSF allocations (including the removal of one allocation from the GMSF) have taken place which will impact the identified cumulative impact. In

response, it is likely the allocation can be delivered without the proposed mitigation option 1 A627 Ashton Road / Coal Pit Lane junction. This will need to be confirmed as part of any later planning process.

- 19.1.4 Based on the information contained within this report, we conclude that the traffic impacts of the site are considered to be less than severe subject to the implementation of localised mitigation at a discrete number of locations. The “High-Side” modelling work indicates that in general other junctions within the vicinity of the site will either operate within capacity in 2040 with GMSF development, or that in some cases junctions operating over capacity in the future year would not be materially worsened by development traffic.
- 19.1.5 At this stage, the modelling work is considered to be a ‘worst case’ scenario as it does not take full account of the extensive opportunities for active travel and public transport improvements in the local area, and that junctions which are considered to operate over capacity in the 2040 model years, both with and without mitigation, are attributed not to the introduction of development trips, but to the cumulative impact of wider growth. The objective of mitigation scenarios is to suitably accommodate the proposed development trips for this allocation, rather than fully amending wider traffic concerns.
- 19.1.6 However, the mitigation schemes proposed should be considered in conjunction with continued investment into sustainable transport alternatives, including pedestrian, cycling and public transport, in order to reduce the overall number of additional vehicles being introduced onto the local road network. This, combined with the mitigation schemes, could potentially resolve a number of issues raised regarding pollution and safety in relation to the – South of Rosary Road allocation.
- 19.1.7 This is an initial indication that the allocation is deliverable and to inform viability, and that further detailed work will be necessary to identify the specific interventions required to ensure the network works effectively based on transport network conditions at the time of the planning application.

GM13/GM19 - MITIGATION OPTION 1 - COAL PIT LANE (INDICATIVE DESIGN)



INTRODUCTION OF ADDITIONAL LANE ON APPROACH AT COAL PIT LANE AND RECONFIGURATION OF CARRIAGEWAY, FOOTWAY AND ROAD MARKINGS.