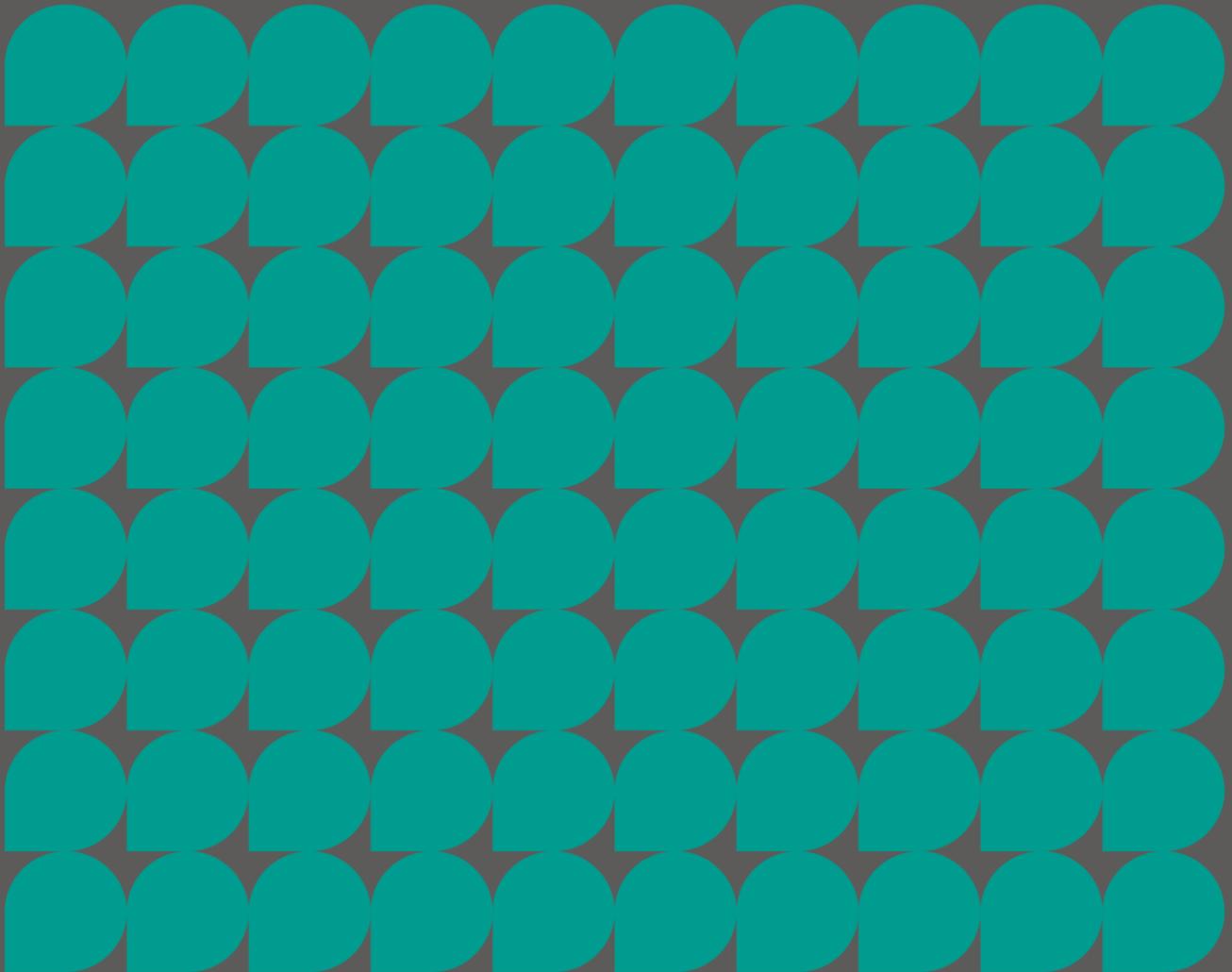


Transport Locality Assessments Addendum

Cross Boundary Allocations (2) Northern Gateway (Stakehill)
Replacement Report

Places for Everyone – July 2021



Identification Table

Client	Rochdale Borough Council/ Oldham Council/TfGM
Allocation	Stakehill
File name	JPA2 Stakehill Locality Assessment
Reference number	JPA2/ GMA2

Approval

Version	Name		Position	Date	Modifications	
1	Author	Joanne Best	Senior Consultant	29-06-21	1 st Draft	
	Checked by	Huw Williams	Associate Director	01-07-21		
	Approved by	Darren Kirkman	Project Manager	02-07-2021		
2	Author	Huw Williams	Senior Consultant	06-07-21		Final Version
	Checked by	Darren Kirkman	Associate Director	07-07-21		
	Approved by	Darren Kirkman	Project Manager	07/0/2021		

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ALLOCATION DATA

Allocation Reference No.	JPA2 (PfE 2021) previously GMA2 (GMSF 2020)
Allocation Name	Stakehill
Authority	Rochdale Borough Council/ Oldham Council
Ward	Oldham – Chadderton North Rochdale – Middleton North & Castleton
Modelling Analysis	1,736 homes & 150,000 sqm Industrial/Warehousing
Policy Proposal	1681 homes (by end of plan period 2037)
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 sites across the county that have been identified by each local planning authority across Greater Manchester and are available for development (it does not include land currently in the Green Belt that is proposed for built development through the GMSF)

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.

“LRN” (Local Road Network) All other roads (SRN aside) 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.

Places for Everyone (Pfe) – With the withdrawal of Stockport from GMSF, a joint plan of the nine remaining Local Authorities, to be known as “Places for Everyone”. It means that the nine remaining Greater Manchester councils can plan collectively to deal with cross boundary and strategic planning issues until 2037

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

Regional Centre - A central area of Greater Manchester which includes an increasing density of trip attractors, jobs and homes. Including the Manchester and Salford City Centre at the centre, it stretches west to include The Quays and parts of Trafford Park, east to include the Etihad Campus, and south to include the universities and hospitals centred around Oxford Road.

“SRN” (Strategic Road Network) 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 local government body responsible for delivering Greater Manchester’s transport strategy and commitments on behalf of the Greater Manchester Combined Authority.

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 Since April 2019, SYSTRA Ltd has been leading on behalf of Transport for Greater Manchester on the assessment and mitigation of the traffic impacts of the development Allocations identified in the Places for Everyone (PfE) joint development plan (formerly the Greater Manchester Spatial Framework). This work resulted in the publication of a series of Locality Assessments which:
- Forecast the pattern of traffic movement in 2025 and 2040 on the Greater Manchester transport network, both before and after the addition of traffic resulting from the delivery of the GMSF Allocations;
 - Assessed the impact of that additional traffic on the existing transport infrastructure;
 - Identified measures which would mitigate the impact of the additional traffic by examining enhancements to the public transport, active travel and highway network;
 - Priced those enhancements on a consistent basis to support the evaluation of the viability of the Plan; and,
 - On the basis of the above, confirmed whether or not the Allocation was appropriate from a transport perspective
- 1.1.2 Since then, a number of factors have necessitated a review of the conclusions of those Locality Assessments and revision or confirmations to those findings as appropriate. Those factors include:
- The removal of some allocations from the plan;
 - Changes to the quantum of development proposed within some Allocations;
 - Changes to the scale or type of transport supply proposed close to or within some Allocations; and,
 - The withdrawal of Stockport Council and their associated Allocations from the Greater Manchester Spatial Framework.
- 1.1.3 Following the withdrawal of Stockport Council from the original Greater Manchester Spatial Framework 2020 Joint Development Plan Document (Joint DPD) preparations, the nine remaining Local Authorities have agreed to use the GMSF as the basis for a new Places for Everyone Plan Joint DPD. This new plan has been prepared on the basis that it will have ‘substantially the same

effect’ as the GMSF. Full details of the processes, dates of consultations and key decision meetings are set out in the Topic Papers.

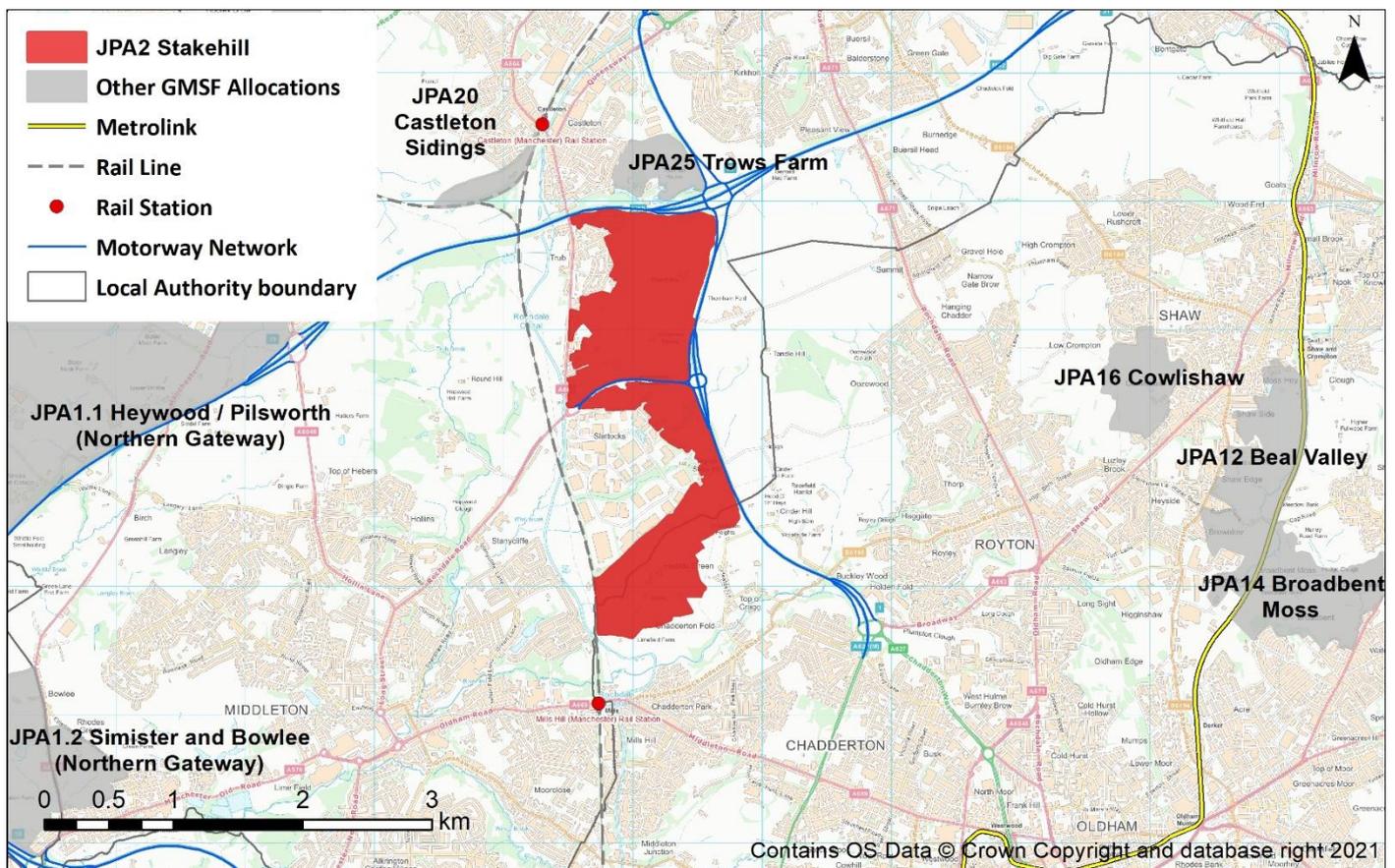
- 1.1.4 The “Transport Locality Assessments – Cross-boundary allocations – GMSF 2020” document formed part of the original evidence base which was assembled to support the policies and proposals in the GMSF 2020. Given the basis on which the PfE has been prepared, the GMSF evidence base remains valid in relation to the PfE 2021. That said, the cross-boundary allocations assessments have been reviewed in the light of the change from GMSF 2020 to the PfE2021. In order to ensure consistency with other submitted Locality Assessments, this report will replace the previously submitted version as it provides greater clarity and readability. The conclusions of the previous round of work are largely unchanged, however, in light of a more recent round of modelling (June 2021), junction assessments have been updated to take account of updated traffic flows information.
- 1.1.5 At the request of Rochdale Borough Council, SYSTRA Ltd were asked to prepare a revised Locality Assessment setting out an updated assessment of the impact of the Allocation in Rochdale/ Oldham on the operation of the transport network, and where necessary, review and revise the transport infrastructure (and its associated costs) necessary to mitigate the impacts of the allocation. The assessment is based on the most recent modelling outputs from the latest round of modelling, undertaken in June 2021.
- 1.1.6 The Stakehill allocation is located between the towns of Rochdale and Oldham, to the west of the A627 (M). The A627 (M) Slattocks Link connecting the A627 (M) and Slattocks Roundabout (A644 Rochdale Road) bisects the allocation with the northern land bound to the north by the M62 and the west by the predominantly residential Rochdale settlement of Castleton. The southern portion of the allocation will extend the eastern boundary of the existing Stakehill Industrial Estate to the A627 (M) and south towards Chadderton Fold. South of the existing Stakehill Industrial Estate, the allocation is bound to the west by the Rochdale Canal.
- 1.1.7 JPA2 Stakehill is allocated for 1736 homes with a further 150,000sqm of Industrial land use.

1.1.8 There are regular bus services running along the A644 Rochdale Road to the west of the allocation, providing access to the Regional Centre and Rochdale. There is however anecdotal evidence of issues around service reliability and issues of congestion on the route. The nearest railway station is located at Castleton, to the north of the allocation off the A644 Rochdale Road/ Manchester Road. Public transport provision from Oldham is however limited, despite its proximity to the allocation.

1.1.9 The most appropriate access points for the allocation are via the A644 Rochdale Road for the land to the north of the Slattocks Link and via the existing Slattocks Roundabout for the southern portion of land.

1.1.10 Please note all boundaries shown were correct at time of writing.

Figure 1 Allocation Location



2. Justification for Allocation Selection

- 2.1.1 The Site Selection process has been led by local authorities from across Greater Manchester, including Rochdale and Oldham Councils. This process provided the starting point for the investigation of the preferred sites through the Locality Assessments.
- 2.1.2 Stakehill has an existing employment offer and has the potential to provide transformational employment and residential development at a scale that would deliver growth in this sustainable location. The allocation has a link to adjacent high areas of deprivation within both Oldham and Rochdale Boroughs and provides a significant opportunity to contribute to the future economic growth of Greater Manchester, capitalising on its proximity and connectivity to the motorway and rail network. The level of housing provided will contribute towards the delivery of local housing need, diversifying the stock and supporting the proposed employment opportunities. Leisure and recreational infrastructure will also be provided as part of the proposals.
- 2.1.3 Details 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 (Greater Manchester Spatial Framework – Revised Draft) consultation ran from 14th January to 18th March 2019. The comments made during this consultation relate to the following key transport themes; employment, housing, public transport and highways. A full summary of all consultation responses is available on the GMCA GMSF website [located here](#) or via the PfE Plan website (<https://www.greatermanchester-ca.gov.uk/placesforeveryone>).
- 3.1.2 A number of key issues were identified at consultation related to building on such a significant proportion of Green Belt. The concerns in relation to employment are that the majority of the additional jobs created would be low paid and low skilled in warehousing and manufacturing industries. Parallel to such concern is a lack of demand for further industrial warehousing/ units in the area as a large number of units at the existing employment areas of Stakehill and Broadgate Industrial Park still remain unoccupied. Further evidence and work was deemed necessary to justify the demand.

- 3.1.3 In terms of housing, concerns were raised regarding how the additional homes proposed north of Thornham St John's would place a considerable amount of pressure on existing infrastructure. Such apprehensions are based upon the existing infrastructure being inadequate as the current water supply, drainage and sewer systems are considered to be at full capacity.
- 3.1.4 Concerns were also raised as to the creation of higher value properties and gentrification which will price out local people unable to afford the new homes and consequently benefit the wealthy. This discrepancy between the employment and housing proposals could create an imbalance between low paid/low skilled jobs being offered and the inability of local people actually able to purchase a property within their local area.
- 3.1.5 A significant number of residents raised concerns regarding how construction in this area will substantially increase traffic around the already congested highway network around the A627 (M), A664 (M), Mills Hill Lane, Elk Mill Retail Park, Middleton Road, Haigh Lane, Boarshaw Road and Boarshaw Lane areas. There is an assumption that the development would result in an increase of 1400 cars on these local roads, therefore making congestion much worse, particularly during peak times. It is also felt that although the allocation can be accessed using public transport, an increase in the cost of the train fares from Mills Hill and additional tariffs on the Metro are discouraging working class people from taking these modes of transport.
- 3.1.6 Air pollution was an issue raised by many residents. There are sections of the A664 (Rochdale Road and Manchester Road) and A627 (M) that currently exceed air pollution guidelines and fall within an Air Quality Management Area. The increased number of cars resulting from the development it is argued will increase the level of pollution and have a negative impact on general health within the area.

4. Existing Network Conditions and Allocation Access

- 4.1.1 This section summarises the existing access to the allocation.
- 4.1.2 The allocation lies between the towns of Rochdale and Oldham, and the boundary between the respective local authorities runs through the southern section of the allocation. It is located south of the M62, a key east-west route across the north of England, and lies west of and is also bisected by the A627(M). On its western side, the allocation is bounded by Castleton, the existing Stakehill

industrial estate and the railway line. The nearest rail stations are at Castleton and Mills Hill, both served by trains running between Blackburn and Manchester.

4.2 Existing Local Access

- 4.2.1 The allocation is divided in two sections by the A627(M), effectively creating a northern and southern allocation.
- 4.2.2 Both the northern and southern sections of the allocation are undeveloped and do not currently have formal accesses. The northern section has frontages along the A627(M), Thornham New Road and Thornham Lane, whilst the southern section fronts the A627(M), A627(M) Spur, Bentley Avenue and Stakehill Lane. The southern section of the allocation is also traversed by Hough Lane along the more narrow section to the east.
- 4.2.3 The northern section of the allocation will be directly accessed by the A664 Rochdale Road. The existing configuration of the A664 Rochdale Road consists of a two-way carriageway inclusive of hatching, right turn pockets with footways along both sides and pedestrian crossing islands.
- 4.2.4 The southern section of the allocation is currently accessed via the A627(M) / A664 Slattock's roundabout. Residential traffic uses Bentley Avenue whilst the majority of industrial traffic uses Whitbrook Way. Slattock's roundabout is a 5 arm intersection with three A-roads converging. Its width can accommodate two circulating traffic lanes. There are kerbed islands and uncontrolled pedestrian crossings on all five approaches with the exception of the northern A664 Rochdale Road, where a pedestrian crossing is absent immediately at the mouth of the Junction. The crossing facility for the A664 Manchester Road is located further north where the housing begins along the southbound carriageway. The provision of on street parking makes it difficult for pedestrians to cross at this location.
- 4.2.5 Bentley Avenue provides access to a small number of homes along the eastbound carriageway and industrial units that cannot be accessed from Whitbrook Way. Vehicles park on street on either side of the carriageway with footways provided on either side.
- 4.2.6 Whitbrook Way is the access point to the Stakehill Industrial Estate. It has a kerbed central reservation on the approach to the roundabout in order to segregate the two-way heavy traffic

flow. When Whitbrook Way connects with Finlan Road, a traffic loop is created providing direct access to all industrial units in the estate.

4.2.7 The allocation is accessed from the Strategic Road Network (SRN) via the A627(M). The dual carriageway provides direct access to both the M62 J20 and Oldham. The M62 is the key west-east Trans-Pennine highway corridor in Northern England, connecting Liverpool and Hull via Manchester and Leeds.

4.2.8 Another key access point from the SRN is the A627(M) / Broadway roundabout. Located to the southeast of the allocation, it acts as the primary access to the SRN, particularly the M62, from Oldham town centre and surrounding areas. It is also a key corridor from the M62 to Manchester city centre from the northeast of Greater Manchester. Broadway roundabout is partly signalised on the eastern side to control traffic flows and improve capacity and performance.

4.3 Accidents and Collision Overview

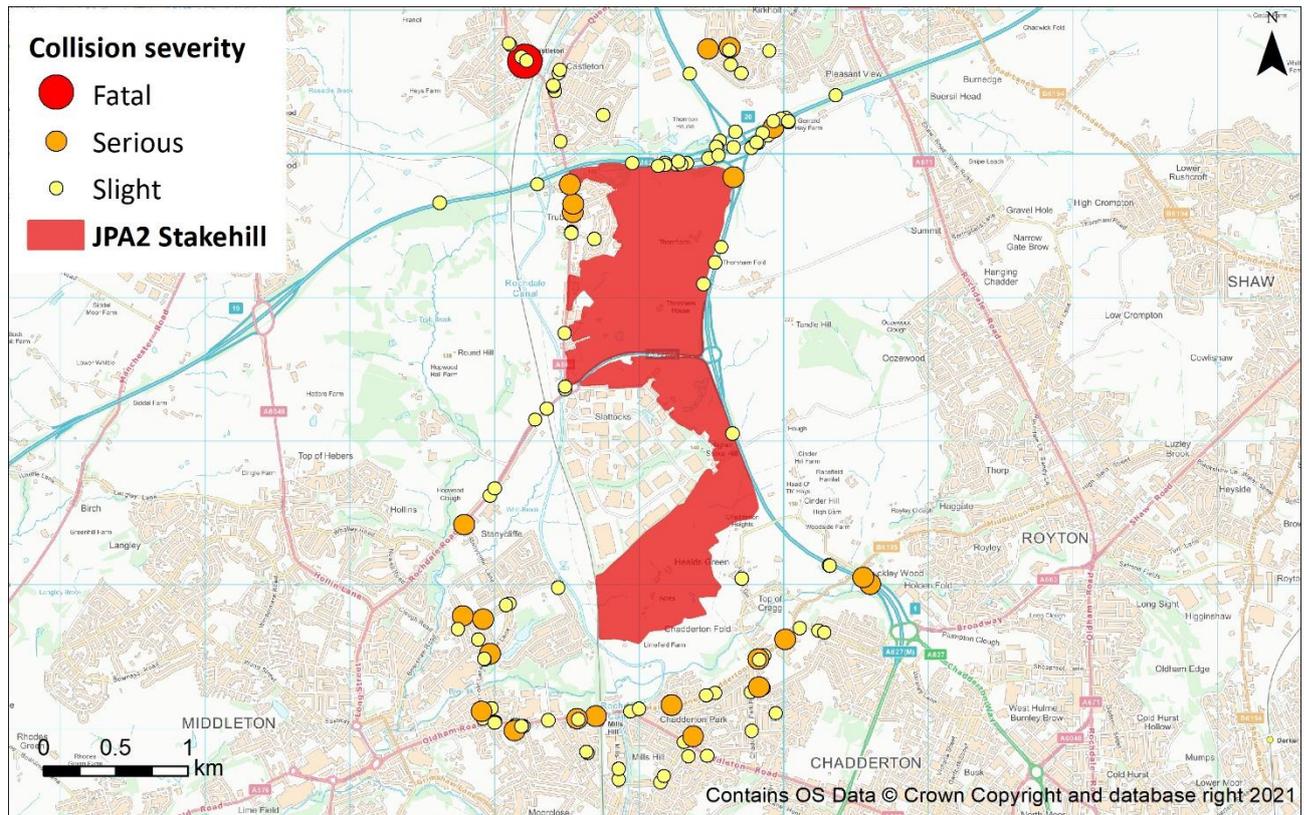
4.3.1 Collision analysis was undertaken using data obtained from the STATS 19 dataset held by the Department for Transport. The analysis focussed on a five-year study period from 1st January 2015 to 31st December 2019 for a 1km area around the allocation boundary. During that period there were 129 collisions, of which one was fatal and 22 were serious (Table 1).

Table 1 Collision data 2015 – 2019:

Fatal	Serious	Slight	Total
1	22	106	129

4.3.2 Figure 2 provides an illustrative indication of where the collisions occurred. It can be seen that there is a cluster around the M62 at Junction 20, although the data and most of the serious collisions occurred on local roads. The casualties in the fatal car collision were both car occupants, with the second of the two suffering slight injuries. Of the 22 serious collisions, five involved motorcyclists, three involved pedestrians, and one involved a pedal cyclist.

Figure 2 Location and severity of collisions (2015-2019 inclusive)



4.3.3 Very few collisions are observed along the A664 Manchester/ Rochdale Road, however, three serious collisions are observed immediately south of the M62 overbridge.

5. Proposed Access to the Allocation

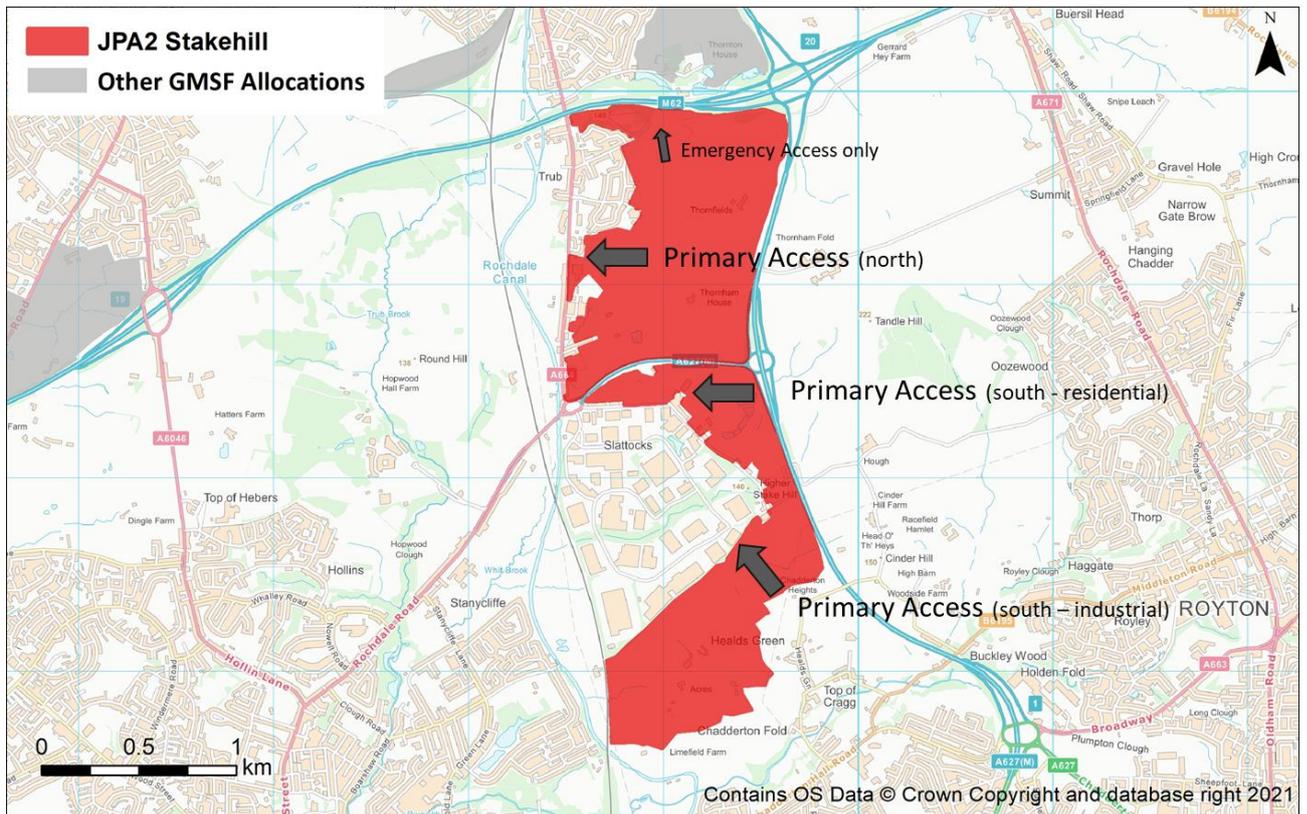
5.1.1 The most appropriate access point for the Northern portion of the allocation would be the existing garden centre access road on the western boundary that would provide access from the A664 Rochdale Road (see Figure 3). This would be the primary access for this part of the allocation.

5.1.1 A signalised junction is proposed to serve the allocation at this location with a secondary emergency access proposed via Thornham New Road.

5.1.2 For the southern part of the allocation, the most suitable access points are via Bentley Avenue and Finlan Road. The access point from Bentley Avenue would serve the residential element of the proposed allocation, located in the eastern part of the allocation, and the southern industrial allocations will be accessed from Touchet Hall Road and/ or Finlan Road.

5.1.3 The allocation access assessment has been undertaken to confirm that practical options for access can be achieved, and indicative cost estimates have been prepared. 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.

Figure 3 Allocation Access Arrangements:



6. Multi-modal accessibility

6.1 Overview

6.1.1 The development of access and active travel across the Greater Manchester Region is a central tenet of the PfE Plan, to be realised through the establishment and continued improvement of the cycle and walking network.

6.1.2 An assessment of the accessibility of the allocation, by all modes of transport, has been undertaken so as to establish if it would meet with prevailing sustainable transport policies. It highlights the opportunities for employees, residents and visitors to travel to and from the allocation by modes of travel other than in a privately owned car.

- 6.1.3 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 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 The Stakehill allocation varies in its score. In the northern section of the allocation, the GMAL score is mostly 2 and 3, with a small area scoring 1. The higher scores reflect parts of the allocation that are closer to the existing settlements of Castleton and Slattocks. In the southern part of the allocation, the GMAL score is mostly 1, with a score of 2 at the western periphery. Overall therefore, the current accessibility of the allocation is considered poor, however, there is considerable scope to improve this with improved infrastructure.

6.2 Northern section

Public Transport

- 6.2.1 The nearest bus stop to the northern part of the allocation is on the A664 Manchester Road within approximately 150m of the proposed access to the allocation. Service numbers 17 and 17A from this location are operated by Go North West and during peak hours, the number 17 departs every 12 minutes in each direction of travel. Journey times are competitive and Rochdale town centre can be accessed within 20 minutes by bus.
- 6.2.2 Journeys to and from Oldham centre require a change at Middleton to catch service 17 towards Stakehill with journeys taking approximately 45 minutes. This journey time is considered poor as Stakehill is equidistant from both Rochdale and Oldham.
- 6.2.3 Castleton is the nearest rail station, located approximately 1.8 km from the centre of the northern access to the North of the allocation. It is located adjacent to the A664 Manchester Road and there is a continuous footway along this carriageway between the northern section access point and the station. It can also be accessed via the canal towpath. Bus stops are located outside the station, and the number 17 and 17A buses that serve the allocation stop outside the rail station. The station provides cycle parking for ten bicycles.

6.2.4 There are two services per hour in each direction, with additional services in the morning and evening peak times, with trains to Manchester Victoria, Rochdale, Blackburn and Clitheroe, amongst others. Journey times from Castleton are 7 minutes to Rochdale, 13 minutes to Manchester Victoria, 1 hour 10 minutes to Blackburn, and 1 hour 35 minutes to Clitheroe.

Walking and Cycling

6.2.5 The northern section of the allocation is accessible on foot via the proposed site access off the A664 Manchester Road. Footways and regularly spaced street lighting columns are present on both sides of the A664 Manchester Road, which is subject to a 30mph speed limit in this area. There are numerous existing pedestrian crossings, a signalised crossing at the proposed access junction and a pelican crossing to the north of the junction with Earl Street and Thornham New Road.

6.2.6 With respect to cycling, destinations within a 5km cycling distance include: Rochdale, Middleton, Heywood, Mills Hill, Royton and Chadderton. The allocation is also in close proximity to the National Cycle Network (NCN) Route 66, which utilises the Rochdale Canal Towpath that is located west of the allocation and runs between Manchester City Centre through Rochdale Borough and Calderdale as far as Sowerby Bridge. In addition to the canal towpath, another traffic free route for cyclists is the mostly unpaved Thornham Lane providing a link towards Royton.

6.2.7 The Rochdale Canal Towpath can be accessed via Earl Street or the A664 Rochdale Road on the western arm of Slattocks roundabout, providing an alternative link for pedestrians to access Castleton Town Centre to the north.

6.2.8 From the northern part of the allocation, the main local destinations likely to generate walking and cycling trips are: BP petrol station with shop (0.6 km), St John's CE Primary School (1.3km), Well Castleton Pharmacy (1.3km), Cooperative Food Grosvenor Street (1.3km), Castleton Post Office (1.4km), Annie's Café A664 (1.4km) and Evolution Gym (1.6km).

6.3 Southern section

Public Transport

6.3.1 The nearest bus stops to the southern part of the allocation are the stops within Stakehill Industrial Estate and on the A664 Rochdale Road.

- 6.3.2 The bus stops on the A664 Manchester Road are near Thornham Lane towards the north and adjacent to the golf club on A664 Rochdale Road towards the south. These stops are at most around 1.1 km from the centre of the residential part of the allocation, but further from the industrial portion. These stops are served by the number 17 bus that is operated by Go North West and during peak hours, the number 17 departs every 12 minutes in each direction of travel. Journey times are competitive and Rochdale town centre can be accessed in approximately 20 minutes by bus.
- 6.3.3 The Stakehill Industrial Estate bus stops are located on Finlan Road and Touchet Hall Road. These stops are served by one 17A bus Monday to Friday in each direction running between Rochdale and Manchester, with both buses calling at the estate at around 05:30, and the estate is also served by one 17B bus on the Middleton – Stakehill circular route that calls at the estate at 06:53 Monday to Friday.
- 6.3.4 Mills Hill is the nearest rail station, located approximately 1.6 km from the centre of the industrial part of the allocation, and at a greater distance from the residential part. It is located adjacent to the A669 Oldham Road however, at present, access to the allocation area is via unpaved or uneven lanes, or via Boarshaw Lane and the canal towpath. There is no bus connection between the allocation and Mills Hill rail station however, the Number 17 bus service can be used to reach Castleton railway station to the north, which is 1.8km from the centre of Stakehill Industrial Estate.
- 6.3.5 From both Mills Hill and Castleton railway stations, there are two services per hour in each direction, with additional services in the morning and evening peak times, with trains to Manchester Victoria, Rochdale, Blackburn and Clitheroe amongst others. Journey times from Mills Hill are 4 minutes to Rochdale, 15 minutes to Manchester Victoria, 1 hour to Blackburn, and 1 hour 30 minutes to Clitheroe.

Walking and Cycling

- 6.3.6 The southern section of the allocation is bounded by the Stakehill Industrial Estate to the north, the A627 (M) and Green Belt to the east. Bentley Avenue and part of Stakehill Lane also have streetlights and footways, with the remainder of Stakehill Lane an unpaved, unlit route. The Rochdale Canal towpath can be accessed to the west of Slattocks Roundabout. Uncontrolled pedestrian crossing points are located on Bentley Avenue, Whitbrook Way and the A664 Manchester Road.
- 6.3.7 As with the northern section of the allocation, destinations within a 5km cycling distance include: Rochdale, Middleton, Heywood, Mills Hill, Royton and Chadderton. The allocation is also in close proximity to the National Cycle Network (NCN) Route 66, which utilises the Rochdale Canal Towpath that is located west of the allocation. In addition to the canal towpath, another traffic free route for cyclists is the unpaved Boarshaw Lane.
- 6.3.8 From the southern part of the allocation, the main local destinations likely to generate walking and cycling trips to and from the allocation are: BP petrol station with shop (0.6 km), St Matthew's C of E Primary School (0.8km), Cathedral Pharmacy (1.0km), Cooperative Food Cathedral Road (1.0km), Martin's Sandwich Shop (1.0km), Burnley Lane Post Office (1.6km).
- 6.3.7 There may be the opportunity to offer pedestrian access between the northern and southern sections of the allocation using the north-south section of Stakehill Lane, which includes a bridge over the A627(M).

6.4 Proposed

- 6.4.1 Providing infrastructure that facilitates walking and cycling opportunities is an important consideration, especially with schools and numerous employment opportunities located in close proximity of the proposed allocation. Furthermore, in order to maximise the number of residents using public transport services, good, direct walking connections throughout the allocation and to points beyond will be needed.
- 6.4.2 Signalised pedestrian crossings are proposed as part of the northern access point off A664 Manchester Road, which will also provide a link to the canal towpath. A further signalised pedestrian crossing is proposed on the eastern arm of the Slattocks roundabout that would serve both halves of the allocation.

- 6.4.3 Proposed improvements on the A664 Manchester Road include dropped kerbs and tactile paving for the minor road crossing points between the allocation and Castleton rail station. Resurfacing of the unpaved sections of Boarshaw Lane and Thornham Lane is also proposed.
- 6.4.4 In Castleton, public engagement on the development of the Greater Manchester Bee Network suggested the introduction of a safe walking and cycling corridor linking Castleton and Rochdale along Manchester Road to the north of the allocation. There are also plans to develop the Bee Network and upgrade existing routes and crossings in Royton to the east of the allocation.
- 6.4.5 In order to provide stronger bus connections to the southern part of the allocation, a new or a rerouted bus service will be required, in particular to provide service provision to and from Oldham where there is limited connectivity. As well as linking in with the rest of the bus network, this bus service could also serve the rail stations. This would benefit both residents travelling from and employees travelling to the allocation.
- 6.4.6 In addition to regular bus services, the expansion of Local Link services should be explored to connect key existing residential areas (such as Castleton, Middleton and Oldham) with Stakehill during traditional 'out of service' hours. The service already operates in Rochdale with the Kingsway Local Link running to and from Kingsway Business Park from anywhere in the service area between 5am and 11pm.
- 6.4.7 Local Link operates successfully at other employment sites across Greater Manchester, notably at Logistics North. Local Link provides door-to-door transport which allows passengers living in areas where the service is active to ring and book shared minibuses to travel anywhere within a Local Link service area. This is considered to be an attractive proposition for this allocation and the wider Stakehill area due to its location in a sparsely populated area with limited destination choice provided from existing services and shift work likely to operate.

- 6.4.8 It should be noted that the possibility of a new railway station to the west of the Slattocks Roundabout is being considered by TfGM and could potentially be delivered adjacent to other projects in the area. Whilst the allocation is currently accessible by rail at Castleton and Mills Hill, a new station would significantly reduce the travel time and distance for rail passengers, and therefore provide a viable transport option for a larger number of people. The proposed railway station would be located within easy walking/ cycling distance of the allocation, thus further reducing the need to travel by private car.
- 6.4.9 The allocation would be required to incorporate a high quality network of public routes through the allocation, connected into the wider pedestrian and cycling network that provides access to local facilities and public transport services.
- 6.4.10 The masterplan for the allocation should:
- Be designed to encourage the use of nearby public transport services, with high quality pedestrian routes and off allocation pedestrian crossings that connect all parts of the allocation to bus stops along the A664 Manchester Road;
 - Incorporate attractive public rights of way through the allocation connecting with the existing network; and;
 - Directly link with the proposed nearby Bee Network
- 6.4.11 Greater Manchester's 'Made to Move' plans to transform Greater Manchester and provide detailed walking and cycling infrastructure to improve health, air quality and congestion across the region, and the masterplan should align with this.

7. Parking

- 7.1.1 Stakehill is a cross-boundary strategic allocation and therefore the parking standards for both Oldham and Rochdale have been considered in this section.
- 7.1.2 Proposed maximum car parking standards, as set out in the Rochdale Core Strategy (2016), are as follows:

Table 2 Parking standards - by use:

Type	Maximum Car Parking	Minimum Cycle Parking
Housing		
1 bed houses and dwellings in town centres	1.25 spaces per dwelling	No standard
1 bed flats / apartments in town centres	1.25 spaces per dwelling	1 secure space per 5 dwellings (min 2 spaces)
2+ bed housing outside of town centres	2 spaces per dwelling	No Standard
2+ bed flats / apartments outside of town centres	2 spaces per dwelling	1 secure space per 5 dwellings (min 2 spaces)
Sheltered housing	1 space per 3 dwellings + 1 space per 2 FT Equivalent Staff	No standard
INDUSTRY		
B2 General industry	1 space per 60m ²	1 space per 700m ² (min 2 spaces)
B8 Storage / distribution	1 space per 100m ²	1 space per 850m ² (min 2 spaces)

Table 3 Parking standards – disabled parking:

Total Number Of General Parking Spaces Provided	Minimum Standard Of Disabled Car Parking Provision To Be Provided
Below 12 spaces	10% of total capacity
12 to 200 spaces	3 bays of 6% of total capacity (whichever is greater)
Over 200 spaces	4 bays plus 4% of total capacity

7.1.5 The Oldham Joint Core Strategy and Development Plan document (November 2011) outlines the long-term visions for the Borough and states that for parking, the council will apply maximum standards until locally-specific standards can be prepared. It is understood that both Councils will come to an agreement on parking standards for the development as the allocation moves through the planning process.

8. Allocation Trip Generation and Distribution

- 8.1.1 The strategic modelling component of the PFE Locality Assessments has been produced using data from TfGM’s Variable Demand Model (GMVDM). An overview of the modelling process can be found in the GMSF Strategic Modelling Technical Note which can be found via the PFE Plan website: <https://www.greatermanchester-ca.gov.uk/placesforeveryone>
- 8.1.2 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 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.
- 8.1.3 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.

- 8.1.4 The 'standard' development planning approach would generally not assume that future highway trips are constrained by congestion on the highway network. Discussions between SYSTRA Ltd and TfGM pointed towards a need to also look at a 'high-side' scenario with the GMSF development scenario which does not take account of future congestion on the road network. The 'High Side' is considered to be a worst case and the modelling work has been undertaken using these 'high side' flows.
- 8.1.5 The development quantum for the allocation is shown in Table 4, while the estimated traffic generation for the high scenario is shown in Table 5.

Table 4. Cumulative Development Quantum:

Use	Use Sub-Category	Development Quantum 2025	Development Quantum 2040
Residential	Houses	55	1736
Residential	Apartments	0	0
Employment	B2/B8	0	150,000 sqm
Total		55 homes	1736 homes & 150,000 sqm

Table 5. Allocation Traffic Generation:

Year	Am Peak Hour DEPARTURES	Am Peak Hour ARRIVALS	Pm Peak Hour DEPARTURES	Pm Peak Hour ARRIVALS
2025 GMSF Constrained	16	6	10	21
2040 GMSF Constrained	824	645	704	774
2025 GMSF High-Side	19	8	12	21
2040 GMSF High-Side	927	811	763	774

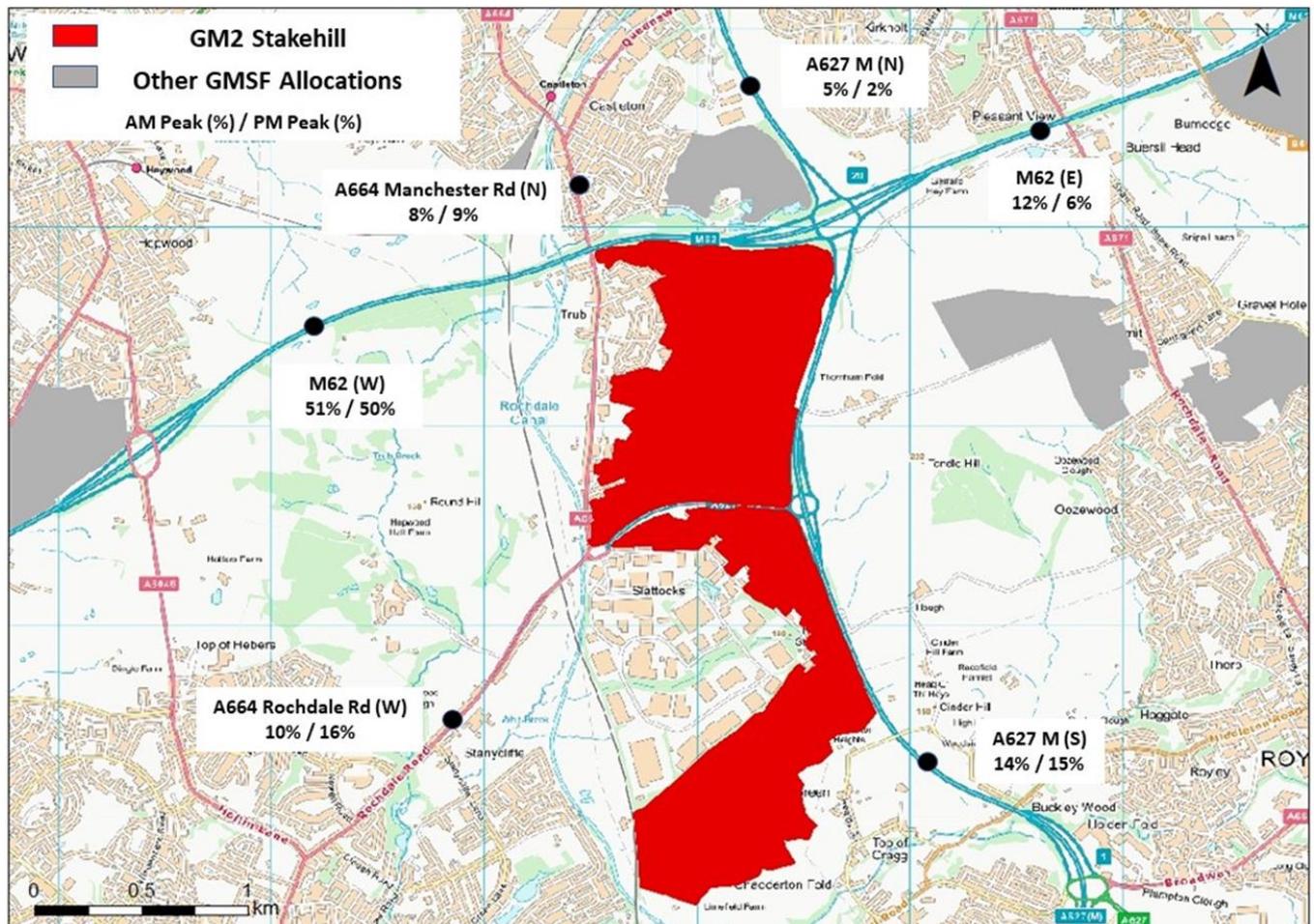
Units are in PCU (passenger car units/hr)

8.1.1 Table 6 and Figure 4 indicate the distribution of traffic on the network to and from the allocation in the peak model periods which are 08:00-09:00 (AM peak) and 17:00-18:00 (PM Peak). The primary movements in both the AM and PM peak hours are to/from the M62 west, accounting for around half of the total trips.

Table 6. Traffic Distribution , 2040 High-Side (OD Combined):

Route	Am Peak Hour	Pm Peak Hour
M62 (West)	51%	50%
A664 Manchester Road (North)	8%	9%
A627 (M) (North)	5%	2%
M62 (East)	12%	6%
A627 (M) (South)	14%	15%
A664 Rochdale Road (West)	10%	16%

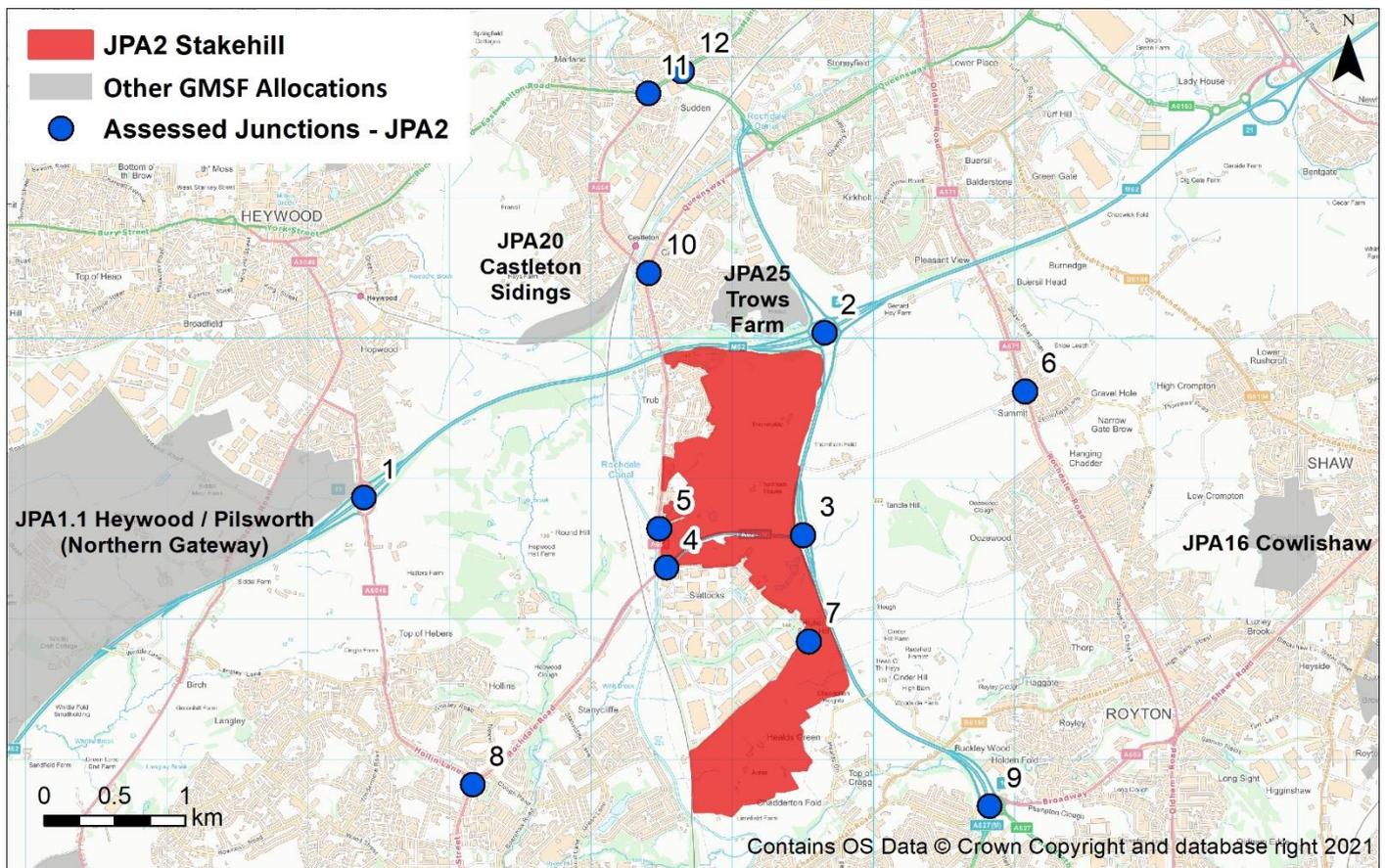
Figure 4 Traffic Distribution , 2040 High-Side (OD Combined):



9. Current Highway Capacity Review

- 9.1.1 The A664 Manchester/ Rochdale Road runs north-south to the east of the allocation through Castleton, Slattocks and Stanycliffe, connecting Rochdale to the north with Middleton to the south. The A664 Manchester/ Rochdale Road is a single carriageway 30mph road affording access to local amenities, housing and industrial estates. Footways are provided on at least 1 side of the road for the entire section between Castleton and Middleton.
- 9.1.2 The A627 (M) Slattocks Link is a dual carriageway connecting the A627 (M) to the west with the A664 Manchester/ Rochdale Road to the east. Slattocks Link is a national speed limit road extending for approximately 920m with no pedestrian or cycle facilities along its length.
- 9.1.3 To the east of the allocation is the A627 (M) which connects the M62 at Junction 20 with Oldham at the Broadway Junction at Holden Fold. To the south of the Broadway Junction, the A627 (M) becomes the A663, ultimately connecting with the M60 at Junction 21 at Whitegate.
- 9.1.4 Based on the configuration of the existing highway network and the planned access strategy, 12 junctions have been identified for assessment, as indicated in Figure 5.
- 1. M62 Junction 19/ A6406 Heywood Interchange
 - 2. M62 Junction 20
 - 3. A627(M)
 - 4. A627(M) / A664 (Slattocks)
 - 5. Rochdale Road / A664 Northern Access
 - 6. Thornham Old Road / Oldham Lane
 - 7. Boarshaw Lane / Stakehill Lane
 - 8. A664 / A6046
 - 9. A627(M) / Broadway
 - 10. A664 Manchester Road/ Queensway
 - 11. A58 Bolton Road/ A664 Manchester Road
 - 12. A58 Manchester Road/ A664 Edinburgh Way/ Roch Valley Way

Figure 5. Assessed Junctions



10. Treatment of Cumulative Impacts

10.1.1 In order to assess the cumulative impact of GM allocations on the network, two model runs 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 Greater Manchester Variable Demand Model (GMVDM).

10.1.2 The transport impacts of the allocation need to be considered cumulatively with other PfE site allocations. Hence, both the constrained and high side model runs take account of traffic associated with all PfE allocations in proximity to the allocation.

10.1.3 A number of other PfE allocations are located in close proximity of the allocation and will contribute to the overall impact at Junctions in the local area. Those likely to have the greatest impact are;

- JPA 1.1 Heywood/ Pilsforth (Northern Gateway)

- JPA 16 Cowlshaw
- JPA20 Castleton Sidings
- JPA25 Trows Farm

11. Allocation Access Assessment

- 11.1.1 Vehicular access to the allocation as a whole would be as per the access strategy set out in Chapter 5. Access arrangements for individual development parcels within the allocation have not been considered in this locality assessment; this will be covered by subsequent masterplanning work.
- 11.1.2 These allocation access arrangements should produce a detailed design consistent with Greater Manchester's best practice Streets for All highway design principles which will be required at the more detailed planning application stage.

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

- 12.1.1 The assessment below is based on outputs from Greater Manchester's Variable Demand Model (GMVDM). While every effort has been made to accurately reflect the existing and planned road networks, it remains a strategic model. It may be the case that subsequent planning applications, utilizing more detailed traffic models / tools, may arrive at slightly different outcomes.
- 12.1.2 In order to understand a worst case impact of the PfE, the 'high side' runs from the GMVDM were used to derive PfE 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 local authority current land supply with proposed PfE allocations) were also extracted to provide a comparison between the operation of those junctions in the 2040 reference case and the 2040 'high' development scenarios.
- 12.1.3 The 'high' scenario has been assessed against a Reference Case which assumes background growth and includes the housing and employment commitments from the districts. It has been agreed for the purposes of PfE 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.

- 12.1.4 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 PfE allocations forward.
- 12.1.5 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. Traffic signal information was obtained from TfGM Urban Traffic Control (UTC). Junctions 9 software was used to assess priority and roundabout junctions.
- 12.1.6 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 and increased vehicle queuing and delay are likely to occur.
- 12.1.7 The following table summarises the results of the individual junctions models assessing the junctions on the Local Road Network (LRN). The table also provides an indication of the traffic generated through each of the junctions in the 'high' scenario at 2040.

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

No	Junction	Ref Case Am	Ref Case Pm	Gmsf High Am	Gmsf High Pm	Allocation Flows Am	Allocation Flows Pm
5	Rochdale Rd / Northern Access	N/A	N/A	65%	67%	714	835
6	Thornham Old Rd / Oldham Ln	27%	20%	35%	26%	2	2
7	Boarshaw Ln / Stakehill Ln	N/A	N/A	N/A	N/A	N/A	N/A
8	A664 / A6046	83%	86%	88%	93%	64	80
10	A664 Manchester Road/ Queensway	81%	86%	82%	88%	151	142
11	A58 Bolton Road/ A664 Manchester Road	92%	92%	92%	96%	68	69
12	A58 Manchester Road/ A664 Edinburgh Way/ Roch Valley Way	93%	90%	94%	92%	86	82

12.1.8 As shown in the table above, none of the local road network Junctions is operating above capacity in either the reference case or ‘high’ scenarios at 2040.

12.1.9 The Boarshaw Lane/ Stakehill Lane Junction has not been included in the model as it essentially provides access to an existing farm. Subsequently, no Junction modelling has been undertaken at the Junction.

12.1.10 The table also highlights junctions where the impact between the reference case and ‘high’ scenario is considered to be negligible and as a consequence, where no mitigation has been considered. Highway mitigation schemes have not been considered at the following junctions;

- 5. Rochdale Rd / Northern Access

- 6. Thornham Old Rd / Oldham Ln
- 7. Boarshaw Ln / Stakehill Ln
- 8. A664 / A6046
- 10. A664 Manchester Road/ Queensway
- 11. A58 Bolton Road/ A664 Manchester Road
- 12. A58 Manchester Road/ A664 Edinburgh Way/ Roch Valley Way

12.1.11 Further modelling work will be required to support the Transport Assessment for the allocation with updated traffic flow information.

13. Transport Interventions Tested on the Local Road Network

13.1.1 The Junction modelling exercise looked at a range of different Junctions on the local highway network, and whilst some deteriorated in comparison with the reference case, they were all observed to operate within capacity. As a consequence, no mitigation has been investigated on the local road network in and around Stakehill.

14. Impact and mitigation on Strategic Road Network

14.1 Overview

14.1.1 The same caveats regarding the use of GMVDM model outputs, as set out in Section 4.4, also apply here. That is, it may be the case that subsequent planning applications, utilizing more detailed traffic models / tools, may arrive at slightly different outcomes.

14.1.2 This chapter covers those impacts where traffic generated by the PfE 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.

14.1.3 SYSTRA Ltd is currently consulting with Highways England on behalf of TfGM and the Combined Authority in relation to the wider impacts of the PfE 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 PfE 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 PfE allocations in advance of Examination in Public (EiP).

14.1.4 The following table provides a summary of the flows & RFC's at SRN Junctions in the study area.

Table 8. Results of Local Junction Capacity Analysis Before Mitigation:

No.	Junction	Ref Case Am	Ref Case Pm	High Am	High Pm	Allocation Flows Am	Allocation Flows Pm
1	M62 J19 Heywood Interchange	83%	79%	87%	78%	78	126
2.	M62 J20	140%	132%	170%	159%	1137	889
3.	A627(M)/ Slattocks Link	62%	61%	89%	81%	1391	1129
4.	A627(M) / A664 (Slattocks)	91%	76%	160%	104%	1636	1440
9.	A627(M) / Broadway/ Chadderton Way	120%	112%	123%	114%	150	144

1. M62 Junction 19

14.1.1 Although the performance of M62 Junction 19 is found to worsen in the AM 'high' Scenario (relative to the Reference Scenario), its operation is now found to be acceptable. Based on this latest assessment, no further improvements are proposed beyond the committed improvements relating to the South Heywood Link Road (further information on this scheme is available in the Northern Gateway Locality Assessment Review Note). No further assessment is deemed necessary at this stage.

2. M62 Junction 20

14.1.2 WSP devised a scheme which would see the Introduction of a dedicated left lane filter on the A627 (M) northbound on approach to the M62 westbound slip road. This form of mitigation has been tested with results presented in Table 10. It should be noted that the scheme is an indication of what could be achieved at the Junction to mitigate the impact of the allocation and may not be the scheme on the ground. The developer will need to satisfy Highways England that a scheme can be delivered and accommodated at the Junction as the allocation moves through the planning process.

3. A627(M)/ Slattocks Link

14.1.3 The A627(M)/ Slattocks Link Junction is observed to deteriorate in the 'high' scenario which is unsurprising given the projected level of demand through the Junction associated with the allocation. Junction modelling has however demonstrated that the Junction will operate within capacity at 2040. No further assessment is deemed necessary at this stage.

4. A627(M) / A664 (Slattocks)

14.1.4 At the A627(M) / A664 (Slattocks) Junction, WSP proposed the signalisation of the Junction to control the significant additional volume of traffic associated with the allocation. The Junction would benefit from improved circulatory capacity and a comprehensive lining and signing strategy to improve routing. The merge length of the A664 Rochdale Road (W) exit would be improved by replacing hatching with a traffic lane.

14.1.5 A two – lane approach and exit of the Whitbrook Way arm would be accommodated by removing existing hatching and this would extend to Finlan Road.

14.1.6 Pedestrian and cycling facilities would also be improved on the A627 (M) arm of the Junction.

14.1.7 This scheme has been tested with the results presented in Table 10. The developer will need to satisfy Highways England that a scheme can be delivered and accommodated at the Junction as the allocation moves through the planning process.

9. A627(M) / Broadway / Chadderton Way

14.1.8 The constrained nature of the Chadderton Way Interchange means that large-scale interventions are currently beyond the scope of this PfE study, and will require further review at the Transport Assessment stage. However, a minor intervention was created to provide marginal improvements and mitigate the impacts of the PfE allocations.

14.1.9 The intervention would see 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.

14.1.10 The following table provides a summary of the schemes proposed by WSP (who undertook the initial Locality Assessment) to mitigate the impact of GMSF at the junctions which have been identified through the Junction modelling process.

Table 9. Approach to Mitigation (SRN):

No.	Junction	Mitigation Approach
2	M62 J20	Introduction of left lane on A627 (M) northbound on approach to M62 westbound slip road with requisite lining and signing
4	A627(M) / A664 (Slattocks)	Junction signalisation and circulatory capacity improvements
9	A627(M) / Broadway / Chadderton Way	Introduction of third lane on the southbound access from the A627 (M) north

14.1.11 Table 11 below indicates the impact of mitigation at each of the Junctions discussed above with further narrative provided beneath the table.

Table 10. Results of Local Junction Capacity Analysis Post Mitigation:

No.	Junction	Ref Case Am	Ref Case Pm	High Am	High Pm	High Am (With Mit)	High Pm (With Mit)
2.	M62 J20	140%	132%	170%	159%	148%	130%
4.	A627(M) / A664 (Slattocks)	91%	76%	160%	104%	104%	101%
9.	A627(M) / Broadway/ Chadderton Way	120%	112%	123%	114%	107%	102%

2. M62 Junction 20

14.1.12 The improvement scheme does reduce the impact at the Junction compared with the high scenario, however, it does not return the Junction back to the reference case situation. The developer will need to satisfy Highways England that a scheme can be delivered and accommodated at the Junction as the allocation moves through the planning process.

4. A627(M) / A664 (Slattocks)

14.1.13 As with M62 Junction 20, the mitigation scheme provides a marked improvement against the high scenario, in particular during the AM peak. The mitigation scheme does not return the Junction back to the reference case scenario and operates slightly over capacity in both the AM and PM peaks. There is space around the Junction to deliver a more significant scheme should the need arise as the allocation moves through the planning process. The developer will need to satisfy Highways England that a scheme can be delivered and accommodated at the Junction as the allocation moves through the planning process.

9. A627(M) / Broadway / Chadderton Way

14.1.14 The scheme at the A627(M) / Broadway / Chadderton Way Junction indicates that the Junction operates above capacity, however, it is an improvement when compared with both the reference case and high scenarios.

14.1.15 Further dialogue will be required with Highways England to ensure that schemes impacting the SRN can be accommodated on the network and meet with their aspirations.

14.1.16 A parallel piece of work is currently underway which is examining the impact of PfE on the (SRN), this piece of work aims to identify solutions to issues on the SRN as a result of PfE development, where possible findings from this work have been fed into this Locality Assessment Review.

15. Final list of Interventions

15.1.1 The proposed final list of interventions is summarised in Table 12.

Table 11. Final list of interventions:

Mitigation	Description
Allocation Access	
Northern access	Provision of signal controlled Junction at A664 Manchester/ Rochdale Road inclusive of pedestrian crossing facilities
Necessary Strategic interventions	
A627(M) / A664 Rochdale (Slattocks) Roundabout improvement	Junction signalisation and circulatory capacity improvements
Supporting Strategic Interventions	
M62 Junction 19	See Northern Gateway Masterplan Report
A627(M) / Chadderton Way / A663 Broadway Interchange	Improvement scheme has proven to reduce the impact of PfE development traffic.

New rail station at Slattocks	Potential for a new railway station at Slattocks as per TfGM's 2040 Strategy
Necessary Local Mitigations	
Bus service improvements	1412 serves southern edge and 17A serves Stakehill in peaks. New service between Rochdale and Oldham every 15 minutes to be explored
Walking and cycling improvements	As well as segregated cycling and walking access at the proposed access points, the allocation should benefit from direct walk/ cycleways through the allocation to access bus stops on the A664 Manchester/ Rochdale Road to access Rochdale and Oldham, and link to the Bee Network.
Installation of Tactile Kerbing	Dropped kerbs and tactile paving should be provided across the minor arms along the route between the northern allocation and Castleton Station.
Extension of Local Link services	Expansion of the Local Link (demand responsive transport) services should be explored to connect nearby residential areas with Stakehill during out-of-service hours.
Supporting Local Mitigation	
Resurfacing of Thornham Lane	Resurfacing is proposed of the rough surfaced section of Boarshaw Lane and Thornham Lane
SRN Interventions	
M62 Junction 20	Dedicated left turn filter from A627 (M) northbound to M62 west on slip

15.2 Traffic Reduction Strategies

- 15.2.1 The analysis underpinning this Locality Assessment has been undertaken using a standard robust highway modelling approach including reference to predicted future development trip levels based on the historical operation of major employment sites, particularly with respect to traditional AM & PM peak 'rush hour' periods.
- 15.2.2 There is an increasingly compelling argument that the use of such peak hour demand estimates is overly robust for long term forecasting, particularly if applied wholesale across new strategic development areas. 'Peak spreading' is already a well-recognised feature of recent general traffic growth across Greater Manchester (i.e. only limited traffic growth taking place during critical 'rush hour' periods), with additional travel demand tending to be concentrated on more 'off-peak' periods, when there is spare transport network capacity to accommodate such movements. Furthermore, increases in modern communications technology have increased the potential for home-working / tele-working and reduced the need for business travel and meetings. The notion of '9 to 5' style working is now viewed as an out-dated concept, with staff valuing the benefits of flexible working.

16. Strategic Context – GM Transport Strategy Interventions

- 16.1.1 TfGM is leading a study to evaluate the feasibility of potential new Rail and Metrolink stations and could lead to a small number of stations being delivered, which could include a new station at Slattocks.
- 16.1.2 The Greater Manchester Transport Strategy 2040 in its Vision for Bus identifies key areas for improvement which include achieving network integration with regards to routing, timing, interchange and multi-modal travel. Passengers will be offered an improved customer experience through making the network more navigable and incorporating a simplified fares system that offers value for money.
- 16.1.3 Longer term solutions consist of a city centre metro tunnel to facilitate improved rapid transit throughout Greater Manchester and improved services on shorter-distance suburban lines by conversion to metro/ tram train operation.

- 16.1.4 Greater Manchester also has ambitious plans to develop the Bee Network - the UK's largest cycling and walking network as a key element to delivering on the "Right Mix" vision, and 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 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.
- 16.1.5 The latest version of Greater Manchester's 2040 Delivery Plan sets out a comprehensive programme of work across all modes and in all Districts which are all focused on ensuring the realisation of the 'Right Mix' vision. Many of these interventions support the PfE 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.

17. Phasing Plan

- 17.1.1 The initial locality assessments were based on information on 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 modelling period, ie. 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 allocations 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. The quanta has been updated in Spring 2020 and in some cases, the development phasing was amended by the Districts as a result of the technical analysis undertaken.
- 17.1.3 At 2025, only 55 homes have been considered within the modelling work undertaken, generating very few trips in the AM and PM peaks respectively.

Table 12. Indicative intervention delivery timetable:

Mitigation	2020-2025	2025-2030	2030-2037
Allocation Access			
Northern access	✓		
Necessary Strategic Interventions			
A627(M) / A664 Rochdale (Slattocks) Roundabout improvement	✓		
Supporting Strategic Interventions			
M62 Junction 19		✓	
A627(M) / Chadderton Way / A663 Broadway Interchange		✓	
Potential railway station at Slattocks			✓
Necessary Local Mitigations			
Bus service improvements	✓		
Walking and cycling improvements	✓		
Resurfacing of Thornham Lane	✓		
Installation of Tactile Kerbing	✓		
Supporting Local Mitigations			
Extension of Local Link services		✓	
SRN Interventions			
M62 Junction 20		✓	

17.1.4 It is anticipated the higher yield would need to be reflected in any further detailed modelling and the masterplan/ delivery strategy proposed for the allocation. It is advisable that following each phase of development, network conditions are assessed to ensure that the next phase is deliverable and does not adversely affect the local highway network in and around Stakehill.

18. Summary & Conclusion

18.1.1 SYSTRA Ltd has been commissioned by Rochdale Borough Council and Oldham Council to prepare a revised Locality Assessment based on the latest round of modelling (June 2021) to assess whether conclusions reached in the Locality Assessment submitted in Autumn 2020 are still valid.

18.1.2 Modelling work has been undertaken using the Greater Manchester Variable Demand Model (GMVDM) with a constrained and high side scenario. The constrained and high side model runs take account of traffic associated PfE allocations. This report has considered the allocation in isolation and the allocation in context with the wider PfE programme using the 'high side' flows which are considered to be a worst case.

18.1.3 A 'high' scenario has been assessed against a Reference Case which assumes background growth and includes the housing and employment commitments from each of the districts across GM. Specific junctions have been assessed to understand the impact of the development at local junctions and along the A627 (M) Road where capacity issues have been observed in the reference case scenario.

18.1.4 Planning for the allocation aims to maximise its accessibility in relation to the A627 (M), the SRN network and proximity to existing and future public transport opportunities.

18.1.5 The previous Locality Assessment suggested that further work would be required to ensure that impacts associated with the allocation and wider PfE development traffic could be accommodated in the highway network. Based on the work undertaken as part of the 5th round of work, we would agree that further work is required, in particular with regards to the SRN where further discussions will be required with Highways England to reduce the impact at key Junctions on the SRN network, in particular at;

- M62 Junction 20
- A627 (M)/ A664 (Slattocks); and

- A627 (M) Broadway/ Chadderton Way

18.1.6 Mitigation schemes have been tested at each of the Junctions noted above, however, they are still observed to operate above capacity at 2040. At this stage, the modelling and analysis work is considered to be a 'worst case' scenario as it focuses on the high scenario forecasting results. Furthermore, it does not take full account of the extensive opportunities for active travel and public transport improvements in the wider GM area.

18.1.1 Based on the information contained within this report, we conclude that the traffic impacts of the allocation are not severe. Whilst the modelling work does forecast that junctions may experience capacity issues, they are not significantly worse than those experienced in the reference case situation and the modelling work is considered to be a 'worst case' scenario. It does not take full account of the extensive opportunities for mode shift toward active travel and public transport improvements both locally and across Greater Manchester associated with the significant continued investment proposals within GM's adopted local transport plan, the 2040 Transport Strategy.

18.1.2 In summary, the allocation is considered to be deliverable, however, further work will be needed to refine these findings as the allocation moves through the planning process. The allocation would need to be supported by continuing wider transport investment across GM.

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