Trafford Council

NEW CARRINGTON MASTERPLAN

Delivery Strategy: Baseline Report

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Delivery Strategy: Baseline Report

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CONTENTS

INTRODUCTION

INTRODUCTION

NEW CARRINGTON MASTERPLAN CONTEXT

This Baseline Report compiled by WSP in conjunction with Deloitte is a first step in informing a Masterplan Delivery Strategy for the New Carrington Allocation on behalf of Trafford Council. It contains and collates baseline knowledge of the study area to inform the next stages of the iterative process of preparing that Masterplan Delivery Strategy.

The Delivery Strategy is the first part of a detailed Masterplan for the New Carrington Allocation as required by Policy JPA 30 of the Places for Everyone (PfE) plan. The eventual masterplan will provide a clear planning framework to enable the sustainable, phased delivery of the allocation and its associated infrastructure. The aim is to enable high quality place making through provision of clear and unambiguous planning and delivery guidance.

The Delivery Strategy considers the aims and requirements of the whole allocation to facilitate the coordinated delivery of development alongside all types of infrastructure. This will enable place making across the site in a coherent manner and maximise integration with existing communities and environments, both internal and adjacent to the allocation.

It is important to develop an Infrastructure Framework alongside the overall Delivery Strategy including safeguarding areas of land to ensure infrastructure delivery can take place at the right locations, phase and scale. Clearly balance and equity is important in the planning and delivery of infrastructure, enabling certainty and clarity for residents, developers, statutory consultees, Trafford Council and other stakeholders.

PURPOSE OF THIS BASELINE REPORT

The focus of this report is to bring together in one place, the key information, technical studies and baseline data as well as policy requirements relating to infrastructure.

This report provides focus on;

- Factual information, about both current and proposed infrastructure;
- Relating the site to policy in respect of each areas of activity;
- Providing initial summary of key considerations prior to the next ‘options’ generation and consideration stage of the work.

As a result of the nature of this work the baseline focuses on consideration of key constraints and less so on opportunities. It does not set our any options which will be subject to a separate document.

The key areas of infrastructure consideration made at this stage are described in the following order, with initial but not exhaustive attempts at considering cross relationships made. For example, where a school is situated or proposed, inter-relates directly to accessibility credentials and its relationship with the wider New Carrington area and beyond.

While we attempt to present information in a collated manner in this report there are inevitably numerous background documents and sets of information that have been considered in its development. Therefore, some plans are of different styles and show things with slightly different emphasis.

An overview of the New Carrington Masterplan Areas is provided in this section followed by discussion relating to a series of infrastructure topics as follows:

- Transport;
- Social Infrastructure;
- Energy; and
- Flood Risk and Drainage.
- This is by no means exhaustive but is felt to cover the key range of factors that come together to influence forward masterplan delivery considerations.

The overall process will continue by using this review to identify and select appropriate infrastructure schemes, taking account of options available. Once selected there will be a subsequent need to develop preliminary designs for outstanding infrastructure schemes, preparing a phasing and delivery programme to enable such to correlate with housing and other development delivery. As such, this document is very much a first step in a much more comprehensive process to be followed.

INTRODUCING THE NEW CARRINGTON MASTERPLAN

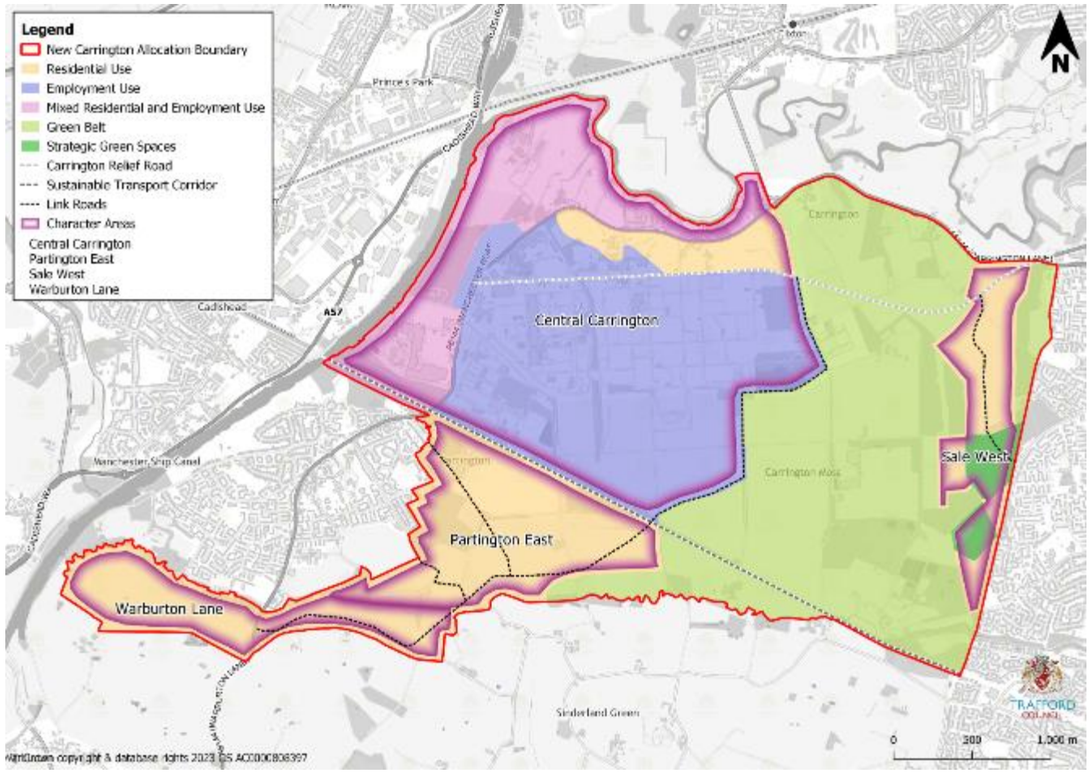
Figure 1 outlines the key features of the New Carrington Allocation including ‘red line boundaries’ and allocations of land within this. We are not, at this stage, considering individual land ownerships, however they will clearly form a part of forward delivery consideration.

Parts of the northern and western boundaries of the allocation area are defined by two major watercourses; the River Mersey to the north and the Manchester Ship Canal to the west. The two watercourses present a significant level of severance, which affect connectivity of the New Carrington Allocation to neighbouring areas. Much of the southern boundary is defined by another watercourse, Sinderland Brook.

The allocation area’s eastern boundary is defined by the existing residential built-up area of Sale including its town centre function.

The principal road connection through the area is the A6144, linking Partington to Sale and the M60 J8 via Carrington village. The site lies approximately 11.5 km south west of Manchester City Centre and around 13km east of Warrington Town Centre. Its strategic location is well documented, within the administrative area of Trafford Council at the western side of Greater Manchester, close to the M60 motorway, south of the M62 and east of the M6. It is also south of the Manchester to Liverpool ‘Cheshire Lines’ railway, west of the Manchester to Altrincham Tramline and South West of major employment areas of Trafford Park and Manchester City Centre, while being east of Birchwood Park in Warrington. Partington and Carrington already provide amenities for communities they serve and much of the site area consists of the former Shell Industrial Site defined as ‘Central Carrington’ in the following plan.

Figure 1 - New Carrington Indicative Allocation Plan (Picture 11.46 from PfE)



The proposed land uses, taken from the 2020 GMSF Masterplan, can be summarised as follows:

- Up to 152.8 ha of B1/B2/B8 employment development, located primarily within Central Carrington, to the South of the Carrington Relief Road (CRR) and on either side of Manchester Road. These comprise the purple and pink areas on Figure 1 above;
- Two Neighbourhood Centres, envisaged to be in Carrington Village and Sale West, and a Local centre in Partington East;
- Approximately 5,000 new homes across a total area of approximately 179.7 ha, within the residential areas shown in pink and yellow on Figure 1 above;
- Open Space and green infrastructure; and
- Strategic transport infrastructure and new routes for all modes of transport.

The masterplan is split into four character areas which can be defined as follows:

- **Warburton Lane:** The proposed Warburton Lane area is located to the southern edge of Partington and will be focused on lower density family housing. Development within this area will need to be designed in a sensitive way which mitigates the impact on any potential heritage assets - both built heritage and archaeological. These development parcels, particularly those to the west of Warburton Lane, will need to provide linkages to the existing Partington urban area to ensure that they are sustainably integrated into the wider New Carrington development. Rural and natural landscape features of the area will define the visual setting and help to create a 'Rural neighbourhood'. Existing watercourses, i.e. Red Brook, will be retained and integrated into a proposed landscaping corridor running through the area. Large tree species and rural landscape treatments will reflect the existing 'rural' character and will be applied along this watercourse.
- **Partington East:** Proposals for the Character Area Partington East include higher density development near the existing centre, the creation of links to the sustainable transport corridor and informally arranged streets and lanes in a space which will form an attractive and integrated extension to Partington. Recognising its position on the Site and settlement edge, buildings will be sensitively located around a loose structure to create a countryside character. The northern part of the area is currently well screened with mature vegetation, and this screening will be retained to create a sense of seclusion and rurality. The Red Brook valley running along the southern boundary will help to strengthen the landscaped nature of this border and create a clear limit to the extent of development. The creation of additional woodland belts along existing field boundaries are proposed which would be in keeping with local landscape character and would help to further screen and integrate the area. In response to the open countryside which exists beyond the Site, proposed residential buildings along the eastern fringe will be orientated towards the eastern and southern boundaries with large landscaping gaps separating development parcels.
- **Central Carrington**: A range of employment buildings and open spaces will be created in this character area through a formally arranged layout that responds to existing visual and contextual considerations, creates legible streets and spaces and attractive buildings that respond positively to the landscape; incorporating accessible linkages to residential areas and local centres. Amenity open spaces will be used within the employment area and will provide leisure space for workers and users of the area. Several Business Gateways will perform as formal entry points into Carrington from Partington and Sale. The junction of Manchester Road and the A1 Road will be articulated by a significant landmark building of greater height and presence. The use of semi-rural and rural style landscape environments will respond to existing visual and contextual considerations and would be relatively low maintenance for long term landscape management. Associated green spaces will create an attractive place to work which will promote sustainable travel and expand opportunities for ecological enhancement.

  The proposed Carrington Village area will provide medium density family housing incorporating a higher proportion of smaller housing units at the neighbourhood centre. A mixture of housing types will be applied to different phases of the area, creating a diverse and characterful environment. This area's identity will be principally defined by its natural features creating a 'green neighbourhood'. Existing woodland and trees will be retained and enhanced and the proposed landscaping will use large tree species and semi-rural landscape treatments to reflect the existing 'rural' context. Proposed areas of open space will accommodate a new rugby pitch, training pitch and a clubhouse. The landscape in this area will provide a focus for community-based leisure activities in a formal to semi-formal landscaped setting, apart from the linear space along River Mersey which should be kept as rural character landscape.
- **Sale West**: The Sale West area will comprise slightly higher density, more urban housing forms and the primary amenity open space reflecting the relationship with existing communities, namely Sale West and Ashton upon Mersey. A Neighbourhood Centre to the

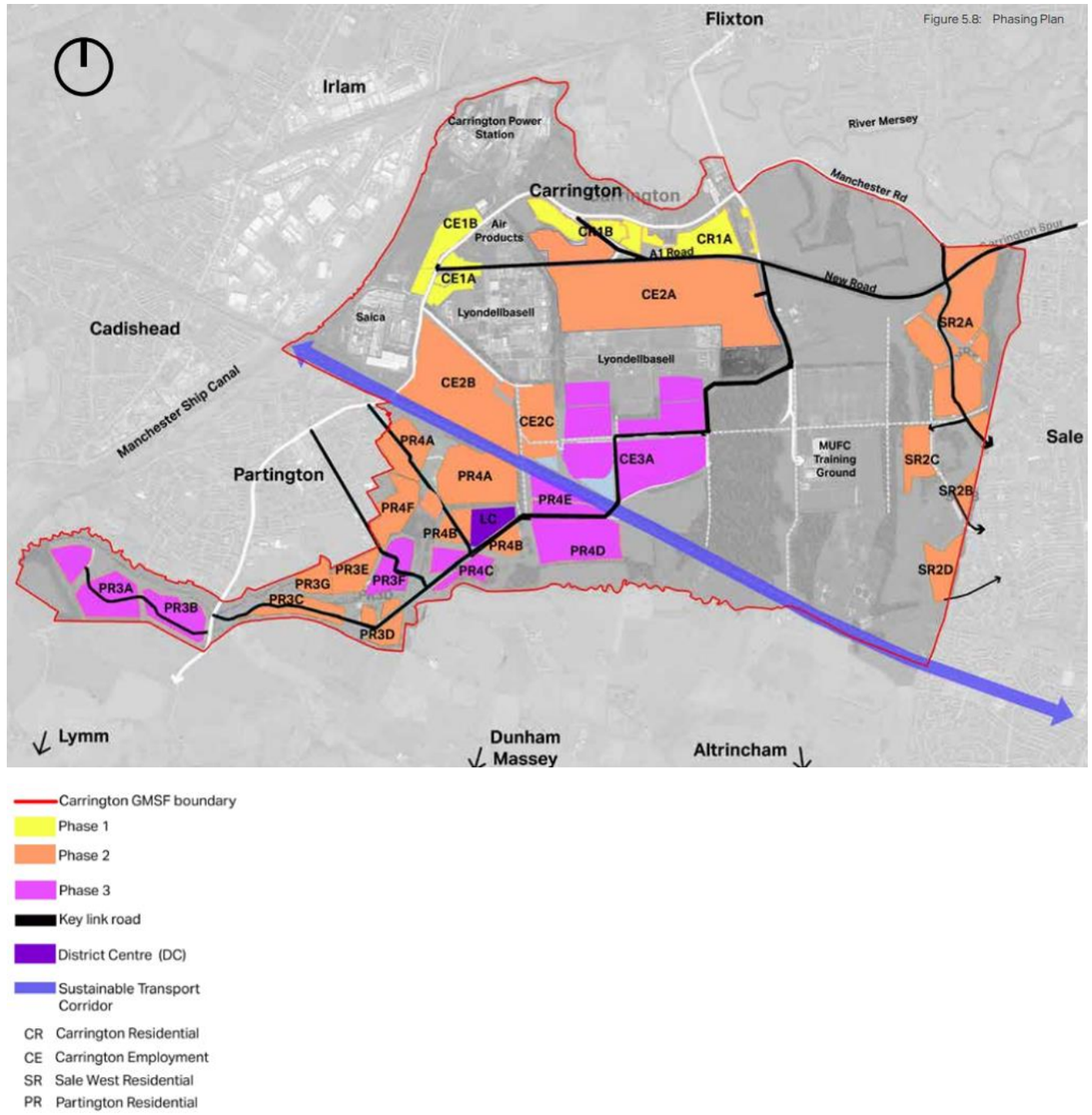
south of the new development area will provide additional social facilities and serve both new and existing communities. It will be important that the streets, cycle routes and footpaths are well defined and follow clear desire lines around the Neighbourhood Centre and connect to the existing community to the east. Formal to semi-formal landscaping will be used throughout the character area to create areas of amenity and interest and to ensure connectivity to the wider community. Existing ditches will be integrated into a proposed SuDS system. The development also provides opportunities to create clear and strong frontages to Green Belt along development edges. Sale West will also incorporate significant GI areas within the parcels which are not available for development, and where there is an opportunity to improve existing habitats and improve permeability with new footpaths. The area will provide an enhanced informal open space resource for new and existing community.

- **Phasing**

  The New Carrington masterplan encompasses land within several ownerships. Figure 2 illustrates the three indicative phases that were identified in the 2020 Masterplan.

  - Phase 1: Includes consented housing and employment schemes, and additional employment land.
  - Phase 2: Residential development at Sale West, Partington, Partington East, as well as employment development at the former Shell Plant and former National Grid site. This also includes the Carrington Relief Road, Sale West Link Road and other key transport infrastructure.
  - Phase 3: Further residential development, local centre and employment land.

Figure 2 – Phasing (as per 2020 GMSF Masterplan)



1. TRANSPORT

1. TRANSPORT

1.1 INTRODUCTION

This section aims to establish the transport Infrastructure requirements to support the implementation of the New Carrington Allocation. It comprises a review of existing policy documents, including those that formed part of the evidence base to support the allocation through the Places for Everyone (PfE) adoption process.

1.2 POLICY DOCUMENTS

This section reviews relevant policies.

GREATER MANCHESTER TRANSPORT STRATEGY 2040

The Greater Manchester five-year Transport delivery plan 2021-2026 is part of the Greater Manchester Transport Strategy 2040.

Some of the key principles relevant to New Carrington in the five-year delivery plan 2021-2026 include:

- Options for new bus rapid transit links for longer and middle-distance journeys. Potential services include a service to the West (from the Airport station towards Altrincham and Carrington);
- Carrington Relief Road: To relieve pressures on the A6144 and to enable the development of Carrington's growth area; and
- M60 Junction 8 link road improvements: to support growth in the Carrington area by improving accessibility to new developments.
- Parts of Trafford are currently poorly served by public transport; this includes areas such as Carrington, Partington and Sale West. Greater Manchester wide bus reform measures could improve the frequency of services to these areas.
- The site could deliver a new sustainable community which is integrated with the existing communities at Carrington, Partington and Sale West.
- Significant transport infrastructure will be required to support the development, including the Carrington Relief Road, new bus services, active travel links and utilising the route of the disused railway line as a sustainable transport corridor.
- New / Improved pedestrian crossings on major transport routes: identify roads which are a particular barrier to pedestrian movements and provide new / improved pedestrian crossings – A6144 through Carrington and Partington.
- Trafford Greenway: Off highway cycle route along the old rail line linking Altrincham, Carrington, Partington, Cadishead and Irlam Station.

PLACES FOR EVERYONE JOINT DEVELOPMENT PLAN

Policy JP-Strat11: New Carrington

This strategic policy seeks to deliver a significant mixed-use development. Overall, around 5,000 new dwellings and 350,000 sqm of employment floorspace will be delivered together with a new local centre.

Major investment in active travel, public transport and highway infrastructure, such as the Carrington Relief Road, improvements to Junction 8 of the M60 and public transport corridors will be delivered to support the development of New Carrington, ensuring it is well-connected to the rest of Greater Manchester.

Connected Places

The plan notes that public transport suffers from a lack of capacity on key routes and with poor reliability. Although many parts of the Plan area have good public transport, there remain areas that are poorly served and others that are not connected at all. Despite a few exemplar schemes, the quality and extent of cycling infrastructure is limited, which means relatively few people choose to travel by bike.

Resilience is noted as another key issue across the transport network. The network frequently suffers disproportionately from relatively small failures, such as when a single traffic accident causes congestion across the city-region's motorways.

Policy JP-C1: An Integrated Network sets out that in order to help deliver an accessible, low carbon Greater Manchester with worldclass connectivity, we will support a range of measures, including:

1. Delivering a pattern of development that minimises both the need to travel and the distance travelled by unsustainable modes to jobs, housing and other key services, including healthcare, education, retail, recreation and leisure facilities, green space and green infrastructure;
2. Locating and designing development, to deliver a significant increase in the proportion of trips that can be made by walking, cycling and public transport;
3. Transforming transport infrastructure and services by securing investment in new and improved transport infrastructure and services that will:

- Promote social inclusion;
- Support economic growth;
- Reduce carbon emissions and protect our environment and air quality;
- Meets customers' needs by being integrated, reliable, resilient, safe and secure, well-maintained, environmentally responsible, attractive and healthy; and
- Provide access to jobs and other key services, including healthcare, education, retail, recreation and leisure facilities, greenspace and green infrastructure.

4. Ensuring that development and transport investment fully considers the needs of all people and those modes which make most efficient and sustainable use of limited road space, by following a suitable hierarchy of modes (starting with active travel).

Policy JP-C3: Public Transport sets out that in order to help deliver major improvements to public transport, we will support a range of measures, including:

1. Enhanced connections to other major cities, delivering a hub of high-speed rail connection to London with Northern Powerhouse Rail;
2. Increased capacity at the bottlenecks in Manchester city centre on both light and heavy rail networks to enable improvements to reliability, resilience and capacity across the whole of Greater Manchester;
3. Improved public transport routes and services to the City Centre and wider Core Growth Area;
4. Improved public transport routes and services to Manchester Airport;
5. Better integration of services and between public transport modes and enhanced connections between other town centres, key locations, major allocations and public transport interchanges, and the upgrading of key sections of the strategic public transport network;
6. More and higher quality public transport stations and interchanges with suitable capacity and better integration of different public transport modes and services;
7. Improved access to rapid transit routes including first/last mile solutions.

Policy JP-C4: The Strategic Road Network states that the GMCA will work with Department for Transport, National Highways, Transport for the North and TfGM to ensure a co-ordinated approach to the planning and delivery of potential interventions on the SRN and at interfaces with the local street network, as Local Plans, site masterplans and planning applications come forward in accordance with Department for Transport, National Highways, and other UK Government policy and guidance as applicable.

Policy JP-C5: Streets for All states that streets will be designed and managed to make a significant positive contribution to the quality of place and support high levels of walking, cycling and public transport.

Targeted improvements to the highway network will be supported through studies and scheme development, where they complement the aim of securing a significant increase in the proportion of trips made by walking, cycling and public transport (as set out in Policy JP-C6 'Walking and Cycling' and Policy JP-C3 'Public Transport').

Policy JP-C6: Walking and Cycling sets out that in order to help deliver a higher proportion of journeys made by walking and cycling, GMCA will support a range of measures, including:

1. Creating safe, attractive and integrated walking and cycling infrastructure, connecting every neighbourhood and community with reference to national and locally adopted design guidance;
2. Ensuring routes are direct, easily navigable and integrated with the street and public transport network;
3. Creating active neighbourhoods and street networks which are more permeable to walking and cycling than to the private car, creating an incentive to walk and cycle;
4. Creating, where needed, dedicated separate space for people walking and cycling, with pedestrians and cyclists given priority at junctions and crossings;
5. Increasing the capacity and quality of walking and cycling infrastructure in locations where significant growth in the number of short journeys is anticipated, and where quality of place improvements are proposed; and
6. Utilising and enhancing green infrastructure, including canals, parks and recreation grounds, to create opportunities for walking and cycling.

Policy JP-C8: Transport Requirements of New Development requires new development to be located and designed to enable and encourage walking, cycling and public transport use, to reduce the negative effects of car dependency, and help deliver high quality, attractive, liveable and sustainable environments.

This will be achieved through specific stated measures focussing on:

1. Connectivity and Permeability
2. Design
3. Public Transport
4. Parking Infrastructure
5. Access and Servicing

POLICY JP ALLOCATION 30: NEW CARRINGTON

In terms of transport and accessibility, the policy sets out that the development of the site will be required to:

- Make provision for new and improved sustainable transport and highways infrastructure having regard to the indicative transport interventions set out in Appendix D in accordance with policy JP-C8;
- Deliver a network of safe cycling and walking routes through the allocation and linking to surrounding areas, including utilising the Carrington rides, improving the Trans Pennine Trail and creating new/enhancing existing Public Rights of Way and bridleways;
- Deliver connected neighbourhoods which successfully link with existing communities at Carrington, Partington and Sale West, overcoming barriers such as the Red Brook and the disused railway line between Timperley and Irlam, to successfully integrate development;
- Provide an east / west strategic sustainable transport corridor across the site from the Manchester Ship Canal to Sale to link with the wider Carrington Greenway scheme;
- Contribute to new / enhanced bus services and deliver bus priority infrastructure within the site and, where appropriate, on bus routes linking to the site; and
- Facilitate delivery of the Carrington Relief Road to provide an alternative route to the A6144, incorporating provision for pedestrians, cyclists and bus priority measures.

CURRENT TRAFFORD LOCAL PLAN

The Trafford Local Plan supports new road infrastructure to relieve congestion on the existing A6144 and significant improvements to public transport infrastructure by improving access to Partington, the Regional Centre and Altrincham with links to the Metrolink system. Much of the development identified in the Core Strategy Policy SL5 area, now replaced by PfE, is already underway and includes schemes at Carrington Village, Heath Farm Lane and Voltage Park.

The Core Strategy set out the following key issues facing Carrington:

- The need to secure the regeneration of a substantial area of brown-field land;
- The need to reduce its physical isolation through the delivery of improved transport links; and
- How to utilise the opportunities offered by the Manchester Ship Canal for increased sustainable transportation.

Key issues facing Partington are the need to:

- Secure a revitalised shopping centre;
- Widen the housing offer;
- Reduce its physical isolation through the delivery of improved transport links;
- Quality and accessibility of recreation opportunities, including those for young people; and,
- Opportunities offered by the Manchester Ship Canal for increased sustainable transportation.

NEW CARRINGTON OUTLINE TRANSPORT STRATEGY (SEPTEMBER 2023)

The New Carrington Transport Strategy supports the proposed new housing and employment allocation at New Carrington.

The aims of the Transport Strategy are to:

- Build upon previous transport and development planning for New Carrington.
- Provide a strategic case for transport investment.
- Shape the longer-term package of transport investments.
- Enable preparation of a scheme appraisal specification, a transport modelling method, a business case scope, and an investment funding strategy.
- Recommend further iterative work in support of the Transport Strategy and set overarching transport principles for the detailed New Carrington Masterplan/ future planning applications.

The overarching vision and objectives are set out in Table 3 of the Transport Strategy, which are shown in the following table.

Table 1-1 – New Carrington transport strategy vision and objectives

Objectives	Details
Create a New, Sustainable Community in Carrington	Support development of the PfE New Carrington Allocation, by applying a 'Decide and Provide' approach to rejuvenating land uses, reconfiguring transport infrastructure, influencing travel behaviour, and setting the foundations for a sustainable Greater Manchester.
Enable and Encourage Active Travel in Carrington	Facilitate walk, cycle and wheeling movement in and around New Carrington, to increase sustainable travel.
Expand and Improve Public Transport in Carrington	Expand bus operations for New Carrington, and connections to wider public transport.
Reconfigure Road Transport in Carrington	Enable essential motor vehicle access, to connect and unlock New Carrington, but contain development-related traffic growth, by promoting changes to transport infrastructure, travel patterns and road safety.
Reduce Carbon Emissions and Safeguard Environment	Realign transport and travel patterns, to reduce carbon, and protect / enhance the environment in New Carrington
Support Communities	Ensure shared access to opportunities in New Carrington, and a fair spread of development impacts
Improve Freight Access	Provide a vital channel for road freight movements, to supply New Carrington businesses, and to ship outputs, safely, efficiently, and cost-effectively, avoiding conflicts with other travel modes.

Source: New Carrington Outline Transport Strategy, September 2023

The New Carrington Outline Transport Strategy includes a complete overview of the proposed transport interventions for New Carrington and indicative delivery phase, spanning to 2042. These are shown in Table 1.2.

Schemes marked with '*' are specifically identified in PfE Appendix D for New Carrington and are directly related to the development proposals set out in PfE Policy JPA30. Some of the schemes identified in Table 17 of the report (Table 1-2 below) also reflect the ongoing work on developing options for transport infrastructure improvements and there may therefore be some duplication / cross over between schemes and this will be considered further through the New Carrington Masterplan.

Table 1-2 – New Carrington Outline Transport Strategy - proposed transport interventions

Transport Interventions / Area of Development	Indicative Delivery Phase			
	2022 - 2027	2027 - 2032	2032 - 2037	2037 - 2042
Carrington Greenway				
Greenway (cycle and footway) link to Sale to contribute to the Bee Network				
PROW improvements*				
Controlled pedestrian crossings at A56 Dunham Road — Park Road — Charcoal Road*				
Access to Altrincham Package*: New bus stops (Waitrose & Trafford college) and junction improvements (A56 - Stamford Brook Road)				
Access to Sale Package*: Junction improvements, enhanced bus stop and bus shelters				
Access to Stretford package/Carrington to Stretford (via Urmston) corridor*: Junction improvements, bus stop improvements, extend/reroute 260/280 and increase frequency				
A55 Junction — Manchester Road — Barrington Road. Upgrade of signal equipment*				
Altrincham — A56 Dunham Road — Highgate Road. Realignment of Highgate Road*				
Heatley — Paddock Lane — Bent Lane junction improvements*				
Carrington Spur widening on eastbound approach to M60 Junction 8*				
Flixton Road signalised junction upgrade with lane Widening on approaches. (Phases 1 & 2)				
Carrington Link / Carrington Spur / Bank-y Lane - Junction Widening Phase I upgrade and approach widening Phases 1 & 2)*				
(Upgrade of the Isherwood Road route (part of the Eastern Link)*				
Southern Link Road construction (approximately 2km). Eastern Link Road construction (approximately 1.8km)*				
Sale West Link Road construction (approximately 1km)*				
Trafford Bus Priority schemes (SOBC July 2022)* Option 3 (Upgrading and extension of the existing bus Services — including bus priority measures, real time information)				
Scenario 1 New Bus Services: (Annual Operating Cost EO.225m/bus x 8 new buses)				
Scenario 2 New Bus Services: (Annual Operating Cost EO.225m/bus x 16 new buses)				
Scenario 3 New Bus Services: (Annual Operating Cost EO.225m/bus x 26 new buses)				
Carrington Relief Road construction — Single carriageway from A6144 Manchester Road to Isherwood Road*				
New Carrington Relief Road — Widening between the Road junction and the Carrington Spur, subject to detailed local modelling*				
M56 Bowden Roundabout — Circulatory Widening*				
Western Gateway Infrastructure Scheme (WGIS)				
Warrington Line Tram-Train (Low-cost option)				

The Western Gateway Infrastructure Scheme (WGIS) is a scheme to improve access around J10 & J11 of the M60, it is a planning condition of the Trafford Waters scheme which is to be delivered by Peel.

It is important to note that WGIS is only included in Table 1-2 because it was assumed constructed and operational in both the Reference and GMSF model scenarios which were run as part of the PfE Locality Assessments. The New Carrington Allocation is not considered to be dependent on the implementation of WGIS.

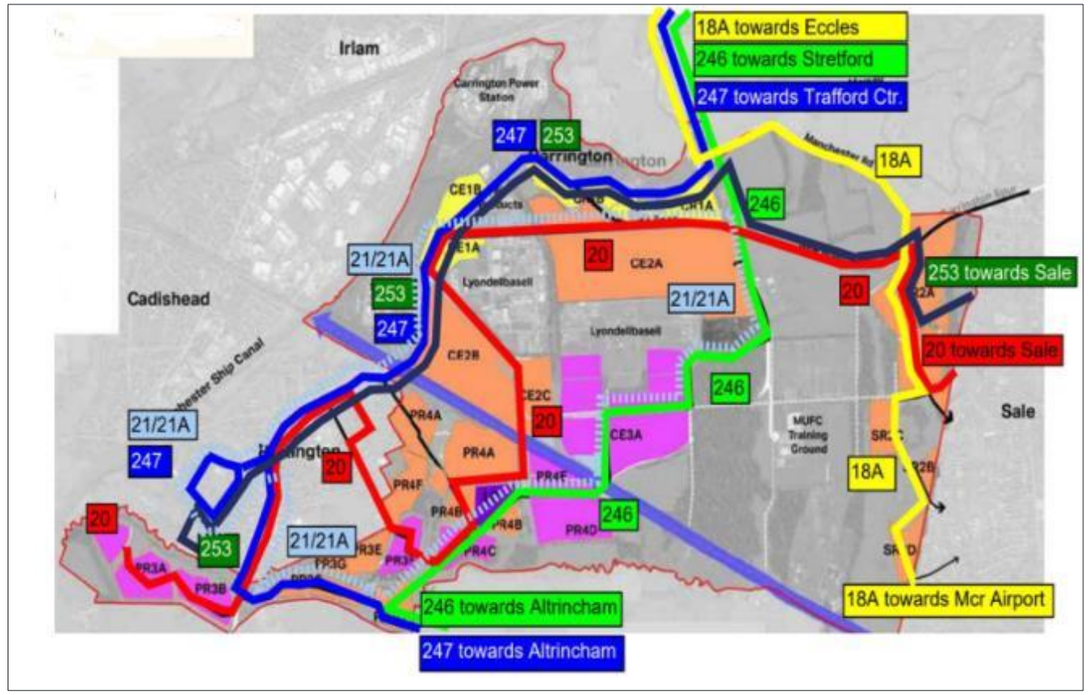
With regard to public transport, the Strategy aims to use principles of 'sustainable transport oriented development' (STOD), to determine the level of public transport and active mode connectivity under a variety of scenarios.

To achieve the overarching vision and principles, the strategy aims to balance the transport system in favour of sustainable models for the movement of goods and people, including priority to pedestrian and cycle movements and access to high quality public transport.

Transit-Oriented Development Principles

- The New Carrington Transport Strategy incorporates transit-oriented development (TOD) principles, aiming to create a community where public transport, walking and cycling are the primary modes of travel. Key features include:
- High-Density Development: Concentrating homes, jobs and services around public transport hubs to reduce car dependency;
- Improved Public Transport: Improving bus, tram and rail services to ensure frequent and reliable connections; and
- Active Travel Infrastructure: Developing safe and direct routes for walking and cycling.
  - The Transport Strategy includes an analysis of the proposals for a phased introduction of enhanced bus services as the development and the new connections to enable bus access are delivered. In parallel with this, the STOD analysis and its associated mode share estimates have been used to calculate an approximate level of ridership.
  - There is a requirement for further, more comprehensive modelling of the proposed network and the patronage/revenue it is likely to generate. However, the TfGM bus operations team has identified some feasible options for improving bus service provision with the New Carrington development, under a worst case Scenario 1 outcome, which could support 7 – 8 new buses and under a more realistic Scenario 2 outcome, which could support 15 – 16 new buses (shown overleaf)
  - Please note that the Bus Service Options are indicative and the information summarises the initial work which has been undertaken on potential improvements to bus services for the New Carrington Allocation. This will be assessed further as part of the ongoing development of the Transport Strategy, alongside the detailed New Carrington Masterplan.

Figure 1-1 – Bus Service Options



Source: New Carrington Outline Transport Strategy (2023)

NEW CARRINGTON LOCALITY ASSESSMENT (NOVEMBER 2020)

The New Carrington Locality Assessment (2020) was used to inform Policy JPA33 (now JPA30) and the New Carrington Masterplan (2020).

The Locality Assessment summarises the interventions identified to support the delivery of the New Carrington Allocation

It is important to note that all these interventions are not definitive solutions and were presented to support how the allocation could be delivered in 2040 only.

Key interventions tested were:

1. Carrington Relief Road construction. This route is a committed scheme and was assumed constructed in the Reference scenario as it has been determined as a route essential to make network improvements in the Carrington area by the Council for a number of years. This is internal to the allocation.
2. Southern Link Road connecting the A6144 at Warburton through to the Carrington Relief Road near the Carrington Spur.
3. M56 Bowdon Roundabout Junction (Reference 23) – Proposed works include circulatory widening, designation of lanes both on circulatory and on exit approaches.

4. Western Gateway Infrastructure Scheme (WGIS) – Full WGIS was assumed constructed and operational in both the Reference and GMSF model scenarios. Full WGIS was assumed to be constructed in line with the Trafford Waters Masterplan delivery. Operational by 2025.
5. Trafford Greenway: off-road pedestrian footpath, equestrian facilities and a two-way cycleway connecting Trafford and Salford. The greenway routes will link the Irlam Train Station at the northern end to the Metrolink Altrincham line to the south.

NEW CARRINGTON GMSF MASTERPLAN (SEPTEMBER 2020)

The Masterplan proposed that a series of north/south and east west strategic non- vehicular routes will be created alongside the enhanced ride network in order to create a well-connected new recreational green network. These routes will be established to ensure that cycle routes interconnect with the proposed Bee Network and Trafford Greenway.

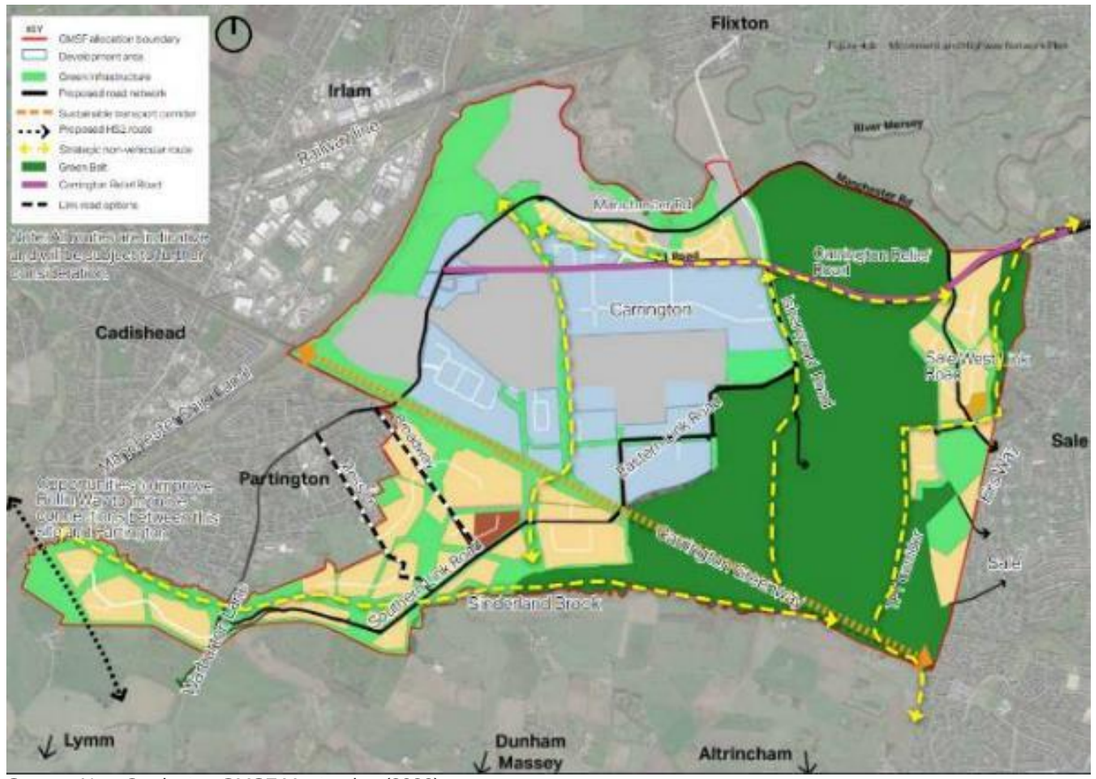
Strategic roads, including the proposed Carrington Relief Road, have been identified in black on the movement plan shown in the following figure (Figure 1-2). These routes will enable primary vehicular movement throughout both the residential and employment areas, connecting into the existing transport network. The strategic roads will play a key role in achieving effective integration between proposed and existing communities and enhance the provision of sustainable transport, including corridors that can accommodate bus priority measures and cycle routes.

Other movement through the site is defined by a grid of routes shown in white which will provide a comprehensive movement network that will interconnect the development and give priority to pedestrians and cyclists.

Details of the internal access and movement within the development parcels will be developed at later stages. However, key routes include:

- Strategic non-vehicular routes integrated into the Green Infrastructure network to encourage sustainable transport; and
- Carrington Relief Road: connecting Carrington village and Sale.

Figure 1-2 – New Carrington GMSF Masterplan



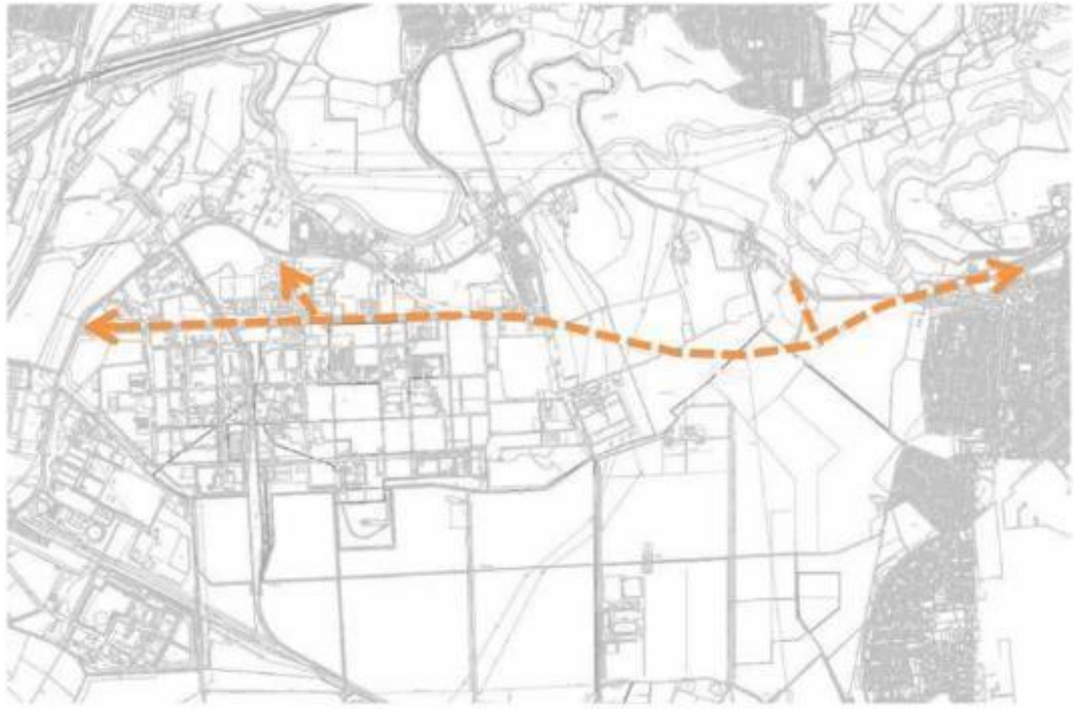
Source: New Carrington GMSF Masterplan (2020)

Link roads within the Masterplan comprise:

- Southern link – connecting the A6144 Warburton Lane and the A6144 Manchester Road (via either Moss Lane or Broadway), crossing the Red Brook and providing a local route around the Partington urban area;
- Eastern link – connecting development parcels in the East Partington area to Isherwood Road, crossing the rail line and linking through the employment parcels; and
- Sale West link – from the Carrington Relief Road and extending south through the Sale West development parcel and linking to Firs Way.

Measures to discourage ‘rat-running’, specifically in the rural lanes to the south of the New Carrington Allocation area will need to be incorporated at highway design development concept stage. Horizontal deviation and width restriction measures plus introduction of additional landscape features should all be considered.

Figure 1-3– Indicative Carrington Relief Road



Source: New Carrington GMSF Masterplan (2020)

The Masterplan sets out that the Carrington Relief Road will form a new, primary route between Partington and the Banky Lane termination of the Carrington Spur link to Junction 8 of the M60.

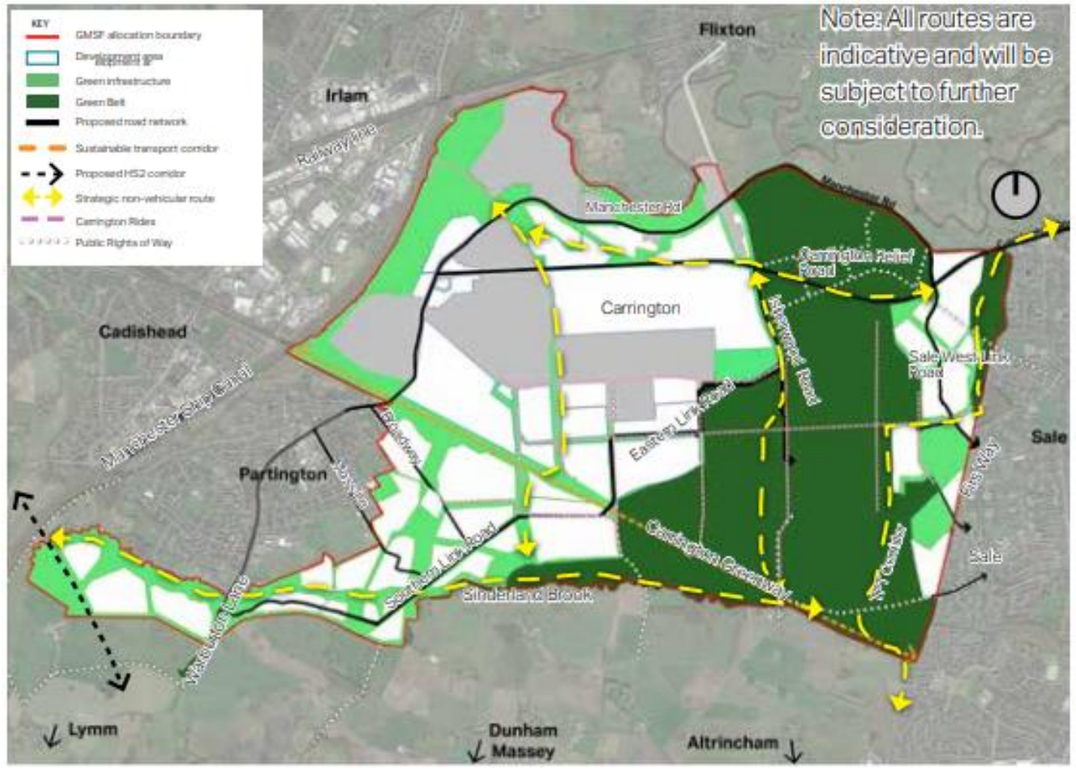
The new route will serve as a link to proposed secondary north-south routes which will serve the wider New Carrington Allocation.

The route will also provide an opportunity to improve public transport and active travel links through the area, as well as providing congestion relief to the existing A6144 Manchester Road.

In September 2021, following an options appraisal study, the Trafford Executive approved a recommended preferred route option to be developed in detail and taken forward to the submission of a planning application. The route follows the existing “A1 Road” on the former shell petrochemical site, connecting with the A6144 to the north of the Common Lane Junction and extending to Isherwood Road to the east. The route then extends east to meet the Carrington Spur at Banky Lane.

The overall length of the road is approximately 4km and the corridor will provide green infrastructure including landscape mitigation measures, and provision for walking, cycling and bus infrastructure.

Figure 1-4 – Indicative Movement Network



Source: New Carrington GMSF Masterplan (2020)

New strategic roads with average 25 metres width are proposed in this masterplan to accommodate new bus routes. A network of new and enhanced routes will be provided throughout the allocation area with an emphasis on providing a sustainable network of non-vehicular connections that will build on enhancements to the existing ‘Ride Network’ as the foundation.

From a public transport perspective, the biggest issue to address is the unattractiveness of public transport from Carrington and Partington in relation to the private car. The consequential ambition is that that the proposed New Carrington development will provide genuinely attractive alternatives to the private car for journeys to significant trip attractors. This is likely to include significant investment in bus priority (potentially including bus gates, dedicated bus lanes or busways and priority and signalised junctions) in order that the bus is not delayed by congestion on the key roads, together with increases in frequency to ‘turn-up-and-go’ levels, and a routeing strategy around Partington and Carrington which better serves the existing and proposed settlement.

Interventions will allow bus services to get past traffic at key bottlenecks, and also provide connections to rapid transit services to Manchester City Centre, the most significant trip attractor.

Overall, the interventions will enable a significant improvement to the accessibility of the wider New Carrington / Partington area.

A key design consideration throughout the evolution of the Site masterplan is ensuring a balanced approach to a sustainable access and movement strategy that appreciates the importance of pedestrians, cyclists and public transport.

Accommodating this creates a network of lower order streets and shared surfaces facilitating overlooked and interconnected pedestrian and cycle routes throughout the Development.

A6144 Site VIsit

A site visit has been undertaken along the A6144 during a weekday morning and afternoon peak period. This noted the following issues with the existing arrangement.

Morning peak – depicted as MP on the following figure

The key location for morning peak is depicted as MP on the following map.

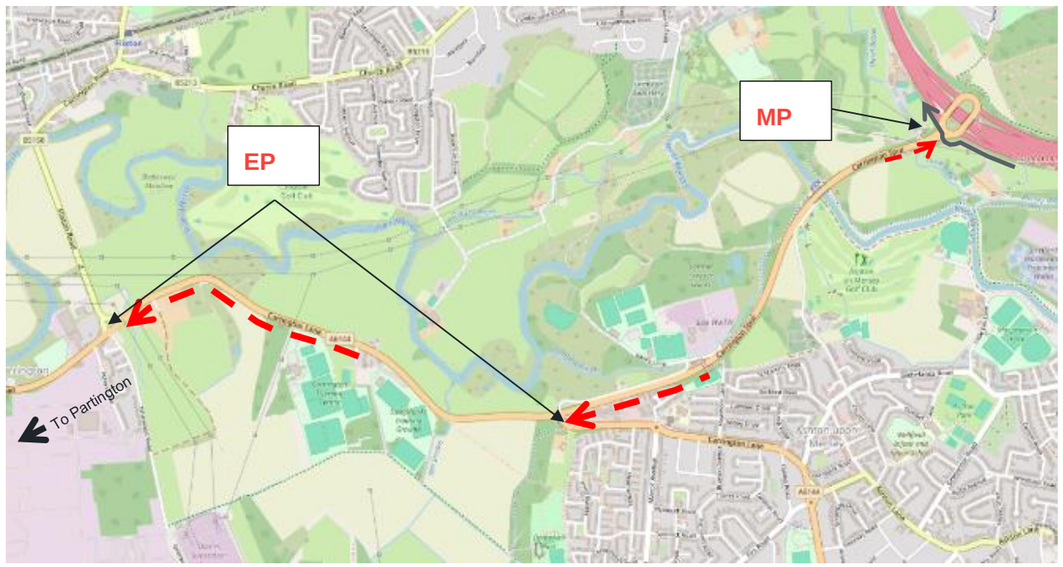
Vehicles from local distributor on M60 pass through roundabout (solid red arrow) to bypass mainline queuing. This delays vehicles entering Junction 8 from Carrington Spur leading to queues during the morning peak.

Evening peak

The key locations of evening peak are depicted by the EP label on the following figure.

The capacity constraints at Banky Lane and Flixton Road signals can lead to extensive queuing during the evening peak.

Figure 1-5 - A6144 Corridor Issues



Summary of 2022 Executive Report

The 2012 Trafford Core Strategy proposed a number of transport improvements around Carrington – including the provision of a new link road to provide better capacity, alleviate congestion and improve public transport and cycling.

In September 2021, the Executive selected a preferred route and gave approval to take the route forward to the submission of a planning application.

The Council does not own all the land therefore the Council intends to acquire parcels of land that will be needed for the scheme to progress. The Council will endeavour to acquire the land through negotiations, however, to prevent delay, the Council will make a Compulsory Purchase Order for the land required as a risk mitigation measure.

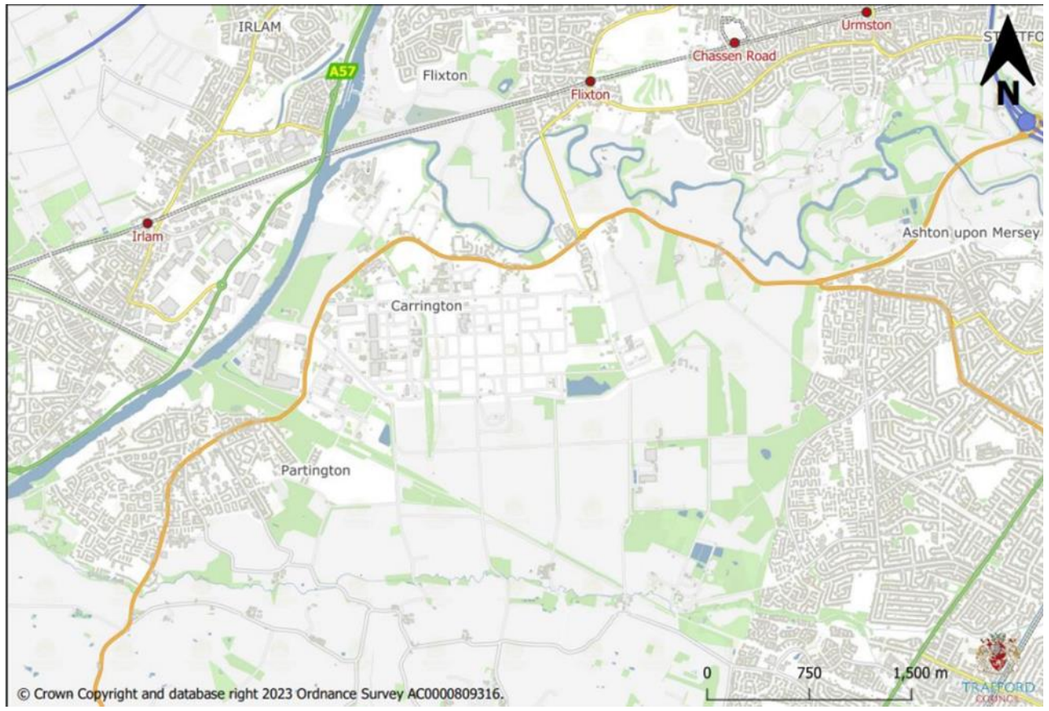
A planning application for the scheme is yet to be submitted.

A new link road would ease congestion at Banky Lane and Flixton Road but would not fully resolve delays at Junction 8 on the M60 from Carrington Spur, which would need additional intervention. This improvement is considered crucial for Carrington as it improves local traffic flow and supports access to key routes.

1.3 TRANSPORT CONSTRAINTS

The current highway network supporting access to Carrington primarily relies on the A6144. The communities adjacent to the proposed developments at Carrington and Partington are relatively isolated, as displayed in Figure 1-6.

Figure 1-6 Transport Network



Highway links in the area are poor and relatively congested, partly due to physical constraints like railways, rivers, and canals. Specifically, the River Mersey to the north and the Manchester Ship Canal to the west define parts of the northern and western boundaries of the allocation area. These watercourses create significant severance, affecting connectivity between the New Carrington Allocation and neighbouring areas.

Much of the southern boundary is defined by another watercourse, Sinderland Brook, while the eastern boundary is bordered by the existing residential area of Sale.

The principal road connection through the area is the A6144, which links Partington to Sale and the M60 J8 via Carrington village.

Access routes in the area are limited. Therefore, efforts are underway to improve internal accessibility within the New Carrington area, linking to Partington, ahead of the Carrington Relief Road coming online.

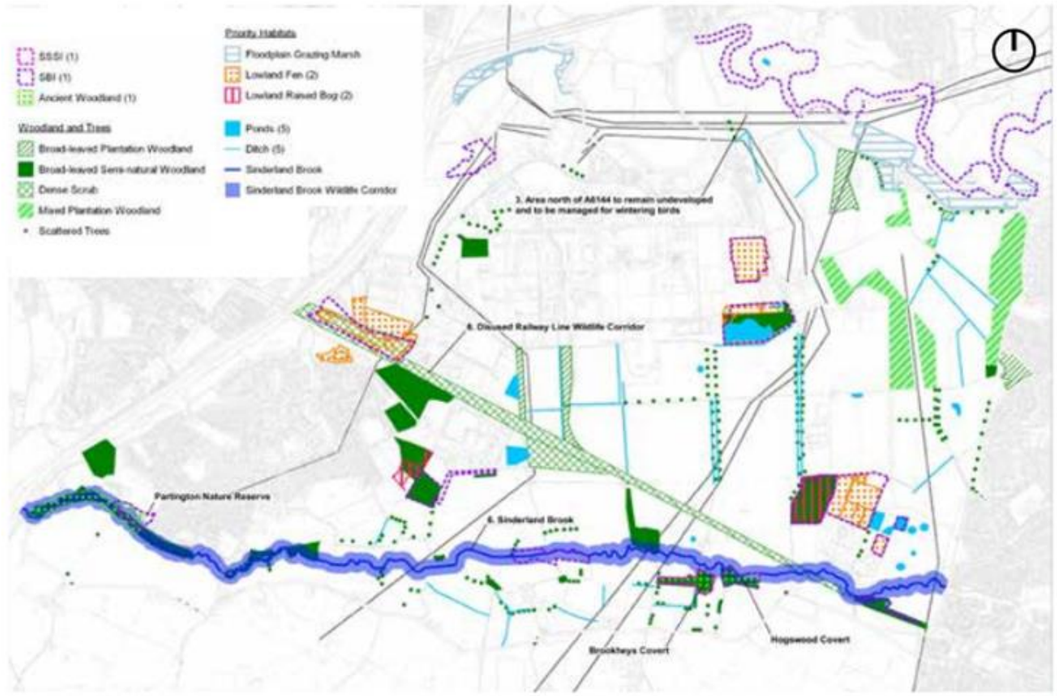
Improvements in highway and transport infrastructure, both short and long term, are necessary to reduce these constraints and support housing and employment growth.

Another potential constraint is the presence of peat at Carrington. The name 'Carrington Moss' has become synonymous with the open land between Carrington/Partington and Ashton on Mersey/Sale West. It is sometimes mistakenly assumed that this entire area was historically moss land with peat deposits.

Historic maps show that the Moss was located south of the current Petrochemical plant, on land now bisected by the former railway line and occupied at its eastern edge by the Manchester United training ground. Initial ground investigations reveal that peat remains present in some locations, up to 2 meters deep in some places. Further ground investigations will be required to understand the extent and depth of the peat.

The 2020 Carrington Masterplan document sets out that there are three areas of ancient woodland within the allocation, which are designated. Several wildlife corridors, including the River Mersey, Manchester Ship Canal, Sinderland Brook, and the disused railway line, exist within and adjacent to the site. These corridors should be retained and enhanced, as illustrated in Figure 3.12 of the Masterplan document, "Carrington Ecology Constraints and Opportunities Plan."

Figure 1-7 - 2020 New Carrington Masterplan, Carrington Ecology Constraints and Opportunities Plan



1.4 OPTION CONSIDERATIONS FOR TRANSPORT INFRASTRUCTURE PROVISION FOR NEW CARRINGTON

The next step of work will be to understand the transport infrastructure options, both those already developed as part of the masterplan work and also any additional options which could deliver the same benefits and results from the infrastructure improvements.

These options will be appraised against a number of potential criteria. Core design principles that need to be adhered to by all transport infrastructure options are that they must be coherent, direct, safe and attractive.

Beneath this, we will assess each transport infrastructure option against the following criteria:

- Accessibility for all;
- Deliverability;
- Level of community support;
- Connectivity that the option offers; and
- Strategic alignment with local and regional policy objectives.

2. SOCIAL INFRASTRUCTURE

SOCIAL INFRASTRUCTURE

2.1 INTRODUCTION

This chapter focuses on social infrastructure, relating to education and primary healthcare and is structured as follows:

- Review of relevant policies, frameworks and strategies;
- Analysis of demographic and socio-economic data;
- Calculations of potential demand that could be generated by the development at New Carrington;
- Analysis of current provision of social infrastructure and forecast trends; and
- Considerations for the New Carrington Masterplan.

2.2 REVIEW OF RELEVANT POLICIES, FRAMEWORKS AND STRATEGIES

First, several key policies and documents are reviewed that specifically focus on education and primary healthcare for New Carrington. These are discussed in chronological order, as follows:

- New Carrington Masterplan (2020);
- Places for Everyone Topic Paper (2021), New Carrington; and
- Places for Everyone (2024), Policy JP Allocation 30: New Carrington.

Second, policies and strategies produced by the Department for Education (DfE) and National Health Service (NHS) are presented to help understand the wider context and strategic ambitions in delivering new education and healthcare infrastructure:

- DfE (2023), Securing Developer Contributions for Education
- HM Government, (2024), Funding of childcare providers in England; and
- NHS (2019) Long Term Plan.

2.2.1 POLICIES, FRAMEWORKS AND STRATEGIES RELATING TO SOCIAL INFRASTRUCTURE FOR THE NEW CARRINGTON MASTERPLAN

The following section provides a review of relevant policies and strategies for the New Carrington masterplan. The key points are summarised below:

- The total scale of development at New Carrington cannot be met within existing local social infrastructure assets;
- A potential need for primary school provision has been identified;
- The expansion of existing schools and healthcare facilities should be considered, particularly to accommodate demand from earlier phases; and
- A new Local Centre and two Neighbourhood Centres are proposed within the masterplan and these centres are intended to act as hubs and will be the location for any new social infrastructure, including schools as well as healthcare facilities.

[1] Greater Manchester Spatial Framework (2020) New Carrington Masterplan, page 38. Accessed at: https://www.greatermanchester-ca.gov.uk/GMCAFiles/PFE/Supporting%20documents/10.09%20Site%20Allocations%20-%20Trafford/JPA33%20New%20Carrington/10.09.06%20-%20JPA33%20-%20New%20Carrington%20Masterplan%202020.pdf

New Carrington Masterplan (2020)

The Masterplan 2020 was clear that social infrastructure enhancements will be required as a result of the New Carrington development, stating that *"the extent of new development will require the need to provide additional social infrastructure".*

The masterplan referred to the availability of social infrastructure assets surrounding the site. While it was recognised that existing assets may be beneficial, in that these can help to absorb a proportion of the additional demand generated by the residential development, particularly in the early phases, it was, however, concluded that existing assets would be insufficient alone, and that much of the proposed residential development is to be located outside of the catchment areas of the existing social infrastructure assets.

> "Whilst on a strategic level the allocation area is surrounded by well-established settlements, only small parts of the site fall within catchment of established schools and hospitals in Partington and Sale. Reinforcement of social infrastructure provision as a part of the development is therefore required"[1].

To address the need for new social infrastructure provision, the New Carrington Masterplan presented three proposed Village Cores. These will be the locations for any new social infrastructure and community facilities such as new schools, health care and convenience retail amenities.

Two smaller scale Neighbourhood Centres will be located in Carrington Village and Sale West, whilst a larger scale Local Centre is proposed within the Partington East area. The Village Cores will act as attractive, mixed use community hubs, which provide gateway entrances into the wider Carrington development areas and form community destinations for the whole development[2].

Places for Everyone (2021), Topic Paper, New Carrington Allocation

The Places for Everyone Topic Paper[3], produced for New Carrington in 2021, as part of the submission of PfE, included detail regarding the indicative strategy and infrastructure requirements pertaining to education and healthcare provision.

Firstly, with regards to education, the key points put forward in the Topic Paper were:

- **Primary education**: To accommodate additional demand there is likely to be a combination of extensions to existing schools as well as potentially requiring a new school, to be considered as part of further masterplanning for the site.
- **Secondary education**: The Topic Paper noted that at the time there were permanent vacancies at Broadoak Academy and Wellacre Boys Academy. However, it was noted that secondary schools in Sale, at that time, did not have any permanent vacancies and therefore financial contributions made by developers would be expected to provide for new secondary education provision in Sale West.

The 2021 Topic Paper included numbers on the pupil yield generated by New Carrington. It is important to note however that these figures are now considered out of date as Trafford Council has

[2] Ibid.
[3] Accessed at: https://www.greatermanchester-ca.gov.uk/GMCAFiles/PFE/Supporting%20documents/10.09%20Site%20Allocations%20-%20Trafford/Topic%20Papers/10.09.07%20JPA33%20New%20Carrington%20Allocation%20Topic%20Paper.pdf

since updated its approach and methodology with regard to calculating demand for school places generated by new housing development.

Second, with regards to healthcare provision, the Topic Paper stated that mitigation solutions could include extending existing facilities in Partington, Carrington and Sale West, as well as providing new facilities within either the Local Centre or the Neighbourhood Centres that are proposed as part of the masterplan.

> "Development at the allocation site will be required to support new and improved health care facilities for the new community. New health facilities could include extending existing facilities in Partington, Carrington and Sale West, as well as new facilities at the new local centre or in one of the new neighbourhood centres[4]".

Places for Everyone (2024), Policy JP Allocation 30: New Carrington

The Places for Everyone (PfE) Policy JP Allocation 30: 'New Carrington' provides principles regarding the development of the site relating to social infrastructure.

In summary:

- It is recognised that the development is likely be an attractive location particularly for families and therefore this demographic is expected to generate demand for school places.
- Financial contributions for off-site additional primary and/or secondary school provision to meet needs generated by the development and, where appropriate, make provision for a new primary school on-site;
- Development will be required to provide new and improved health facilities to support the new community;
- A new local centre in the Partington East development and neighbourhood centres in Central Carrington and Sale West areas; and

New centres will act as hubs to serve the needs of the new communities and support sustainability of wider Partington and Carrington by locating new shops and services, including potential for new primary schools and GP medical centre.

The following excerpt presents Policy JP Allocation 30: New Carrington with regards to social infrastructure.

> "Create a local centre comprising a range of small shops and services, within the Partington East development area at a scale to serve the needs of the proposed communities and improve the sustainability of the wider Partington and Carrington area;
>
> Provide a Neighbourhood Centre in the Central Carrington and Sale West character areas to provide local services and community facilities to meet local needs;
>
> Make financial contributions for offsite additional primary and/or secondary school provision to meet needs generated by the development and, where appropriate, make provision for a new primary school on site, in accordance with JP-P5[5]"; and
>
> "A new local centre, located in the Partington East character area, will be a hub for community infrastructure and will service the needs of the new community. Smaller neighbourhood centres will also provide local community hubs in the Sale West and Central Carrington character areas. The large number of new residents will also help to support existing shops and services in the surrounding area, such as the Partington Local Centre;
>
> The site will be an attractive location for families and this will generate an additional demand for school places. The development will need to provide new facilities for primary and secondary education. Development will also be required to provide new and improved health facilities to support the new community, as required by Policy JP-P6[6]".

Within PfE, two policies in particular refer to social infrastructure requirements.

Policy JP-P5: Education, Skills and Knowledge makes it clear that new housing development needs to be aligned with sufficient school places, for all ages. In this instance that additional demand cannot be accommodated within existing provision, the impact needs to be mitigated either on-site land, through safeguarded land for new schools, or off-site, by the use of financial contributions to expand capacity at existing schools, where relevant.

> Policy JP-P5: Education, Skills and Knowledge
>
> "Significant enhancements in education, skills and knowledge to benefit existing and new residents will be promoted, including by:
>
> 1. Enabling the delivery of new and improved accessible facilities for all ages, such as early years, schools, further and higher education, and adult training to ensure our workforce is ready to benefit from new employment opportunities
> 2. Ensuring the delivery of sufficient school places to respond to the demands from new housing, such as through:
>   a) Working with education providers to forecast likely changes in the demand for school places; and
>   b) Where appropriate, requiring housing developments to make a financial contribution to the provision of additional school places and/or set aside land for a new school, proportionate to the additional demand that they would generate;

[4] Places for Everyone (2021), New Carrington Site Allocation Topic Paper, page 58. Please note that the sums quoted in the 2021 Topic Paper, with regards to approximate financial contributions, are indicative and will need to be reassessed as the development comes forward.

[5] Places for Everyone (2024), Policy JP Allocation 30: New Carrington, page 422. Accessed at: https://www.greatermanchester-ca.gov.uk/media/9578/places-for-everyone-joint-development-plan-document.pdf

[6] Ibid, page 450

3. Supporting the continued growth and success of the university sector, such as through:
    a) Enhancing the existing campuses and developing new ones;
    b) Strengthening the world-leading research capabilities and promoting opportunities for business spin-offs; and
    c) Continuing to help develop Greater Manchester as the UK's best destination for students[7]".

With regard to healthcare, Policy JP-P6: Health states that housing which generates additional demand would require new or improved health facilities, where relevant. In addition, it is recognised that new development has the opportunity to promote healthy lifestyles through design, such as providing new active travel routes.

Policy JP-P6: Health

"To help tackle health inequality new development will be required, as far as practicable, to:

a) Maximise its positive contribution to health and wellbeing, whilst avoiding any potential negative impacts of new development; support healthy lifestyles, including through the use of active design principles making physical activity an easy, practical and attractive choice; and
b) Be supported by a Health Impact Assessment for all developments which require to be screened for an Environmental Impact Assessment, and other proposals which, due to their location, nature or proximity to sensitive receptors, are likely to have a notable impact on health and wellbeing

Improvements in health facilities will be supported, responding to the changing needs and demands of both existing and new residents, including through:

1. Requiring, where appropriate, the provision of new or improved health facilities as part of new developments proportionate to the additional demand that they would generate;
2. Enabling the continued enhancement and successful operation of our hospitals; and
3. Facilitating greater integration of health and social care, and the provision of integrated wellness hubs, including the co-location of health, community and wellness services[8]".

2.2.2 DFE AND NHS POLICIES, FRAMEWORKS AND STRATEGIES RELATING TO EDUCATION AND HEALTHCARE

The following section provides a review of relevant policies, guidance and strategies relating to education and healthcare, published by the Department for Education and the NHS. The key points are summarised below:

- Forecasting the number of pupils generated by new homes should take into account wider demographic changes including birth rates and population changes;
- New housing developments are often occupied by young families in the earlier phases, which can result in a higher demand for school places in the short term;
- The DfE expects that all new primary schools include early years provision on-site;
- HM Government is currently introducing Extended Entitlements for early years, which is expected to increase demand for early years places and could impact the requirements for on-site provision at New Carrington; and
- The NHS' Long Term Plan and role of the Greater Manchester ICB is moving towards integrated health, which could influence the range of primary healthcare services provided in new healthcare provision at New Carrington.

DfE (2023), Securing Contributions for Education

The Department for Education (DfE) has published non-statutory guidance for local authorities planning for education to support housing growth.

DfE provides guidance regarding the methodology to assess the impact generated by new housing, which includes the need to take into account wider socio-economic trends reflecting population change and birth rates as set out in the following excerpt:

"When predicting the impact of a proposed development on education provision, local authorities assess whether there will be enough capacity in existing schools to accommodate the number of pupils anticipated at the time the development is expected to be built.

These assessments take account of birth rates, existing children in education, predicted population change and established patterns of pupil movement and parental preference. Available capacity now does not necessarily mean there will be capacity when the development is building out and being occupied, if children already living in the area are forecast to need the school places or other developments have already been approved but not yet implemented and will make use of that spare capacity. Existing temporary school capacity should not be included unless there is a funded plan to make it permanent"[9].

Connected to the statement in the Places for Everyone 'Policy JP Allocation 30: New Carrington' that the New Carrington development is likely to attract families, DfE's evidence suggests that "new housing tends to attract more young families than older housing, yielding higher numbers of pupils particularly in the pre-school and primary age groups, though this can stabilise over time until the development resembles the mature housing stock[10]."

With regards to early years provision, the DfE is clear that all new primary schools are now expected to include early years nursery provision on-site[11].

[7] Ibid, page 199
[8] Ibid, page 202
[9] DfE (2023), Securing Developer Contributions for Education, page 28. Accessed at: https://assets.publishing.service.gov.uk/media/64d0f70d7a5708001314485f/Securing_Developer_Contributions_for_Education.pdf
[10] Ibid, page 26
[11] Ibid, page 12

HM Government Extended Entitlements for Early Years

Ongoing policy changes by HM Government mean that take up for funded early years places is likely to increase over the coming years.

Since April 2024, HM Government has begun to implement extended entitlements, in which working parents of 2-year-olds will be able to access 15 hours childcare support, and by September 2025, most working families with children under the age of 5 will be entitled to 30 hours of childcare support[12].

The Department for Education (DfE) has recently published research, finding that the implementation of extended entitlements will directly result in increased demand for early years places, and an additional 85,000 early years places across are needed across England by September 2025[13].

Whilst the impacts of the ongoing policy changes and extended entitlements are not yet known for local areas in Trafford, as the New Carrington masterplan develops, it should be considered if the impact of the policy would require additional early years provision to be provided on-site than is currently expected.

NHS (2019), Long Term Plan

The NHS Long Term Plan sets out an ambition for the NHS to "move to a new service model in which patients get more options, better support, and properly joined up care at the right time in the optimal setting"[14].

This includes an ambition for the NHS model of care to increase the provision of care closer to home, in order to prevent many patients from requiring care in hospital settings. This means that a wider range of staff roles are to deliver services from GP buildings, such as physiotherapists, dieticians and mental health practitioners.

The NHS' strategic ambitions may influence any new on-site healthcare facility as part of the New Carrington development. For instance, a new medical centre may choose to co-locate a broad range of primary healthcare services.

The Greater Manchester Integrated Care Partnership

The Greater Manchester Integrated Care Partnership was formed in July 2022. NHS Greater Manchester (NHS GM) is the Integrated Care Board for Greater Manchester and is responsible for making decisions about health services across Greater Manchester and in the ten boroughs and cities.

Following the Health and Care Act (2022), Integrated Care Boards (ICBs) and Integrated Care Systems (ICS) were created and are responsible for allocating the NHS budget to commission healthcare services for the population and are also responsible for deciding how and where to spend developer contributions. The following year, on 1 April 2023, responsibility for commissioning dental services was delegated to ICBs, prior to this, NHS England was responsible for commissioning dental care services to meet local needs and priorities, managed through its local area teams.

It should be noted that since the inception of the NHS in 1948, GPs have been classed as independent operators. This means that GPs themselves administer and operate GP surgeries across the country.

The delivery of a new healthcare centre at New Carrington would involve multiple stakeholders including the Greater Manchester Integrated Care Partnership as well as individual operators including GPs and Dentists.

2.3 DEMOGRAPHIC ANALYSIS

This section provides an overview of socio-economic and demographic indicators to provide an understanding of the current and future context for the New Carrington Masterplan.

Residential Population

Between the 2011 Census and the 2021 Census, the population of Trafford has increased by 3.7%, from just under 226,600 in 2011 to approximately 235,100 in 2021[15].

Trafford experienced a smaller growth in residential population, compared to the averages for the North West (5.2%), as well as of England (6.6%)[16], over the same timeframe.

Age Profile

The following table shows that current age profile of residents in Trafford is similar to the profile for the North West region and England.

Table 2-1 - Age profile of residents in Trafford compared to North West and England, 2021

Age group	Trafford	North West	England
0-19 years	25.1%	23.4%	23.1%
20-64 years	57.3%	57.8%	58.4%
65 and above	15.0%	16.4%	15.9%

Source: ONS (2022), 2021 Census. Note that sums do not appear to sum, due to rounding.

Over the ten years between 2011 and 2021, those aged 65 and above residing in Trafford experienced the highest proportional growth (14.3%), reflecting the national trend of an ageing population. In comparison, the number of residents aged 0-19 grew by 5.2% and those aged 20-64 grew by 0.6% over the same timeframe[17].

Employment

The proportion of residents in Trafford who are economically active (78.6%) is aligned with averages for the North West (76.7%) and the national average (78.8%)[18].

[12] HM Government (April 2024), https://assets.publishing.service.gov.uk/media/6605551b91a320001182b1bb/September_24_early_education_and_childcare_entitlements_expansion.pdf
[13] National Audit Office (April 2024), Preparations to extend early years entitlements for working parents in England. Accessed at: https://www.nao.org.uk/reports/preparations-to-extend-early-years-entitlement-for-working-parents-in-england/
[14] NHS (2019), Long Term Plan. Accessed at: NHS Long Term Plan
[15] ONS (2022), 2021 Census
[16] Ibid
[17] ONS (2012), 2011 Census and ONS (2022), 2021 Census
[18] ONS (2023), Annual Population Survey

In terms of occupation, a far higher proportion of residents in Trafford are employed in roles associated with the highest levels of skills (67.2%), compared to the North West (51.6%) and the national average (52.9%)[19].

Table 2-2 – Employment by occupation, Trafford compared to North West and England, 2023

Employment Group	Trafford	North West	England
Group 1-3 Managers, Directors and Senior Officials Professional Occupations Associate Professional Occupations	67.2%	51.6%	52.9%
Group 4-5 Administrative & Secretarial Occupations Skilled Trades Occupations	15.3%	18.3%	18.3%
Group 6-7 Caring, Leisure And Other Service Occupations Sales and Customer Service Occupations	11.7%	15.5%	14.2%
Group 8-9 Process Plant and Machine Operatives Elementary Occupations	5.9%	14.6%	14.6%

Source: ONS (2024), Annual Population Survey

Health and Deprivation

Across Trafford as a whole, health outcomes compare positively, and life expectancy for both men and women is higher than the England average. In 2021, 51.5% of Trafford residents described their health as "very good", increasing from 48.5% in 2011[20].

Trafford ranks 191 of 317 local authority districts in England, where a rank of 1 is the most deprived authority in England. Trafford is the least deprived authority in Greater Manchester on this measure[21].

However, when comparing areas within Trafford, there are health inequalities. Areas with higher-than-average rates of deprivation also experience poorer health outcomes. Life expectancy is 9.3 years lower for men and 7.4 years lower for women in the most deprived areas of Trafford, compared to the least deprived areas[22].

Population Projections

Between the years 2022 and 2037, the population in Trafford is projected to increase by 5.3%, which is slightly lower than the projected 5.7% increase across England[23].

According to broad age groups, the number of 0-19 year olds is projected to decrease by 2.3% to 2037. The proportion of working age adults in the 40-64 years age group is projected to increase by 4.6%. Population growth is highest in the over 80 years of age group – a projected increase of 31.6%[24].

2.4 DEMAND FOR SOCIAL INFRASTRUCTURE GENERATED BY NEW CARRINGTON

This section summarises the potential level of demand generated for education and primary healthcare social infrastructure, driven by the increased residential population at New Carrington.

Residential population

As the following table demonstrates, the total number of new homes at New Carrington could be home to approximately 12,325 residents[25].

It is important to note that the number of residents will depend on the mix of new homes at New Carrington, for example a larger number of family homes would result in a larger number of residents, compared to apartments. The mix of new homes at New Carrington is yet to be finalised.

The proportion of residents generated by each of the four parcels within the masterplan boundary differs substantially, reflecting that a lower number of homes is proposed for the Central Carrington and Warburton Lane parcels, compared to higher numbers of homes proposed for the Sale West and Partington East parcels.

It is considered that the total number of residents at New Carrington is equivalent to the total number of potential new patients that will require primary healthcare services.

Table 2-3 – Residential population generated by New Carrington development

Parcel	Approximate number of new homes	Approximate number of residents
Central Carrington	600	1,500
Sale West	1,450	3,500
Partington East	2,600	6,300
Warburton Lane	400	975
Total	**5,050**	**12,300**

Source: WSP (2024); 2021 Census data on average household size for Trafford local authority

[19] Ibid
[20] ONS (2022), 2021 Census
[21] ONS (2019), Indices of Multiple Deprivation
[22] Public Health England (2020), Trafford local authority profile

[23] ONS (2024), Population projections
[24] IbidTraff
[25] Based on average household size at 2.44 persons per household for Trafford borough, ONS 2011 Census.

School age population

Trafford Council assesses the demand for school places that will be generated by new homes.

Application of Trafford Council's current methodology results in an a pupil yield of approximately 1,000 primary school places as well as over 700 secondary school places, however the approach to forecasting demand for school places is based on a careful balance of assessing supply, demand and demographic trends, and is therefore regularly under review and subject to change.

As with the general distribution for the total residential population, the distribution of the additional school age population varies considerably, reflecting the varying number of new homes proposed for each of the four parcels.

2.5 SOCIAL INFRASTRUCTURE CAPACITY AND FUTURE TRENDS

This section provides detail regarding the current and forecast provision of education and primary healthcare.

Education

Current trends

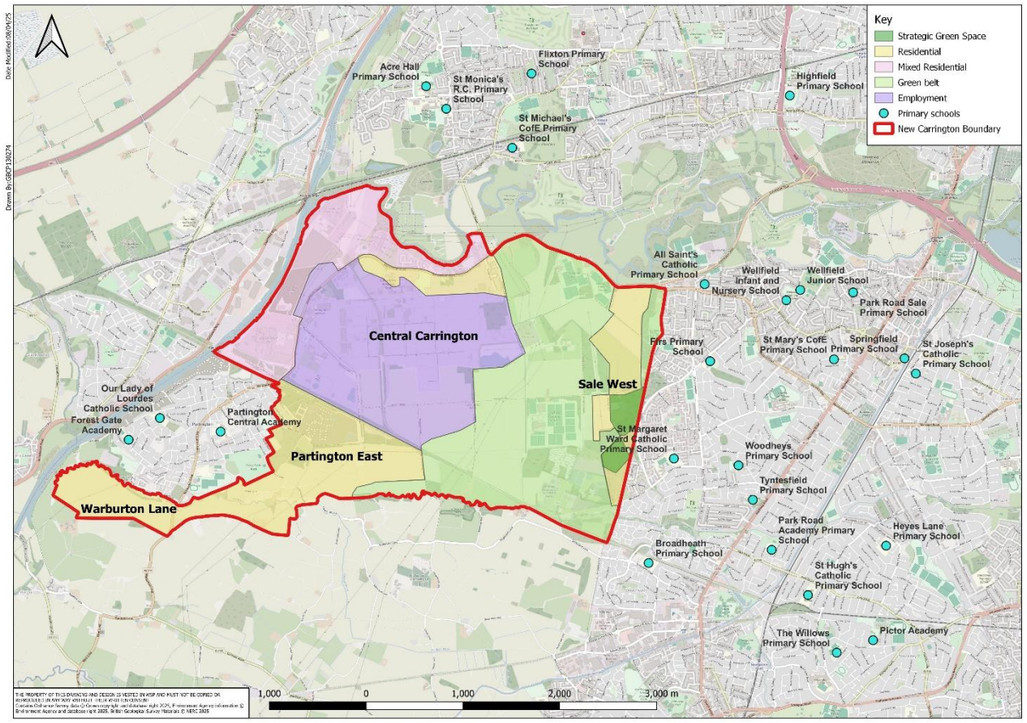
In terms of primary school provision, Firs Primary School has recently been expanded and currently has spare places, which could help to accommodate demand generated by the Sale West parcel in the initial phases. There are 3 primary schools located in Partington, which collectively currently spare places. This provision could assist in absorbing demand generated by the Partington East and Warburton parcels in the early phases.

There is spare capacity in secondary schools located near to the Partington East and Warburton Lane parcels; and existing schools could be expanded to accommodate additional demand.

Although there is currently some latent spare capacity within existing primary and secondary schools, the scale of total development at New Carrington will trigger the need for additional provision, delivered through both expansion of existing schools and provision of new schools.

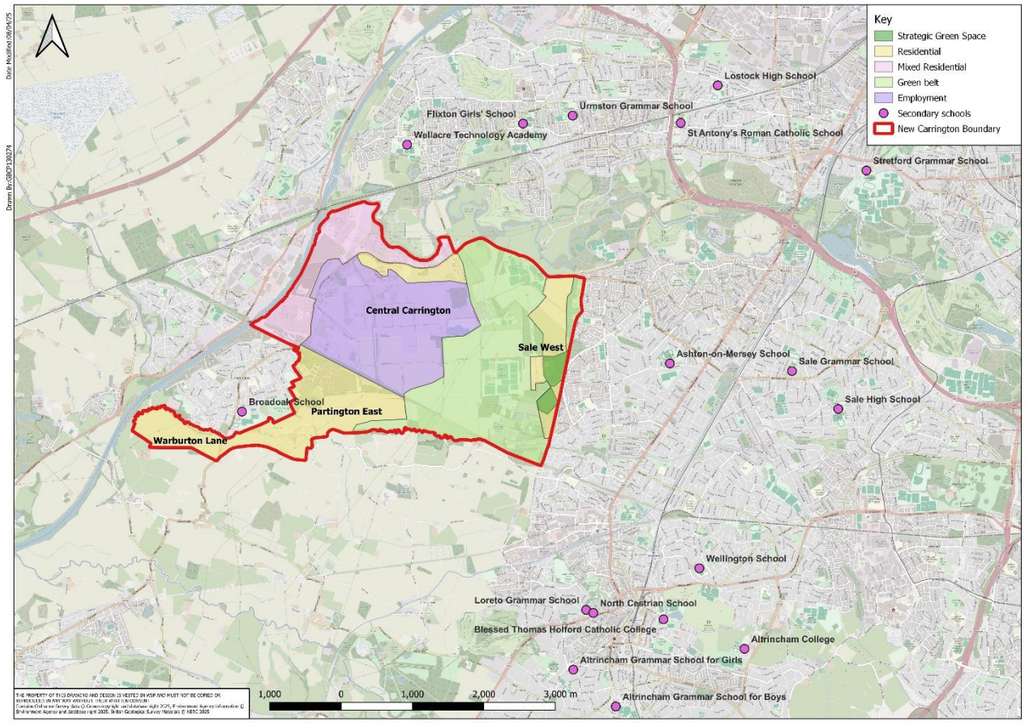
The following two maps depict the location of existing primary and secondary schools in relation to the New Carrington development boundary. The maps show that there are existing primary and secondary schools that could be accessed by new residents residing in the Partington East, Warburton Lane and Sale West parcels.

Figure 2-1 - Locations of existing primary schools within 2 miles of New Carrington boundary



Source: (WSP) 2024; DfE (2024)

Figure 2-2 - Locations of existing secondary schools within 3 miles of New Carrington boundary



Source: (WSP) 2024; DfE (2024)

Forecast trends

The birth rate in Trafford is decreasing, aligned with the national trend. In 2022 there were 2,170 live births in Trafford, equivalent to a 13% decrease over the previous 3 years to 2019, and the lowest number in a decade. These current trends are likely to mean that in the future there will be fewer school age children requiring school places across the borough[26]. It is currently expected that declining birth rates will start to affect secondary schools in Trafford from approximately 2029/30, which is beyond the current projection timeframe of 2027/28. However, Trafford has also seen an increase in the number of people moving into the borough in recent years, often these are young families with school age children.

Research shows that new residential development with family type homes tend to attract younger families in the short term; typically resulting in higher numbers of young school-age children. This trend then normalises over the long term. There is a need to plan for this 'bulge' in demand.

The following table shows that across the borough of Trafford, the total number of school age pupils is projected to fall by 830 pupils between 2024/25 and 2027/28, a higher proportion compared to the trend for the North West region over the same timeframe.

Table 2-4 – Pupil Forecasts in Trafford

Geography	2024/25	2025/26	2026/27	2027/28	Percentage change
Trafford	42,240	42,015	41,750	41,410	- 2.0%
North West	1,084,267	1,081,250	1,076,748	1,070,747	- 1.25%

Source: DfE (2022), Local authority pupil forecasts

Trafford Council will continue to carefully monitor and model the forecast demographic changes so that new education provision provided on-site within the New Carrington masterplan will be delivered at the appropriate trigger points aligned to the phasing of the scheme and taking into consideration wider demographic trends.

Primary healthcare

Current trends

Discussions with the Greater Manchester Integrated Care Board (ICB) and Trafford Council, has identified that there is a lack of capacity at existing practices to absorb demand generated by homes at New Carrington

New Carrington will impact multiple existing GPs in the Trafford West and Sale Central Primary Care Networks (PCNs):

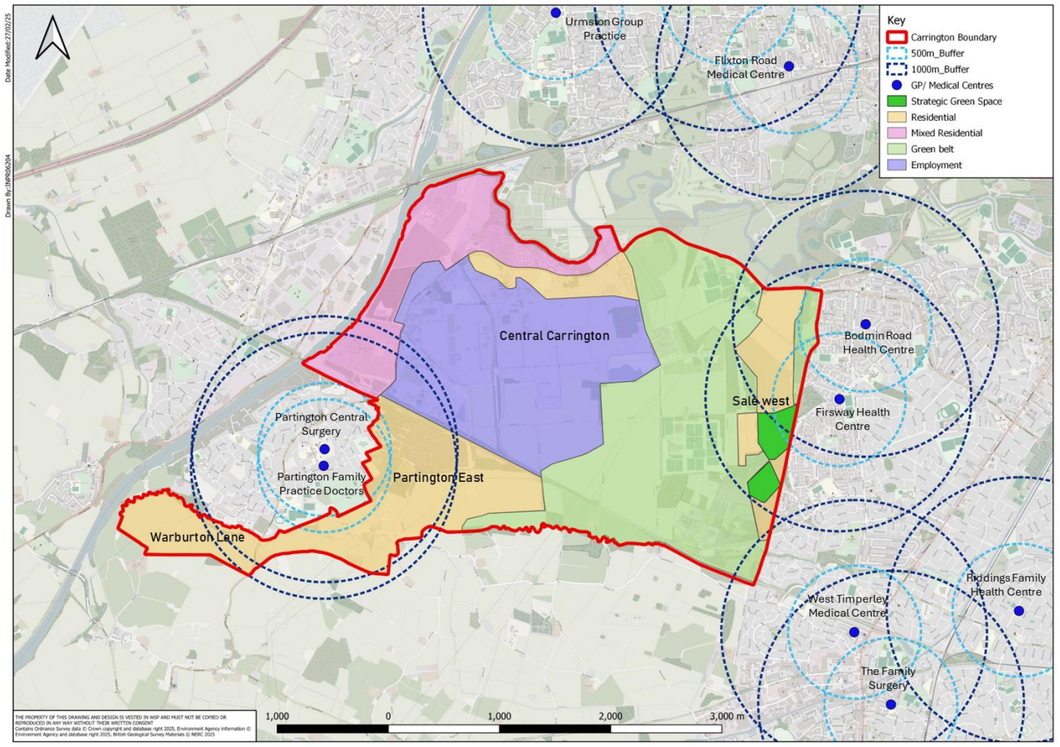
- The closest GP to the Central Carrington sub-area is Urmston Group Practice, with Flixton Road Medical Centre the next closest – Flixton Road is the one of the most pressured practices in the locality. The current location of Flixton Road Medical Centre is constrained, meaning that the existing premises are very limited in terms of the ability to expand.
- Partington Central Surgery and Partington Family Practice are also within the Trafford West PCN. Currently the practices are operating close to target utilisation levels, The combined weighted patient list size at these two practices is approximately 10,500 compared to the registered patient list size of approximately 9,100. The significantly higher weighted list size reflects the higher demands placed on the practices as a result of the demographic profile of the existing population.
- Most of the practices in the Sale Central PCN are currently facing severe space pressures. Overall, there is no spare capacity within the Sale Central PCN practices to accommodate future growth from New Carrington.

Forecast trends

The phasing of the New Carrington will result in a relatively steady build out and incremental increase in the residential population, and therefore demand for GP provision.

[26] Trafford Council (2024), School Place Planning and Sufficiency

Figure 2-3 - Existing primary healthcare facilities surrounding the New Carrington boundary



Source: WSP (2024)

Transport, access and active travel

A key ambition is to support ease of movement, both within the New Carrington masterplan area, as well as by the use of new connections to existing areas. Transport links can help to support residents, including school pupils, to use public transport and methods of active travel, such as walking, cycling and scooting, to travel safely while promoting placemaking and health outcomes.

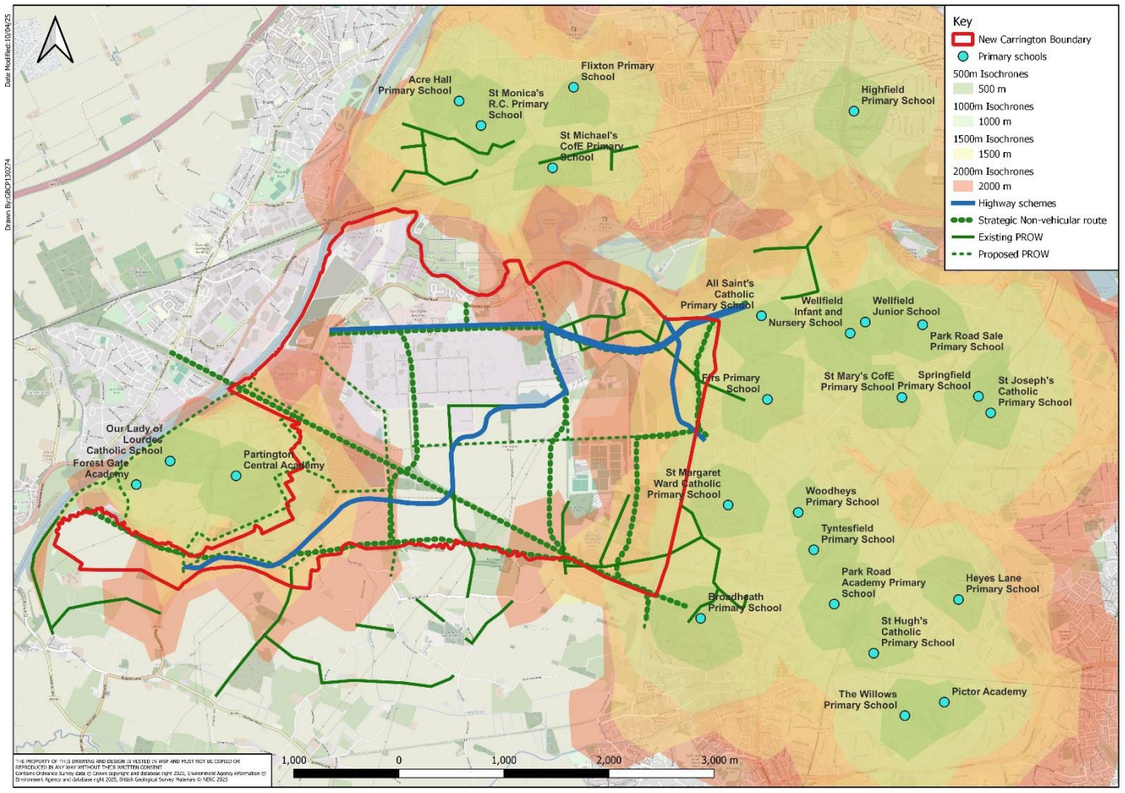
The following two maps demonstrate the proposed transport interventions as part of the New Carrington masterplan to understand how pupils could access existing schools as well as access the proposed Local Centre and Neighbourhood Centres, which is where any new schools would be located.

As discussed in Chapter 1 on Transport, there are several interventions proposed which include roads for vehicles, buses as well links which aim to encourage active travel. The map depicts that transport interventions will create new routes and increase connectivity between locations of existing schools and the locations of new homes within the New Carrington boundary, which will support new residents particularly in the initial phases.

It is important to note that the transport infrastructure options will be identified as part of the preparation of the Delivery Strategy and these will have regard to the location of social infrastructure.

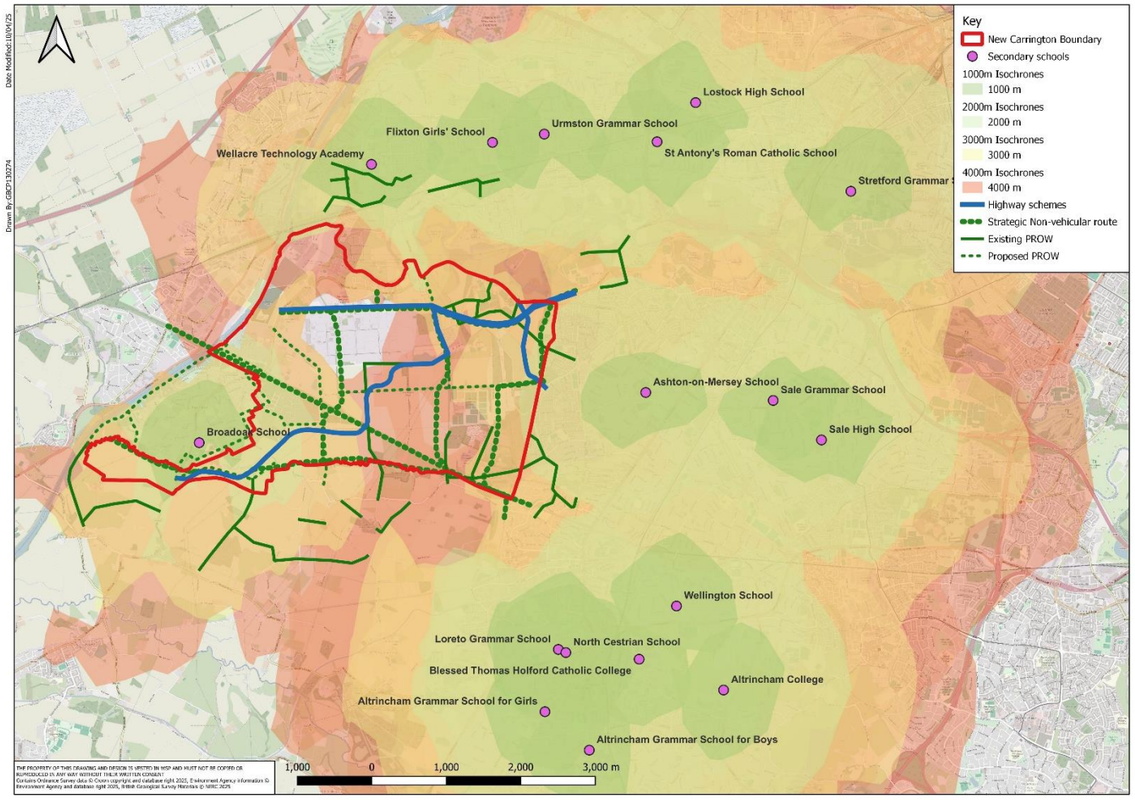
With regard to education infrastructure, this relates to both new school as well as expansion of existing schools.

Figure 2-4 - Existing primary schools and proposed transport interventions in the New Carrington masterplan



Source: WSP (2024); DfE (2024)

Figure 2-5 - Existing secondary schools and proposed transport interventions in the New Carrington masterplan



Source: WSP (2024); DfE (2024)

Local centres

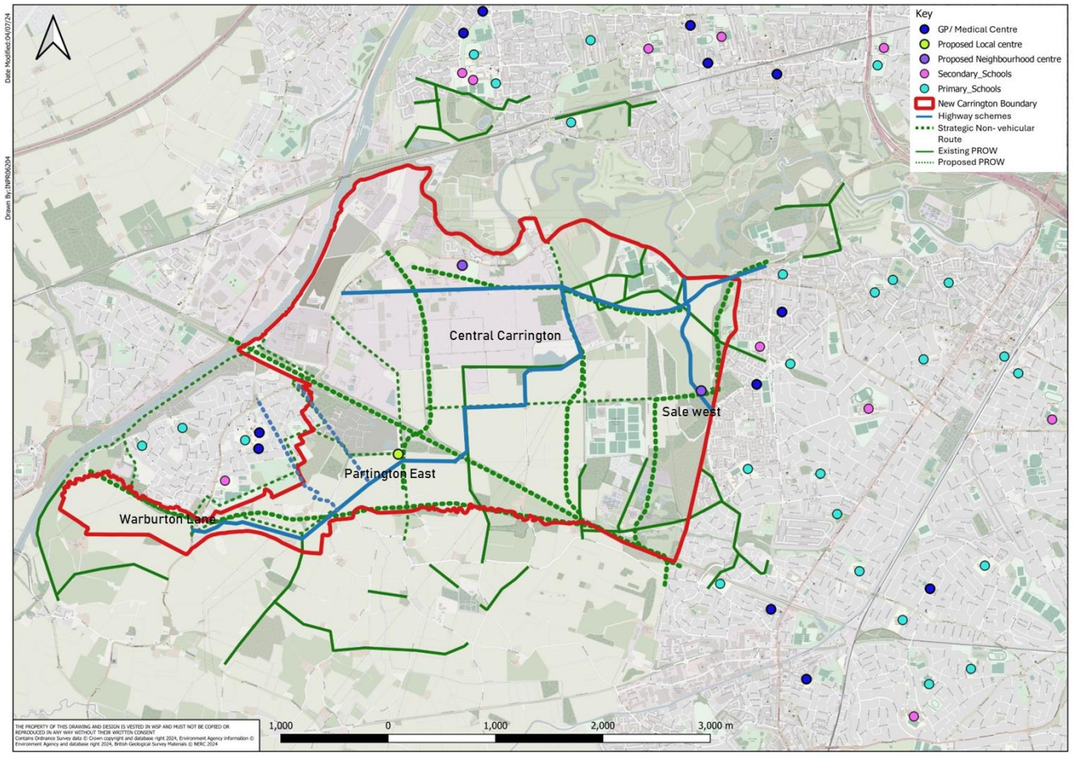
As previously highlighted in this chapter, it is intended that all new social infrastructure for New Carrington masterplan would be delivered within the proposed locations for a new Local Centre and two Neighbourhood Centres.

The proposed locations of the Local Centre and Neighbourhood Centres are subject to further refinement as the masterplan is further developed, to best ensure that the locations are the optimal, considering existing social infrastructure provision and existing local centres. This is to ensure that the new social infrastructure will be optimally located near to the location of new homes, as well as new transport links.

Partington Local Centre is the nearest and largest centre which is 1.6km from the proposed Local Centre at New Carrington.

The following map depicts the locations of the proposed Local Centre and Neighbourhood Centres in relation to existing schools and existing GPs.

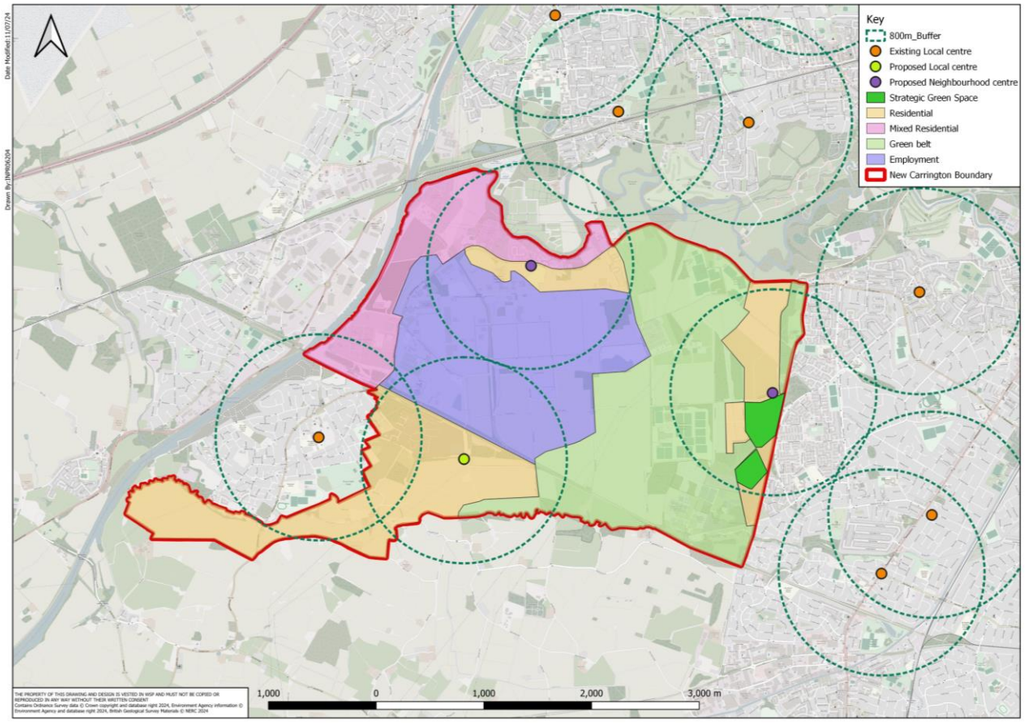
Figure 2-6 - Locations of existing social infrastructure and proposed locations of new Local Centre and Neighbourhood Centres



Source: WSP (2024)

The following map shows the locations of existing local centres surrounding the New Carrington boundary, in relation to the proposed locations of the new Local Centre and two Neighbourhood Centres that will be delivered as part of the New Carrington development.

Figure 2-7 - Existing local centres and proposed Local Centre and Neighbourhood Centres



Source: WSP (2024)

2.6 SUMMARY

Once fully built out, New Carrington could be home to approximately 12,300 residents. The scale of the development is substantial, however it will involve the phasing of new homes and therefore likely result in an incremental increase in terms of additional population and therefore increased demand for social infrastructure.

Based on the evidence presented in this chapter, there are several key considerations which will be taken into account when considering the type, location and timelines for the delivery of new social infrastructure for New Carrington. These are taken in turn below.

Education

- Data for Trafford indicates that the growth of the population will continue to increase but at a lower rate than compared to the North West region, and demographic trends demonstrate falling birth rates and the incumbent school age population in Trafford is projected to fall over the next five years;
- Evidence published by DfE suggests that new residential development tends to be occupied by young families which creates a higher demand for school places in the short term;
- There are some existing primary schools currently with spare capacity, particularly located near to the Partington East and Sale West parcels, which could accommodate demand in the initial phases;
- There is spare capacity in secondary schools located near to the Partington East and Warburton Lane parcels; and existing schools could be expanded to accommodate additional demand;
- The New Carrington masterplan has safeguarded the potential for 4 ha of land for two primary schools; and
- The DfE's preference for new primary schools is for a minimum of 2 FE (420 pupils), and 1 FE schools (210 pupils) are not preferred due to operational efficiencies and the DfE expects that all new primary schools will include a nursery.

Primary healthcare

- There is currently sufficient capacity within existing GP centres in the Sale West and Partington areas to accommodate new patients for initial phases of development; and
- The Local Centre and Neighbourhood Centres could locate a new facility, which could be linked to an existing GP centre.

2.7 OPTION CONSIDERATIONS FOR SOCIAL INFRASTRUCTURE PROVISION FOR NEW CARRINGTON

The next step of work will be to further identify and assess the range of suitable options, for both education and primary healthcare provision.

Options will be appraised against key criteria including:

- Sufficient capacity of existing and future social infrastructure to meet the need of a growing population;
- Community support;
- Connectivity, including safe travel routes for school age children;
- Deliverability and operational efficiency;
- Alignment with local and national strategic ambitions and policy changes; and
- Implications of phasing and trigger points.

3. ENERGY

3. ENERGY

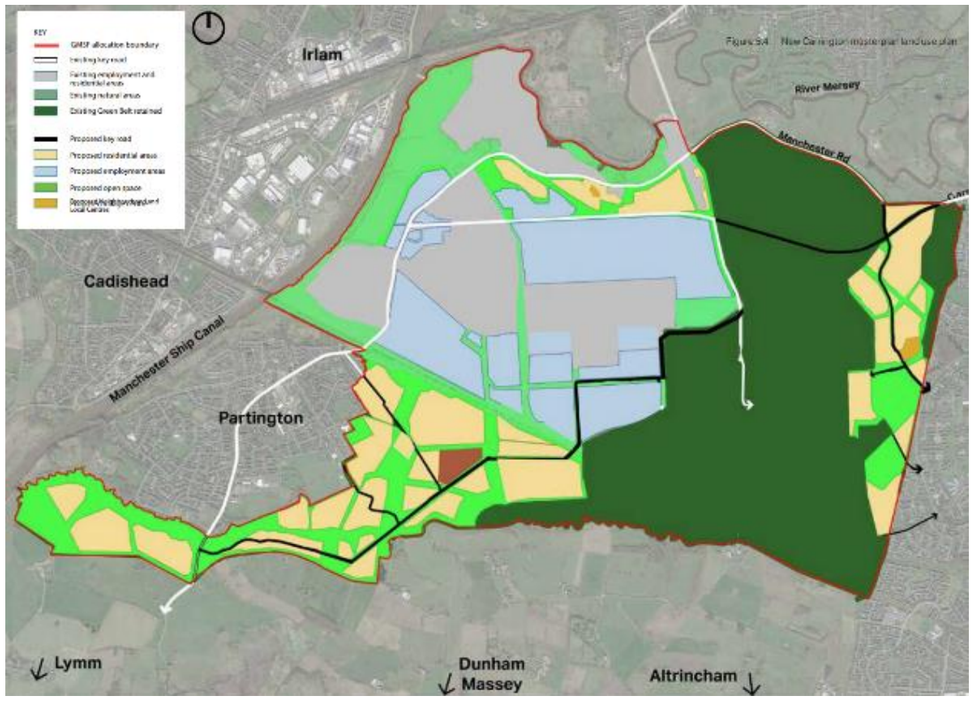
3.1 INTRODUCTION

This section aims to establish the foundations for the development of the New Carrington Energy Strategy. It comprises of a review of the New Carrington 2020 masterplan prepared by AECOM and the policies and strategies of local and national importance, and the technical considerations for the final energy solution.

The objective of the Energy Strategy is to generate the potential options for providing energy, including heating, hot water and cooling, to the site, assessing their comparative feasibility and provide preliminary designs for the infrastructure required. The results of this work will form part of a Delivery Strategy and will be guided by the governmental policies laid out in this report.

3.2 NEW CARRINGTON GMSF MASTERPLAN 2020[27]

Figure 3-1 – New Carrington GMSF Masterplan



The masterplan outlines approximately 5,000 new homes across a total area of approximately 179.7 hectares and an employment area of industry, warehousing and office buildings. The Energy Strategy will assess the differing demands of these buildings to ensure effective, efficient and reliable energy across the site.

The masterplan emphasises the importance of preserving the landscape as much as possible, particularly the Green Belt, for the purpose of preserving the natural environment, minimising biodiversity impact, and preserving landscape features. It aims to do this by using existing brownfield land, where possible, such as the former Shell Carrington industrial estate and other industrial / former industrial areas. An archaeological assessment has shown that there is potential for archaeological remains of high/very high local/regional significance within the allocation area.

Minimising superfluous land use will form a significant principle to the Energy Strategy. Where large energy infrastructure is required, opportunities will be sought to position it on existing brownfield areas or incorporate its installation into the construction of other infrastructural works, such as roads and footpaths.

Relevant aspects of sustainability addressed throughout the design process:

- The reuse of previously developed land (efficient use of land);
- Encouraging the use of sustainable sources of construction materials and minimising construction waste in line with achieving a BREEAM excellent rating;
- Encouraging developers to consider meeting the government's forthcoming Future Homes Standard for residential buildings in 2020 and beyond; and
- Designing a future-proof development which responds to climate change (e.g. solar-shading and cross ventilation, not single aspect dwellings).

3.3 REVIEW OF POLICIES AND STRATEGIES

PLACES FOR EVERYONE[28]

A key strategic objective in the Places for Everyone plan is "*Objective 7: Playing our part in ensuring that Greater Manchester is a more resilient and carbon neutral city-region*". It aims to attain carbon neutrality by 2038 and implement a programme of mitigation to reduce emissions which include reducing energy/heat/cooling demands, increasing renewable energy/heat generation (solar PV, biofuel), enabling sustainable and decarbonised travel choices.

The PfE also recognises the use of the energy hierarchy in new developments to achieve net zero carbon on-site before the use of carbon offsetting measures.

Policy JP-S1: Sustainable Development

"To help tackle climate change, development should aim to maximise its economic, social and environmental benefits simultaneously, minimise its adverse impacts, utilise sustainable construction techniques and actively seek opportunities to secure net gains across each of the different objectives".

Policy JP-S2: Carbon and Energy presents a range of measures to deliver carbon neutrality for the region, including:

[27] New Carrington GMSF Masterplan. 2020. [Online] accessed via: https://www.trafford.gov.uk/planning/strategic-planning/New-Carrington-Masterplan/New-Carrington-Masterplan-overview.aspx

[28] Places for Everyone Joint Development Plan Adoption Statement. 2024. [Online] accessed via: https://www.trafford.gov.uk/planning/strategic-planning/Development-Plan/Places-for-Everyone.aspx

- Promoting the use of life cycle cost and carbon assessment tools.
- Taking a positive approach to renewable and low carbon energy schemes.
- An expectation that new developments will, where practicable and viable:
    - Be net zero carbon from adoption operationally and in totality from 2028, once construction emissions are considered.
    - Calculation and minimisation carbon emissions from unregulated emissions alongside regulated emissions.
    - Expecting an energy statement in development proposals setting out how net zero carbon will be achieved in accordance with the energy hierarchy.
- Development should be consistent with the 2022 Part L Building Regulations unless superseded by changes to building regulations and/or national or local planning policies.
- Incorporating adequate electric vehicle charging points, in line with Part S of the Building Regulations, unless superseded by relevant Local Plan policies.
- Prioritising connection to a renewable energy/heating/cooling network in the first instance or a low carbon network that is adaptable to non-fossil fuels at a later date.
- Generating renewable energy on-site with priority given to PV installation, where technically feasible, with a target of at least 40% of residential ground floorspace occupied by solar photovoltaic. Alternative technologies will be appropriate, where the equivalent generation is evidenced.

Policy JP-S3: Heat and Energy Networks

The provision of decentralised energy infrastructure is critical to the delivery of our objectives for low carbon growth, carbon reductions and an increase in local energy generation.

To comply with policy JP-S3, heat and energy network assessments will be required as part of an energy statement to support planning applications for new developments within the identified 'Heat and Energy Network Opportunity Areas'. A heat or energy network should be installed unless it can be demonstrated that there are more effective alternatives for minimising carbon emissions, or a network connection is not practicable or financially viable.

There is also an expectation that opportunity for the use of waste heat locally for new industrial developments has been fully examined and included in the proposals.

It is also expected that site-wide networks will be designed for potential future expansion, and that the connection of publicly owned buildings and assets which adjoin new major development sites will be considered as appropriate.

TRAFFORD LOCAL AREA ENERGY PLAN 2022 (LAEP)[29]

Trafford undertook a Local Area Energy Plan which aims to define the extent of the transformation needed, provide a robust evidence base and plan to help engage business and citizens in acceleration towards a 2038 carbon neutral goal.

The plan asserts an increasing uptake of low carbon solutions in heating and personal transportation as an opportunity for Trafford to reach net zero carbon. A primary scenario in the plan describes a shift over the next decade to battery electric vehicles, electric heat pumps and low carbon heat networks.

The plan's suggestion of 100% electrified heating is a consequential ambition for the development, prescribing either a personal heating solution for each building with technologies such as heat pumps, solar thermal water heating and/or electric boilers; or a heating network that uses electrically powered systems or waste heat to produce for zero net gain in emissions.

New Carrington Area has been identified as a District Heat opportunity area and solar PV priority area. A district heating system has been proposed by Atkins starting at Carrington Power Station for non-residential areas towards the city centre with potential for expansion to residential and non-residential buildings.

A secondary scenario describes a hydrogen supply to residential and non-domestic buildings prioritised from 2030 onwards from the HyNet project, assuming it is available. This could be an alternative energy source for an individual or network solution. A key decision point will need to be made c.2025, according to the plan, regarding the availability of hydrogen to supply Trafford. A decision to expand the scope of the HyNet project to include heating in the area could impact the conclusions of energy option assessments conducted later in the New Carrington development process. Further study is required to determine the economic viability of such a solution and its comparative benefit.

NATIONAL PLANNING POLICY FRAMEWORK

The National Planning Policy Framework (NPPF) [30] sets out the UK Government's planning policies and framework for development in a sustainable manner in England. In summary, this means the planned buildings, commercial development and associated infrastructure must:

a) Support the national planning objectives across social, environmental, and economic themes; and
b) Accord with local plans and planning requirements for sustainable development, as specific to the area in which they are to be delivered.

HEAT AND BUILDINGS STRATEGY 2021[31]

This strategy sheds light on government's approach to low-carbon heating and energy efficiency as part of the Clean Growth Strategy and the Ten Point Plan, ensuring a consistent and coherent approach across various supply chain markets, buildings and occupancy types, and that robust plans with targeted financial supports to achieve carbon budgets and lay the foundations for Net Zero buildings in the UK by 2050.

[29] Trafford Local Area Energy Plan 2022. [Online] accessed via: https://gmgreencity.com/projects-and-campaigns/local-energy-market/
[30] National Planning Policy Framework (NPPF) 2023. [Online] accessed via: https://www.gov.uk/government/publications/national-planning-policy-framework--2
[31] Heat and Buildings Strategy 2021. [Online] accessed via: https://www.gov.uk/government/publications/heat-and-buildings-strategy

The strategy sets out the vision for large and complex commercial and industrial buildings on the pathway to be Net-Zero:

- Developing and consulting on a mandatory framework for performance-based energy ratings for commercial and industrial building over 1000 m2;
- Identifying low-carbon heat networks as playing a substantial role in the decarbonisation of heat in any Net Zero scenario, with the Climate Change Committee advocating for 18% of UK heat to be sourced from heat networks by 2050;
- Committing £338 million of funding towards a new Heat Network Transformation Programme to bring together several interrelated heat network projects, including the implementation of local authority zoning by 2025; and
- An ambition that by 2035, no new gas boilers will be sold.

FUTURE HOMES AND BUILDINGS STANDARD[32]

The Future Homes and Buildings Standards will come into force in England in 2025, with the latest consultation having ended in March 2024 on changes to Part 6, Part L (conservation of fuel and power) and Part F (ventilation) of the Building Regulations for dwellings and non-domestic buildings and seeking evidence on previous changes to Part O (overheating). The 2025 Future Homes and Buildings Standards aims to set even more ambitious requirements for energy efficiency and heating for new homes and non-domestic buildings. These standards will be in line with meeting the 2050 net zero target and will mean no further work will be needed for new buildings to produce zero carbon emissions as the electricity grid decarbonises.

Key aspects of these latest proposals include:

- Setting performance requirements for new buildings that ensures they are 'zero-carbon ready', with high fabric standards, efficient lighting and minimum standards for pipework insulation aligning with CIBSE CP1 best practice;
- Supporting the expansion of heat networks contingent upon tangible strides towards decarbonisation. Under the Future Homes and Buildings Standards, new developments can connect to existing or new heat networks, provided they integrate low-carbon technologies or utilise currently unused low-carbon heat;
- Advocating the installation of high efficiency solar PV panels in one of the options they are consulting covering 40% of ground floor area in homes; and
- For non-domestic buildings, several improvements and updates are proposed to the National Calculation Methodology used to assess building performance in non-domestic buildings.

Government is also committed to developing CO2 emission standards for all heat networks across the country in the mid-2030s, regulated by Ofgem as the national heat network regulator, which will require the sector to transition to lower-carbon heat sources.

HEAT NETWORK POLICY[33]

The Heat Network Zoning Policy aims to significantly increase the number of heat networks in England, speed up new networks' development and increase private sector investment. A national zoning model has been developed to identify and designate areas in England where heat networks are expected to be the lowest-cost solution to decarbonising heat over a 40-year timespan. The policy is empowered by the regulatory framework established by the Energy Act 2023 and secondary legislation. A consultation of the policy was launched is December 2023.

The following requirements have been proposed:

- Buildings in a designated zone that receive planning permission after the zone's designation will be required to connect to the heat network upon construction completion or be made "heat network ready" if the heat network itself is not yet ready. This may include designing internal building space for pipes and connection equipment, pipework insulation requirements and suitable heat radiators;
- Low-carbon heat sources may be required to connect to heat networks; and
- Heat networks in zones will be required to comply with national emission limits.

Methodology is being developed to identify potential heat network zones at the national level and an Advanced Zoning Programme is underway to support network designs in some towns and cities, which includes Greater Manchester. As described earlier in the report, Greater Manchester's Places for Everyone report identifies New Carrington as an "opportunity area" and therefore heat and energy network assessments are required. If a more cost-effective solution to minimising carbon emissions in the area cannot be demonstrated, then New Carrington may be required to connect to a heat network.

3.4 SITE INFORMATION

New Carrington covers a substantial area (1,153 Ha) of west Trafford and is influenced by its proximity to natural and industrial features surrounding it. Waterways define the boundary of the site with the Manchester Ship Canal to the West, the River Mersey on the North side and the Sinderland Brook to the South. Industrial assets in the area include Carrington Power Station, SAICA Paper Mill and Altrincham Wastewater Treatment Works.

Additionally, a hydrogen production facility aims to be operational in Carrington from 2025 and the New Carrington site sits at the end of the HyNet distribution network being developed. These are all important features to the area which will impact the potential direction of the Energy Strategy moving forward.

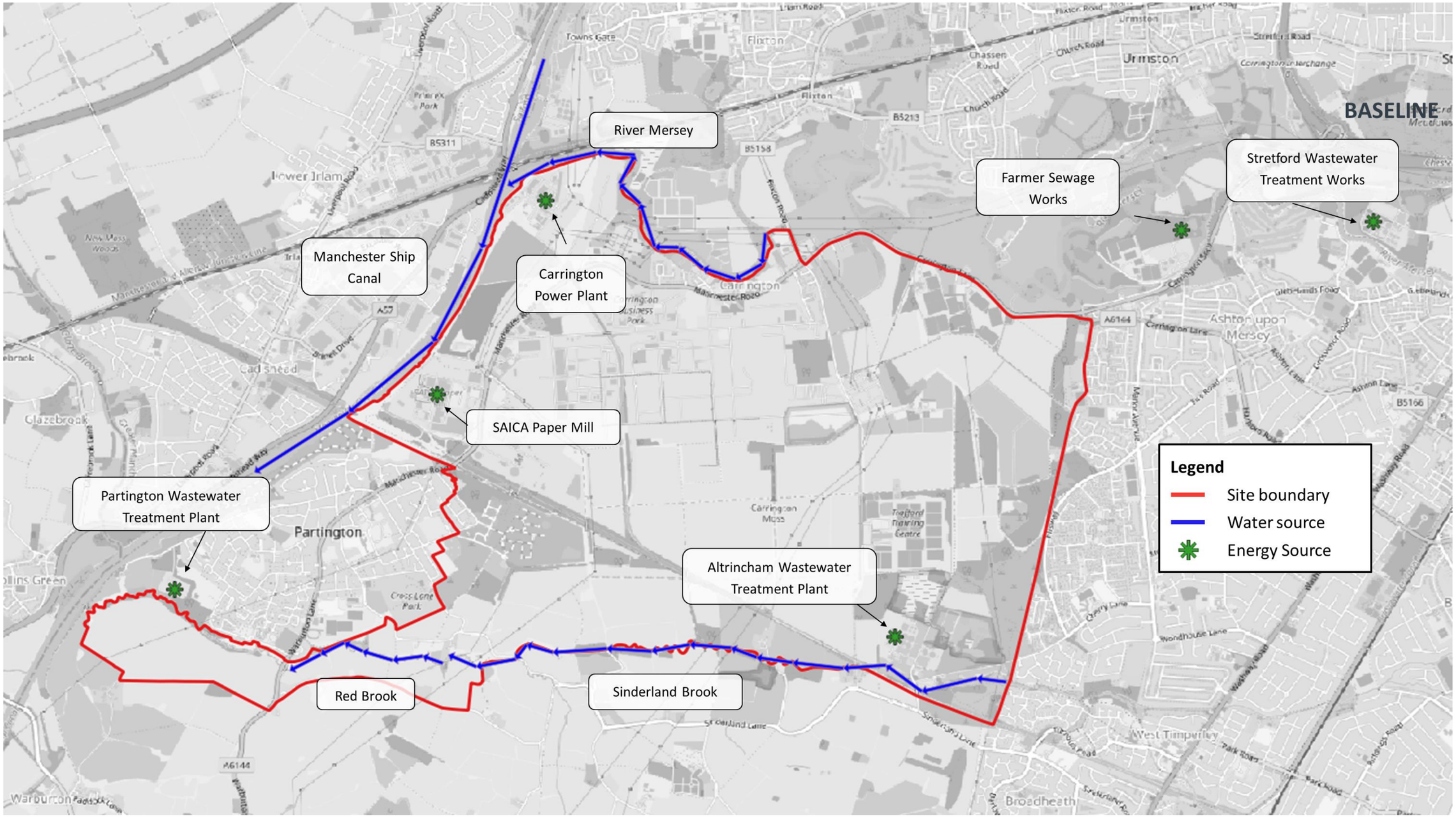
Key aspects of the development also include the site's location within the Green Belt and the brownfield land that the boundary encompasses, which will set the spatial bounds of the physical infrastructure, such as an energy centre (described in more detail in *BE CLEAN*).

The figure below shows the potential sources of energy locally that could be considered as part of the New Carrington Energy Strategy. No formal decision has been made to select any of these energy sources for inclusion in the Delivery Strategy and their mention in this report only highlights opportunities to consider.

[32] Future Homes and Buildings Standards 2023 Consultation. [Online] accessed via: https://www.gov.uk/government/consultations/the-future-homes-and-buildings-standards-2023-consultation/the-future-homes-and-buildings-standards-2023-consultation

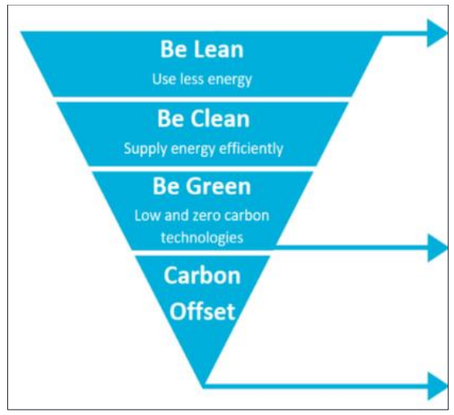
[33] Heat Network Zoning: consultation. 2023 proposals. [Online] accessed via: https://www.gov.uk/government/consultations/proposals-for-heat-network-zoning-2023

Figure 3-2 – Potential Existing Energy Sources for further investigation



3.5 CONSIDERATIONS FOR ENERGY INFRASTRUCTURE

ENERGY HIERARCHY DIAGRAM



Be Lean

In accordance with the principles of the energy hierarchy as seen in the figure above, the first step of the Energy Strategy is to "Be Lean" by improving energy efficiency and reducing energy generation, where possible. The Future Homes and Buildings Standard, sets a direction in the future for lower energy demands from buildings.

It also supports, along with the other policy documents, the consideration of heat and energy networks, given their ability to take advantage of diversified peak demands to meet energy demands with lower output capacity. To comply with Policy JP-S3 in the Greater Manchester PfE Plan, it will be necessary to assess the feasibility of implementing an energy/heating/cooling network solution in the area.

Be Clean

The energy density of the New Carrington area has led to it being identified as opportunity area for an energy network, indicating that such a solution could be the most cost-effective method of distributing energy, heating and/or cooling. This points to the significance of energy networks in the national context and the need to consider their use in New Carrington.

Energy networks would be served by one or more energy efficient energy centres paired with a pre-insulated pipe network to supply low temperature hot water and chilled water to the buildings on the site. This would satisfy a "Be Clean" approach.

A centralised supply of heat provides opportunities for reduced plant capacity and lower electrical demands. It also offers smaller overall spatial requirements as thermal energy demands are lower due to high levels of diversity, although a separate energy centre building is needed to house the plant and distribution equipment. Further study is required to determine the optimum location and minimum spatial requirements for the building and network overall.

Be Green

A centralised heat supply can also be a means of utilising energy from low-carbon sources more cost-effectively than a decentralised energy scheme, such as a heat pump in each individual dwelling. Examples of such energy sources are highlighted in the figure on the previous page. In general, the following green technologies will be considered:

- Air Source Heat Pumps
- Water Source Heat Pumps
- Ground Source Heat Pumps
- Electric Boilers
- Waste heat recovery
- Solar Thermal Hot Water Heating
- Hydrogen

The HyNet North West Hydrogen Pipeline Project is a major project being developed to deliver hydrogen infrastructure to industry. A preliminary order limit currents runs through Warburton and up to Partington for the HyNet project. It has not yet been decided the extent to which hydrogen will be made available for use domestic heating, or if a hydrogen supply will be provided at all.

Hydrogen infrastructure is also under development on the north side of the site. Carlton Power has received funding from DESNZ's Net Zero Hydrogen Fund for a green hydrogen project, also known as "Trafford Green Hydrogen", targeting 20MW in an initial phase which may lead to up to 200MW capacity. This has the potential for residential heating and aims to enter commercial operation in 2025.

These hydrogen generation and distribution projects have the potential to provide green energy for New Carrington, but it is uncertain if or when they could become available. Further work is needed to assess the feasibility of hydrogen at New Carrington and the impact on the development.

Efficient solar photovoltaic systems will also be considered in accordance with the Trafford and Greater Manchester ambitions for on-site renewable energy generation. These will reduce demand from the national grid and lower electricity bills for residents. They can be installed on rooftops and areas with alternative uses, such as car parks, in order to minimise additional land requirements. They can also be installed at low cost, if installed during construction.

An assessment will be required to determine the technical and economic viability of each of these technologies to serve the site's energy demands and how a centralised approach compares to a counterfactual solution based on individual heat pumps in each property.

OPTION CONSIDERATIONS FOR ENERGY INFRASTRUCTURE PROVISION FOR NEW CARRINGTON

A number of considerations will influence the selection of energy solution options in the next stage of the strategy development. Primarily, it is important to establish the constraints of the energy supply and the feasibility of an energy network. The options evaluation criteria include:

- Affordability
- Impact
- Timescale
- Policy Compliance
- Phase-ability
- Interaction with adjacent areas/schemes.
- Deliverability

4. FLOOD RISK AND DRAINAGE

4. FLOOD RISK AND DRAINAGE

This final chapter of the Baseline Report reviews the policy background with regard to flood risk and drainage; and the potential infrastructure works and mitigation requirements as part of the development of New Carrington.

4.1 REVIEW OF POLICIES

Several policies are relevant to the consideration of flood risk and drainage for New Carrington. This section provides a comprehensive overview of the policy context.

PLACES FOR EVERYONE (2024)

Within Places for Everyone (2024), there are two key policies which stipulate requirements for sustainable development and flood risk, as shown in the following excerpts.

Policy JP-S1: Sustainable Development

*"*To help tackle climate change, development should aim to maximise its economic, social and environmental benefits simultaneously, minimise its adverse impacts, utilise sustainable construction techniques and actively seek opportunities to secure net gains across each of the different objectives".

Policy JP-S4: Flood Risk and The Water Environment

*"*An integrated catchment-based approach will be taken to protect the quantity and quality of water bodies with reference to the North West River Basin Management Plan and managing flood risk, by:

1. Returning rivers to a more natural state, where practicable;

2. Working with natural processes and adopting a natural flood management approach to slow the speed of water drainage and intercept water pollutants;

3. Locating and designing development so as to minimise the impacts of current and future flood risk, including retrofitting or relocating existing developments, infrastructure and places to increase resilience to flooding;

4. Expecting developments to manage surface water runoff through sustainable drainage systems and as close to source as possible. Development should achieve greenfield run-off rates unless it is demonstrated to be impracticable. District local plans should consider setting more detailed surface water drainage policies to reflect local circumstances, including alternative surface water discharge rates, such as in areas with critical drainage issues;

5. Ensuring that sustainable drainage systems:

   i. Are designed to provide multifunctional benefits wherever possible, including for water quality, nature conservation and recreation;

   ii. Avoid adverse impacts on water quality and any possibility of discharging hazardous substances to ground;

   iii. Are delivered in a holistic and integrated manner, including on larger sites split into different phases; and

   iv. Are managed and maintained appropriately to ensure their proper functioning over the lifetime of the development.

6. Securing the remediation of contaminated land and the careful design of developments to minimise the potential for urban diffuse pollution to affect the water environment; and

7. As a minimum, residential development should meet the mandatory water efficiency standard of 125 litres/person/day as set out in Building Regulations. District local plans may and should consider setting a tighter water efficiency standard of 110 litres/person/day where there is a clear local need with reference to national guidance on housing optional technical standards".

TRAFFORD CORE STRATEGY (2012)

Some of the policies of the Trafford Core Strategy have been replaced / part replaced by the 2024 Places for Everyone.

The relevant excerpt from Policy L5 Climate Change is provided below. L5.16 and L5.18 are replaced by PfE Policy JP-S4: Flood Risk and the Water Environment.

L5 Climate Change

L5.16

"The Council will seek to control development in areas at risk of flooding, having regard to the vulnerability of the proposed use and the level of risk in the specific location. This will involve a sequential approach to determining the suitability of land for development and application of the exception test, as outlined in national planning policy, where necessary".

L5.17

"Developers will be required to demonstrate, where necessary by an appropriate Flood Risk Assessment (FRA) at the planning application stage, that account has been taken of flood risk from all sources (including rivers, canals, sewers, surface water run-off and groundwater) as identified in the Council's Strategic Flood Risk Assessment and/or shown on the Key Diagram, and that the proposed development incorporates flood mitigation and management measures appropriate to the use and location".

L5.18

"Developers will be required to improve water efficiency and reduce surface water run-off through the use of appropriate measures such as rain water harvesting, water recycling and other Sustainable Drainage Systems (SUDS) appropriate to the various parts of the Borough, as mapped in the Council's Strategic Flood Risk Assessment. Further guidance will be set out in the supporting Technical Note and SPD".

NATIONAL PLANNING POLICY FRAMEWORK

The National Planning Policy Framework (NPPF) ensures that flood risk is considered at all stages in the planning process to avoid inappropriate development in areas at risk of flooding and to direct development away from areas of highest flood risk.

Where new development is necessary in such areas, policy aims to make it safe without increasing flood risk elsewhere and, where possible, reducing flood risk overall.

Chapter 14 of The National Planning Policy Framework (NPPF) ensures that flood risk is considered at all stages in the planning process to avoid inappropriate development in areas at risk of flooding and to direct development away from areas of highest flood risk. Where new development is exceptionally necessary in such areas, policy aims to make it safe without increasing flood risk elsewhere and, where possible, reducing flood risk overall.

This report has been written particularly in respect of paragraph 167 (avoiding increasing flood risk elsewhere) and paragraph 169 (inclusion of SuDS).

4.2 WATERCOURSES

It is important to take into considered the range of watercourses that are in proximity to the New Carrington development. This section takes into account:

- Manchester Ship Canal
- Main Rivers; and
- Ordinary watercourses.

Manchester Ship Canal

The Manchester Ship Canal is present at the western boundary of the site. The canal is operated by the Manchester Ship Canal Company. Water levels in the canal are controlled through a series of locks and sluices.

Main Rivers

The main rivers of consideration to New Carrington are:

- The River Mersey – flows westwards to the north of site, joining the Manchester Ship Canal at Carrington Power Station;
- Sinderland Brook / Red Brook – The Sinderland Brook flows westwards from Sale, crossing beneath the former railway line close to the Altrincham Wastewater Treatment Works. It becomes Red Brook to the south-east of Partington, and discharges into the Manchester Ship Canal south-west of Partington;
- Tributary to River Mersey – located at the north-east corner of the site, flowing northwards and crossing Manchester Road before joining the River Mersey; and
- “Warburton Park Stream” – tributary of the Manchester Ship Canal, flowing westwards through Warburton Park, north of Warburton village.

Ordinary Watercourses

Numerous ordinary watercourses are present within the site, typically aligned to field boundaries which intercept runoff and discharge into the main rivers as noted above.

4.3 SOURCES OF FLOOD RISK

There are several sources of flood risk. This section takes each in turn:

- Fluvial;
- Surface water; and
- Ground water.

Fluvial

The National Planning Policy Framework (NPPF) categorises flood risk as follows:

- Zone 1 (low probability) – Land assessed as having less than a 1 in 1,000 annual probability of river or sea flooding (<0.1%);
- Zone 2 (medium probability) – Land assessed as having between a 1 in 100 and 1 in 1,000 annual probability of river flooding (1% – 0.1%), or between a 1 in 200 and 1 in 1,000 annual probability of sea flooding (0.5% – 0.1%);
- Zone 3a (high probability) – Land assessed as having a 1 in 100 or greater annual probability of river flooding (>1%), or a 1 in 200 or greater annual probability of flooding from the sea (>0.5%); and
- Zone 3b The Functional Floodplain – This zone comprises land where water has to flow or be stored in times of flood. Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. (Not separately distinguished from Zone 3a on the Flood Map).

The site is predominantly located in Flood Zone 1 according to the Environment Agency’s Flood Map for Planning and is therefore considered to have a low probability of flooding from rivers or the sea (less than 0.1% annual probability). However, areas of Flood Zones 2 (medium probability, between 0.1% and 1% annual probability) and Flood Zone 3 (high probability, greater than 1% annual probability) are present close to the River Mersey at the northern boundary of the site and Sinderland Brook / Red Brook at the southern boundary of the site.

Flood defences are present to the north, defending areas north of Manchester Road from flooding from the River Mersey. This information excludes allowances for future climate change or consideration of overtopping / breach of defences which is likely to extend the influence of flooding.

Figure 4-1 - Flood Map for Planning

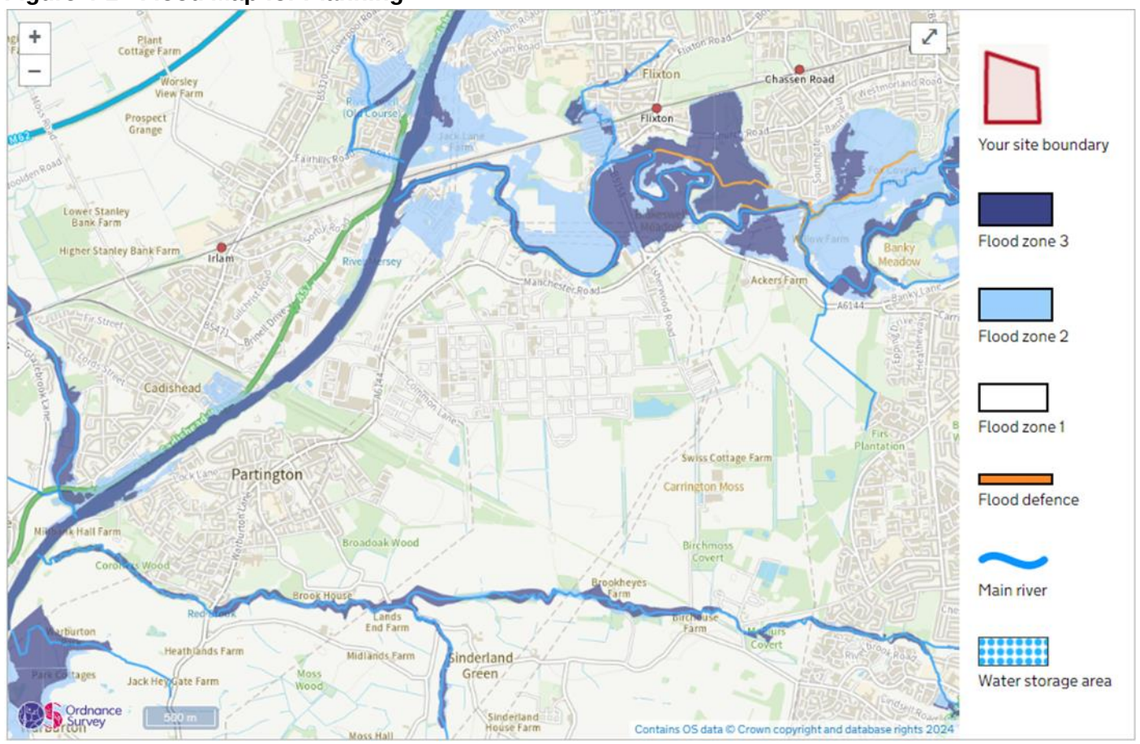
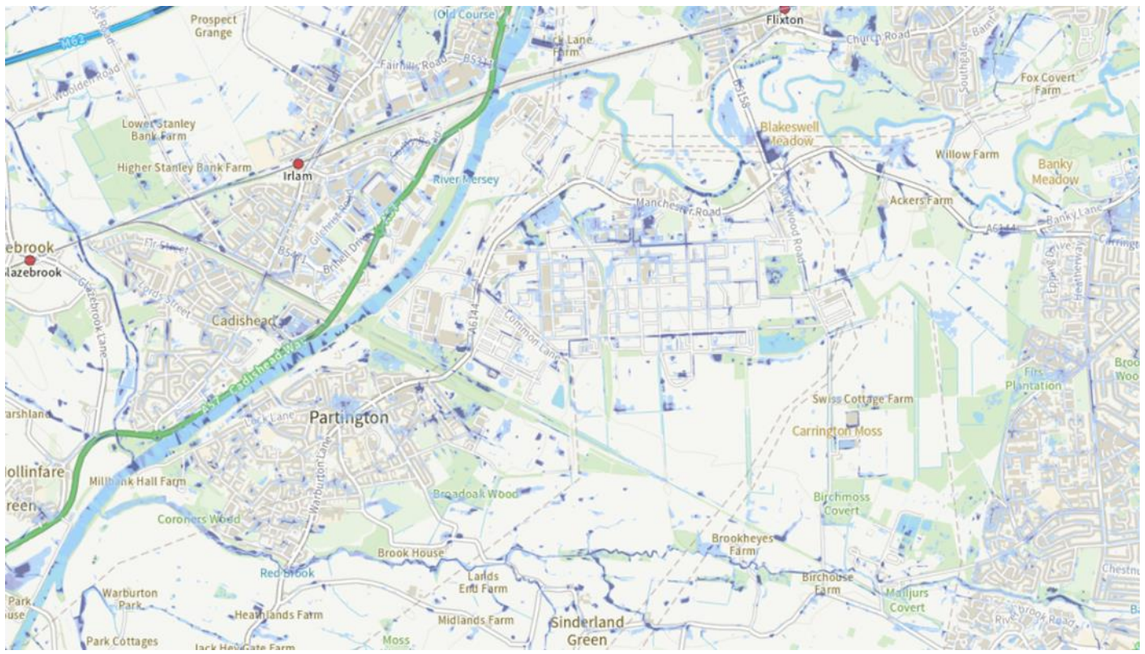


Figure 4-2 - Surface Water Flood Map



Surface Water

The Surface Water Flood Map (Figure 4-2) indicates that the site is prone to surface water flooding of low (between 0.1% and 1% annual probability), medium (between 1% and 3.3% annual probability) and high risk (more than 3.3% annual probability). The majority of flooding indicated appear to be associated with isolated low spots in the site topography. Some larger areas of surface water flooding are present in areas south of Manchester Road (e.g. Carrington Business Park).

Groundwater

The Trafford Level 2 Strategic Flood Risk Assessment (SFRA) Groundwater Flooding Map indicates the site is within an area of shallow groundwater. Further investigation will be required to establish groundwater levels and the risk posed to the site.

4.4 CLIMATE CHANGE

Increased flood risk is the greatest threat to the UK from climate change. Models of the climate system suggest floods have become more likely as a consequence of increased concentrations of greenhouse gases in the atmosphere. More frequent short-duration, high intensity rainfall and more frequent periods of long-duration rainfall could be expected. Sea levels are also expected to continue to rise.

This Environment Agency ‘Flood Risk Assessments: Climate Change Allowances’ guidance was updated on 27th May 2022 and provides details of applicable allowances and advice as to how to use them in flood risk assessment and drainage design.

Applicable Climate Change Allowances

The contingency allowances for climate change that are potentially applicable to this site relate to Peak River Flow Allowances and Peak Rainfall Allowances.

With regard to Peak River Flow Allowances, the following table presents the central, higher and upper allowances up to the decade of 2080.

Table 4-1 – Peak River Flow Allowances: Upper Mersey Management Catchment

	Central	Higher	Upper
2020's	13%	17%	27%
2050's	22%	31%	51%
2080's	41%	53%	85%

With regard to Peak Rainfall Allowances, the following two tables present the central and upper allowances up to the decade of 2070.

Table 4-2 – Peak Rainfall Allowances: Upper Mersey Management Catchment (3.3% Annual Exceedance)

	Central	Upper
2050's	20%	35%
2070's	30%	40%

Table 4-3 – Peak Rainfall Allowances: Upper Mersey Management Catchment (1% Annual Exceedance)

	Central	Upper
2050's	25%	40%
2070's	30%	45%

4.5 SURFACE WATER DRAINAGE

Existing Drainage Systems

The undeveloped areas of the site are likely to be served by ordinary watercourses as described above.

Surface water sewers and drains are likely to be present in the developed and previously developed areas serving roads, buildings, yards, car parks, etc. Some of this infrastructure is likely to comprise public sewers operated by United Utilities, however there is also likely to be a significant presence of private surface water drainage systems. These may discharge directly into watercourses, or into the public combined sewers.

Greenfield Runoff

The site occupies approximately 1,142ha. Greenfield runoff rates for the site have been estimated as follows:

Table 4-4 – Greenfield Runoff Rates

Return Period	Greenfield Runoff Rate (l/s)
QBAR	1,790
1 year	1,558
1 in 30 year	3,044
1 in 100 year	3,724

4.4 OPTIONS DESIGN CONSIDERATIONS FOR FLOOD RISK AND DRAINAGE FOR NEW CARRINGTON

The surface water drainage strategy for the site will be based on the principles of Sustainable Drainage Systems (SuDS), addressing issues of flood risk including future climate change, quality of discharge into watercourses and groundwater, amenity and biodiversity.

The presence of ground contamination such as Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) will be carefully considered when developing the drainage strategy for the site. Steps will be taken to ensure that contamination is not mobilised through the creation of new drainage systems, thus protecting local water resources.

The site is known to have significant peat resources which are to be protected as far as practicable. The peat also provides an opportunity to store surface water, contributing to the aims of SuDS.

Different types of SuDS features will be considered to address these issues, whilst also integrating into the landscape whether it be in a residential streetscape, commercial public realm, or as part of the site's green infrastructure.

Options for SuDS design will be assessed against key criteria, including:

- Flood risk;
- Adoption and maintenance;
- Water quality;
- Water efficiency;
- Biodiversity;
- Amenity;
- Safety;
- Spatial constraints; and
- Compatibility with local landscape.

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