

A6 Corridor Study

Final Summary Report

Stockport Metropolitan Borough Council

August 2014

Notice

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Document history

Job number: 5115815			Document ref: Final Summary Report			
Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
Rev 1.0	Draft - Client comment	GR	NM	NM	NM	31/01/14
Rev 1.1	Final Draft	GR	NM	NM	NM	20/02/14
Rev 2.0	Final	GR	NM	NM	NM	04/07/14
Rev 2.1	Final	GR	NM	NM	NM	13/08/14

Summary Report

Overview

1. Atkins has been commissioned by the A6 Corridor Group led by Stockport Metropolitan Borough Council (SMBC) and comprising representatives from Cheshire East Council, Derbyshire County Council, High Peak Borough Council, and Transport for Greater Manchester, to undertake a study to consider the potential impact of predicted traffic growth and demands on public transport within the A6 Corridor (Buxton to Stockport / Manchester) over the next twenty years. Peak District National Park Authority has been consulted during the course of the study.
2. The study is undertaken against the backdrop of plans for housing growth in the corridor, the proposed A6 to Manchester Airport Relief Road (A6MARR) scheme, and the wider South East Manchester Multi Modal Strategy (SEMMMS). Over the last ten years since the completion of the SEMMMS study, approximately £63 million has been spent on SEMMMS projects, delivering benefits to local communities across south-east Manchester through a range of public transport and sustainable transport measures. It is widely recognised that the A6MARR scheme is critical to delivering the long-term objectives of the SEMMMS strategy, and to meet national objectives for growth, employment and connectivity.
3. The A6 Corridor performs an important role for the Greater Manchester City Region carrying traffic from the Peak District and beyond into Greater Manchester. The A6 is part of the national Primary Route Network (PRN) and provides a strategic link between Greater Manchester and key towns in north Derbyshire including Buxton, Matlock and Chapel-en-le-Frith. It also serves New Mills, Whaley Bridge and a number of smaller settlements including High Lane and Disley. The A6 is also a major access route for the Peak District National Park.
4. The mix of local and strategic traffic is one of the major causes of congestion on the highway network. Freight traffic from Derbyshire and the Peak District to the M60, distribution centres and other destinations across the North West, mixes with commuter and business traffic travelling between Cheshire and parts of Greater Manchester, and with local commuter and leisure trips in the centres along the south Manchester corridor. These travel patterns have a direct impact on the ability of the transport network to provide efficient connectivity and access to markets and jobs. It also means that local communities are faced with large volumes of traffic and heavy goods vehicles passing through their centres, creating problems in terms of air quality, noise and highway safety.
5. The A6 a key bus corridor into Manchester city centre, operates with the most frequent single bus service in Greater Manchester (the 192) carrying almost 10 million passengers every year, and plays a critical role in supporting sustainable economic growth and accessibility in Greater Manchester. The A6 Corridor study area is also served by a number of rail passenger/ freight routes notably the Buxton Line which connects Manchester with Buxton, and Hope Valley Line which runs between Manchester Piccadilly and Sheffield. As well as being an important interurban route the line carries considerable aggregates traffic from the Peak District quarries and traffic connected with Hope Cement Works to the North East, East Midlands, North West and London/ South east. The freight route from Buxton and the Peak Forest joins this route at Chinley.
6. The aim of this study is to consider the demands of all modes including public transport and freight, assessing the relative impacts of local and longer distance movement and to develop a multi modal strategy to manage these demands with an emphasis on achieving a modal shift towards more sustainable modes. This study provides a pivotal opportunity to influence future travel choices, to develop an A6 corridor strategy with a short, medium and long term action plan:
 - The A6MARR scheme has been developed by Stockport Council working with its partners, Manchester City Council, Cheshire East Council and TfGM. Confirmation of government funding to improve access to Manchester International Airport and the adjacent enterprise zone was announced on 1 October 2013. The government's announcement grants what is known as programme entry approval to the scheme, an important milestone which precedes detailed design and the obtaining of the necessary statutory permissions. The government's announcement follows the decision of the Greater Manchester Combined Authority to approve the funding package in summer 2013. The planning application of the preferred scheme was submitted on 1 November 2013 to the Local Planning Authorities of Stockport Council, Cheshire East Council and Manchester City Council. The three Local Planning Authorities referred the planning application for the A6 to

Manchester Airport Relief Road to the Secretary of State for Communities and Local Government ("The Secretary of State"). The Local Planning Authorities have now been informed that following careful consideration the Secretary of State has decided not to call the scheme in for a Public Inquiry so the decisions of the three Local Planning Authorities to grant the scheme planning permission is confirmed.

The Compulsory Purchase Orders (CPO) and Side Road Orders (SRO) procedures commenced on 11 December 2013 in terms of the formal notifications made. The date of the associated CPO/SRO Inquires is scheduled to commence on 30 September 2014;

- A significant amount of work has been carried out over recent years in relation to the North West & Northern Rail Utilisation Strategies and more recently as part of the Northern Hub Study. The Northern Hub is Network Rail's plan for £600m of targeted infrastructure investment to stimulate economic growth by upgrading the rail network of the North, including two new through platforms at Manchester Piccadilly, a new link (Ordsall Chord) between Manchester Victoria and Manchester Piccadilly, a fourth platform at Manchester Airport and new tracks on the line between Leeds and Liverpool and between Sheffield and Manchester. The government's decision to support full funding of the Northern Hub was announced in July 2012 and will transform rail travel across the North of England by reducing journey times, providing the ability for more trains per hour and smarter routes for trains to take to get between towns and cities;
- Rail North has now formally entered into a partnership with the Department for Transport (DfT) for the renewal of the Northern and TransPennine rail franchises. Currently, 33 Local Transport Authorities are partners in Rail North. This significant step sets the foundation for stronger involvement of the North of England in determining the train services that run in the North, and sets out a pathway towards devolved decision-making. To support this transformation and ensure that both franchises are best placed to meet the demands of passengers, the Department for Transport launched a consultation on the future of rail services in the north on 9 June 2014. In addition to the consultation document, the DfT issued two (Northern and TransPennine Express) prospectuses outlining the details of the franchises to prospective bidders. The consultation will run until 18 August 2014. Operators are expected to be confirmed in late 2015, and the new franchises begin in February 2016;
- Cheshire East Council submitted its Local Plan Strategy to the Secretary of State for Communities and Local Government on 20 May 2014 in preparation for independent examination. The Local Plan Strategy sets out the Council's case for sustainable economic growth and is the strategy that the Council wants to adopt to manage development in Cheshire East up to 2030. It is anticipated that the Examination in Public will be held later in 2014; and
- High Peak Borough Council published its Local Plan on 23 April 2014. The new High Peak Local Plan will provide strategic planning guidance on matters such as housing, employment, the natural and historic environment, transport and retail. In addition, the new High Peak Local Plan will also include details of specific sites identified for future development or protection.

Consultation was undertaken on the Options for the Local Plan from 13 September to 25 October 2012, the Preferred Options from 27 February to 10 April 2013, and the Additional Consultation Preferred Options from 27 December 2013 to 10 February 2014.

The following timetable is anticipated:

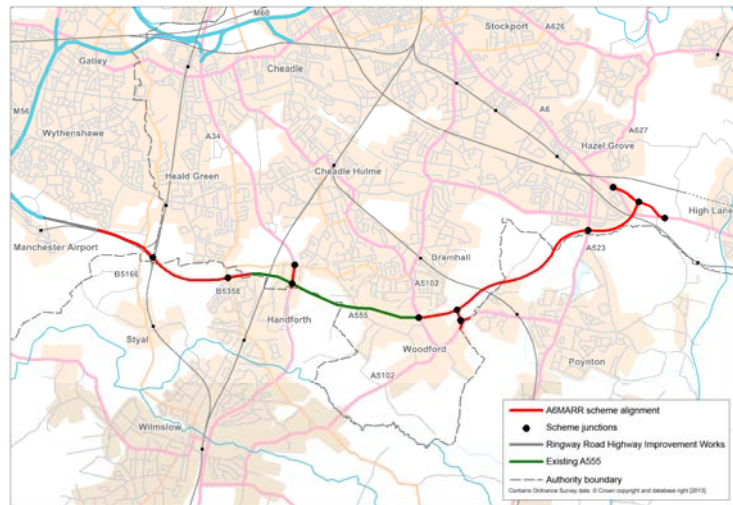
- July/August 2014 - Local Plan submission to the Secretary of State for Communities and Local Government
- November 2014 – Examination Hearings on the Local Plan
- February 2015 - Local Plan adopted

Setting the Context for an A6 Corridor Transport Strategy

7. Understanding the complex challenges facing the A6 Corridor, particularly in facilitating land-use development, the congestion/ connectivity issues and the focus on delivery of the South-East Manchester Multi-Modal Strategy (SEMMMS) are important to delivering the right solutions in response to the demand for travel.
8. The 8-kilometre section of the A6 between Hazel Grove and New Mills is single carriageway throughout. It is densely built up in parts, with significant levels of frontage development of a variety of types. There are frequent pedestrian crossings, bus stops, shops requiring delivery vehicles to stop on street and sections of on-street parking which often require one direction of flow to give way to oncoming vehicles. The constant high level of traffic movement creates an intimidating

environment for vulnerable road users along the A6. The A6 through Disley forms an AQMA for Cheshire East Council. The Disley AQMA extends from the A6 Market Street/ Buxton Old Road crossroads eastwards to the junction with Redhouse Lane in the east.

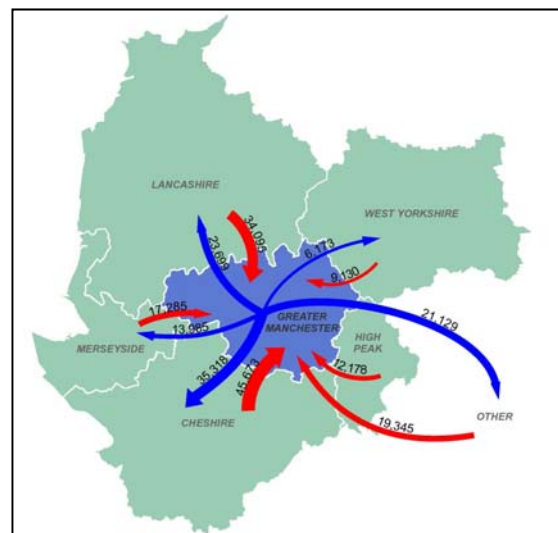
9. Future year traffic model predictions carried out as part of the A6 Manchester Airport Relief Road (A6MARR) study show that traffic volumes along the A6 through High Lane and Disley are expected to increase significantly compared to the current day levels with or without completion of the proposed A6MARR scheme. These forecast increases in traffic can be attributed in the main to traffic generation from proposed future land-use developments and to a lesser extent the strategic reassignment of longer distance east-west trips as a result of completing the A6MARR. The nature of the surrounding land means that it is not possible (nor desirable) to significantly increase highway network capacity in the A6 corridor.



10. The A6 through Hazel Grove is currently made up of four relatively narrow lanes and carries a high proportion of heavy goods vehicles and buses, generating a number of problems including congestion, noise, severance, vibration, and poor air quality. The pedestrian/ cycle environment along the A6 through Hazel Grove is currently poor. All of these factors currently impact on the vitality of the District Centre. Road safety is a concern in the A6 corridor as highlighted from recent accident records with a cluster of pedestrian road injury accidents on the A6 through Hazel Grove.
11. Future year traffic model predictions are for significant reductions in traffic flow along the A6 corridor through Hazel Grove District Centre with completion of the proposed A6MARR. This presents an opportunity to deliver complementary highway and/or public realm improvements.
12. Objective-led planning is about ensuring that transport planners have a mechanism to assess the extent to which solutions mitigate the problems they were designed to solve. In order to carry out a qualitative assessment of potential interventions we need to be clear about what the study objectives are so that we can assess whether the proposals will enable the objectives to be achieved.
13. With this in mind the following study objectives have been agreed with the A6 Corridor Group:
 - **Objective 1:** Reduce the impact of traffic congestion along the A6, with particular focus on A6 Hazel Grove to Whaley Bridge;
 - **Objective 2:** Encourage a modal shift towards public transport within the A6 corridor;
 - **Objective 3:** Enhance the pedestrian/ cycle environment along the A6 corridor;
 - **Objective 4:** Reduce the impact of traffic on road safety, noise, severance and local air quality within the A6 corridor; and
 - **Objective 5:** Support low carbon travel.

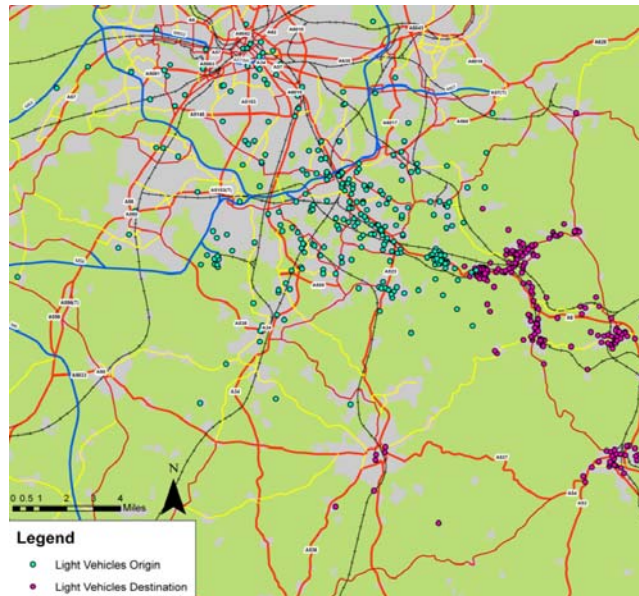
Understanding Travel Demands

14. As the largest economy in the North West and given the wide range of jobs available, Greater Manchester attracts labour from various parts of the North West and neighbouring regions. Greater Manchester acts as a substantial sub-regional 'attractor' of commutes, generally dominating flows from Cheshire and Lancashire and acting as a secondary destination of importance for Merseyside, as well as significant commuting flows



beyond the North West, such as from Derbyshire and parts of Yorkshire.

15. Resident earnings tend to reflect local skill levels. Across the Greater Manchester districts, with the exception of Stockport and Trafford, resident earnings are below the national average. Outside of Greater Manchester residents earning in Cheshire East, Chorley, High Peak, Rossendale and Warrington all exceed workplace earnings, with resident earnings in Cheshire East and Warrington exceeding the national average.
16. Within the Greater Manchester travel-to-work area, travel demand in the A6 corridor shows High Lane and Disley to be characterised in relative terms by longer commuting distances, high car mode share, higher train mode share and lower bus mode share.
17. Roadside interview survey data collected to update the A6MARR model provides an understanding of traffic movements along the A6 Corridor. An RSI site was conducted on the A6 in Disley in June 2011. The postcode plot for light vehicles shows that the majority of south-eastbound trips on the A6 through Disley originate from areas of Greater Manchester south of the M60 with a concentration from areas adjacent to the A6 through Stockport. This would imply that for longer commutes/ leisure trips the public avoid where possible traffic conditions on the A6 and use the train.



Rail Infrastructure

18. The route characteristics include steep gradients and a number of tunnels along the route. The line speeds along the route from Buxton to Manchester are predominantly low. The line speed between Buxton and Edgeley Junction is 50mph. Between Stockport and Ardwick Junction 75mph is permissible.
19. Service quality audits which are undertaken in conjunction with the PTEs provide a measure of the standards that customers expect on trains, on stations or in ticket offices every day. The performance monitoring units (PMUs) for Northern Rail (Manchester and Liverpool) for period 09 2012/13 (4 weeks 11 November - 8 December 2012) were 85.4% for trains and 89.2% for stations.
20. Significant amounts of rail freight are generated from the Peak Quarries around Buxton. In total approximately 6 million tonnes of aggregates, lime and concrete are moved from these terminals every year. Most freight services are routed via the Peak Forest line to join the Hope Valley Line at Chinley East Junction. This means that freight services do not interact to a significant degree with passenger services travelling from Buxton to Manchester Piccadilly. There are significant amounts of limestone reserves which are consented for quarrying which means that there is likely to remain a long-term demand for continuing rail freight services in the area.
21. Of the 75 freight paths only 44% operate during the daytime, highlighting the 24 hour nature of the rail freight operations from the quarry sites. Therefore, whilst there is a significant amount of freight traffic generated by the Peak quarries and associated cement works, there is limited interaction with the passenger rail traffic to and from Buxton as most paths take the freight via Chinley East Junction to reach Peak Forest, Tunstead and Dowlow.

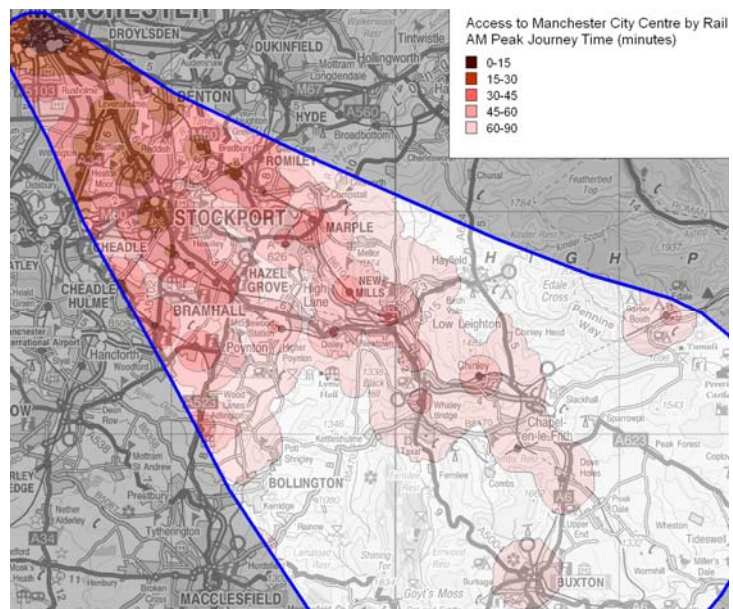
Access to Public Transport Services

22. Numerous bus services operate along the A6 corridor between Manchester, Stockport and Hazel Grove. Beyond Hazel Grove, the number and frequency of services reduces significantly, with a small number of principal long-distance services providing access to key destinations within the corridor. The A6 corridor operates with the most frequent single bus service in Greater Manchester (the 192) and carries over 10 million passengers per year. Beyond Hazel Grove the Skyline 199 bus service provides the primary service within the A6 corridor, operating a half hourly service between Buxton and Manchester Airport via Stockport Bus Station.

23. The Buxton Line is operated by Northern Rail and connects Manchester with Buxton. Over the section between Edgeley Junction and Hazel Grove there are four trains per hour (tph) in each direction, more frequently at peak hours. The Manchester to Buxton service runs hourly, combining with an hourly Manchester Piccadilly to Hazel Grove service to give Davenport, Woodsmoor and Hazel Grove stations a half hourly off peak service to and from Manchester. South of Hazel Grove, the off peak pattern is hourly¹ for Middlewood, Disley, New Mills Newtown, Furness Vale, Whaley Bridge, Chapel-en-le-Frith, Dove Holes and Buxton. The service frequency is enhanced to about half-hourly in the morning and evening peaks. A limited number of trains work through beyond Manchester. The Buxton line was designated as a community rail service by the Department for Transport in July 2013. Designation of the line should encourage train companies to work more closely with the High Peak and Hope Valley Community Rail Partnership to better design services to meet local needs.

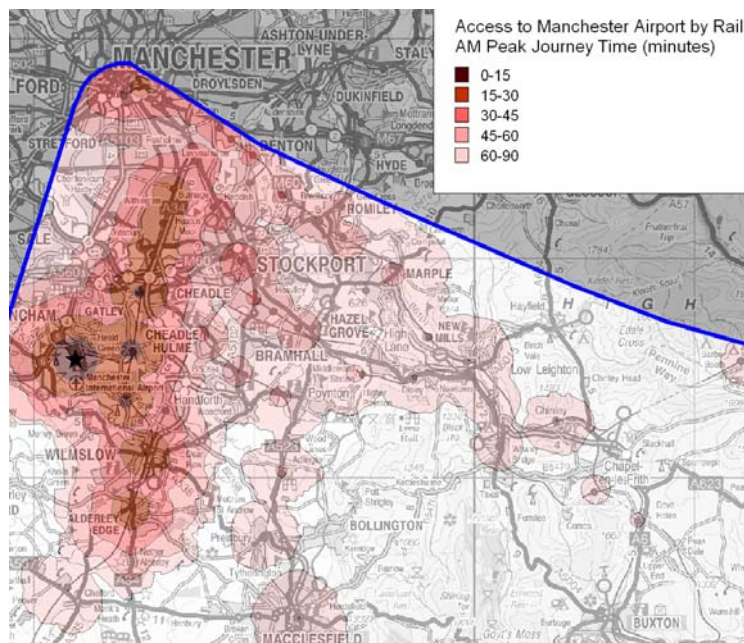


24. The Hope Valley Line is also operated by Northern Rail and runs between Manchester Piccadilly and Sheffield. As well as being an important interurban route the line carries considerable aggregates traffic from the Peak District quarries and traffic connected with Hope Cement Works to the North East, East Midlands, North West and London/South east. The freight route from Buxton and the Peak Forest joins this route at Chinley.
25. Punctuality and reliability are measured through the Public Performance Measure (PPM). Since performance may vary from one month to another, PPM is typically reported as by period (four weeks) and a Moving Annual Average (MAA) which is the average calculated performance over the previous 13 periods. The sub-operator PPM figures for Northern Rail (Manchester and Liverpool) for period 03 2014/15 (4 weeks 25 May - 21 June 2014) is 90.5% (PPM) and 90.2% (PPM MAA). Northern Rail compares well as an operator at a national level and that punctuality and reliability across the rail network has improved since 2006/07.
26. Analysis has been undertaken using accessibility planning software to understand the public transport journey times to key destinations in the A6 corridor. In terms of access to Manchester city centre by rail, journey times from Stockport and stations to the north are between 15 and 30 minutes (including walking distances to the origin station and a short walk into the city centre from Manchester Piccadilly). Beyond Stockport accessibility levels decrease, with journey times (including walking and wait times) from New Mills Central of up to 45 minutes, and journeys from New Mills Newtown of up to 60 minutes. The majority of the built-up area of Buxton is within a 90 minute journey time of Manchester city centre. Accessibility levels for bus journeys extend along the A6 but quickly drop off away from this arterial route. Journey times of 30-45 minutes are possible from much of Stockport, whilst journeys of less than 60 minutes are possible from the wider area including Hazel Grove and isolated pockets of High Lane and Disley. Beyond these areas, and particularly the extent of the 192 bus service in Hazel Grove, accessibility levels quickly reduce, with long journeys of well over an hour.

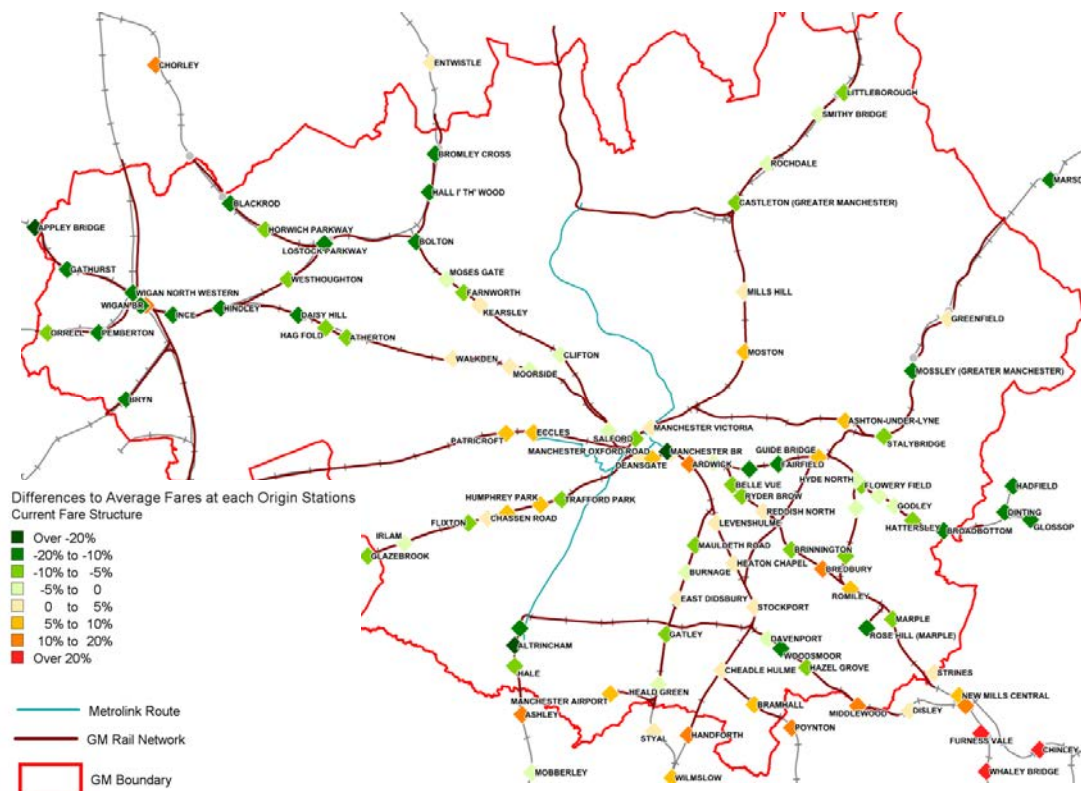


¹ From Middlewood and Dove Holes the service pattern is reduced to a train every two-hours.

27. More than 22 million passengers pass through Manchester Airport every year and forecasts suggest this could rise to 50 million by 2030. Access to Manchester Airport is still dominated by the car with 61% of passengers being either picked-up or dropped-off by private car or taxis. In contrast, only 10% of passengers (and 15% of staff) use public transport. Accessibility to Manchester Airport is greatest from stations within south Manchester and towns and villages within north Cheshire such as Wilmslow and Alderley Edge.



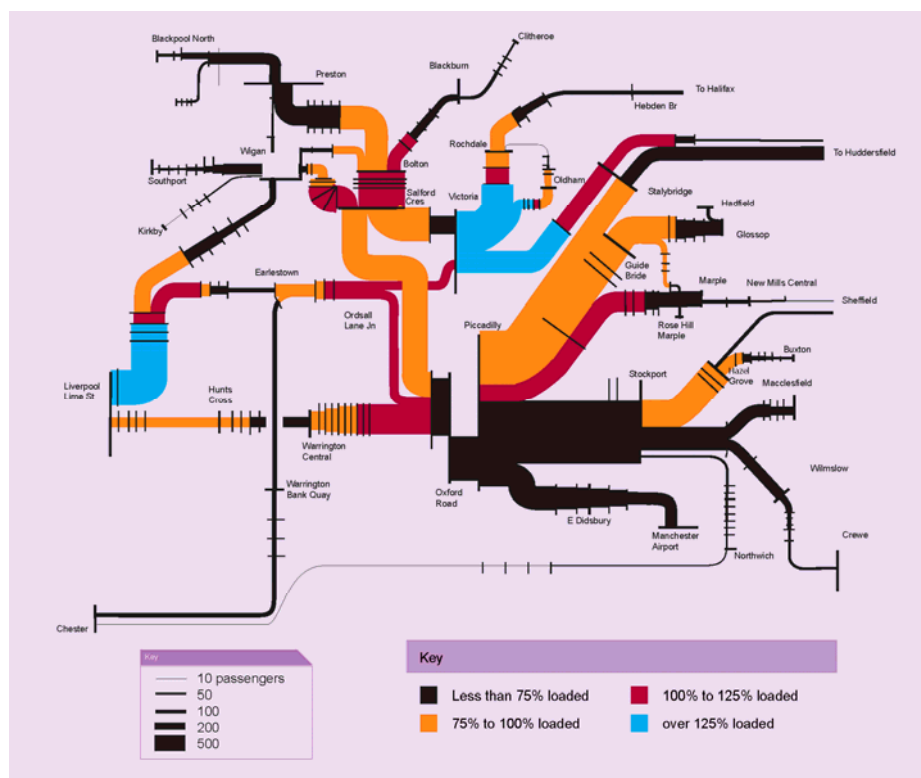
28. Access to Manchester Airport from the A6 corridor is comparatively poor due to the absence of direct rail services and the need to change trains at Manchester Piccadilly. As a consequence journey times exceed 60 minutes for the vast majority of the corridor. Accessibility to Manchester Airport by bus is very limited from the A6 corridor with journey times exceeding 60 minutes beyond Hazel Grove. Skyline 199 operates a half hourly service between Buxton and Manchester Airport via Stockport Bus Station. The A6MARR will open up the prospect of amended or new bus services along the corridor and provision for an improved direct route between Manchester Airport and the A6 corridor resulting in substantially reduced journey times and improved accessibility by bus.
29. There are currently fare anomalies for medium distance cross-boundary travel – i.e. differential fare structure between the PTE and surrounding areas where fares are set by the operator. These cross boundary fare anomalies can give rise to 'rail-heading' by commuters i.e. the practice of travelling further than necessary to reach a rail service, typically by car, to take advantage of discounted fares that are not available at their local station and higher frequency services, notably Hazel Grove. This option is made more attractive by TfGM's free parking policy.



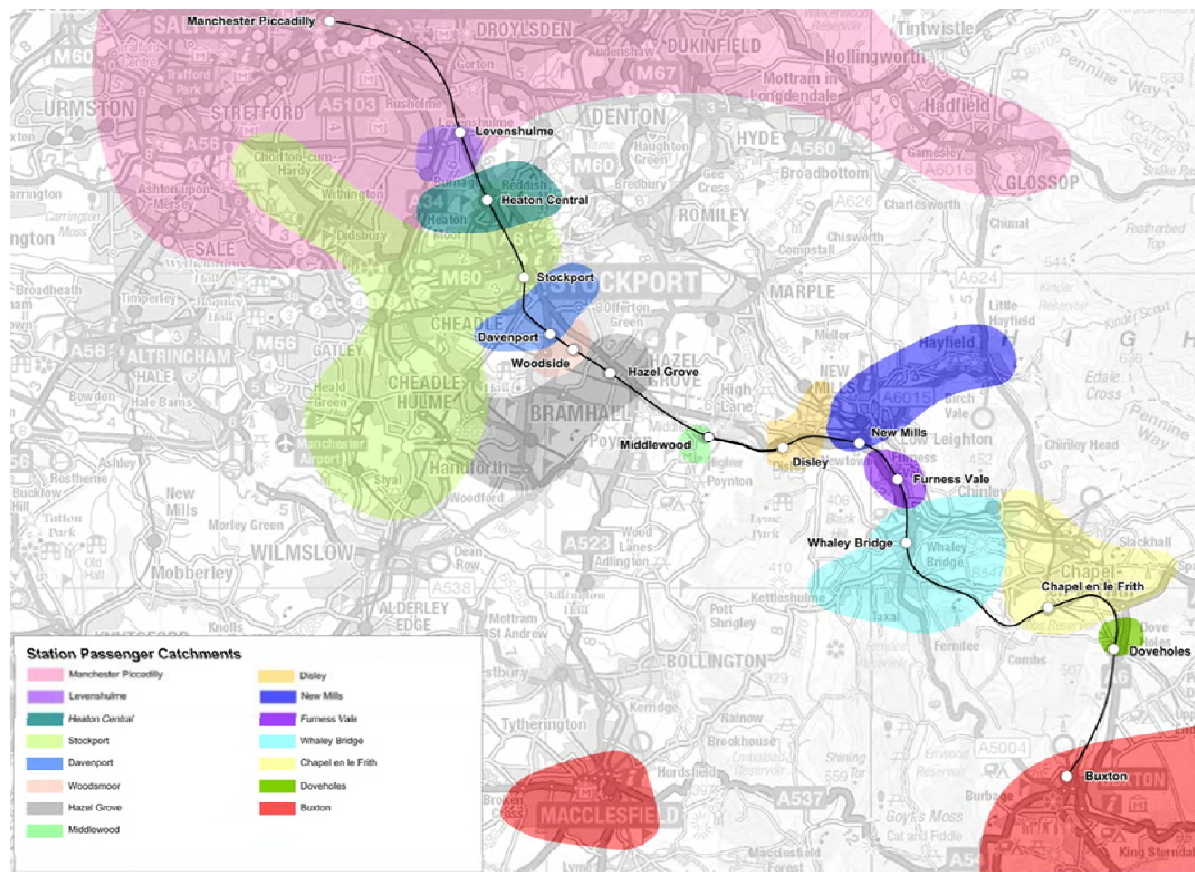
30. To set these fare 'anomalies' in the wider GM context the weighted average fare for trips from each station compared to the overall GM TTWA average 'trend line' are presented below. This shows how much the current fare differs to a distance based fare.
31. Hazel Grove station has a large station car park which is attracting an increasing number of passengers wishing to avoid the high levels of traffic congestion along the A6 through to Stockport and beyond to Manchester city centre. The car park is regularly full by 10am which forces people to use local roads for parking and thereby constraining growth in passenger numbers. The improvement of rail-based park-and-ride facilities at Hazel Grove remains a priority for TfGM.

Demand for Rail Services within the A6 Corridor

32. The rail network in the A6 corridor study area has a substantial commuter/ leisure market for rail services into the centre of Manchester. Demand on routes on south Manchester corridors, particularly those passing through Stockport were affected by the West Coast Route Modernisation Programme which eventually led to major timetable changes in December 2008 to improve reliability. This resulted in through trains between Buxton and Blackpool being split into Buxton to Manchester Piccadilly, and Manchester Victoria to Blackpool North services. To retain the cross-city links, a Hazel Grove to Preston service was introduced and resulted in an overall increase of one service in the morning peak. A large increase in demand from 2008 coincides with the launch of the new timetable. It is also the first year that journeys made on GMPTE rail tickets are included in the data.
33. Overcrowding on services in Greater Manchester is a problem throughout the morning peak period. In 2009, TfGM estimated that the costs of overcrowding to the northern economy GVA could be at least £0.5 billion. As of December 2011, across all operators there were typically around 12 services arriving into the city centre during the one hour morning peak that were classified as being overcrowded. This figure rose to around 17 during the three hour peak, demonstrating the spread of demand for rail services in Greater Manchester into the shoulders of the traditional peak period. In terms of loadings on the Buxton line it is not until Hazel Grove that train overcrowding is a problem.



34. Forecasts for average growth in demand for each Greater Manchester corridor indicate that growth in Manchester to Buxton corridor to be at the upper end of predictions from 2015 onwards. A broad indication of the station catchments area for the Buxton line is shown below.



35. The Buxton Line Rail Passenger Survey was carried out by Derbyshire County Council in the Spring of 2011. The results show a greater concentration in passenger demand in morning peak compared to the evening peak along with high usage on Saturdays indicating the importance of leisure trips. Data on both the mode of transport passengers use to get to the station and frequency of journey indicates that:
- On average the majority (51%) of passengers walk to the station, with 16% of passengers being dropped off at the station, 13% of passengers using the station as a park-and-ride and just 6% of passengers using rail as part of a linked trip with bus;
 - The average value of 51% passengers walking to the station is typical for stations including; Buxton, Disley, Hazel Grove and New Mills Newton, whereas unsurprisingly Chapel-en-le-Frith has significantly fewer (32%²) and Furness Vale (97%) and Whaley Bridge significantly more;
 - The majority of passengers (68%) can be considered to be infrequent users less than 1-4 days per week, although this is partially skewed by the spread of surveys across a weekday, Saturday and Sunday; and
 - Compared to the average value of 32% for frequent users (comprising 14% 5 or more days, and 18% 1-4 days per week), Disley (45%), Furness Vale (50%), Hazel Grove (38%), New Mills Newtown (48%) and Whaley Bridge (40%) have more strongly focussed commuter base journeys than other stations on the line.
36. A summary to the question “If you could make one improvement of the train service you are on, what would it be?” provided the following key responses:
- Cheaper fares/ more understandable fare structure (average response by station of 29% [26% and 3%]);
 - Additional capacity (average response by station of 18%);
 - Increased service frequency (average response by station of 14%); and
 - Improved quality of train service (improved carriages, improved toilet facilities on trains, improved cleanliness of train (average response by station of 25% [7%, 6%, and 12%]).

² This is because the station lies some distance outside the main centre of Chapel-en-le-Frith

Long List of Potential Interventions

37. Further to discussions with the A6 Corridor Group and consultation with local Councillors at a Members' workshop a long list of potential interventions was prepared for consideration with a view to supporting economic growth in the A6 corridor:
- Complementary measures on the A6 through Hazel Grove following completion of the A6MARR scheme;
 - A6 mitigation associated with the A6MARR scheme;
 - Branded car sharing database for the A6 corridor;
 - Improved pedestrian/ cycle access to rail stations;
 - Improved online and offline cycle facilities along the A6 corridor;
 - Provision of bus-based park-and-ride at A6 Rising Sun (Hazel Grove);
 - Improved bus service provision to High Lane/ Disley;
 - Improved public transport provision to Poynton;
 - Improved bus services to Manchester Airport (via A6MARR);
 - Improved integration between rail/ bus services;
 - Improved station facilities at Disley rail station;
 - Improved access to Middlewood rail station;
 - Increased parking provision at Hazel Grove rail station;
 - Increased parking provision at Disley rail station;
 - Increased parking provision at New Mills Newtown rail station;
 - Park-and-ride facilities at Furness Vale rail station;
 - Increased parking provision at Whaley Bridge rail station;
 - Increased parking provision at Chinley rail station;
 - Increased parking provision at Chapel-en-le-Frith rail station;
 - Increased parking provision at Buxton rail station;
 - New rail station at A6 Simpsons Corner;
 - New rail station at High Lane;
 - New bus or rail-based park-and-ride facility at A6/ A5004 roundabout Whaley Bridge;
 - New rail station at Chapel-en-le-Frith on 'Great Rocks' line;
 - Increased line speed between Buxton and Hazel Grove from typically 50 mph to 75 mph;
 - Increased peak hour train capacity and platform length for all stations between Buxton and Stockport;
 - Increased rail service frequency between Manchester and New Mills Newtown rail station;
 - Increased rail service frequency between Manchester and Buxton rail station;
 - Electrification of Buxton Line;
 - Cheaper rail fares;
 - Cross boundary rail fare re-structuring;
 - East Didsbury to Hazel Grove tram-train;
 - High Lane-Disley Bypass
 - A6 to M60 relief road; and
 - Poynton relief road.
38. Based on an initial qualitative assessment of potential interventions against study objectives and deliverability, and following consultation, a potential phased strategy has been developed comprising committed, short, medium and long term interventions, separately identifying:
- **Committed Measures/ Outputs from Other Studies**
 - A6 mitigation associated with the A6MARR scheme
 - Provision of bus-based park-and-ride at A6 Rising Sun (Hazel Grove)
 - Increased parking provision at Hazel Grove rail station
 - **Potential Short Term Measures** (considered capable of delivery within the next 5 years)
 - Branded car sharing database for the A6 corridor
 - Improved pedestrian/ cycle access to rail stations
 - Improved online and offline cycle facilities along the A6 corridor
 - Improved bus services to Manchester Airport (via A6MARR)
 - Improved station facilities at Disley rail station
 - Increased parking provision at Disley rail station
 - Increased parking provision at Buxton rail station

- Increased rail service frequency between Manchester and New Mills Newtown rail station
- Increased rail service frequency between Manchester and Buxton rail station
- Poynton relief road
- **Potential Medium Term Measures** (considered capable of delivery within 5 to 10 years)
 - Increased peak hour train capacity and platform length for all stations between Buxton and Stockport
 - Cross boundary rail fare re-structuring
 - Increased parking provision at New Mills Newtown rail station
 - Increased parking provision at Chinley rail station
 - Increased parking provision at Chapel-en-le-Frith rail station
 - New rail station at High Lane
- **Potential Longer Term Measures** (considered unlikely to be deliverable within 10 years)
 - Increased line speed between Buxton and Hazel Grove from typically 50 mph to 75 mph
 - Electrification of Buxton Line
 - New rail station at Chapel-en-le-Frith on 'Great Rocks' line
 - High Lane-Disley Bypass
- **Other strategy interventions** (which may have merit in their own right but are not directly aligned to the A6 corridor study objectives)
 - Complementary measures on the A6 through Hazel Grove following completion of the A6MARR scheme
 - New rail station at A6 Simpsons Corner
 - A6 to M60 relief road
 - East Didsbury to Hazel Grove tram-train
- **Remaining strategy interventions** (not considered to be integral in the context of this study)
 - Improved bus service provision to High Lane/ Disley
 - Improved public transport provision to Poynton
 - Improved integration between rail/ bus services
 - Improved access to Middlewood rail station
 - Park-and-ride facilities at Furness Vale rail station
 - Increased parking provision at Whaley Bridge rail station
 - New bus or rail-based park-and-ride facility at A6/ A5004 roundabout Whaley Bridge
 - Cheaper rail fares

Consultation

39. Following completion of a draft A6 Corridor Study report in February 2014, the A6 Corridor Group led by Stockport Metropolitan Borough Council (SMBC) and comprising representatives from Cheshire East Council, Derbyshire County Council, High Peak Borough Council, and Transport for Greater Manchester consulted with Members and key stakeholders. Details of the consultation feedback along with the study team's response to the comments received are contained within the main study report.

Appraisal of Strategy Interventions

40. Building on the outcomes of the qualitative assessment of potential interventions an appraisal of strategy interventions was undertaken based on:
- Developing rail demand forecasts using Passenger Demand Forecasting Handbook methodology along with MOIRA software to assess the impact of rail timetable changes; and
 - A6MARR SATURN highway model to assess the reassignment impacts of highway network changes along with an indication of the potential impact of the transfer of trips from car to rail.
41. At this stage demand-side responses to potential options have not been tested.
42. According to MOIRA ticket sales data for the 2012/13 rail year (April 2012 – March 2013) there were just over 800,000 rail journeys made to/from/between Buxton line stations. Just over 600,000 trips per annum cross the screenline between Middlewood and Hazel Grove, meaning that around 200,000 trips per annum (25%) are 'internal' journeys between the stations south of Hazel Grove, namely; Middlewood, Disley, New Mills Newtown, Furness Vale, Whaley Bridge, Chapel-en-le-Frith, Dove Holes and Buxton.

43. Analysis of passenger count data shows that typically there are around 1,200 daily weekday rail trips each way crossing the screenline between Middlewood and Hazel Grove, of which around 50% are made during the morning or evening peak three-hour periods. On Saturdays the figure is around 1,000 trips per day in each direction, with demand spread more evenly across the day. To put these figures into context, the two-way 2009 AADT flow on a similarly placed screenline on the A6 is 24,500.
44. Morning peak demand for trips into Manchester is forecast to grow by 22% during CP5, with further growth predicted beyond the end of CP5 (2019). This growth in demand is likely to place further strain on existing parking facilities, with a lack of available spaces potentially constraining growth in rail trips.

Recommended Corridor Strategy

Potential Short Term Measures (considered capable of delivery within the next 5 years)

- **Branded car sharing database for the A6 corridor:** Low cost option that should be considered to be an integral component of a multi-modal strategy for the A6 corridor. A short term measure which should be relatively straightforward to coordinate through the travel planning portals of the respective promoting authority websites.
- **Improved pedestrian/ cycle access to rail stations:** Low cost option that should be considered to be an integral component of a multi-modal strategy for the A6 corridor. The Buxton and Hope Valley line passenger surveys highlight the importance of walking as the main mode for accessing the rail stations in the corridor. On average the majority (51%) of Buxton line passengers walk to the station. The provision of high quality pedestrian access to rail stations and facilities for cyclist where deficiencies exist could make a positive contribution towards encouraging/ maximising rail take-up. For example, the Peak Forest Tramway that connects with the canal towpath to provide a greenway to Chinley with scope to extend to Chapel-en-le-Frith and Dove Holes. There is also scope for the White Peak Loop cycle trail & Monsal Trail extension to enhance links to Buxton. Specific schemes will be developed as part of next phase of work.
- **Improved online and offline cycle facilities along the A6 corridor:** Low cost option that should be considered to be an integral component of a multi-modal strategy for the A6 corridor. For example, creation of a safe cycle route from Stockport through Disley into Derbyshire for commuting and leisure purposes, utilising the Peak Forest Canal towpath to Whaley Bridge and Bugsworth Basin and a new cycle link between High Lane/ Disley and Poynton through Lyme Park. The creation of a cycle route along the Peak Forest Canal is an aspiration of the Peak District National Park Authority to provide a link between Greater Manchester and the Peak District. The route was considered for the recent Pedal Peak District II project and forms part of the draft Wider Peak District Cycle Strategy. Scheme development will be undertaken as part of the next phase of work. These should reflect complementary proposals such as the draft Wider Peak District Cycle Strategy.
- **Improved bus services to Manchester Airport (via A6MARR):** Access to Manchester Airport from the A6 corridor by bus is currently poor. Skyline 199 operates a half hourly service between Buxton and Manchester Airport via Stockport Bus Station. The timetabled journey from Disley (Ram's Head) to Manchester Airport is 53 minutes. Completion of A6MARR presents an opportunity to significantly reduce journey times to the Airport from the A6 at Hazel Grove. There are no plans to reduce bus services to Stockport from High Lane. The intention would be to introduce additional services with potential interchange facilities at the proposed bus-based park-and-ride site at A6 Rising Sun. The park-and-ride site will be served by the number 192 bus service, an existing bus service which already routes between the bus turn-around facility nearby in Hazel Grove and Manchester City Centre at a frequency of around every 10 minutes. Consultation with bus operators will be carried out as part of the next phase of work.
- **Improved station facilities at Disley rail station:** Low cost option that has the potential to increase rail demand at Disley station by 4% and generate a positive financial return of £0.5m over 20 years. Disley is the third busiest station on the Buxton line (south-east of Hazel Grove) after Buxton and New Mills Newtown. Facilities at Disley are below the desired standard for a station with an annual footfall of 150,000. Disley station is cited in the TfGM document '*Greater Manchester Rail Policy 2012-14*' as one of the top 10 stations in terms of footfall without either CCTV or customer information systems.

- **Increased parking provision at Disley rail station:** Disley rail station is listed as having a 25 space car park, but actual parking provision is about double this amount. Cheshire East Council has entered into discussions with Network Rail concerning the opportunity to extend the area of parking to the west of the station building further westwards alongside the rail line utilising a disused Network Rail goods yard. Assuming a 25-space extension to the car park could be delivered for minimal land cost on the basis that the former goods yard site is railway property, then it is expected that the scheme would be financially positive over a standard appraisal period and increased rail demand from Disley by almost 3% along with a corresponding increase in revenues from rail fares. If suitable land is made available and current supply levels start to act as a constraint on rail demand then the case for providing extra parking spaces at Disley station appears strong.
- **Increased parking provision at Buxton rail station:** Due to its position at the end of the line, Buxton generates the highest average yield per rail journey of all the stations on the line. Assuming a 30-space extension to the car park could be delivered for minimal land cost, then it is expected that the scheme would have a positive financial case over a standard appraisal period and increased rail demand from Buxton by almost 2% along with a corresponding increase in revenues from rail fares and parking charges. If suitable land is available and current supply levels start to act as a constraint on rail demand then there is a strong case for providing extra parking spaces at Buxton station. High Peak Borough Council is at the time of the writing this Report undertaking further consultation on its emerging Local Plan. The consultation references the need to provide additional parking to serve Buxton Station on land to the north of Station Road.
- **Increased rail service frequency between Manchester and New Mills Newtown rail & Buxton rail stations:** Low cost option taking full advantage of the Northern Hub infrastructure improvements.

In the May 2013 timetable there is an hourly service on the Buxton line beyond Hazel Grove, with additional trains in the peak periods when demand is highest. Historically, a half-hourly service was provided on the Buxton line throughout the day at least as far as Whaley Bridge, with at least a half-hourly service to/from Buxton in the peak periods. Over time, the service pattern on the Buxton line was rationalised as travel demand patterns changed, resulting in the present-day timetable where the service frequency has not altered much since the 1990s. As part of their planning process for the 'Northern Hub' package of infrastructure enhancements, the rail industry has developed a specimen timetable that seeks to make best use of the planned infrastructure enhancements across the North West. On the Buxton line, this specimen timetable includes a half-hourly off-peak service between Manchester and Buxton, with a typical journey time of 53 minutes. The Northern Hub specimen timetable seeks to maximise capacity utilisation and journey opportunities by linking services across Central Manchester.

Following completion of the current electrification programme, the Buxton line services are likely to operate across Manchester to Liverpool via Warrington, primarily for operational purposes as a means of linking two diesel-operated routes. Services from Liverpool via Warrington will no longer be able to terminate at Manchester Oxford Road as the bay platform will be removed to facilitate remodelling the station to accommodate more trains. In addition to the half-hourly Buxton line service, there is also a planned half-hourly service from Hazel Grove to Preston that would be operated by electric rolling stock following the electrification of the route from Manchester to Preston via Bolton under the North West Electrification project. Combined with the half-hourly service to Buxton, this could give Hazel Grove a 15-minute frequency service to Manchester throughout the day with additional services in the peaks if required. The Northern Hub specimen timetable is forecast to increase rail demand at Buxton line stations by 11%.

A potential incremental enhancement beyond the Northern Hub specimen timetable would be to extend the services that are planned to terminate at Hazel Grove through to New Mills Newtown. This could offer a number of potential advantages:

- A higher frequency of service from New Mills Newtown could attract park-and-ride passengers who currently drive to Hazel Grove due to its higher frequency services; and
- Increased cost efficiency through the use of train crew and rolling stock that may have extended turn-round times at Hazel Grove which require shunt moves to/from the sidings at Hazel Grove.

TfGM has previously considered extending Hazel Grove services to New Mills Newtown as part of their Transport Innovation Fund bid in 2008. It is envisaged that the trailing cross-over between New Mills Newtown and Furness Vale could be used to facilitate such a service.

Overall, the enhanced timetable is forecast to increase rail demand at Buxton line stations by 15% (including 11% growth at Buxton, 28% at New Mills Newtown, and 8% at Disley), compared to the 11% generated by the Northern Hub rail industry specimen timetable. Both the specimen and enhanced timetable options are expected to deliver a provisional benefit to cost ratio (BCR) of 1.2. This rises to a BCR of 1.9 without Optimism Bias applied to operating expenditure and the benefits (and costs) of providing extra services at Hazel Grove and points towards Manchester. It can be concluded therefore that whilst the enhanced timetable is more expensive to introduce than the specimen timetable, it is equally worthwhile in terms of value for money, and importantly will provide improved mode choice options to more customers.

Increasing the off-peak service frequency between Buxton and Manchester to two trains per hour all day should be deliverable after December 2016 (when Liverpool-Warrington-Manchester semi-slow service extended to Stockport to enable infrastructure enhancement works to commence in Oxford Road station area) – subject to satisfactory business case. The further enhancement of service frequency between Hazel Grove and New Mills Newtown requires consideration in conjunction with the development of an electrification strategy for the North of England.

Using the output from the MOIRA assessment in terms increased rail patronage, DfT guidance advises that 26% of the predicted increase in rail patronage can be attributed to a mode shift from highway. Accordingly, based on this advice a reduction of 26% was applied to the morning peak, evening peak and inter peak highway trip matrices for trips on the A6 corridor between Buxton, Hazel Grove and Manchester. The introduction of these rail service improvements is predicted to have relatively modest impact on traffic flows on the A6 through High Lane and Disley, with reductions of circa 400 AADT on the A6 west of High Lane, and circa 600 AADT on the A6 west of Newtown. This result is perhaps not too surprising when one considers the distribution of origin-destination patterns collected through roadside interview surveys on the A6 at Disley.

- **Poynton Relief Road:** Historically the proposed Poynton Relief Road has been developed in connection with the A6MARR and A6 to M60 relief road as part of a wider South East Manchester Multi Modal Strategy (SEMMMS).

Cheshire East Council is considering two route options for the single carriageway relief road, named the Green Route Option and the Blue Route Option. Both options will include a shared use path for walkers and cyclists and both options would include a common roundabout based junction to the south, which is termed the Southern Junction. The proposed relief road would run between the A6MARR/ Bramhall Oil Terminal junction immediately north of the existing A5149 Chester Road, west of Poynton, and a point on the existing A523 London Road north of Adlington Crossroads, south of Poynton.

The scheme has been demonstrated to have a positive impact on the A6 south-east of Hazel Grove and presents very high value for money with a BCR exceeding 4.0.

The Poynton Relief Road scheme will be funded through a combination of Central Government funding, potential private sector funding and Cheshire East Council funding. The funding for the relief road will be confirmed as the scheme progresses. A Preferred Route Announcement will be made in autumn 2014. A preferred route will be incorporated into the Cheshire East Council and Stockport Council Local Plans; this will in turn replace the existing protected route. A planning application for the Poynton Relief Road scheme would be the next step of scheme development.

Potential Medium Term Measures *(considered capable of delivery within 5 to 10 years)*

- **Increased peak hour train capacity and platform length for all stations between Buxton and Stockport:** Peak services on the Buxton line will need to be lengthened beyond 4-car length at some point before 2032 to cater for demand from Hazel Grove and stations to Manchester. The need to operate through services from the Cheshire Lines Committee route to Buxton will also in part determine the likely train lengths required for Buxton line services, and it will be for the operator, Network Rail and the franchise sponsor to determine the optimal means of catering for forecast demand growth. While there are a number of potential solutions, it is clear that further additional capacity will be required on Buxton line trains in CP5 and beyond, and this is likely to require platform extensions on the Buxton Line to accommodate longer trains. Diesel rolling stock will become available as other lines are electrified; although demand forecasts indicate additional capacity will not be required south of Hazel Grove until after December 2019, which is 'medium-term' (the availability of electric rolling stock is dependent on the ThamesLink programme, and the dates for that rolling stock being delivered continually slip later). If demand grows faster than forecast trains could be

lengthened in the 'short-term'. Network Rail is funded to lengthen platforms as trains are lengthened.

- **Cross boundary rail fare re-structuring:** Whilst it is likely that a change in fares strategy on the Buxton line could have the potential to influence passenger behaviour and possibly promote mode shift to rail at stations beyond the TfGM boundary, rail fares are a complex issue that cannot be considered in isolation. The advent of smart ticketing makes the eventual move to a simplified zonal fare system more likely, and 'Rail North' provided examples in their consultation on the future of rail in the north of such fare strategies adopted elsewhere. Any decisions on future fares strategies need to be taken in the context of potential devolution of the Northern franchise that is to be let in 2016 and any fares strategies or initiatives that may be included in the new franchise.
- **Increased parking provision at New Mills Newtown rail station:** New Mills Newtown rail station has a 40-space car park and bus turning facility. The station is well-used with overspill parking on nearby residential streets. There is land available for sale adjacent to the existing car park on the site of the former station goods yard. High Peak Borough Council is at the time of the writing this Report undertaking further consultation on its emerging Local Plan. The Local Plan consultation includes the designation of the land next to New Mill Newtown rail station for an extension to the station car park, housing and employment. In the event that the vacant land is acquired for housing or employment there remains the potential to the deck the existing car park although this would present some practical challenges given the preference to retain the bus turning facility. Any extra deck would need to be sensitively located and designed to minimise its visual impact. The owner of the adjoining land also has a right of access through the existing station car park that would also influence the location / design of the deck. On the assumption that decking the existing car park would result in a net increase in 30-spaces, then it is expected that the scheme would have a BCR of 1.9 over a standard appraisal period (assuming no renewal costs) and increased rail demand from New Mills Newtown by almost 3% along with a corresponding increase in revenues from rail fares. Subject to the practicalities in terms of car park expansion, once current supply levels start to act as a constraint on rail demand there does appear to be a positive business case for providing extra parking spaces at New Mills Newtown station.
- **Increased parking provision at Chapel-en-le-Frith rail station:** Chapel-en-le-Frith rail station has a car park located immediately adjacent to the rail station, situated at the end of a narrow country lane. There is land available adjacent to the existing car park for potential expansion, assumed to be sufficient for circa 30 additional spaces. A proposal to provide an extra 30 spaces is included in the draft Neighbourhood Plan (Policy TC10) which is undergoing consultation. Whilst there is green land available between the station site and the access road, the gradient of the site is likely to make works more costly. Assuming a cost equivalent to decking the existing car park, then it is expected that the scheme would have a BCR of 1.6 over a standard appraisal period (assuming no renewal costs) and increased rail demand from Chapel-en-le-Frith by around 5% along with a corresponding increase in revenues from rail fares. If suitable land is made available and expanding the existing car park does not prove to be prohibitively expensive, then once current supply levels start to act as a constraint on rail demand then there does appear to be a positive business case for providing extra parking spaces at Chapel-en-le-Frith station. Further work is required to determine the practical and environmental impacts that may affect delivery. The impact of increased parking at Chapel-en-le-Frith will have an impact on the business case for a new central station and vice versa.
- **Increased parking provision at Chinley rail station:** Chinley station has a dedicated 31 space car park accessed from Station Road, located within short walking distance of the railway station, with overspill parking on Station Road. Morning peak demand for trips into Manchester is forecast to grow by 22% during CP5, and this situation will be compounded if facilities and service levels at Chinley are enhanced as part of the 'Northern Hub' Hope Valley improvement works. Assuming decking the existing car park would result in a net increase of 25 parking spaces, then it is expected that the scheme could have a positive financial case over a standard appraisal period (assuming no renewal costs) and increased rail demand from Chinley by 4% along with a corresponding increase in revenues from rail fares. Average yields are relatively high from Chinley, as it provides direct links to Sheffield via the Hope Valley in addition to links towards Manchester. If decking the car park is proven to be viable, then on the basis that current supply levels already appear to be acting as a constraint on rail demand then there does appear to be a positive business case for providing extra parking spaces at Chinley station. Further work is required to determine whether

decking the existing car park is a viable proposition. Any extra deck would need to be sensitively located and designed to minimise its visual impact and amenity issues with neighbouring property. Adequate screening should also be provided.

- **New rail station at High Lane:** Trip-rate forecasts suggest that a new rail station at High Lane would attract similar levels of patronage to Disley and a provisional BCR of 1.3, albeit the result is quite sensitive to the assumed level of potential abstraction from nearby stations at Disley and Hazel Grove. The potential for a new station at High Lane has policy support through the adopted Stockport Core Strategy DPD (March 2011), however, further work is required to develop a business case for a new rail station at High Lane.

Potential Longer Term Measures (considered unlikely to be deliverable within 10 years)

- **Increased line speed between Buxton and Hazel Grove and Electrification of Buxton Line:** The incremental benefit of improved journey times compared to an enhanced frequency timetable is forecast to deliver an 9% overall increase in demand at Buxton line stations including a 13% increase at Buxton station. While the appraisal suggests a provisional BCR of 0.5, it is important to recognise that there are potentially significant operating cost savings and efficiencies that would arise from electrification, and coupled with the potential journey time reductions electric rolling stock could offer, there could be a strong case for electrification of the Buxton route once frequencies are enhanced to an all-day half-hourly service. This scheme needs to be considered within the wider context for electrification. Efforts should be made to promote inclusion of the Buxton line within the remit of the recently announced DfT task force into electrification in the North.
- **New rail station at Chapel-en-le-Frith on 'Great Rocks' line:** Trip-rate forecasts suggest that a new rail station at Chapel-en-le-Frith on the 'Great Rocks' line would attract similar levels of patronage to Chinley and New Mills Newtown with an estimated one-third of these trips switching from the existing Chapel station to take advantage of its more accessible location and a provisional BCR of 1.6. A new central station at Chapel-en-le-Frith is likely to receive broad support from rail users and local residents, and is included in the Chapel-en-le-Frith Draft Neighbourhood Plan. However, there are no plans for a new central station at Chapel-en-le-Frith in the Derbyshire LTP3 2011 to 2026. Based on these initial findings it is recommended that this position be reconsidered once Northern Hub service patterns on the Hope Valley line are committed. The impact of a new central station will have an impact on the business case for increased parking at Chapel-en-le-Frith and vice versa.
- **High Lane-Disley Bypass:** In 2001 the SEMMMS 20-year plan examined proposals for a single carriageway bypass of the A6 through High Lane and Disley. The options considered fell wholly within Stockport Metropolitan Borough and Cheshire East. Derbyshire County Council did not wish, at the time, to promote a bypass of the A6 between Disley and the Chapel-en-le-Frith bypass. For initial appraisal purposes a High Lane-Disley Bypass is assumed to comprise approximately 6km of single lane carriageway which would connect with a proposed signalised A6MARR junction to the west and at a new roundabout to the east of Disley. In terms of highway impact the scheme has a clear positive impact on the A6 through High Lane and Disley along with a provisional BCR of 6.2. However, without further enhancements to the A6MARR SATURN highway traffic model, it is not possible to assess whether a High Lane-Disley bypass would have any strategic impacts on the routing of traffic originating in or destined to the Peak District National Park, or on traffic passing through the Park. Significant work is required to identify and develop a scheme and preferred route alignment.

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