

Route Plans 2007
Route 20
North West Urban

Network Rail



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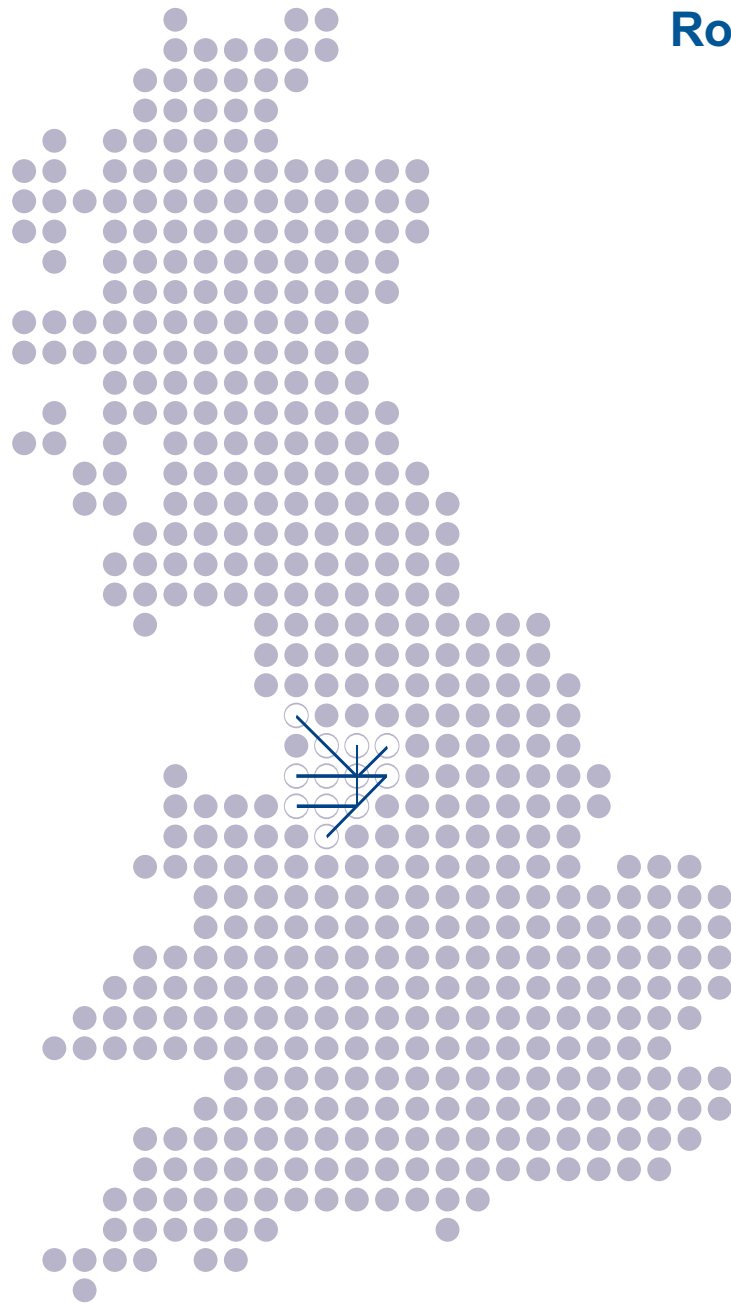


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Route 20 North West Urban



Along the Liverpool to Manchester corridor, there are motorway and major road alternatives to all routes, but these can be heavily congested. The route is the subject of the North West Route Utilisation Strategy (RUS), which will be published late Spring.

Today's route

The principal elements of the route are described below with the relevant Strategic Route Section shown in brackets:

- branches off the WCML from Crewe to Manchester Piccadilly via Stockport (22.01), the Styal line including the branch to Manchester Airport (20.11) and the Allerton to Liverpool Lime Street line (20.04);
- the main routes between Manchester and Liverpool including both the CLC (20.03) and via Chat Moss line and the branch through St Helen's Central (20.13);
- Manchester Piccadilly through Salford Crescent and Bolton to Blackpool (20.02, 20.07 and 20.12);
- lines between Stockport and Buxton (20.17), Stockport and Chester and Guide Bridge (20.10);
- lines between Manchester Victoria through Wigan to Southport and Kirby (20.15, 20.14);
- Manchester Victoria to Stalybridge and Rochdale (20.16) including the Oldham Loop (20.19);
- east Manchester including Transpennine routes from Piccadilly to Diggle (20.05 and 20.06);
- lines from Guide Bridge to Hadfield and Glossop and lines to the Hope Valley via Brinnington and Hyde (20.08);
- Bolton to Blackburn (20.18); and
- various freight and empty stock lines (20.20).

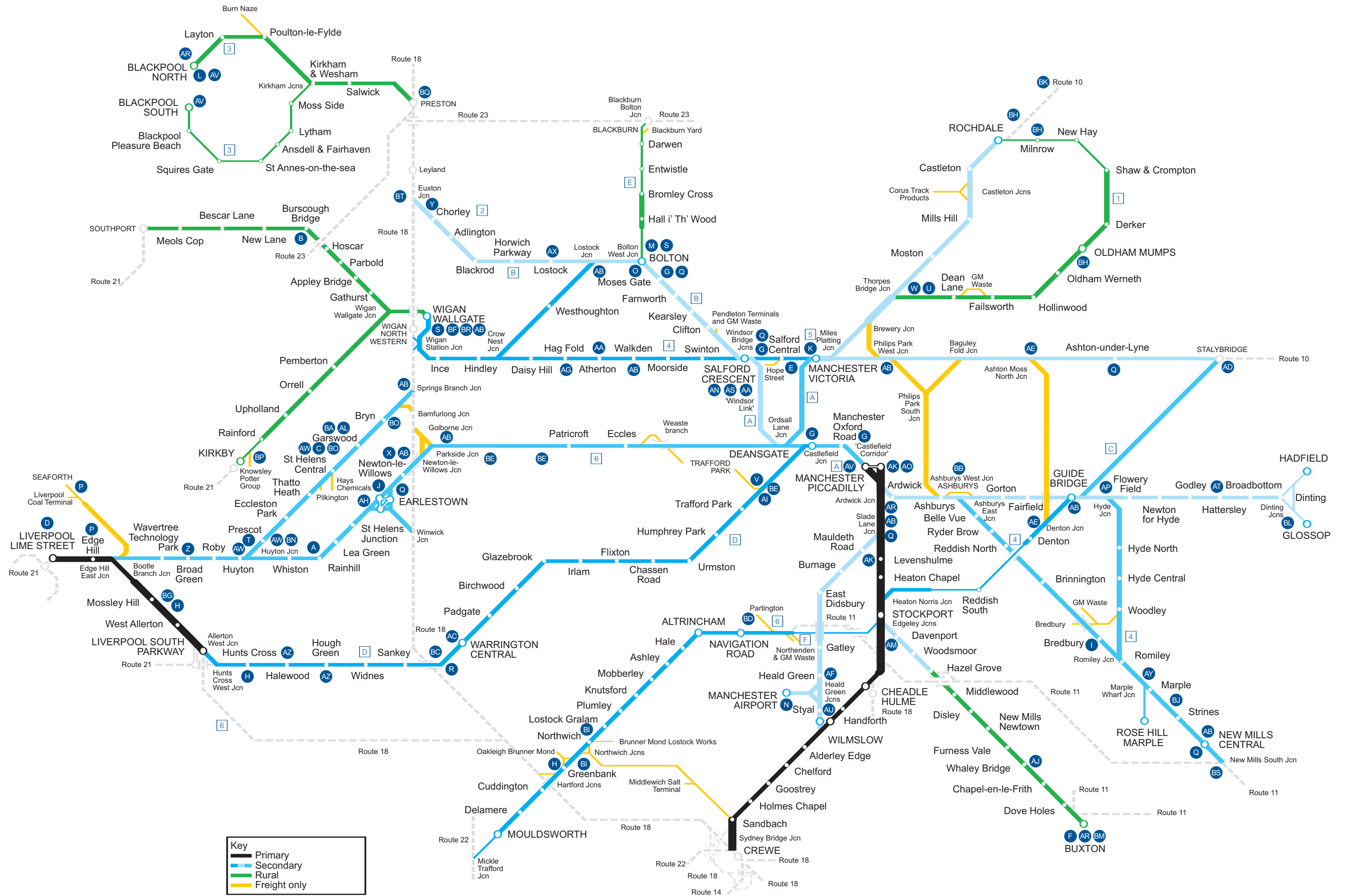
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Route context

This route covers the main urban areas in North West England and is located either side of the West Coast Main Line (WCML) – Route 18. It is focused on the penetrating routes to central Manchester and Liverpool Lime Street. It also covers the neighbouring parts of Cheshire, Derbyshire, Warrington, Halton, Blackburn with Darwen, and Lancashire, including resorts at Blackpool, Southport and Buxton. This route comprises the northern end of the long distance national rail markets into both Manchester and Liverpool, particularly the important West Coast flows from London and cross country/interurban routes from the West Midlands, South Wales and the south. It also forms the western end of important Transpennine routes from the North

East. Other key services operate to Cumbria, North Wales, north Lancashire and the Fylde. The route includes the suburban and commuter rail network in Greater Manchester and the City Lines into Liverpool, supported by Greater Manchester Passenger Transport Executive (GMPTE) and Merseytravel. Rail has a major role in providing surface access to Manchester Airport, and plays an increasing role for Liverpool John Lennon Airport. Although some lines have no freight services, overall this is a mixed-use railway. There are substantial freight flows on long distance routes to Manchester Trafford Park, to Seaforth/Liverpool Bulk Handling Terminal and on the North and South Transpennine routes.

Route 20 North West Urban



Passenger and freight demand

There is a substantial commuter market for rail services into the centres of Manchester, Liverpool and to a lesser degree Preston, and a similar market for off peak travel to those cities. There are strong leisure and business flows between the Northwest and London, Birmingham, North Wales and Yorkshire. Manchester Airport is a significant destination, serving mainly leisure passengers from the whole of the north of England.

There has been significant growth in demand over the past ten years, although several factors have distorted recent trends. Over the period from 1999/2000 to 2002/03, demand for journeys within the route remained broadly steady, while demand for journeys to and from other parts of the country actually declined. This was due to a combination of factors, including route blockades for West Coast Route Modernisation work; the rebuilding of Manchester Piccadilly from October 2000 to June 2002; poor train performance in the aftermath of the Hatfield accident in October 2000; and strikes by train operator staff during the second half of 2002. These factors masked the underlying growth for several years.

Since 2002/03, however, there has been substantial growth, as demand has recovered from these setbacks. Between 2002/03 and 2004/05, there was a growth of between 15% and 20% in demand both for journeys within the route, and for journeys to destinations outside the route other than London. The new Virgin West Coast timetable was introduced in September 2004, and this has generated significant growth in journeys to and from London. Recently, Northern Rail has reported seeing an average growth of 10% pa in 2005/6 and 2006/7. This level of growth is in excess of what is predicted using the standard industry forecasting framework, PDFH. We are trying to develop an understanding of the root cause. It is expected that there is still an element of recovery to be realised, with the service on the Crewe line still at a reduced level compared with the pre-blockade service.

The North West RUS highlighted (from surveys carried out in 2005) that there is a sharp morning peak at both Liverpool Lime Street and central Manchester, and there is overcrowding on a number of services leading into them.

Freight intermodal terminals are an important driver for freight traffic on the route. The Freight RUS identified that the level of this traffic is expected to continue to grow. In addition a substantial quantity of aggregates traffic from the Peak District either traverses the route or has a destination within it. The presence of Alexandra Dock and Seaforth at

the docks end of the Bootle Branch also generates considerable freight traffic.

Current services

The train operating companies that provide services on the route are Northern Rail, TransPennine Express, Virgin West Coast, Virgin Cross Country, Central Trains, Arriva Trains Wales, Merseyrail, English, Welsh and Scottish Railway, Freightliner Ltd, Freightliner Heavy Haul Ltd and DRS.

There is a mix of three broad types of passenger service: long distance services with destinations that include Scotland, London and the south coast; regional express services, with destinations such as Llandudno, Barrow in Furness, Newcastle, Cleethorpes and Norwich; and local services, covering local destinations out of Liverpool and Manchester. Apart from trains to London, services are a mix of two to six car multiple units, with two and three car trains being the main rolling stock formation.

The majority of services on the route are hourly. There are a number of services that operate at two an hour. These include the long distance services, Manchester – Euston, Manchester – Birmingham, and Manchester Victoria to Leeds via Rochdale. Some local routes operate at two trains an hour such as Liverpool Lime Street to both Manchester Oxford Road, and Wigan; Manchester Victoria to Wigan, to Shaw, and to Rochdale via Oldham; and Piccadilly to both Marple and Glossop. Some services operate less than hourly, including the slow train from Manchester to Sheffield, and the second train in the hour between Liverpool and Birmingham. In addition, some of the hourly services work in combination for parts of their route to give a better frequency.

There are a number of significant freight flows: stone from the peak district, which either traverses the route or has destinations within it, such as Northwich, Ashburys and Hope St in Salford; coal from Liverpool Bulk Terminal (LBT) which is the primary source of imported coal for Fiddlers Ferry Power station and container traffic to and from the WCML. Other smaller flows include waste trains to and from various terminals around Manchester, and the Northwich stabilisation scheme, which involves bringing in flyash to Northwich and then taking the output brine to Middlewich. The location of these freight terminals adds to the operational complexity of this route.

Figure 1 Tonnage

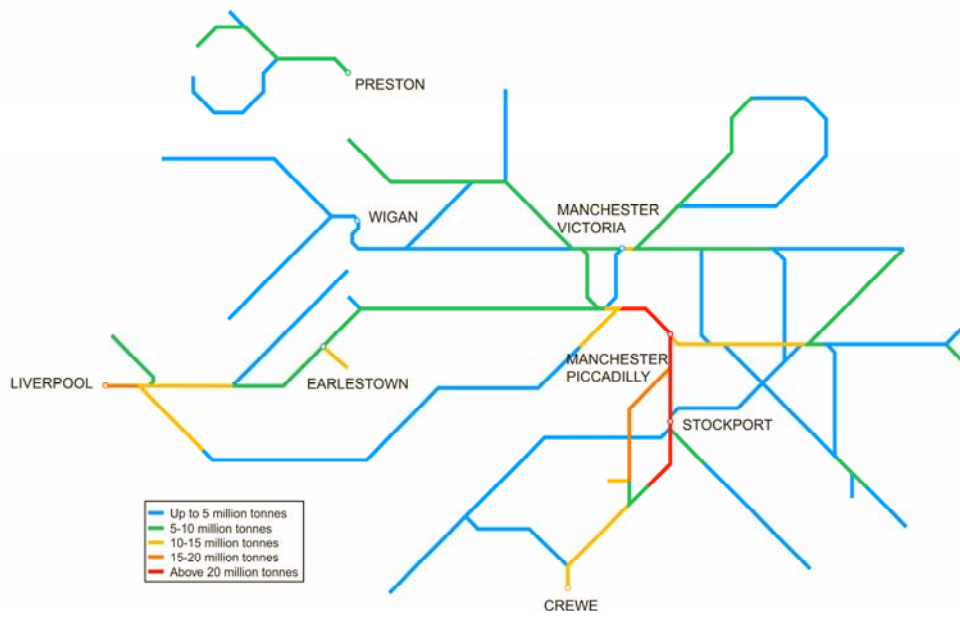


Figure 1 shows the tonnage levels on the route.

Traffic volumes are summarised in Figure 2.

Figure 2 Current use

	Passenger	Freight	Total
Train km per year (millions)	21	1	22
Train tonne km per year (millions)	2,473	1,043	3,515

Current infrastructure capability

The following maps set out the capability of the current network.

Figure 3 Linespeed

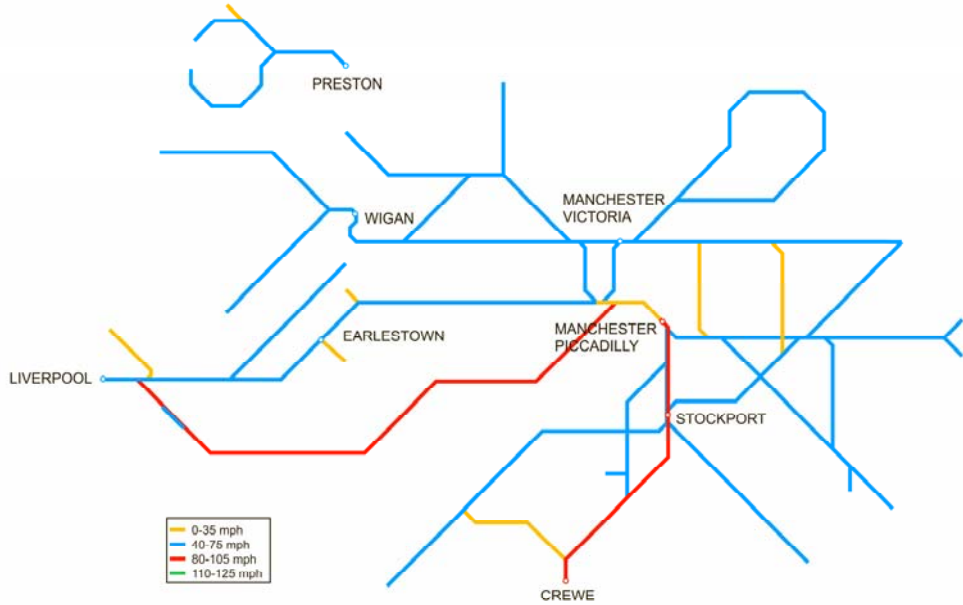


Figure 4 Electrification

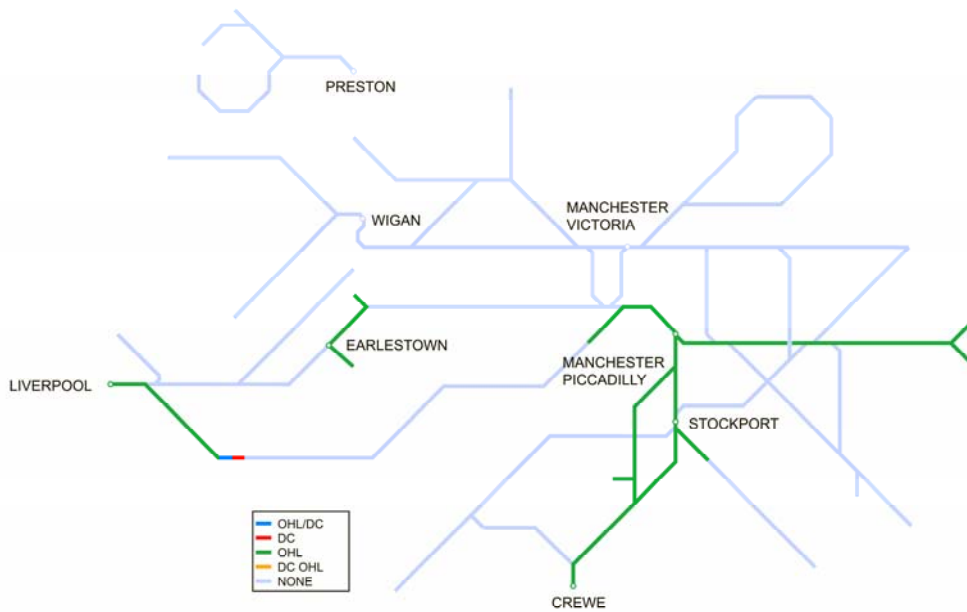


Figure 5 Route availability

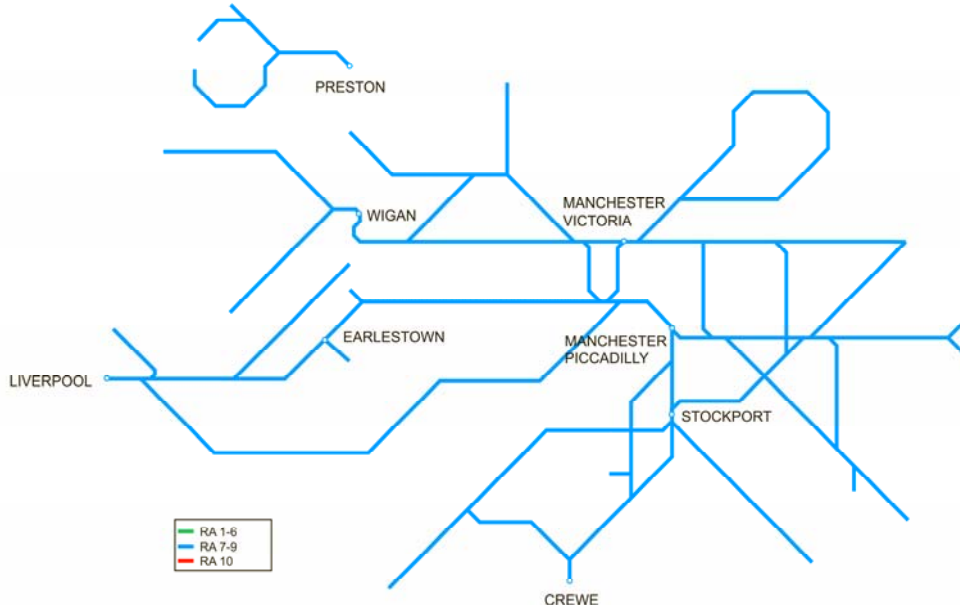


Figure 6 Gauge



Figure 7 Current train service level (peak trains per hour)

Route Section	Fast Lines	Slow Lines
Manchester Piccadilly – Slade Lane Jn	14	13
Slade Lane Jn – Stockport	13	5
Slade Lane Jn – Manchester Airport	9	–
Manchester Piccadilly – Deansgate	10	–
Salford Crescent – Bolton	10	–
Ardwick – Ashburys	14	–
Liverpool Lime Street – Edge Hill	7	7

Current capacity

The nature of the services through the centre of Manchester is highly complex, with a wide range of stopping patterns, destinations and linkages between services. The existing mix of fast and stopping trains means that capacity is fully utilised at a number of key sections, including Manchester Airport into and through Piccadilly; at Ordsall Lane; between Manchester and Liverpool via Warrington; and between Salford Crescent and Euxton Junction. The train working in Manchester Victoria station is constrained by the number of turn round moves that can take place and by restrictions governing levels of permissive working. The layout at Salford Crescent comprises a two platform station between junctions on both sides and where two 2-track railways converge. The layout makes this the tightest constraint on the north-west side of the conurbation. The greatest constraint on the southeast quadrant is at Manchester Piccadilly. Here the high volume of traffic is exacerbated by the large number of through services that cross the station throat or use the busy through platforms (13 and 14).

At Lime Street capacity is constrained mainly by the restrictive layout which allows few parallel moves in and out of platforms.

At the various pinch points on the route, tradeoffs have already been implicitly made between performance and the number of trains. The high utilisation is due to the number of trains using the same piece of railway (as in the case of the throats

at Piccadilly and Lime Street) or the same platforms (as in the case of Lime Street, Salford Crescent, Piccadilly 13 and 14 and Manchester Airport). Capacity is also constrained due to the mix of slow and fast traffic, particularly on the line to the Airport, the line through Warrington Central and the line from Salford to Bolton.

There are sections of the route where capacity is almost fully utilised, leading to performance risk and restricting alterations to the service. Typical sections include the single line sections between Blackburn and Bolton, and between Kirkham and Blackpool South, and the long signalling sections on the lines to Buxton and Hadfield. On some routes the existing platform lengths restrict the length of trains that can be operated.

Figure 7 represents numbers of trains in the morning peak hour.

Current performance

Figure 8 shows the current PPM for each TOC running along the route.

An industry-wide group has been looking at performance issues associated with the timetable. This has identified those places where the Rules of the Plan will need to be amended in order to make the timetable more resilient. It is likely, however, that recommendations will involve a trade-off between timetable reliability and number of available train paths.

Figure 8 Current PPM MAA (2006/07)

TOC	MAA	As at period
Arriva Trains Wales	87.2%	11
Central Trains	84.2%	11
Merseyrail	92.2%	11
Northern Rail	87.2%	11
TPE	89.2%	11
Virgin Cross Country	83.7%	11
Virgin West Coast	86.4%	11

Recent timetable changes have resulted in an increase in train services. Both Manchester – London and Manchester – Birmingham services now operate on a 30 minute frequency, with reduced journey times. In addition to this, services to and from South Wales, operated by Arriva Trains Wales run on a standard hour pattern and the Transpennine Express franchise operates 4 services per hour to and from Leeds, also on a standard hour pattern.

Despite this increase in traffic, performance has continued to improve in 2005/06. The delays in the part of the network covered by the General Manager, Manchester area (which represents the majority of the route) are currently 14% ahead of target and 19% ahead of 2004/05 figures.

The extensive renewal on the Crewe – Manchester route from December 2005, has enabled significant track renewals and modernisation of signalling equipment. This resulted in the closure of Wilmslow and Sandbach signalboxes, and transfer of control for the whole route to Manchester South signalling centre. The full scheme (as planned) awaits final commissioning, when performance will improve.

The track renewals programme is designed to improve performance by targeting the main TSRs on this route and by working towards renewing jointed track with CWR. In particular, temporary speed restrictions on the Buxton line have been a concern for sometime, both for their effect on performance on the routes and also for the delay imported into the Manchester urban area as a result of late presentation of through services such as Buxton – Blackpool. We have recently carried out significant renewals on the route to remove the majority of the speed restrictions. This is some 18 months earlier than originally planned.

The combination of the mix of traffic and stopping patterns on the Styal line and the need for many of the services to cross the throat at Piccadilly, makes the services to Manchester airport very fragile. The fact that the airport only has 2 platforms also acts as a capacity constraint. Management intervention by Network Rail and TOC controls minimise the spread of delay by terminating trains at Piccadilly where necessary.

Future requirements

Strategic direction

The NW RUS identified a number of key gaps (listed below), and is currently assessing how they can best be addressed in an economical and coherent way:

- some links between the major city regions in the north west would benefit from improved service provision;
- passenger demand for seats exceeds supply during the peaks on some corridors;
- many corridors serve only one side of manchester city centre but passenger destinations are evenly distributed;
- rail is insufficiently integrated with metrolink;
- rail services to airports are insufficient for the market;
- forecast freight growth will exceed current network capability;
- regular heavy stone trains cannot be accommodated without use of special operating arrangements;
- platforms at salford crescent and manchester piccadilly (13/14) are congested at times and may restrict forecast growth;
- facilities at some stations, including car parking, discourage off-peak travel;
- there are numerous stations with low footfall;
- performance is worsened by significant levels of reactionary delay; and
- much of the rolling stock in the area is not well-suited to its current use.

Both the Regional Economic Strategy and Regional Spatial Strategy aspire to strengthen intra-regional flows between the key regional centres of Manchester, Liverpool and Central Lancashire (notably Preston) in order to support growth and development in the region. The RES goes further, including links to the city regions of Leeds and Sheffield as well. Currently, the flow between Manchester and Liverpool is 40% greater than the flow between Manchester and Leeds. However, Manchester to Liverpool has three fast trains per hour, compared to four between Manchester and Leeds. The NW RUS is examining the case for strengthening the links between Preston, Liverpool and Manchester, by increasing frequency and/or improving line speeds.

The biggest strategic issue is dealing with passenger demand exceeding supply, especially in the peak. We are discussing with the PTEs and TOCs how this issue could be best addressed, and the resulting strategy will form a key part of the NW RUS, due to be published in late Spring.

It is anticipated that the Oldham Loop will transfer to Metrolink operation within the foreseeable future. This is likely to free up paths at Manchester Victoria, and create opportunities for services to work through from new destinations.

We continue to work with GMPTE to explore the opportunities relating to tram-train conversion. The main interest is on east Manchester and the Atherton Line.

Future demand

We expect passenger numbers to continue to rise over the coming years as regional economic growth – and in particular the continuing development of Manchester and Liverpool city centres – encourages increased demand for rail travel. In addition to this underlying effect, there are expected to be some specific sources of additional passenger growth.

There will be ongoing redevelopment of Liverpool city centre, where a 1.6m sq ft retail development is proposed at Paradise Street. To put in context, this development is larger than the Birmingham Bull Ring shopping centre and will culminate in 2008 when Liverpool becomes the European City of Culture.

The Government's White Paper, 'The Future of Air Transport', predicted passenger numbers at Manchester Airport to double between 2000 and 2015 and, depending on the scenario used, double or triple at Liverpool John Lennon Airport. Both airports have a policy to increase the mode share of public transport for surface access by staff and passengers, and hence it is anticipated that rail demand will develop in accordance with this increasing proportion of a growing base. Furthermore, both airports' own predictions of future passenger numbers exceed those in the white paper. Even these predictions may be superseded if growth continues at the same rate as in the past two years, where at Liverpool John Lennon, passenger numbers have increased by 50% and rail share has gone from 9% to 10%. Rail journeys to Liverpool John Lennon Airport have become easier with the opening of Liverpool South Parkway in 2006, with a frequent and direct bus link from the station to the airport. This new station is served by trains to Liverpool city centre, providing the users of the growing business park on the former site of Liverpool Airport with a viable alternative to cars and taxis. The number of services stopping at this

station increased after the December 2006 timetable change, and will increase further during the next two timetable changes. This is expected to further grow the number of passengers using the station. Usage is already greater than double the combined patronage of the stations it replaced and additional car parking is urgently required.

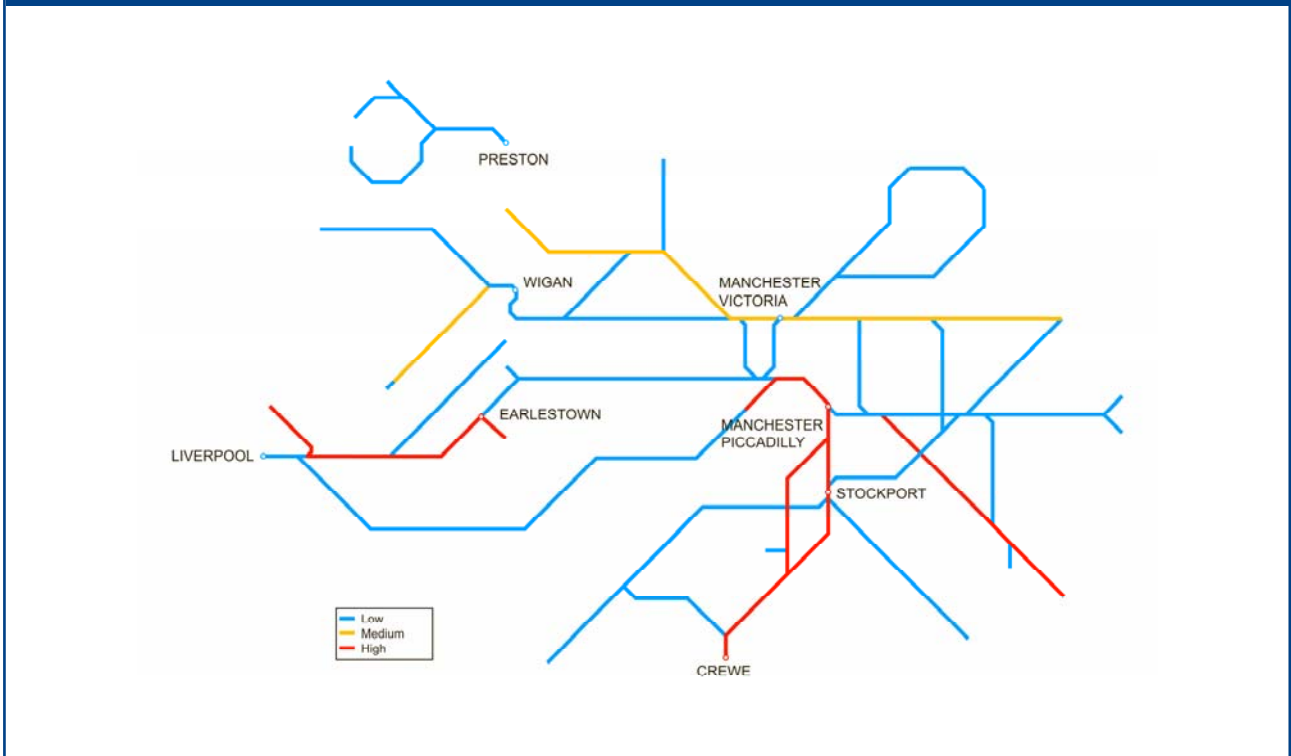
The RUS originally used two different scenarios to provide a forecast for future demand. The reference scenario was based on standard TEMPRO projections, using methodology from PDFH. This predicted growth of between six and ten per cent over the 10-year RUS period. The alternative scenario, based on Northern Way economic projections, was more optimistic, predicting growth of around 20 per cent. However, actual growth over the past year has averaged almost ten per cent, with growth on some corridors already approaching the 10-year alternative scenario predictions. This has necessitated a revision of the growth predictions being used by the RUS.

Applying PDFH to historical demand has shown that there is a significant amount of growth that cannot be accounted for. This 'excess' growth has been added to the levels projected using PDFH to provide alternative growth levels. Using this new methodology, the central case has now been revised giving 10-year growth projections of 35-40%, with sensitivities ranging from 20-60%. The actual levels of growth will depend on a number of uncertain factors such as economic growth, mode shift and how quickly the high growth being currently experienced will return to normal levels.

Greater Manchester is developing proposals for road demand management. If some form of charging were to be brought in, it could result in a step-change in rail demand. We will continue to work closely with GMPTE to keep this situation under review.

Demand for freight paths is expected to increase on the core routes, in particular with regards to domestic automotive and intermodal traffic. Currently, terminal capacity is limited, but there are proposals for 4 separate new intermodal terminals in the Liverpool – Manchester belt, on Routes 18 and 20. It is estimated that the development of one or more new intermodal terminals in the North West may result in an increase in traffic equivalent to 32 additional daily services by 10 years' time.

Figure 9 Tonnage growth



The market for coal traffic on rail is expected to grow in excess of GDP, as power stations continue to use more imported coal. The main port facility on this route capable of handling coal is the Liverpool Bulk Terminal at Alexandra Dock. This is conveniently located to supply power stations at Fiddlers Ferry, Ironbridge and Ratcliffe.

Future services

When the December 2008 timetable takes affect, it will introduce significant changes to services on the route. The Manchester – London trains will increase from two an hour to three an hour during the day, with one an hour via Wilmslow. It is anticipated that the Liverpool – Birmingham trains will change to a two an hour pattern. Virgin Cross Country services between Manchester and Scotland are expected to

be withdrawn. The existing TPE service between Manchester Airport and Barrow / Windermere is expected to be extended to Scotland in some hours and Northern's services in the Manchester area will be re-timed as required as a consequence of the changes to the longer distance services.

When the Oldham Loop transfers to Metrolink, the resultant paths available at Victoria may be the catalyst for a complete recast of the North Manchester service patterns, and possibly east Manchester ones at the same time. We will work with stakeholders to develop these should the opportunity arise.

Figure 9 indicates the forecast percentage change in tonnage in 2016.

Figure 10 Potential capability changes

Route section or location	Capability measure	Current value	Future value	Date
Seaforth to Edge Hill	Gauge	W9	W10	2010
Edge Hill to Earlestown	Gauge	W9	W10	Not yet known
Manchester – Bolton – Blackpool	Speed	75mph	90mph	2008/09
Stockport – Buxton	Speed	40 and 60 mph	60 and 75	2008/09
Guide Bridge West Jn	Speed	15 mph	25 mph +	2008
Dinting – Glossop – Hadfield	Speed	10 to 40 mph	10 to 60 mph	2008/09
New Mills South Jn – Ashburys	Axle Weight	RA8	RA10	Not yet known
Ashburys – Guide Bridge – Stockport	Gauge	W8	W9 & W10	Not yet known
Olive Mount Chord	Reinstated railway	none	2 track	2008
Manchester Airport 3rd Platform	New railway	none	1 track	2008/09
Salford Crescent 3rd Platform	New platform face	none	1 platform	2009/10
Edge Hill to Castlefield Jn, to Springs Branch Jn, and/or to Trafford Park	Electrification	none	25kV OHLE	Not yet known

Future capability

Potential changes to capability are summarised in Figure 10.

Fragile routes

Network Rail engineers have identified a set of 'Fragile routes' across the country where the addition of any further loco hauled traffic would have a significant impact on the residual life of track and/or structures.

The rail freight industry has recently provided to Network Rail a set of 10 year traffic forecasts, and we are currently assessing their implications. The key route section within this route that has been identified as a fragile route and has clearly defined additional tonnage/train numbers projected by the industry is Mickle Trafford – Plumley.

We have temporarily taken out of use the Poulton-Burn Naze and St Helens Central to Ravenhead Jn routes. Network Rail will investigate with interested parties, the potential future use of these lines with a view to formalising their status.

Platforms

A scheme for a third platform at Manchester Airport has been developed, and is expected to be completed in time for the December 2008 timetable. At a much earlier stage of development, another scheme is looking at a third platform at Salford Crescent. The NW RUS identified benefits of additional platforms at Salford Central, although implementation will be subject to further business case appraisal. These schemes would increase capacity at those stations and improve performance. Platform lengthening may be required at other stations on the route, and this is being assessed as part of the NW RUS.

Schemes are being developed which would remove platform furniture both at Salford Crescent and at platforms 13 and 14 at Manchester Piccadilly, improving the waiting environment and reducing passenger crowding.

Gauging

A proposal for W10 gauge clearance on the Bootle Branch and access to the WCML is being investigated. This would allow the docks to handle the largest sized container via the railway without recourse to specialist wagons. The gauging work is fully funded and expected to be completed in December 2008. Included in the scheme is consideration for providing W10 gauge to the WCML via Earlestown, allowing the larger gauge to use their usual route to access the Bootle branch. A further scheme is being developed to reinstate the Olive Mount Chord. This would allow trains to access the Bootle Branch directly from the Earlestown direction without the need for a run-round move.

We are investigating the case for making the line from Sandbach through Middlewich to Northwich and Hartford Junctions clear for W10 gauge.

The NW RUS appraisal work identified that there is a case for targeted structures renewals in east Manchester, to give RA 10 cleared routes for aggregates traffic. There is also a case to consider increased capability on the Ardwick – Guide Bridge – Stockport route to allow diversions away from Slade Lane Jn.

Electrification

The business case for extending electrification is being assessed by regional partners. The scope of the evaluation includes the Chat Moss, Huyton to Wigan, and Hunts Cross to Trafford Park, and will consider the benefits of individual elements. If this scheme proved economically favourable and were progressed, it would allow electric passenger services an alternative route to Liverpool from the WCML and allow electric services to run from the south through Manchester and back to the WCML. It would also provide the facility to enable electric services from Liverpool northwards, and allow electric services to operate between Liverpool and Manchester. It is most likely that any such scheme would be aligned with fleet replacement.

Stations

There are two station improvement schemes planned at Liverpool Lime Street. The first is known as Liverpool Lime Street Gateway which looks to improve the front of the station, in particular opening up the frontage area and replacing the existing Concourse House. This scheme is being funded by Liverpool Vision, English Partnership and a third party developer. The second improvement scheme is being funded by Merserytravel, who are planning works on the internal area of the station. This will concentrate on the south concourse, including its resurfacing and establishing retail outlets on the old cab road. Improvements to the short stay car park, including relocation of the taxi rank are also planned as part of this scheme. We are investigating the case for improving retail facilities at the station.

Merseytravel has further plans to improve other stations in their area, especially in terms of car parking, access and station facilities. There are a number of schemes at various stages of development - from initial ideas to station schemes already underway e.g. St Helens Central revitalisation scheme.

We are working with GMPTE on station schemes such as improved facilities at Bolton, additional platforms at Lostock and improved crowding measures on platforms 13 and 14 at Piccadilly and at Salford Crescent.

We are also working with TOCs to develop station schemes, for example platform lengthening and gauge clearances to accommodate different train formations.

At Manchester Victoria the Fish Dock area is being developed with industry partners, in order to improve the station environment generally.

Depots

The RUS, when considering the economic case for lengthening trains, will also consider the consequential requirements for maintenance and stabling.

Linespeed

The RUS identified that there are a series of locations on the route where an economic case is likely to be made to raise the line speed and deliver benefits in terms of performance and improved journey times between regional centres. Most significant amongst these are Guide Bridge junction, Blackpool – Manchester, Liverpool – Manchester, the Hadfield line and Stockport – Buxton.

Future capacity

The NW RUS will identify where there is an economic case, on a corridor by corridor basis, for train lengthening (and associated platform lengthening), to meet growth in demand.

Major signalling renewals are planned from 2014 onwards. This provides the opportunity for a number of smaller resignalling schemes to be completed. We are investigating the benefits of converting a section of absolute block signalling to track circuited operation on the line from Liverpool to Wigan. This scheme would reduce headways to 4 minutes and improve performance, specifically between Huyton and St Helens Central (see Figure 11).

We are working closely with Chorley Borough Council and Lancashire County Council to examine a proposal for a new station at Chorley Buckshaw Village on the Bolton to Euxton Junction line. The focus is on the strategic fit of the new station and the trains that would be expected to stop there. There are a number of other aspirations for new stations on the route such as Gamesley, Chappleford, Headbolt Lane and Carr Mill but these are at a very early stage of development. We will continue to work with industry partners to examine these proposals and assess business cases.

Figure 11 Potential headway changes

Route section	ROTP planning headway	Future headway
Huyton to St Helens Junction	8½ minutes	4 minutes
Huyton to St Helens Central	10 minutes	4 minutes

Figure 12 Forecast reduction in delay minutes

	2007/08	2008/09
% reduction in delay minutes	14%	19%

The NW RUS will recommend a number of small-scale interventions to improve capacity on the route in the short to medium term, along with areas for further investigation. An example of this is at Stalybridge where a signalling renewal is planned for 2012. As part of this development, we are investigating the benefits of increasing the junction speed, providing a bay platform on the north side, and also whether there is scope to alter Diggle loop at the same time. We are examining the scope for speed increases and signalling enhancements, to improve performance in the Dinting area.

Future performance

Figure 12 shows the forecast reduction in Network Rail delay minutes compared with 2006/07.

Figure 13 shows the forecast PPM for each TOC running along the route.

In January 2005, a major cross industry project was launched, with the objective of examining the accuracy of the timetable rules for the Manchester area and the resilience of the base timetable. This is seen as a key to significant future performance improvements. The project is examining rules relating to junction margins, headways, sectional running times and station dwell times. This is the first time the timetable rules have been examined in such depth, in the Manchester area. No major timetable changes as a result of this work will be seen before December 2007, in line with the RUS timescales. This will allow stakeholders to be consulted on the optimum balance of service levels and performance in the event of the new rules failing to support the current level of train services.

Within a route with such an intensive level and complex mix of train services, regulation of services by signallers is key to producing good performance. The GM Manchester team has been working closely with customers to improve regulation and promulgate best practice to signallers. This work continues and is supported by the adoption of the new national regulation policy.

The Manchester area will also benefit over the next 18 months by being included in the first stage of the National Bridge Strike Initiative. This work is based on a successful trial carried out on the Chilterns route and involves engineering assessments being carried out on every rail over-bridge. At present train services are stopped completely in the event of the bridge being struck by a road vehicle, pending an examination of the structure by a competent person. The assessments will allow dispensations to be applied to specific bridges, to allow train running to continue in the event of a 'bridge strike'. A number of bridges already have such dispensation, but this is the first time that every bridge on a route or routes will have been assessed.

We are creating a co-located control centre with Northern and TPE, from which we expect to see benefits in performance including better reaction times to incidents.

As mentioned earlier, the works on the Crewe – Wilmslow – Cheadle Hulme line, will provide signalling with facing and trailing crossovers and bi-directional signalling. This new equipment will be less prone to fail and will be more able to cope with the disruptive effects of failures. We will continue the work on converting the secondary railway on the route to CWR, and expect to complete this task in the next five years.

The scheme to build a third platform at Manchester Airport will remove the need for two trains to occupy the same platform, and hence remove some of the risk of propagating knock-on delay and reduce the number of trains that are stopped short at Manchester Piccadilly.

Figure 13 Forecast PPM MAA

TOC	2007/08	2008/09
Arriva Trains Wales	87.9%	88.5%
Central Trains	85.7%	
Merseyrail	94.1%	94.4%
Northern Rail	88.4%	90.0%
TPE	90.9%	91.5%
Virgin Cross Country	85.1%	
Virgin West Coast	87.7%	87.6%

Engineering access

Access for this route is complicated as many of the lines form part of the integrated possessions strategy for the West Coast Main Line and the Transpennine routes. Planning access for this route therefore must be undertaken in conjunction with those routes whilst maintaining the availability of a route to Manchester Airport whenever possible.

Access for the Cheshire Lines Committee (CLC) line from Manchester to Liverpool via Warrington Central has to be planned in association with the Chat Moss route, as these are both alternative diversionary routes. Similarly, access to the line from Stockport to Mickle Trafford via Northwich is coordinated with the Ordsall Lane to Earlestown and Chester route, so that end-to-end traffic flows for North Wales can be maintained.

Our strategy on this route is to liaise with the train operators to find the least disruptive ways in which to carry out the required renewals. This tends to mean disruption to Sunday services, but can also result in blockades when major work is required, with diversionary routes or bus replacements.

Unfortunately, last year's blockade of the Crewe – Cheadle Hulme line did not provide the full functionality that was planned, however the work is due to be completed in June 2007. There will also be capacity restrictions and diversions during Christmas 2007 in connection with WCRM work in the Longsight area. During May and June 2007, extensive improvements are being completed at weekends; these are already planned in the timetable.

There has again been heavy renewals work on the Hope Valley route during January to March 2007 and this will be repeated in subsequent years.

We intend to continue the regime of Sunday blocks at appropriate times of the year. For example, we are closing the line from Preston to Blackpool on Sundays in February and March in 2007, to coincide with times of least demand for services. Between July and September, we will be carrying out work on sections between Northwich and Edgeley also affecting Sunday services, and between Chester and Manchester. Our possessions on the Diggle route affecting trains between Manchester and Leeds tie up with a similar strategy on LNE Territory. Between September and December 2007, all trains will run via the Calder Valley route.

There are a number of longer blockade possessions planned this year. For four days over Easter, we will close the line between Earlestown and Bootle Jn, affecting trains between Manchester and Liverpool (via Newton-le-Willows), to renew Huyton S&C. For eight days over the August Bank Holiday, we will close the line between Windsor Bridge Jn and Crow Nest Jn, affecting Manchester to Wigan trains, for large volumes of plain line track renewals. Also on August Bank Holiday, we will close the line east of Manchester Victoria affecting all easterly trains, for S&C renewals at Deal St Jn. For nine days in October (half-term week), we will close the line between Wigan and Southport for large volumes of plain line track renewals.

Opportunities and challenges

The route has a complex hub topology supporting a complicated mix of services and sharply peaked passenger demand. The challenge is to balance the needs of the various users in order to provide an optimal service.

The scale of developments in both Manchester and Liverpool, including the recently announced Super Casino in Manchester suggest that recent trends in demand growth are likely to continue.

The RUS gaps identify important challenges on this route. The final RUS will articulate the industry's strategy for this area when published in late spring.

One issue that may have to be addressed in the future is the impact of road demand management in the Manchester area. This has the potential to cause significant modal shift, especially on routes into Manchester city centre. This will require the rail industry to work with other transport sectors to provide an increasingly integrated and multi-modal public transport system. Even if some form of road pricing is not introduced, the high levels of city centre employment growth both in Manchester and Liverpool (and to an extent in the other urban centres) are likely to increase demand for public transport significantly.

Delivering future requirements Expenditure

Figure 14 shows the planned level of expenditure on renewals on this route over the next two years. However, the precise timing and scope of

renewals remains subject to review to enable us to meet our overall obligations as efficiently as possible in accordance with the plans of operators and other stakeholders.

Figure 14 Forecast expenditure		
£m (2006/07 prices)	2007/08	2008/09
Renewals		
Track		
Plain line	17	14
Switches and crossings	20	12
Track total	37	26
Civils		
Underbridges	9	10
Overbridges	1	2
Bridgeguard 3	1	1
Footbridges	1	1
Earthworks	1	2
Tunnels	1	0
Culverts	0	0
Retaining walls	0	1
Civils total	15	17
Signalling		
Resignalling	0	0
Minor works/other	6	4
Over-planning	(0)	–
Signalling total	6	4
Electrification		
AC systems		
HV switchgear	4	1
OLE re-wiring	0	–
OLE campaign change/refurbishment	1	1
OLE structures	0	0
Other	0	1
Electrification total	5	3
Telecoms		
Concentrators		
Large	0	1
Long line public address (LLPA)	0	1
Telecoms total	0	2

Operational property		
Stations		
Managed	–	1
Franchised	6	1
Depots		
Light maintenance	–	1
Lineside buildings	–	0
Operational property total	7	3
Plant and machinery		
Fixed plant		
Point heating	0	0
Signal supply points	1	0
Depot Plant	1	0
Other	0	0
Plant and machinery total	2	1
IT and other expenditure		
Other	1	–
Total	1	–
Total Renewals	72	56
Enhancements (funded by)		
Network Rail		
Planned		
TOC/FOC compensation	1	0
Other	1	0
Total	2	1
Network Rail (RAB)		
Planned		
Manchester Airport third platform	5	–
Salford Crescent third platform	1	2
Olive Mount chord	–	2
Rainhill resignalling	1	–
Other	0	1
Total	7	4
Potential schemes	0	–
Total	7	4
TOC/FOC-RAB		
Potential schemes	3	3
Total	3	3

Other third party		
Planned		
Manchester Airport third platform	–	8
Olive Mount chord	3	3
Parkside intermodal freight terminal	1	5
Port Salford intermodal freight terminal	1	5
Chorley Buckshaw village	1	3
Halton chord / Beechwood station	0	4
Salford Central phase 1	3	–
Blackpool North-Talbot gateway	0	2
Lime Street station platform re-surfacing	2	–
Marple line tram / train	0	1
Other	1	1
Total	10	32
Potential schemes	0	1
Total	11	33
Total Enhancements	23	41

Figure 15 Forecast volumes

	2007/08	2008/09
Track		
Plain line (km)		
Rail	26	21
Sleepers	26	18
Ballast	27	25
Total	80	65
Switches & crossings (no.)		
Complete renewal	47	25
Abandonment	5	1
S&C (equivalent units)	50	26
Civils		
Underbridges (m ²)	4,644	3,900
Overbridges (m ²)	352	831
Bridgeguard 3 (m ²)	1,600	-
Footbridges (m ² decking area)	169	355
Earthworks (m ² slope surface)	479	6,090
Tunnels (m ²)	308	50
Culverts (m ²)	82	70
Retaining walls (m ²)	150	240
Electrification		
AC systems		
HV switchgear (cb)	31	-
OLE re-wiring (t. length)	2	-
OLE campaign change/refurbishment (t. length)	2	25
OLE structures (no.)	6	6
Telecoms		
Concentrators		
Large (no.)	-	2
LLPA (stations)	-	10

The planned volume of renewals is detailed in Figure 15.

It should be noted that in order to manage the deliverability of our Civils, Signalling & Electrification plans, we have included an element of over planning in our work banks. As a consequence the sum of our route plans exceeds our plan for the

network as a whole. It is likely that a small proportion of the activities in these areas will slip to subsequent years.

Maintenance

Figure 16 shows the planned level of expenditure on maintenance on this route over the next two years.

Figure 16 Forecast expenditure

£m (2006/07 prices)	2007/08	2008/09
Maintenance	36	33

Infrastructure investment

Figure 17 highlights schemes that are planned for completion in the financial year shown.

Project	Project description	Output change	Main asset type(s)	Funding	GRIP stage / status	Completion Year
A Rainhill station access (20.13)	We are working with Merseytravel and Northern Rail on the feasibility of level access at the Eastern end of the Manchester bound platform	Improvements to station access	Stations	Mersey travel	-	Completed
B Burscough Bridge (20.14)	Redevelopment of station	Improved station facilities	Stations	Local Authority	-	Completed
A Signalling Renewals (20.13)	Signalling renewals at Rainhill (includes moving signals)	Signalling renewals. Improved headways	Signalling	Network Rail Network Rail Discretionary Fund	-	Completed
- Class 350s gauging Various	Provision of gauge information for route clearance and engineering acceptance across WCML and branches	New class of rolling stock introduced on the route	Structures	Network Rail	-	Completed
- Class 185s gauging (20.01, 20.02, 20.03, 20.04, 20.06, 20.07 & 20.11)	Provision of gauge information for route clearance of Class 185 DMUs across TPE's franchise routes and implementation of gauge clearance works	New class of rolling stock introduced on the route	Structures	Network Rail	-	Completed
C St Helens Central (20.13)	Station revitalisation scheme improved booking office, CCTV, CIS, lifts and new footbridge	Improved station facilities and environment	Stations	Mersey travel	7	2007

Figure 17 Planned infrastructure investment

Project	Project description	Output change	Main asset type(s)	Funding	GRIP stage / status	Completion Year
D Liverpool Lime Street Station (20.04)	Improvements to the short stay car park, including relocation of the taxi-rank. Improvements are also planned to the south concourse, including resurfacing and establishing retail outlets on the old cab road	Improved internal environment and facilities at the station	Stations	Mersey travel	6	2007
E Salford Central (20.15)	We are working with GMPTE to develop the existing station (inc. new station concourse)	Improved station facilities	Stations	GMPTE	6	2007/08
F Buxton Up Relief Sidings (20.17)	Extension of sidings to improve capability	Extended sidings	Track	Third party	6	
G Telecoms Renewals (20.07)	Retail telecoms renewals at Bolton, Oxford Road, Salford Crescent and Deansgate	Renewal	Telecoms	Network Rail	6	2007
H Telecoms Renewals (20.13, 20.03 & 20.10)	Small telephone concentrator replacements at various stations e.g. Greenbank, Hunts Cross and Allerton	Renewal	Telecoms	Network Rail	6	2007
- South East Manchester multi-modal study (phase 1) (Various)	Multi-modal study for south east Manchester	Integrated transport facilities	Track, signalling & stations	Third party	5	2007/08
I Buildings Renewals (20.08)	Rebuild platforms 1 and 2 and refurbish footbridge at Bredbury Station.	Renewal	Stations	Network Rail	5	2006-2008

Figure 17 Planned infrastructure investment

Project	Project description	Output change	Main asset type(s)	Funding	GRIP stage / status	Completion Year
J	Buildings Renewals (20.13) Repairs to footbridge to platforms 4 and 5 at Earlestown station	Renewal	Stations	Network Rail	5	2006-2008
K	Buildings Renewals (20.07 & 20.15) Renewal of roof covering at Manchester Victoria	Renewal	Stations	Network Rail	5	2007/08
D	Civils Renewals (18.07) Lime Street cutting rock cutting rolling programme	Renewal	Earthworks	Network Rail	5	2007/08
K	Telecoms Renewals (20.07, 20.15 & 20.16) Replacement of retail comms at Manchester Victoria and associated minor stations (e.g. CIS)	Renewal	Telecoms	Network Rail	5	2007/08
L	Buildings Renewals (20.12) Concrete repairs to Blackpool North station building	Renewal	Stations	Network Rail	5	2008/09
G	Buildings Renewals (20.03) Steelwork repairs at Deansgate station	Renewal	Stations	Network Rail	5	2006-2008
M	Bolton Interchange (20.07, 20.18) Redevelopment of the high level station buildings at Bolton station.	Improved station facilities	Stations	TOC	5	2008/09
N	Manchester Airport (20.11) Provision of additional (3 rd) platform at Manchester Airport station	Additional platform creating increased capacity. Project will have performance benefits associated	Stations	Manchester Airport Potential Network Rail Discretionary Fund	5	2008/09
O	Bolton car park (20.07, 20.18) Improvement to station car park	Improved station facilities	Stations	PTE	5	2007/08

Figure 17 Planned infrastructure investment

Project	Project description	Output change	Main asset type(s)	Funding	GRIP stage / status	Completion Year
AS	Civils Renewals (20.07, 20.15) Renovation of New Baily Street bridge in conjunction with work at DSE/146 Salford Crescent	Renewal	Structures	Network Rail	5	2008/09
P	Civils Renewals (20.20) Reconstruction of Underbridge 14, 'West Derby Road' on the Bootle Branch	Renewal	Structures	Network Rail	4	2007
Q	Track Renewals (Various) Plain line works are planned at: 2007/08: Slade Lane, Salford and New Mills 2008/09: Bolton West jn, Ashton-under-Lyne and Earlestown	Renewal	Track	Network Rail	4	2007-2009
R	Signalling Renewals (2013) Renewals to Crosfields MCB level crossing	Renewal	Signalling	Network Rail	4	2008-10
S	Wigan and Bolton stations (20.18, 20.14) Improvements to station facilities at both stations	Improved station facilities	Stations	TOC	4	2009/10
T	Olive Mount Chord (20.13) Reinstate Olive Mount Chord	Direct access between Liverpool Docks and Earlestown	Track and signalling	Potential Third Party/ Network Rail	4	2008
U	Depot Renewals (20.06) Renewals to water mains at Newton Heath Light Maintenance Depot	Renewal	Depots	Network Rail	4	2008/09
U	Depot Renewals (20.06) Creation of paint shed at depot in Newton Heath	Improved depot facilities	Depots	TOC	4	2007/08

Figure 17 Planned infrastructure investment

Project	Project description	Output change	Main asset type(s)	Funding	GRIP stage / status	Completion Year
V	Buildings Renewals (20.02)	Reconstruction of platform at Manchester United football Halt	Stations	Network Rail	4	2009/10
D	Liverpool Lime Street Gateway (20.04)	Improvements to the front of the station including opening up the frontage and replacing the existing concourse	Stations	English Partnership/ Third Party developer	4	2009
W	Metrolink Phase 3 (20.19)	Extension of metro system onto Oldham Loop. Heavy rail associated works to separate the systems	Stations/track/signalling	GMPTF	4	Dependent on PTE timings
X	Newton le Willows (20.19)	Station revitalisation scheme looking at new car park facilities	Stations	Mersey travel	4	2008
Y	Chorley Buckshaw village (20.07)	New station proposal	Stations	Chorley and Lancashire Councils and third party developer	4	2008
P	Bootle Branch gauge clearance (20.01, 20.13 & 20.20)	Enhancement to gauge along Bootle Branch between Seaforth and Edge Hill.	Track/structures	Mersey Docks and Harbour Company	3	2007
Z	Broad Green car park (20.04)	Car park enhancement scheme	Stations	Third party	3	2009
AA	Civils Renewals (20.15)	Programme of strengthening and heavy maintenance to underbridges on the Salford Crescent to Atherton Line (Bridges 69, 48 & 67)	Structures	Network Rail	3	2007/08

Figure 17 Planned infrastructure investment

Project	Project description	Output change	Main asset type(s)	Funding	GRIP stage / status	Completion Year
(K)	Civils Renewals (20.03) Renewal of spans four and five of the viaduct on the western approach to Manchester Victoria	Renewal	Structures	Network Rail	3	2007/08
	– Civils Renewals (20.01, 20.10) Bridgeguard 3 Programme	Ensuring sufficient strength of bridge to carry appropriate load	Structures	Local Authority	3	2007 – 2009
(AB)	Track Renewals (Various) S&C works are planned at: 2007/08: Guide Bridge West Jn, Longsight South Jn, Slade Lane Jn, Ince Moss Jn and Philips Park West Jn 2008/09: Lostock Jn, New Mills Central, Newton-le-Willows, Parkside Jn, Walken and Wigan Wallgate	Renewal	Track	Network Rail	3	2007-2009
(AC)	Warrington Central (20.03) TPE are keen to improve passenger access at Warrington Central including possible installation of two passenger lifts and platform improvements	Improved station facilities	Stations	TOC	3	2008/09
(AD)	Stalybridge station enhancement (20.16) Scheme to improve station facilities at Stalybridge station - funded by TPE	Improved station facilities	Stations	TOC	3	2007/08
(AE)	Civils Renewals (20.10) Reconstruct canal bridge on DJ01 Ashton Canal (between Denton Jn and Ashton Moss Jn).	Renewal	Structures	Network Rail	3	2007/08
(AF)	Buildings Renewals (20.11) Repairs to footbridge at Heald Green Station	Renewal	Stations	Network Rail	3	2007/08

Figure 17 Planned infrastructure investment

Project	Project description	Output change	Main asset type(s)	Funding	GRIP stage / status	Completion Year
AG	Civils Renewals (20.14)	Reconstruction to Br No.69 at Hag Fold	Structures	Network Rail	3	2007/08
AH	Civils Renewals (20.04)	Strengthening of underbridge No.94 at Smithdown Road (nr Earlestown)	Structures	Network Rail	3	2008/09
AI	Buildings Renewals (20.03)	Reconstruction of platforms at Trafford Park	Stations	Network Rail	3	2008/09
E	Buildings Renewals (20.15)	Platform reconstruction and platform ramp renewals at Salford Central station	Stations	Network Rail	0-3	2007-2009
AJ	Civils Renewals (20.17)	Strengthening of bridge no.42 near Whaley Bridge	Structures	Network Rail	3	2007/08
	- Class 170s gauging (20.16)	TPE - Provision of gauging surveys for route clearance of Class 170's on Manchester - Hull services.	Structures	TOC	2	2007/08
AK	E&P Renewals (20.01)	Structure painting at Ardwick and Levenshulme to Manchester Piccadilly	E&P	Network Rail	2	2002 - 2009
AL	Civils Renewals (20.07, 20.15)	General repairs, cleaning and painting of Carr Mill Viaduct	Structures	Network Rail	2	2007/08
AM	Buildings Renewals (20.17)	Renewals of timber decking to footbridge at Davenport station	Stations	Network Rail	2	2008/09
AN	Salford Crescent (20.15)	Provision of third platform at Salford Crescent station	Stations	PTE/Network Rail	2	2009/10

Figure 17 Planned infrastructure investment

Project	Project description	Output change	Main asset type(s)	Funding	GRIP stage / status	Completion Year
AO	Manchester Picc Platforms 13 and 14 to provide additional passenger capacity.	Provision of additional passenger capacity	Stations	Network Rail	2	2008
AP	Guide Bridge West Jn (20.06)	Higher junction speed in conjunction with planned track renewals.	Track	Network Rail	2	2007/08
AR	North West Linespeed improvements scheme (RUS) (Various)	Linespeed improvements between: Manchester - Blackpool, Manchester - Buxton and along the Calder Valley	Track and signalling	Network Rail	1	2008/09
AT	Hattersley Station (20.09)	Station redevelopment scheme being developed by GMPTE	Stations	PTE	1	2010
AU	Telecoms Renewals (20.11)	Retail telecoms renewals on the Styal line	Telecoms	Network Rail	1	2008/09
AV	Telecoms Renewals (20.12)	Retail telecoms control equipment renewals on the Preston to Blackpool South line and at east Manchester stations	Telecoms	Network Rail	1	2008/09
AVW	Signalling Renewals (20.13)	Prescot, Huyton and St Helens signalling renewals (includes extra signals)	Signalling	Network Rail	1	2010/11
AX	Lostock Additional platforms (20.07)	Provision of two new platforms (3&4) at Lostock station.	Stations	PTE/Network Rail	1	2012/13
K	Manchester Victoria (20.13)	Station redevelopment scheme being developed by Network Rail	Stations	Network Rail	1	2008/09

Figure 17 Planned infrastructure investment

Project	Project description	Output change	Main asset type(s)	Funding	GRIP stage / status	Completion Year
AV Blackpool North - Talbot Gateway (20.12)	Redevelopment of Talbot Road area which may incorporate material changes to Blackpool North station	Improved station facilities	Stations	Third party / Network Rail	1	2014
AY Civils Renewals (20.08)	Structure repairs to Marple viaduct (Br No.30)	Renewal	Structures	Network Rail	1-2	2007/08
AZ Civils Renewals (20.03)	Embankment works between Halewood and Hough Green	Renewal	Embankments	Network Rail	1	2008/09
BA Carr Mill New Station (20.13)	New station proposal	Improved access to the rail network and capacity for growth	Stations	PTE	1	2008/09
BB Civils Renewals (20.05)	Strengthen and refurbish bridge no.1 near Ashburys	Renewal	Structures	Network Rail	1	2008/09
BC Arpley Chord (20.03)	Provision of a new chord from the Ditton Goods Lines to the Arpley branch in Warrington	Increased capacity and operational flexibility	Track and signalling	Local Authority/Network Rail	On hold	2009/10
BD Parlington Freight Terminal (scheme not now proceeding) (20.03)	Parlington Branch - Upgrade of rail lines from Skelton Jn to terminal in conjunction with EWS	Refurbished freight route	Track, signalling and level crossings	Joint third party/Network Rail	3rd party relocated, and plant now closed	-

Figure 18 table highlights other schemes under consideration.

Project	Project description	Output change	Main asset type(s)	Funding	GRIP stage / status	
BE	New intermodal terminals (20.13 & 20.20)	Options of new intermodal terminals at: Port Salford, and at Parkside on the Chat Moss, and Trafford Park	New Freight terminals	Signalling	Third party	0
	-Signalling Renewals (20.01, 20.02 & 20.05)	Route-wide programmed to replace electronics systems e.g. systems within the control panel equipment at Manchester Piccadilly	Renewal	Signalling	Network Rail	0
BF	Signalling Renewals (20.13 & 20.14)	Control of Rainford onto Wigan Wallgate PSB	Renewal	Signalling	Network Rail	0
BG	Signalling Renewals (20.04)	Allerton resignalling	Renewal	Signalling	Network Rail	0
AD	Signalling Renewals (20.06)	Renewal of equipment at Stalybridge	Renewal	Signalling	Network Rail	0
BH	Signalling Renewals (20.19)	Rewiring of Rochdale Interlocking	Renewal	Signalling	Network Rail	0
BI	Signalling Renewals (20.10)	Northwich and Greenbank signalling renewals	Renewal	Signalling	Network Rail	0
AV	Signalling Renewals (20.12)	Blackpool North Station - renewals to signal box no.1.	Renewal	Signalling	Network Rail	0
	- E&P Renewals (Various)	Replacement of cantilevers - catenary support pulleys	Renewal	E&P	Network Rail	0

Figure 18 Infrastructure investment under consideration

Project	Project description	Output change	Main asset type(s)	Funding	GRIP stage / status	
BH	Rochdale Station (20.19)	Station regeneration scheme	Improved station facilities	Stations	PTE	0
BI	E&P Renewals (20.01, 20.09, 20.11 & 20.20)	Switchgear 25kv renewals at Wilmslow and Edge Hill	Renewal	E&P	Network Rail	0
BJ	Marple Tram/Train (20.08)	Scheme for possible combined running of trains and trams on the Marple line	Increased capacity	Track	PTE	0
BK	Calder Valley (20.16)	Platform lengthening scheme along the Calder Valley line	Increased capacity	Stations	Network Rail	0
D	Liverpool Lime Street (20.04)	Layout alterations at the throat of the station and possible additional platforms	Increased capacity and operational flexibility	Stations, track and signalling	Network Rail	0
O	Bolton station - down loop (platform 5) (20.07)	Conversion of siding at the back of platform 4 into a through platform	Performance	Track and signalling	Network Rail	0
AD	Stalybridge Station (20.16)	Provision of a new bay platform at Manchester end of the Leeds bound platform.	Increases capacity and improves performance	Stations, track and signalling	Network Rail	0
AN	Electrification to Salford Crescent 20.07 ()	Extension of electrification to Salford Crescent	Increases capacity	E&P	Network Rail	0
BL	Dinting Signalling Review (20.09)	Installation of a work distance signal at Dinting	Increases capacity and improves performance	Signalling	Network Rail	0

Figure 18 Infrastructure investment under consideration

Project	Project description	Output change	Main asset type(s)	Funding	GRIP stage / status
– North West route wide platform lengthening (Various)	Lengthen platforms to accommodate longer train services	Increases capacity	Stations	Network Rail	0
K Optimising utilisation of Manchester Victoria and Piccadilly (Various)	Station refurbishment works and requisite track and signalling alterations	Increase capacity, performance and operational benefits	Stations, track and signalling	Network Rail	0
– Stabling location (n/a)	New stabling location required to relocate Stockport stabling which is to be utilised as a car park extension.	New stabling location	Depots	Network Rail	0
AC Warrington Central (20.03)	Introduction of passing up loop at Warrington Central to provide ability for passing services	Increases capacity and improves performance	Track	Network Rail	0
BM Telecoms Renewals (20.08)	Renewals planned at Grindlford on the Hope Valley line on the CIS and long line PA system	Renewal	Telecoms	Network Rail	0
K Buildings Renewals (Various)	Reconstruction of platforms 1 & 2 at Manchester Victoria	Renewal	Stations	Network Rail	0
AV Buildings Renewals (20.12)	Renewal of carriage wash plant (LMD) at Blackpool	Renewal	Depots	Network Rail	0
BN Prescott Station Access (20.04)	Improved access at station	Improved station facilities	Stations	MPTE	0 - (rescoped)
BO Garswood station access (20.13)	Station access scheme involving improved access to station platforms (new footbridge)	Improved station facilities	Stations	Network Rail	0

Figure 18 Infrastructure investment under consideration

Project	Project description	Output change	Main asset type(s)	Funding	GRIP stage / status
○ Depot Renewals (20.18)	Renewals to maintenance depot at Bolton	Renewal	Depots	Network Rail	0
● BP New station at Headbolt Lane (21.01) (20.14)	New station and 3rd rail electrification extension from Kirkby to Headbolt Lane	Improves accessibility to the rail network	Stations	Mersey travel	0

Figure 19 highlights route enhancement aspirations

Project	Project description	Output change	Main asset type(s)	Funding	GRIP stage / status	
P	Speke to Seaforth - W10 Gauge clearance (20.13)	Provision of W10 gauge to enable 9ft6in high load units to be loaded on conventional deck height wagons between Speke and Seaforth.	Increased capability	Structures	Network Rail	Aspiration
BQ	Preston Station - additional platform (20.12)	Utilisation of new bay platform at the north end of platform 3 at Preston station.	Increased capacity	Stations	Network Rail	Aspiration
AV	Blackpool North Station (20.12)	Remodelling of station throat area at Blackpool North station.	Increased capacity and operational flexibility	Track and Signalling	Network Rail	Aspiration
BR	Wigan Wallgate tumbuck (20.14)	Platform 1 tumbuck facility.	Performance and operational flexibility	Track and Signalling	Network Rail	Aspiration
BS	New Mills S Jn higher speed (20.08)	Linespeed improvement at New Mills South Junction.	Reduced journey time	Track	Network Rail	Aspiration
BT	Moving signal protecting Euxton Jn on the Down to avoid double reds (20.07)	Signalling improvements.	Performance	Signalling	Network Rail	Aspiration
AV	Preston - Blackpool (Kirkham relaying) (20.12)	Enhanced linespeeds at Kirkham by removing the fast lines and associated junctions and creating car park on that site.	Reduced journey time	Track	Network Rail	Aspiration

Non-infrastructure developments

The following significant timetable schemes for the route are under development

Figure 20 Timetable development

Description	Key issues	Actions or options being developed	Benefits	Target timetable implementation
Central re-mapping and re-specification	Re-mapping of central, Silverlink and Cross Country franchises	Could result in Liverpool – Nottingham services to be operated by TPE	Single operator of fast services along the CLC line, and along the Hope Valley.	December 2007 and December 2008
Resilient timetable	Comparing the parameters for planning trains around Manchester with what is achieved in practice	Locations where timing allowances are inadequate or over generous to be identified, and the consequence of correcting them established.	A more robust timetable with achievable timings	Most likely vehicles for implementation: RUS recommendations, Northern franchise respecification

Appendix

Figure 21 Strategic route sections

SRS	SRS Name	ELR	Classification	Funding	Community Rail	Freight Gauge	RA	Speed	Electrification	Signalling Type	Signalling Headway	No of Tracks
20.01	Manchester Piccadilly – Crewe	CMP1, CMP2	Primary	DfT	No	W9 & W10	8	100 (75)	25 kv	TCB	3	2 (4)
20.02	Manchester Piccadilly – Deansgate	COL	Secondary	DfT	No	W9 & W10	8	35	25 kv	TCB	2	2
20.03	Deansgate – Allerton	MAJ, AHX, WJL2, WJL3	Secondary	DfT	No	W9 (W9 & W10)	7 (8)	85 (75)	none (25kv)	TCB (AB)	4 (2) (8)	2
20.04	Liverpool Lime Street – Allerton	WJL3, WJL4	Primary	DfT	No	W9	8	80	25 kv	TCB	3	4
20.05	NTP: Manchester Piccadilly – Guide Bridge	HAJ	Secondary	DfT	No	W8	8	60	25 kv	TCB	4 (2)	2
20.06	NTP: Guide Bridge – Stalybridge	SAJ	Secondary	DfT	No	W8	8	40	none	TCB	4	2
20.07	Castlefield Jn – Euxton Jn	MVE1, MVE2, OLW, COL	Secondary	DfT	No	W9 (W7) (W6)	8	75	none	TCB	3 (4)	2
20.08	Ashburys/Hyde Jn – New Mills Central/Rose Hill	TTA1, TTA2, MRH, RHY1, RHY2	Secondary	DfT	No	W7	8	60	none	TCB	4	2
20.09	Guide Bridge – Glossop/Hadfield	DSD, HAJ, GDW	Secondary	DfT	No	W6	8	60	25 kv	TCB (AB)	12½	2 (1)
20.10	Guide Bridge – Stockport – Mouldsworth	HNS, EJN, WJP1, CDM2	Secondary	DfT	Yes	W7 (W9) (W8) (W6)	8	90 (60)	none (1500 dc)	TCB (AB)	12 (4)	2 (1)

Figure 21 Strategic route sections

SRS	SRS Name	ELR	Classification	Funding	Community Rail	Freight Gauge	RA	Speed	Electrification	Signalling Type	Signalling Headway	No of Tracks
20.11	Slade Lane Jn – Manchester Airport – Wilmslow	MIA, STY, SMS	Secondary	DfT	No	W9 & W10 (W6)	8	75	25 kv	TCB	3	2
20.12	Blackpool North and South Branches	PBN, KBS1	Rural	DfT	Yes	W6	8	75 (70)	none	AB (OTW)	4 (6) (23)	2 (1)
20.13	Edge Hill – Victoria plus Springs Bank – Broad Green plus Earlistown	EEE, DSE, NGJ, WEE, SBH1, SBH2, SBH3	Secondary	DfT	No	W9 (W8)	7 (8)	75	none (25kv)	TCB (AB)	4 (5) (8½) (10)	2 (1)
20.14	Southport/Kirkby – Wigan Wallgate	WKL1, WKL2, WBS3	Rural	DfT	Yes	W9 (W8) (W7) (W6)	8 (7)	70	none	TCB (AB) (OTS)	14 (17½)	2 (1)
20.15	Wigan Wallgate – Manchester Victoria	MVE1, WBS1, WBS2, LCN	Secondary	DfT	No	W7 (W6)	8	60(40)	none	TCB (AB)	14 (6) (4)	2
20.16	Manchester Victoria – Rochdale/Stalybridge	MVL1, MVN2, MVM, MPR1, BPP,	Secondary	DfT	No	W7	8	70	none	AB (TCB)	2 (4) (5)	2
20.17	Buxton Branch	BEJ	Rural	DfT	Yes	W6	8	60 (40)	none (25kv)	AB (TCB)	12½	2
20.18	Bolton – Blackburn	BBB	Rural	DfT	Yes	W6	8	60	none	TCB	19 (4)	1 (2)
20.19	Oldham Loop	MPR2, MPR3	Rural	DfT	No	W6	8	60	none	AB	9 (4)	2 (1)

Figure 21 Strategic route sections

SRS	SRS Name	ELR	Classification	Funding	Community Rail	Freight Gauge	RA	Speed	Electrification	Signalling Type	Signalling Headway	No of Tracks
20.20	Freight Lines	PPP1, CMP1, SYC, GMC, PPA1, SCT1, SNJ, HCN, DJO1, PPA2	Freight	DfT	No	various	8 (7)	20 (60)	none (25kv)	TCB (AB)	various	2 (1)
20.21	Hazel Grove – Edgeley Jn	BEJ	Secondary	DfT	No	W6	8	40	25kv	TCB	3	2

Capacity and operational constraints

- A Manchester hub: capacity constraint
- B Salford Crescent – Euxton Junction capacity constraint
- C Ardwick Stalybridge: busy 2-track section with a mix of traffic, flat junctions and limited overtaking
- D Piccadilly – Hunts Cross: busy 2-track section with mix of traffic, flat junctions and limited overtaking
- E Bolton – Blackburn: single line sections
- F Stockport – Altrincham: single line sections

Other issues on the route

- 1 Oldham Loop Metrolink issues
- 2 Chorley Buckshaw Village – siting of new station
- 3 Fylde Coast tram proposals
- 4 GMPTE tram proposals
- 5 Manchester Victoria – former Manchester Exchange development
- 6 Potential intermodal freight terminals

Note

This Route Plan forms part of the business plan suite of documents which is produced annually and in accordance with our network licence condition 7. Our plans and the way in which we intend to achieve those plans are summarised in the Business Plan itself. This document provides further detail on the specific plans for this Strategic Route including the expenditure over the next two years to the end of Control Period 3.

This year our business plan focuses on the remainder of Control Period 3 (to March 2009). We shall provide a submission to the Office of Rail Regulation in October 2007, which will set out our view of the expenditure and activities that will be required in Control Period 4 (2009/10 to 2013/14).

The Route Plan shows in more detail how the strategies set out in the Business Plan will be delivered at a route level across the network, and how we are working with our customers and other stakeholders to improve the

performance and utilisation of the network. It presents a portfolio of activities to develop the network.

The expenditure section contains tables showing the planned level of expenditure and volumes on renewals on the route over the next two years, split by asset category. Expenditure figures are shown in 2006/07 prices, and are rounded to the nearest £1 million. An entry of £0 indicates spend of less than £0.5 million. It should be noted that in order to manage the deliverability of our Civils, Signalling & Electrification plans we have included an element of overplanning in our work banks. As a consequence the sum of our route plans exceeds our plan for the network as a whole. It is likely that a small proportion of the activities in these areas will slip to subsequent years.

Please note that figures in tables may not sum to the totals shown, because of rounding.

The other documents in the business plan suite can be found on the Network Rail website www.networkrail.co.uk



This Route Plan is part of a set.
To view or download the others
visit www.networkrail.co.uk