

Route Plans 2007  
Route 21  
Merseyrail

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## Route 21 Merseyrail

### Today's route

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

- Wirral Line (21.01) – Liverpool to New Brighton, West Kirkby, Chester and Ellesmere Port; and
- Northern Line (21.01) – Liverpool to Hunts Cross, Kirkby, Ormskirk and Southport.

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### Route context

The core of this route is the Merseyrail system, located mainly in Merseyside, but extending into Cheshire and Lancashire. It consists of the Wirral and Northern lines, including the loop line and the stock interchange line. These third rail electrified lines form a high-capacity suburban passenger railway, playing a key role in enabling the local population to commute to work quickly, efficiently and with minimal environmental impact as part of the area's integrated public transport network. There are also a considerable number of users in the off-peak hours, supporting the area's main shopping and tourist markets. Additionally, the route covers the non-electrified North Mersey Branch and lines to Birkenhead

docks. The only regular freight flow is at the very edge of the route, where trains to and from Ellesmere Port freight facility briefly go through the station on the way to and from Fiddlers Ferry.

The route is operating close to capacity from Sandhills Junction on the Northern line and from Hamilton Square on the Wirral line into Liverpool City Centre.

Work on a Route Utilisation Strategy (RUS) has recently been started for this route. This is expected to publish final recommendations in mid 2008.

# Route 21 Merseyrail



### Passenger and freight demand

The Merseyrail network provides fast, frequent, regular interval services around Merseyside and into the heart of the sixth largest city in the UK. There is a high level of demand from the commuter market with 15% of journey to work trips into Liverpool city centre being made by rail. The two busiest stations on this route, Liverpool Central and Birkenhead Hamilton Square, serve both the business district and the retail and leisure areas. Off-peak demand is substantial, with Saturdays in particular recently seeing considerable growth. Every station is used by a sizeable number of passengers every day. The services on this route provide connections to Manchester and London, as well as to other longer distance destinations, via interchange notably at Liverpool Lime Street. This improves the attractiveness of rail for longer, inter-regional journeys, helping to improve links between regional centres.

Demand for freight paths has increased slightly following the introduction of an imported coal flow from Ellesmere Port to Fiddlers Ferry power station.

### Current services

The main TOC is Merseyrail Electrics, whose services only run beyond the route for a short distance at Hunts Cross and Chester. Arriva Trains Wales runs into Bidston and Northern Rail into Southport, Kirkby and Ormskirk. There is some interaction with TransPennine Express, Northern Rail and Central Trains services outside Hunts Cross.

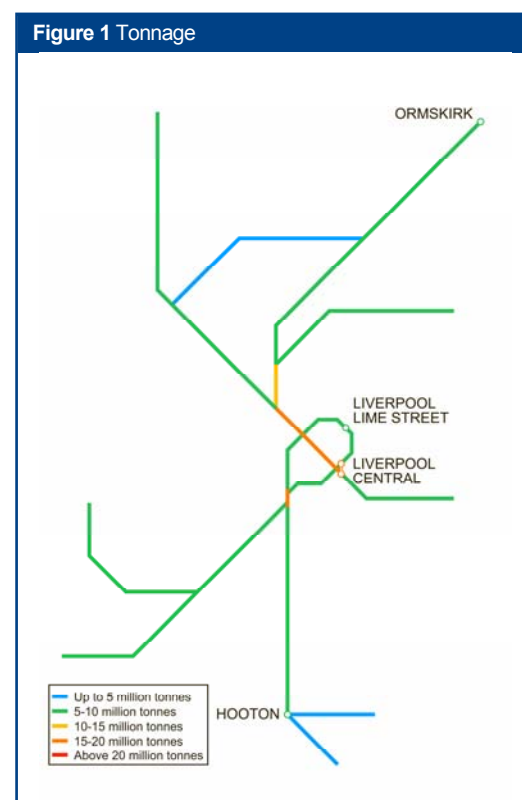
The network has one of the highest frequency services outside London, with the central sections of the route conveying up to 16 trains per hour in each direction from Monday to Saturdays. Frequency generally reduces in the evening, with the last services around midnight. Passenger services then restart around 0600 hrs. The system can be split into two sections, with interchanges for passengers at Liverpool Central and Moorfields. The Northern line serves stations to Southport, Ormskirk, Kirkby and Hunts Cross, with each of

these end points seeing a 15 minute service in the core of the day. The Southport line and, since December 2006, the line to Hunts Cross have enjoyed this level of service throughout the whole day, providing improved access to Liverpool Airport. The Wirral line extends to New Brighton, West Kirby, Chester and Ellesmere Port. The former two destinations have a 15 minute service, the latter two a 30 minute service in general but 15 minute in the peak. Service frequency is highest in the central loop, with a five-minute service during the day and 16 trains per hour in both peaks.

A regular freight coal flow began in 2005, with two trains per day operated by Freightliner Heavy Haul from Ellesmere Port to Fiddlers Ferry power station.

Figure 1 shows the tonnage levels on the route.

Traffic volumes are summarised in Figure 2.

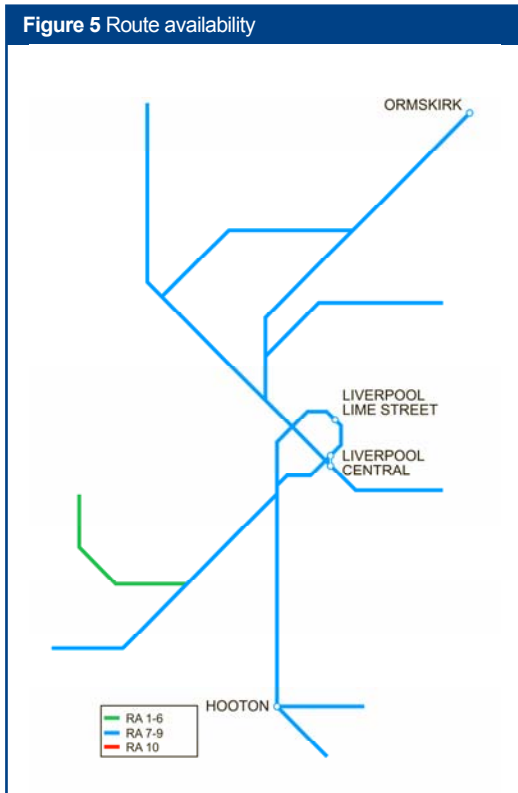
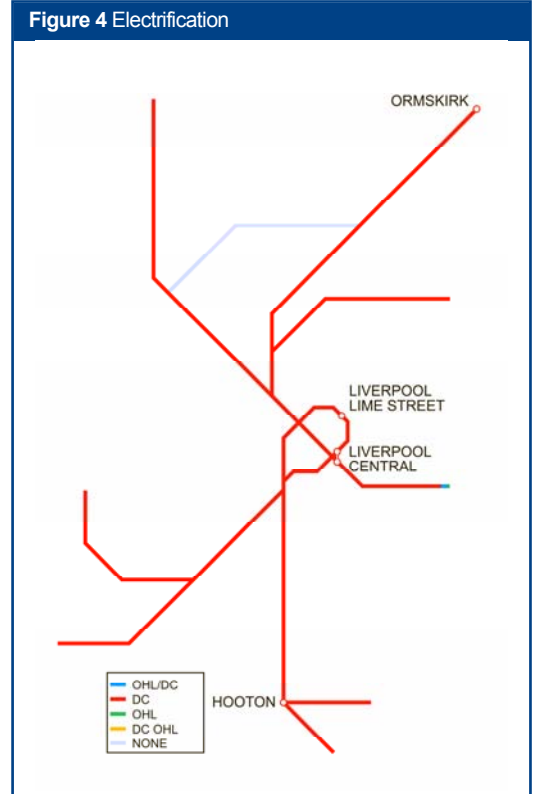


**Figure 2 Current use**

	Passenger	Freight	Total
Train km per year (millions)	6	0	6
Train tonne km per year (millions)	751	17	768

### Current infrastructure capability

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



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

Route Section	Peak tph
James Street – Birkenhead Hamilton Square (Wirral line)	16
Liverpool Central – Sandhills (Northern line)	13

### Current Capacity

The high service frequency is possible due to the homogenous performance characteristics and stopping patterns of the rolling stock. However, this level of frequency, combined with the flat junctions on the route, means that the network is operating close to capacity at a number of locations. This would make it unrealistic to accommodate any additional services into the centre during the peak. Additional off-peak services would be possible but may impact on performance. However, there is the potential to provide future additional passenger capacity by lengthening more trains to six cars.

Liverpool Central is close to capacity during the busy peak hours, and on some weekends. Passenger congestion is exacerbated at platform level by the narrow platforms inside the constrained tunnels. In order to relieve this crowding, we are exploring with Merseytravel a number of options. These range from a number of short term improvements to long term solutions involving considerable cost.

Due to the constricted nature of the tunnels and underground stations, train width is limited in the central sections of this route, and train length is restricted to 120m.

The ability of the majority of this route to carry freight is constrained by the high frequency passenger service, the limited route availability and gauge over large sections, and the constricted tunnels in the central sections. The attractiveness of the route for freight is limited by the lack of freight terminals and its self-contained nature; in order to access it, trains must travel long, circuitous routes. The only sections that could see freight in the foreseeable future without major alterations are between Ellesmere Port and Warrington (via Helsby) or Chester (via Hooton,) and between Birkenhead Docks and Bidston via Birkenhead North. This latter route would also require Birkenhead Docks to be brought back into use.

Figure 7 represents numbers of trains in the morning peak hour

### Current performance

The PPM MAA performance target for Merseyrail Electrics was set at 94.1% at the beginning of the 2006/07 year. Figure 8 shows the current PPM.

Performance on this route is generally good although it did suffer during the latter part of 2006 due to a number of factors including track circuit failures; fleet performance also failed to hit its targets. Issues experienced with axle counters in 2005 have now been resolved, and significant cable renewal works have reduced failures in those areas.

As the Merseyrail electrics network is virtually self-contained, performance problems on the route do not tend to propagate to other routes, and neither do performance problems on other routes have a great impact on the Merseyrail system; the exception is at Hunts Cross West Junction, where Merseyrail trains interact with services on the line between Liverpool and Manchester. However, the high frequency train service in the central sections means that the knock on delays arising from disruption on the route itself can be considerable. Avoidance of delays and robust recovery plans following incidents are hence important.

A number of initiatives have been identified to tackle specific issues and a Joint Performance Improvement Plan has been produced to ensure that all plans are fully implemented and monitored. Details of this are in the future performance section.

Completion of re-fencing over the Merseyrail network is continuing to play a significant part in reducing instances of route crime, which is a cause of significant delay in certain areas. Overbridges are being fenced, and crime hotspots have been identified to enable proactive policing of these areas, including sniffer dogs and metal detectors. However, route crime originating at stations has recently increased. We are working closely with the British Transport Police, Carlisle Security and other members of the rail industry to address this issue.

**Figure 8** Current PPM MMA (2006/07)

TOC	MAA	As at period
Merseyrail	92.2%	11

## Future requirements Strategic direction

The strategic projection for the route is for further passenger growth, with pressure for additional capacity being met by longer passenger trains rather than major infrastructure enhancements. Improvements will continue to focus on station facility enhancements.

All Merseyside stations are staffed, and we are working with Merseytravel and local authorities at several stations on the route to provide better station facilities as well as improved passenger access (see figure 15). There are currently just over 3,000 parking spaces at stations on this route, the majority of which are filled at busy times. This is likely to act as a constraint to growth, and is being addressed in conjunction with industry partners. While future passenger growth on trains is likely to be accommodated via train lengthening, this is limited by the size of the fleet and a maximum train length of 6 vehicles.

Merseytravel has aspirations to increase the extent of the DC network where there is an economic case to do so. Extensions being considered include services towards Wrexham (see Route 22), Wigan, and Burscough and beyond. The replacement of the rolling stock fleet in about 2013 may act as a catalyst for some of these extensions. New trains, combined with the increase in frequency provided by increased electrification, would produce a step-change in demand.

Network Rail has recently created a new locally based operations and maintenance management team to provide a more focussed and dedicated customer facing team, with the objective of improving the wider operational interface with Merseyrail Electrics. With the advent of the new teams, both Network Rail and Merseyrail Electrics will be launching a joint campaign to re-focus staff across all levels of the respective organisations. This will highlight the importance of delivering a reliable and resilient operational railway in 2007/08 and explain why the Joint Performance Improvement Plan and the initiatives contained within it are fundamental in enabling both companies to deliver good performance.

The operations team is led by the Area Manager Merseyside (AMM) responsible for customer and stakeholder interfaces on all operations, performance and maintenance issues. The Maintenance Manager Merseyside (MMM) has responsibility and accountability for the day to day maintenance of all infrastructure issues across the Merseyrail Electrics network. In addition to these new posts, there is a Senior Commercial Scheme

Sponsor and Commercial Scheme Sponsor, working closely with both Merseyrail Electrics and Merseytravel, as well as other local stakeholders, to drive forward a wide variety of improvements.

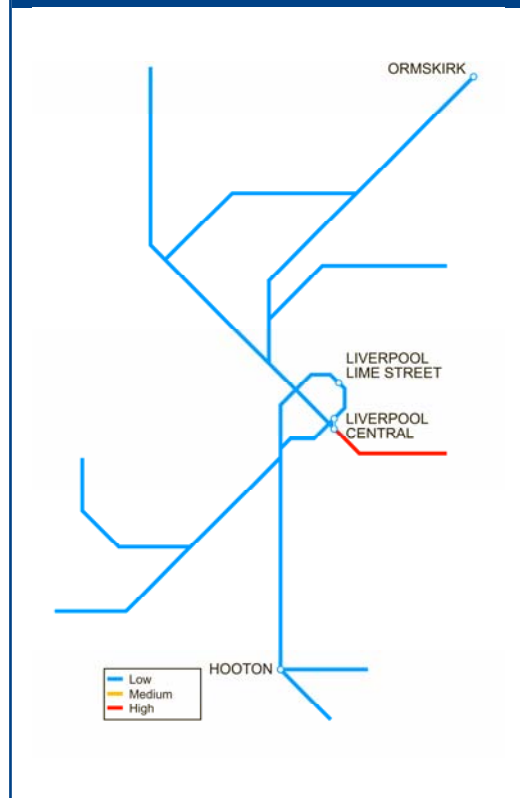
The AMM and his team are now co-located with the Merseyrail Electrics management team in Rail House Liverpool. This strengthens the operations and customer interface, allows the AMM and the Managing Director and Ops Director from Merseyrail to discuss key issues face to face on a daily basis, and enables a speeding up of key decisions. Network Rail believes this new local management focus will yield significant benefits and will facilitate the development of a truly joint team going forward.

## Future demand

The rapid redevelopment of Liverpool city centre is expected to continue, and this will lead to an increase in demand. One significant example of this redevelopment is Paradise Street, a 1.6 million square feet retail development, due for completion in 2008. Together with the Kings Dock development, it is anticipated that this will create 8,000 jobs by 2010. With these centres located only a few minutes walk from central Liverpool stations, rail is expected to attract a considerable journey share. Also in 2008, Liverpool will be the European Capital of Culture. This is predicted to attract 11 million visitors to events all over the city, such as the 'Liverpool Sound' concert and the Turner prize. Liverpool also hosts many 'occasional' events; for example, at the same time as the Capital of Culture celebration, the city will be hosting the 'Tall Ships' conference and the Open Golf Tournament on the same weekend. In terms of employment growth, it has been suggested that the Capital of Culture title will create 13,500 jobs. This will generate an increase in commuting trips into the centre, and encourage new business and leisure journeys.

Further growth is expected in rail journeys to and from Liverpool – John Lennon airport, according to the Government's White Paper, 'The Future of Air Transport'. The airport itself is planning for passenger throughput to increase from less than 4 million in 2004 to over 12 million by 2030. Additionally, the airport has a target to increase the percentage of people using public transport to access the airport to 12% in 2008, 14% in 2011, and 24% in 2030. Achieving these targets is being helped by a reduction in the number of car parking spaces per passenger at the airport, an increased service frequency to Hunts Cross, and the new Liverpool South Parkway station which opened in June 2006. It had been thought that the opening of Liverpool South Parkway might abstract demand from Hunts Cross. However, early indications

Figure 9 Tonnage growth



suggest this is not the case, with figures compiled by Merseyrail Electrics showing steady demand at Hunts Cross.

In July 2006, Hoylake hosted the Open Golf Tournament. This lasted for 8 days, with a total of around 60,000 people travelling to the event on the enhanced train service. On the busiest single day, it is estimated that 15,000 people travelled to the event by train. A similar number are expected when the event takes place at Birkdale in July 2008.

The high demand for coal for electricity generation is likely to mean that the number of trains per day from Ellesmere Port to Fiddlers Ferry will increase from two to three. This flow may also act as a catalyst for new freight flows from Ellesmere Port to begin. We are working with Mersey Docks and Harbour Company and English, Welsh and Scottish Railway on a scheme to bring back into use the line from Birkenhead docks towards Bidston. This could introduce new freight flows, notably including steel. However, the number and timings of these trains will be constrained by the operation of existing passenger services, especially given the close proximity to the train maintenance depot at Birkenhead North.

### Future services

There is an aspiration to increase the off-peak service to Chester to 4tph. However, the introduction of such a service would require a positive business case, which would include an assessment of the impact on current traffic.

Other than this aspiration, it is envisaged that the current pattern and frequency of service on the route will remain the same.

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

### Future capability

In the short to medium term, we do not expect the physical characteristics of the network to change; the bridges and narrow tunnels mean that any changes to gauge would not be cost effective. As there is little prospect of freight on the main sections, enhanced route availability will not be required. However, it may be possible to increase the linespeed in certain sections, to provide reduced journey times for passengers. Additionally, the renewal of the fleet in around 2013 will provide an opportunity to review the capability of the network, in the light of current and predicted demand. This may also be the time to carry out extensions to the electrification, should they prove value for money.

The lines to Birkenhead docks are currently out of use. If the docks were to be re-opened to rail freight, rail access would need to be restored.

A scheme is being developed to assess the case for additional stabling at Birkenhead depot. This would provide increased operational flexibility at the depot.

### Future capacity

Network Rail believes that the high frequency of service on this route (combined with additional six car trains) is sufficient to cater for predicted growth in the foreseeable future. An additional six units have been refurbished and brought into regular service to allow busy trains to be lengthened from three car to six car lengths, bringing the number of units up to 59. This is a result of monitoring conducted by Merseytravel and Merseyrail Electrics, to ensure resources match demand. The renewal of the fleet in around 2013 may provide an opportunity to make changes to the rolling stock specification if required.

### Future performance

It is expected that the changes made to the organisational structure on this route will result in gradual but significant performance benefits, as the advantages of working more closely with Merseyrail Electrics take effect.

Work will continue on the Joint Performance Improvement Plans to ensure that the declared performance initiatives realise the planned benefits. In particular:

- track circuits: a reliability plan to address both circuit 'blips' by increasing the number of bonding inspections and remedial work of all remaining jointed track sections on the network will be put in place. Complete failures will be addressed through the ongoing replacement programme for certain types of bonds;
- points failures: a reduction will be achieved through the installation of condition monitoring on all points at Hamilton Square, providing alarms for low hydraulic fluid and slide chair lubrication problems. Inspection frequency will be increased to weekly at other locations for point slide chairs to check lubrication levels;
- grease pots: a programme has been started to reduce the number of exploding pots and resultant fires and smoke within the loop/tunnels through increased inspection frequency and installation of heavy duty clamps to avoid pipes lifting as a result of vibration. The current ceramic pots are being replaced with Rehau GRP pots;
- unexplained delays: A pilot Six Sigma project is now well underway to establish the root causes of this type of delay on the Hunts Cross to Southport route. Conclusions and findings will then be used to roll out similar exercises on the Chester line services;
- route crime: we continue to work with British Transport Police and various schools and youth groups to tackle known hot-spots; and

- vegetation management: we will continue to build on the work started in 2005/06 to manage trackside vegetation the consequential performance problems with autumn leaf fall.

The track renewals programme continues with its long term strategy of renewing jointed track sections with CWR which will reduce the overall number of rail defects and their associated performance impact. In April and May 2007 a further 6 week closure of the loop line will take place.

Figure 10 shows the forecast reduction in Network Rail delay minutes compared with the expected outturn for 2006/07.

Figure 11 shows the forecast PPM for the main TOC running along the route.

### Engineering access

On this route, we work closely with Merseyrail Electrics to identify the least disruptive ways in which to carry out renewal work. Generally, we will attempt to do work when services are least heavily used, such as late at night and on Sundays. We also aim to avoid big events such as the Grand National, Southport Air Show, Chester Race weekends, Open Golf, Matthew Street Festival and the Tall Ships Festival. In consequence, this means that exact times and dates are liable to alteration. Additionally, it is sometimes necessary and prudent to undertake larger items of work over a longer period of time. In 2007, there are a number of Sunday closures planned, notably between Canning St and Hooton, and Bootle and Formby.

Also in 2007, we are planning major works between Hall Road and Southport in April. This will require a multi-day blockade. Similarly, in August we are planning a multi-day blockade of the line from Ormskirk to Walton for plain line track renewals at Town Green.

**Figure 10** Forecast reduction in delay minutes

	2007/08	2008/09
% reduction in delay minutes	25%	32%

**Figure 11** Forecast PPM MAA

TOC	2007/08	2008/09
Merseyrail	94.1%	94.4%

## Opportunities and challenges

The short to medium term challenge on this route is to meet the growing demand whilst sustaining the performance improvements that have been made. To achieve this, we shall continue to work closely with key stakeholders, notably Merseytravel and Merseyrail Electrics. Together, we are monitoring passenger numbers to enable us to better understand and meet demand; developing carefully targeted initiatives to improve performance; and looking at a number of ways to improve the facilities for passengers. These factors, as well as other relevant information, will feed into the Route Utilisation Strategy work that we will carry out in conjunction with stakeholders later this year.

The longer term aspirations to expand the Merseyrail network (i.e. extend electrification) will be considered when further information is available to enable a detailed assessment.

## Delivering Future Requirements Expenditure

Figure 12 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, consistent with the reasonable requirements of operators and other stakeholders.

<b>Figure 12 Forecast expenditure</b>		
<b>£m (2006/07 price)</b>	<b>2007/08</b>	<b>2008/09</b>
<b>Renewals</b>		
<b>Track</b>		
Plain line	6	1
Switches and crossings	1	0
<b>Track total</b>	<b>6</b>	<b>2</b>
<b>Civils</b>		
Underbridges	1	2
Overbridges	0	0
Bridgeguard 3	0	0
Earthworks	–	0
Tunnels	0	1
<b>Civils total</b>	<b>2</b>	<b>3</b>
<b>Electrification</b>		
<b>AC systems</b>		
Grid supply points	0	0
<b>DC systems</b>		
HV switchgear	0	–
HV cables	2	1
Transformers/rectifiers	0	0
Conductor rail	0	0
Other	0	0
<b>Electrification total</b>	<b>3</b>	<b>2</b>
<b>Telecoms</b>		
Customer information systems (CIS)	0	–
Other	1	1
<b>Telecoms total</b>	<b>1</b>	<b>1</b>

<b>Operational property</b>		
<b>Stations</b>		
Franchised	5	5
<b>Depots</b>		
Light maintenance	1	–
<b>Operational property total</b>	<b>6</b>	<b>5</b>
<b>Plant and machinery</b>		
<b>Fixed plant</b>		
Point heating	–	0
Other	0	0
<b>Plant and machinery total</b>	<b>0</b>	<b>0</b>
<b>IT and other expenditure</b>		
Other	–	0
<b>Total</b>	<b>–</b>	<b>0</b>
<b>Total Renewals</b>	<b>18</b>	<b>13</b>
<b>Enhancements (funded by)</b>		
<b>Network Rail (RAB)</b>		
Potential schemes	–	1
<b>Total</b>	<b>0</b>	<b>1</b>
<b>Other third party</b>		
<b>Planned</b>		
Headbolt lane – Kirby line enhancements & new station	0	4
Sandhills	2	2
Bootle Oriel road	3	1
Other	4	1
<b>Total</b>	<b>9</b>	<b>8</b>
Potential schemes	0	10
<b>Total</b>	<b>9</b>	<b>18</b>
<b>Total Enhancements</b>	<b>9</b>	<b>18</b>

**Figure 13** Forecast volumes

	2007/08	2008/09
<b>Track</b>		
Plain line (km)		
Rail	8	2
Sleepers	7	2
Ballast	7	2
<b>Total</b>	<b>23</b>	<b>5</b>
<b>Switches &amp; crossings (no.)</b>		
Complete renewal	2	1
S&C (equivalent units)	2	1
<b>Civils</b>		
Underbridges (m <sup>2</sup> )	519	853
Overbridges (m <sup>2</sup> )	48	50
Tunnels (m <sup>2</sup> )	64	56
<b>Electrification</b>		
AC systems		
Grid supply points (no.)	1	2
DC systems		
HV switchgear (cb)	14	–
HV cables (km)	9	9
Transformers/rectifiers (no.)	1	1
Conductor rail (km)	–	3

The planned volume of renewals is detailed in Figure 13.

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.

### Maintenance

Figure 14 shows the planned level of expenditure on maintenance on this route over the next two years.

**Figure 14** Forecast expenditure

£m (2006/07 prices)	2007/08	2008/09
Maintenance	8	7

## Infrastructure investment

The following table highlights schemes that are planned for completion in the financial year shown.

**Figure 15** Planned infrastructure investment

Project	Project description	Output change	Main asset Type(s)	Funding	GRIP stage	Completion Year
A Brunswick (21.01)	Merseytravel PTE to improve bus facilities at front of station. This scheme has been delivered by Merseyrail	Improved station facilities	Stations	MPTE	–	Completed
B Merseyrail wheel lathe (21.01)	Merseyrail delivered a new wheel lathe at Kirkdale depot	New asset	Depots	TOC	–	Completed
C M to Go Retail facilities (21.01)	Introduction of retail sales at stations on the Merseyrail underground network. Pilot scheme at Moorfields station is now complete. Project continues at Hamilton Square and Southport.	Improved retail facilities	Stations	TOC	–	2007
D Telecoms Renewals (21.01)	Small telephone concentrator replacements at various locations including at Hooton.	Renewal	Telecoms	Network Rail	7	2007
E Bootle Oriel Road (21.01)	Major refurbishment of Bootle Oriel Road, as part of the Local Transport Plan	Improved station facilities and step free access	Stations	MPTE	6	2008/09
– E&P Renewals (21.01)	11kv feeder cables renewal – ongoing programme	Renewal	Electrification and plant	Network Rail	6 2	2007/08 2008/09
F Sandhills Station (21.01)	Introduction of new lift access to the platforms, a new booking office, waiting accommodation and step free access.	Improved station facilities and step free access	Stations	MPTE/DfT	5	2007/08
G Birkdale car park (21.01)	Improvements to station car park	Increased car park capacity	Stations	MPTE	5	2008/09
H Buildings Renewals (21.01)	Timber and roof repairs to footbridge at Moreton station	Renewed footbridge	Stations	Network Rail	5	2008/09
F Telecoms Renewals (21.01)	Replacement of Sandhills CCTV control (in IECC)	Renewal	Telecoms	Network Rail	5	2007/08
I Buildings Renewals (21.01)	Repairs and maintenance to canopy at Birkenhead North station	Renewed canopy	Stations	Network Rail	5	2008/09
J Liverpool James Street (21.01)	Concourse development works at James Street station	Improved station facilities	Stations	MPTE	5	2007
K Fazakerley (21.01)	We are working with Merseytravel PTE to provide improved access	Improved station access	Stations	DfT	4	2008/09

**Figure 15** Planned infrastructure investment

Project	Project description	Output change	Main asset Type(s)	Funding	GRIP stage	Completion Year	
D	Hooton (21.01)	Disabled access improvements at Hooton station	Improved access at station	Stations	MPTE	4	2007
I	Buildings Renewals (21.01)	Renewal of trainshed roof covering at Birkenhead North Light Maintenance Depot	Improved roof covering	Depots	Network Rail	4	2007/08
L	Buildings Renewals (21.01)	Renewal of train shed roof covering at Southport	Renewal	Depots	Network Rail	4	2007–2009
M	Track Renewals (21.01)	Plain line works are planned at: 2007/08: Hoylake, Hall Road and Bromborough Rake 2008/09: Chester North, Bank Hall and Waterloo	Renewal	Track	Network Rail	3	2007 – 2009
N	Track Renewals (21.01)	S&C works are planned at:2007/08 : Rock Ferry – complete renewal of turnout junction 2008/09: New Brighton	Renewal	Track	Network Rail	3	2007 – 2009
O	Civils Renewals (21.01)	Bridge guard 3 programme: we plan to carry out minor strengthening works to a number of bridges on this route e.g. at Hightown station	Ensuring sufficient strength of bridge to carry appropriate load	Structures	Local authority	3	2007–09
P	Ormskirk (21.01)	Refurbishment and redevelopment of Ormskirk station with new ticket office and car park improvements	Improved station facilities	Stations	Lancs CC	3	2007
F	Civils Renewals (21.01)	Sandhills Lane – replace timber deck and refurbishment of bridge no.85	Renewal	Structures	Network Rail	3	2007/08
Q	Formby (21.01)	Station access improvements (lifts) are planned at Formby station	Improved station facilities	Stations	MPTE	1	2009
R	St Michaels (21.01)	Merseytravel PTE to improve access arrangements for disabled passengers	Improved station access	Stations	MPTE	1	2009
S	Wallasey Grove Road (21.01)	Merseytravel PTE to improve access arrangements for disabled passengers	Improved station access	Stations	MPTE	1	2009
T	Civils Renewals (21.01)	Strengthening and refurbishment of Bridge 11 between Hunts Cross West Junction and Southport	Strengthened underbridge	Structures	Network Rail	1	2008/09
U	Bebington Station (21.01)	Car park extension at Bebington station	Increased parking capacity	Stations	MPTE	1	2008
V	Bidston Station (21.01)	New car park on adjoining council land	Increased parking capacity and improved station facilities	Stations	MPTE	1	2008
W	Blundellsands and Crosby car park (21.01)	Improvements to car parking at Blundellsands and Crosby station	Improved parking facilities	Stations	MPTE	1	2008

Figure 15 Planned infrastructure investment						
Project	Project description	Output change	Main asset Type(s)	Funding	GRIP stage	Completion Year
X	Bromborough Station	Improvements to car parking at Bromborough station	Improved parking facilities	Stations	MPTE	1 2008
Y	Kirkby Station (21.01)	Introduction of CCTV system at car park at Kirkby and overspill car park	Improved and extended parking facilities	Stations	MPTE	1 2007
Z	Liverpool South Parkway (21.01)	Construction of new station car park at the site of the former Garston station	Improved parking facilities for Liverpool South Parkway	Stations	MPTE	1 2008
–	Civils Renewals (21.01)	Continuing inspection and rolling programme of repairs of the significant number of tunnels on the route	Renewal	Structures	Network Rail	1–5 2007–10
L	Southport (21.01)	Merseytravel PTE plan to provide a new car park at Southport station, which will be delivered by Merseyrail	Improved station facilities	Stations	MPTE	0–1 2010/11
AA	Spital (21.01)	Access improvements via car park scheme	Improved access at station	Stations	MPTE	0–1 2009

Figure 16 highlights other schemes under consideration.

Figure 16 Infrastructure investment under consideration						
Project	Project description	Output change	Main asset Type(s)	Funding	GRIP stage/status	
–	Signalling Renewals (21.01)	Merseyrail IECC : Level crossing CCTV System renewals	Renewal of system	Signalling	Network Rail 0	
–	Signalling Renewals (21.01)	Renewals of signalling equipment at Ellesmere Port Stanlow and Thornton	Renewal of signalling equipment	Signalling	Network Rail 0	
AC	Liverpool Central Station (21.01)	Passenger capacity scheme to improve the layout on the northern line platforms in the short term before a longer term solution is developed	Improved operational flexibility and layout	Stations	Network Rail 0	
–	Liverpool Area (21.01)	Linespeed improvements	Reduced journey times	Track and signalling	Network Rail 0	
AD	New station at Headbolt Lane (21.01)	New station and 3rd rail electrification extension from Kirkby to Headbolt Lane	Improves accessibility to the rail network	New asset	MPTE / Third Party 0	

**Figure 16** Infrastructure investment under consideration

Project	Project description	Output change	Main asset Type(s)	Funding	GRIP stage/status
I Additional stabling (21.01)	Modifications to the current Birkenhead Depot configuration to accommodate additional stabling capacity	Improves performance	Depots	Network Rail	0
– Telecoms Renewals (21.01)	Telecoms retail control equipment renewals on the City and Wirral lines	Renewal	Telecoms	Network Rail	0
D Buildings Renewals(21.01)	Renewal of footbridge at Hooton	Renewal	Stations	Network Rail	0
– Liverpool underground stations (21.01)	Refurbishment of underground stations in the Liverpool area	Improved facilities	Stations	MPTE	Scheme currently on hold

## Non–infrastructure developments

The following significant timetable scheme for the route is under development.

**Figure 17** Timetable development

Description	Key issues	Actions or options being developed	Benefits	Target timetable implementation
Service increase to Chester to be 4 per hour through the day	To justify the increase we need to understand the economic effect from the recent change in the North Wales timetable due to ATW's move to a standard pattern, and the alterations to Virgin's services expected from the 2008 timetable. To implement the increase may well mean a complete recast of the Wirral Lines	There is an aspiration to have 4 trains an hour to Chester through the day rather than just in the peak	Better service from the Wirral and Liverpool to Chester and beyond	Not yet known

## Appendix

Figure 18 Strategic route section

Predominant aspect recorded (secondary aspects recorded in brackets). ELR is Engineers Line Reference and RA is Route Availability

SRS	SRS Name	ELR	Classification	Funding	Community Rail	Freight gauge	RA	Speed	Electrification	Signalling Type	Signalling Headway	No of Tracks	SRS
22.01	Merseyrail	HXS2, BEN, CRR1, CRR2, CWK1, CWK2, CWK3, HHJ, HXS1, HXS2, HXS3, MIR2, MIR2, SJO1, SJO2, WJK	Secondary	DfT	No	W6 (W8)	8 (7) (10)	60 (35)	DC	TCB	3 (2) (5)	2	Merseyrail

**Capacity and operational constraints**

- A Sandhills – Walton: flat junction
- B Liverpool Central: platform capacity
- C Hunts Cross West Junction: crossing moves

**Other issues on the route**

- 1 Birkenhead Docks branch: access for freight
- 2 Tight curvature in tunnel causing significant track deterioration

## 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](http://www.networkrail.co.uk)



This Route Plan is part of a set.  
To view or download the others  
visit [www.networkrail.co.uk](http://www.networkrail.co.uk)