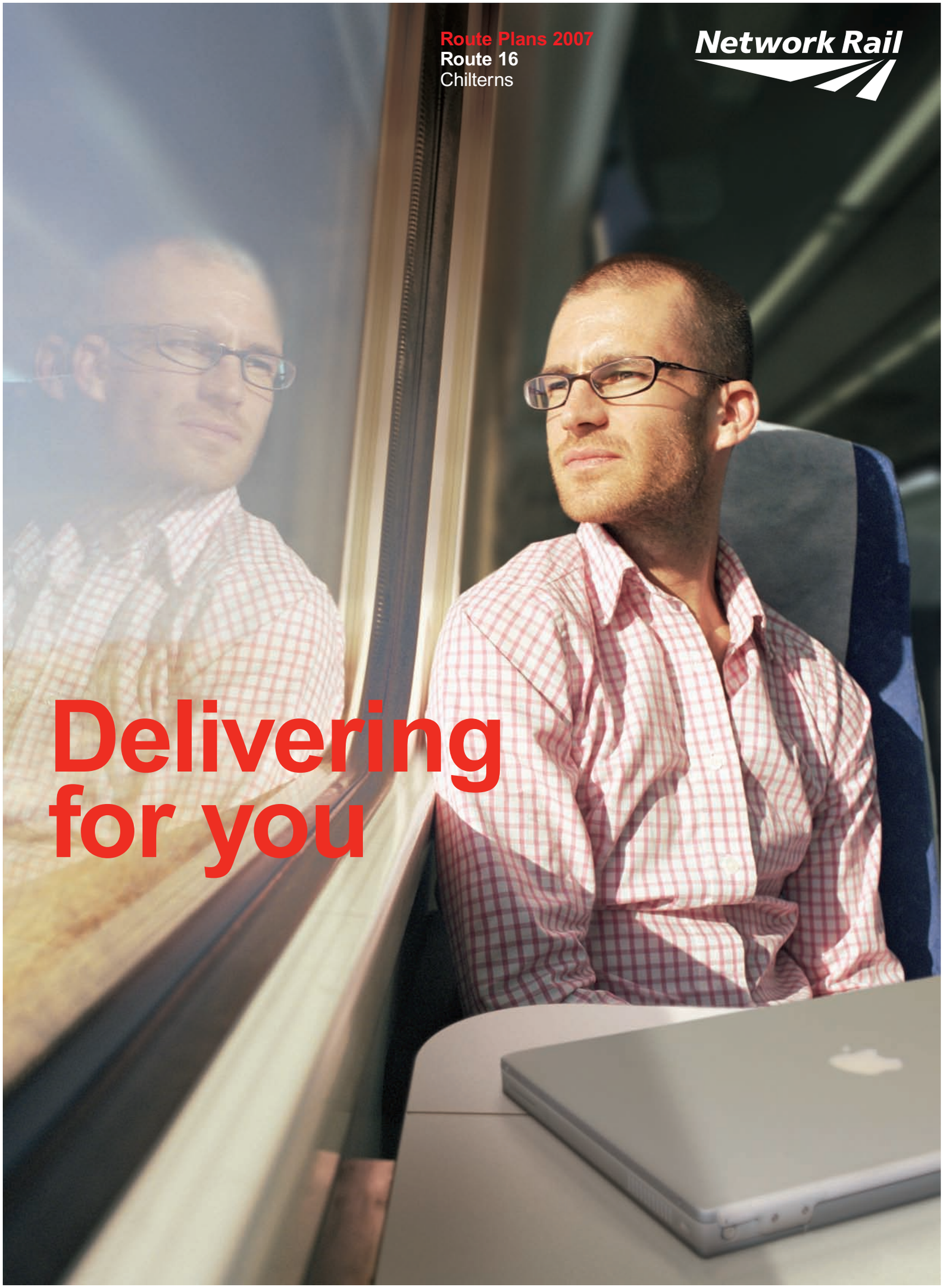
Route Plans 2007
Route 16
Chilterns

Network Rail



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Route 16 Chilterns

Route context

The Chilterns route consists of a main line from London Marylebone which divides into two at Neasden South junction. One line goes to Banbury and the other to Aylesbury/Claydon, with associated branches and freight lines. In the 1970s the section of the route from Princes Risborough to Aynho Junction was singled. Since then the route has increased in importance, with growing levels of traffic and considerable investment. Shortly before privatisation the route benefited from full modernisation, with renewed signalling and rolling stock. Since Chiltern Railways acquired the franchise, there has been further significant investment in infrastructure, including redoubling of the singled Princes Risborough to Aynho Junction section, new depots and operational facilities and improved passenger facilities at stations. The Evergreen 2 project, which has just been completed, has delivered further significant infrastructure improvements, increasing capacity between Bicester North and London Marylebone.

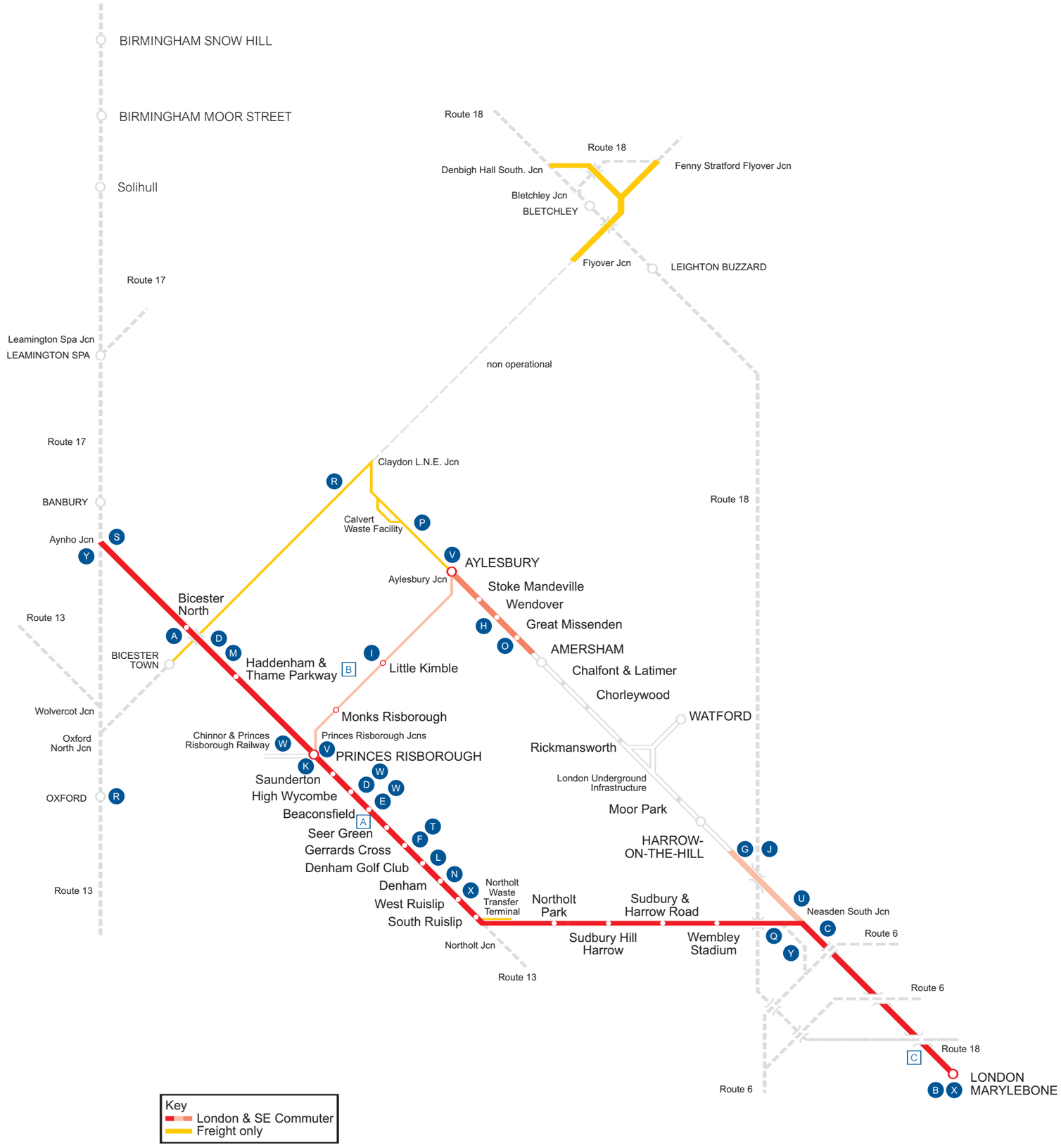
The line has been used as a strategic diversionary route for the WCML and has accommodated freight diversions and additional passenger services during recent West Coast blockades. The route also serves the waste disposal site at Calvert. This route will be addressed via a Route Utilisation Strategy (RUS), which is scheduled to start in autumn 2007.

Today's route

The route has two main corridors from London Marylebone (dividing at Neasden South Junction) which are described below. The relevant Strategic Route Section is shown in brackets:

- one branch runs via High Wycombe, Princes Risborough and Bicester to Aynho Junction, just south of Banbury (16.01);
- the other branch runs via Amersham to Aylesbury (16.02 & 16.03), where the passenger service currently terminates, then on to Claydon Junction. This branch runs parallel to the LUL Metropolitan and Jubilee Lines as far as Harrow-on-the-Hill. From just south of Harrow-on-the-Hill station extending as far as Amersham, (where LUL trains terminate) all tracks become LUL property, with shared running between main line and underground trains. North of Amersham, the main line trains re-enter Network Rail infrastructure; and
- a branch links Princes Risborough and Aylesbury (16.04). There are also two freight branches from Bicester Town to Claydon LNE Junction and Aylesbury to Claydon LNE Junction. The route between Claydon LNE Junction and Bletchley is currently out of use.

Route 16 Chilterns



Passenger and freight demand

There is significant commuter and suburban traffic into London from locations along the line of route. Traffic on the route has grown considerably since 1994, particularly in the commuter market from as far north as Solihull, helped by a high level of performance and reliability. The West Midlands services have experienced considerable development and, following the implementation of Cherwell Valley resignalling (Route 17) have now attained a 2 tph frequency throughout the day. It was largely to serve this market that Chiltern Railways funded and constructed the 'park and ride' station at Warwick Parkway on Route 17. The West Midlands services are increasingly regarded as a viable alternative to the WCML – although journey times are longer, fares are generally lower.

The Route has proved popular with passengers to and from the West Midlands during disruption caused by West Coast Main Line upgrade works, although, because of capacity constraints, most were accommodated on existing timetabled services rather than trains diverted from the West Coast.

Freight demand includes significant domestic waste traffic to the landfill site at Calvert. Waste Recycling Group (WRG) continues to seek further business in both domestic and industrial waste. Overnight demand is constrained by operating hours at the landfill site.

Current services

The operators on this route are Chiltern Railways, London Underground Ltd (LUL), Freightliner Heavy Haul Ltd. and English, Welsh and Scottish Railways (EWS). The majority of the Chiltern Railways fleet, the Class 165 DMUs, date from the late 1980s. Since privatisation, Chiltern has invested in additional rolling stock in the shape of the Class 168 Clubman DMUs, introduced in 1996, which are progressively being lengthened from three cars to four.

The basic off-peak service pattern consists of the following stopping services from Marylebone:

- half hourly to High Wycombe or Princes Risborough,
- hourly to Bicester or Stratford-upon-Avon,
- half hourly to Birmingham Snow Hill and
- half hourly to Aylesbury.

This basic pattern is enhanced at peak times, with additional trains and altered and extended stopping patterns.

Four loaded domestic waste services run per day to the Calvert disposal site from Cricklewood, Dagenham, Bristol and Northolt. Services from the London area are routed via High Wycombe and Aylesbury. Services from Bristol are routed via Oxford and Bicester. The Calvert site has capacity to accept similar quantities of waste for at least the next 20 years.

Since summer 2006 there has also been an increase in weekend traffic using the route on certain weekends in connection with Metronet renewals work on the London Underground. This traffic, hauled by GBRF, gains access to the LUL network via either Harrow on the Hill or Mantles Wood (Amersham) and normally consists of up to 8 trains to and from the LUL network each weekend. A total of 14 weekends have been identified during 2007 for renewal activity and this infrastructure supply contract is expected to continue until 2009.

Aggregate services also operate to Neasden from Croft Quarry in Leicestershire and from Wool on the South coast.

Figure 1 Tonnage

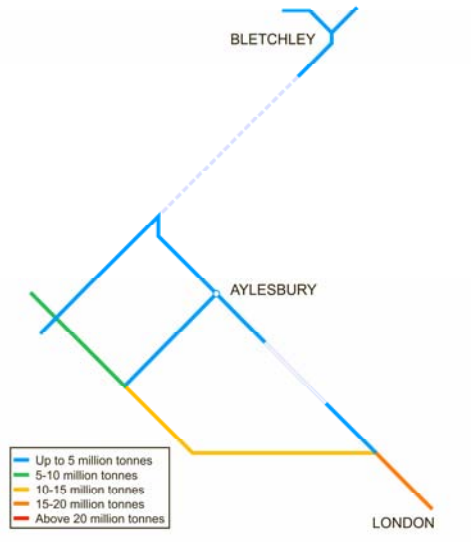


Figure 1 shows the tonnage levels on the route.

Traffic volumes are summarised in Figure 2.

Figure 2 Current use

	Passenger	Freight	Total
Train km per year (millions)	6	0	6
Train tonne km per year (millions)	1,067	129	1197

Current infrastructure capability

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

Figure 3 Linespeed

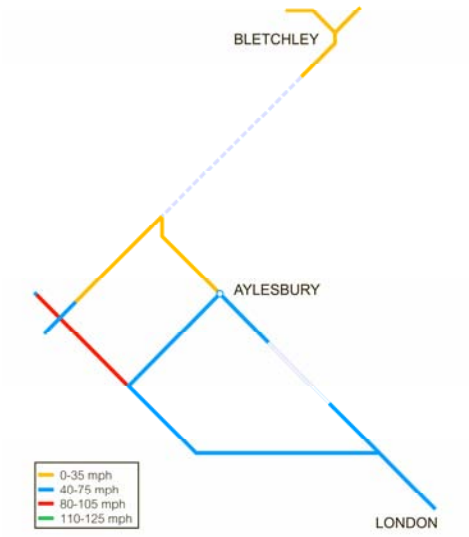


Figure 4 Electrification

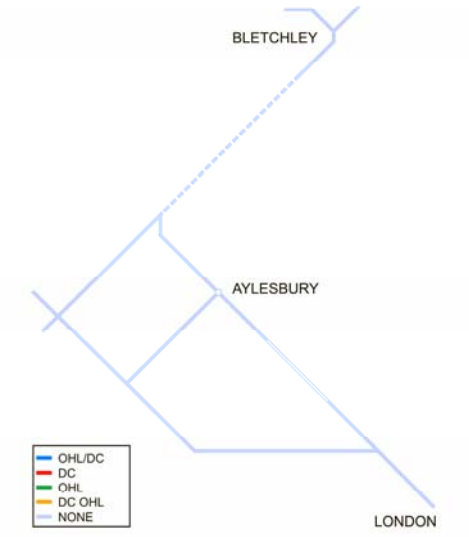


Figure 5 Route availability

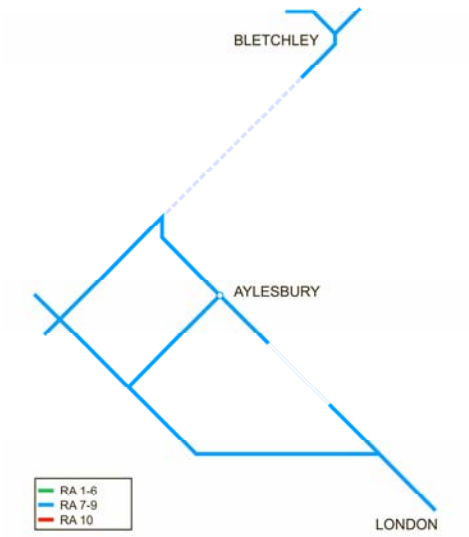
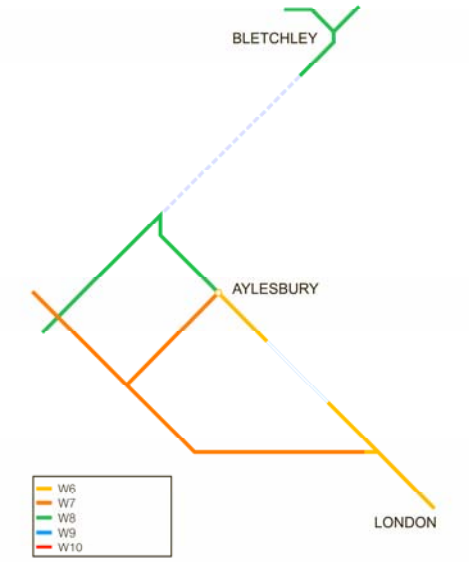


Figure 6 Gauge



Current capacity

Redoubling of the Princes Risborough – Bicester – Aynho section resulted in a significant improvement in capacity which, along with the Cherwell Valley resignalling on Route 17, allowed the frequency of London – West Midlands services to be doubled to two trains per hour.

Completion of the "Evergreen Phase 2" project in late 2006 has delivered further capacity improvements, which allows additional services from High Wycombe southwards and greater operational reliability. The project included additional signal sections to improve capacity between Denham and High Wycombe, track and signalling improvements at Neasden South Junction to improve the marginal time between trains and increase flexibility, and additional platforms at Marylebone station to increase station capacity.

The requirement to share tracks with the frequent Metropolitan Line services between Amersham and Harrow-on-the-Hill imposes constraints and risks to performance on Aylesbury line services.

Chiltern Railways have undertaken a programme of selective platform lengthening to accommodate seven car trains or eight cars at certain locations.

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

Within the last 18 months, a new maintenance depot has been opened at Wembley Stadium, delivering additional capacity for maintaining Chiltern Railway's fleet, a reduction in empty stock mileage and capacity for expansion of the fleet in future.

Current performance

Figure 8 shows the current PPM on the route.

The route is one of the best performing in the country, helping Chiltern Railways to maintain their position amongst the top performing train operators, with a moving annual average of trains arriving on time. Underlying infrastructure performance has remained good and contributed to this excellent result. Performance during summer 2006 was, however, adversely affected by the very hot weather and by problems with commissioning of the 'Evergreen 2' signalling enhancement project, being undertaken by Chiltern Railways. However, the autumn seasonal issues show further year-on-year improvements. Continuing track re-railing programmes have meant that there is no significant jointed track left on the Marylebone to Aynho and Aylesbury route sections and cascaded rail has been eradicated between Marylebone and Aylesbury, both leading to performance and reliability improvements.

The 'Evergreen 2' project has seen the introduction of new signals to reduce headways and improvements to power supplies for signalling equipment in the area. As network operator, Network Rail ensured that the enhanced assets were designed and delivered in a manner that supports the ongoing operation of the rail network. As a result of the innovative contractual framework for this project, Chiltern Railways has specified the infrastructure enhancements and the train service alterations as part of the project. Consequently, Network Rail has agreed with Chiltern Railways a trial period of 12 months to monitor train performance and correct any resulting issues.

Future requirements

Strategic direction

The strategic projection for the route is for further growth in both passenger and freight demand, with pressure for additional capacity being met by longer passenger trains rather than major infrastructure enhancements.

There is currently only one freight train per day each way over the Bicester Town to Claydon section. However, the line is also of strategic importance in regards to the long-term aspiration of

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

Route Section	Main Lines
Marylebone – Aylesbury	3
Marylebone – Princes Risborough	4
Marylebone – Banbury	3
Princes Risborough – Aylesbury	1

Figure 8 Current PPM MAA

TOC	MAA	As at period
Chiltern Railways	93.9%	11

Local Authorities and other bodies for reopening of an East-West route linking Oxford, Bletchley, Bedford and Cambridge. Significant upgrading would be necessary, but the line of route is intact between Bicester and Bletchley and it would be physically possible to reopen the railway, subject to a robust business case and funding. Against this background, the introduction of an Oxford – Bletchley – Milton Keynes service appears a reasonable possibility, but operation eastwards from Bedford to Cambridge will be far more challenging with effectively the need to construct new sections of railway and to cross the intensively utilised ECML. It is expected that any reinstated route could also offer useful opportunities for freight.

A new station is planned at Aylesbury Vale, about two miles north of the present terminus at Aylesbury Town on the freight route to Calvert. The station, which would be jointly funded by private finance, the Local Authority and Government grant, is planned to serve both a developing community in the area, and to provide better access to rail services to London for commuters living in the area north of Aylesbury than can be provided at Aylesbury Town. The station will include "Park and Ride" facilities, to avoid the need for passengers to travel into Aylesbury itself, thereby relieving congestion in the town.

Future demand

It is expected that there will be continued commuting growth into London from all parts of the route, following the improvements in service frequency. As already stated, this growth will be catered for mainly by means of longer trains. The disruption to services caused by the collapse of the tunnel at Gerrards Cross in 2005 had a detrimental effect on passenger demand at the time but recovery has taken place and demand continues to grow.

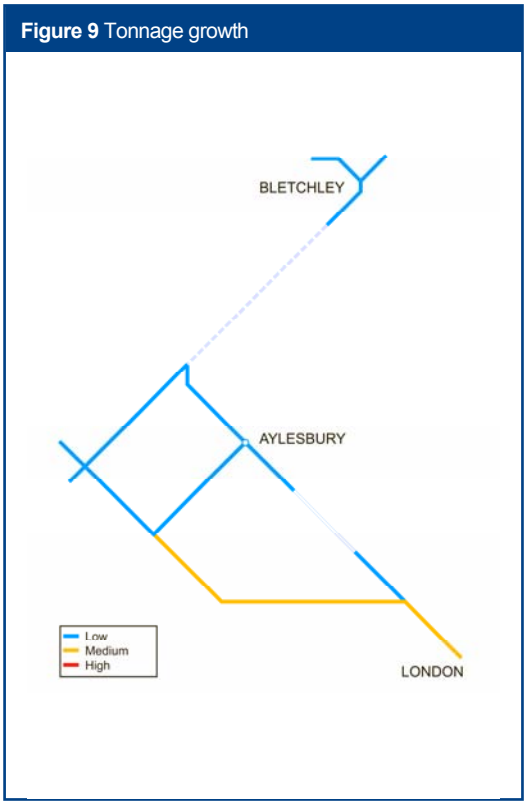
Freight demand is expected to remain largely unchanged. However, as demand for freight paths on the West Coast Main Line increases, the Chiltern line may be considered as an alternative route. As a direct result, permanent gauge enhancements along this route would be necessary.

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

Future services

It is envisaged that the current pattern and frequency of service on the route will remain the same. However, to meet forecast growth increases, the provision of longer trains will be necessary.

Figure 9 Tonnage growth



Aggregate traffic from the Mendips via Acton to Gerrards Cross to provide fill material for the Tesco development near Gerrards Cross station is expected to restart during summer 2007. Waste Recycling Group (WRG) continue to seek further business to Calvert to exploit the full terminal capacity which could result in one additional train service in due course.

Future capability

We are investigating the feasibility of gauge clearing the route from Neasden to Ayhno junctions via High Wycombe, to allow W9 and possibly W10 traffic to use the line on a regular basis.

Future capacity

In the short term, station facilities are being improved at Denham and High Wycombe stations. No immediate projects are planned for further enhancements to the track and signalling, although longer-term options to enhance capacity, such as reinstatement of the former through lines at key locations, remain.

Future performance

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

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

There are a number of key actions in place to prevent overheating of lineside equipment in future and ensure that fewer heat related speed restrictions are imposed in 2007.

The planned re-signalling of the route between Leamington and south of Birmingham Snow Hill (on adjoining route 17), will see the introduction of four aspect signalling and creation of a new 60 mph junction at Tyseley North in 2007. This will give significant performance improvements, which will have a positive impact on this route.

Further track renewals and rail replacement activity continue the improvement in track quality and performance, through further reductions in rail defects and associated speed restrictions. These improvements will benefit performance when otherwise speed restrictions would be imposed, following inspections or reports from drivers. The clay embankments of the Chiltern's routes are particularly susceptible to shrinkage or expansion, leading to the imposition of speed restrictions.

Significant earthworks continue at Ardley cutting until 2008, leading to a reduction in performance risk.

A number of other sites have embankment and earthworks planned in the next three years in particular Blackthorn, Piddington, Bicester North and Brill cutting. During these works it will be necessary to impose temporary speed restrictions in 2008/09, which are likely to impact on performance during this time.

An extensive programme to remove line side vegetation is still ongoing. This continues to use mechanised equipment, leading to a reduction in delays due to leaf fall contamination.

Engineering access

Engineering access is available through a regular pattern of eight hours on Saturday nights and five hours on Sunday nights, as well as limited possession opportunities in week-nights due to Chiltern Railways services late night services and empty stock movements.

Disruptive engineering access is planned on the route between Aynho and Marylebone, and involves an all-weekend and an all-day Sunday closure. This is for the purpose of undertaking major bridgeworks in the High Wycombe area.

Metronet, on behalf of London Underground Limited, are planning a large number of full weekend closures of the Metropolitan Line between Amersham and Harrow-on-the-Hill and Network Rail's own renewals and maintenance work has been carefully aligned with these possessions to avoid further disruption to Train Operators.

Possession planning on Route 16 is carefully integrated with the Birmingham to Didcot and West Coast Main Line routes, to enable the increasing use of the route as an alternative for passengers and freight from London to the West Midlands.

Figure 10 Forecast reduction in delay minutes

	2007/08	2008/09
% reduction in delay minutes	10%	8%

Figure 11 Forecast PPM MAA

TOC	2007/08	2008/09
Chiltern Railways	94.2%	93.8%

Opportunities and challenges

The major opportunities on the route centre round the projected growth in passenger demand, particularly commuting into London.

There are also growth opportunities through improving accessibility to the route from areas not currently directly served by the rail network, particularly in the area bounded by Aylesbury, Bicester and Bletchley. The new station at Aylesbury Vale will provide improved “Park and Ride” access to and from this area into London, and, in the long-term, the proposed East-West Rail Link will directly serve many of the main communities.

This route is currently used as a tactical diversionary route for W9 traffic. The route continues to be utilised by W9 freight traffic as the renewals work at the southern end of the West Coast Main Line progresses. Furthermore, this enables enhanced inspection and an increased maintenance regime on the West Coast Main Line. However, as much of the major work is nearing completion, dispensation for W9 is less frequent. This route could be enhanced to W9 permanently if significant work was carried out on the earthworks and structures that currently limit its capability.

Delivering future requirements

Summary

Over the medium to long-term, it is planned to deliver additional capacity for growth by a combination of measures including longer trains, facilitated by platform extensions at main stations and fleet expansion, and additional car parking capacity throughout the route.

Looking longer-term (over the next 20 years), aspirations exist to increase the number of parkway stations on the route. Chiltern Railways also have aspirations to extend certain services to Milton Keynes which may be facilitated by the proposed East West Rail Link. They also have aspirations to re-instate the fast lines through Beaconsfield, to create capacity and operational flexibility.

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, in accordance with the plans of operators and other stakeholders.

Figure 12 Forecast expenditure

£m (2006/07 prices)	2007/08	2008/09
Renewals		
Track		
Plain line	4	1
Track total	4	1
Civils		
Underbridges	3	1
Overbridges	1	0
Bridgeguard 3	0	–
Footbridges	0	–
Earthworks	0	1
Tunnels	–	0
Culverts	0	–
Civils total	5	2
Signalling		
Minor works/other	0	1
Signalling total	0	1
Operational property		
Stations		
Franchised	–	4
Operational property total	–	4
IT and other expenditure		
Other	0	0
IT and other total	0	0
Total Renewals	**9**	**8**
Enhancements (funded by)		
Other third party		
Planned		
East West rail link	0	1
Petts Hill underbridge	1	4
Other	0	0
Total	2	6
Total Enhancements	**2**	**6**

Figure 13 Forecast volumes

	2007/08	2008/09
Track		
Plain line (km)		
Rail	10	2
Sleepers	4	2
Ballast	4	3
Total	19	7
Civils		
Underbridges (m²)	1,743	90
Overbridges (m²)	307	80
Bridgeguard 3 (m²)	80	–
Footbridges (m² decking area)	90	–
Earthworks (m² slope surface)	50	250
Tunnels (m²)	–	10
Culverts (m²)	39	–

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

Figure 15 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 / status	Completion Year
A Car park extension (16.01)	Extension to car park at Bicester North station	Improved access to the network and capacity for growth	Station	Chiltern Railways	–	Completed
B Evergreen Phase 2 (16.01)	Provision of additional platforms at Marylebone station	Increased capacity and improved performance: platforms for 41 vehicles to become 51, and 10 trains in the peak hour to become 20	Station	Chiltern Railways	–	Completed
C Evergreen Phase 2 (16.01)	Track and signalling improvements at Neasden South Junction	Improved performance. Headways improved form 8 minutes to 3	Track and Signalling	Chiltern Railways	–	Completed
D Evergreen Phase 2 (16.01)	Signalling improvements between High Wycombe and Bicester	Increased capacity and improved performance. Headways improved from 8 minutes to 4	Signalling	Chiltern Railways	–	Completed
E Car park (16.01)	Beaconsfield car park	Improved access to network and capacity for growth	Station	Chiltern Railways	–	Completed
F Car park (16.01)	Gerrards Cross car park	Improved access to network and capacity for growth	Station	Chiltern Railways	–	Completed
B Buildings renewals (16.01)	Renewal of roof covering to train shed roof at Marylebone station.	Renewed roof covering.	Station	Network Rail	5	2008-10

Figure 15 Planned infrastructure investment

Project	Project description	Output change	Main asset type(s)	Funding	GRIP Stage / status	Completion Year
G Buildings renewals (16.01)	Strengthen footbridge and replace windows at Harrow & Wealdstone.	Improvement to condition of footbridge and windows.	Station	Network Rail	5	2007/08
H Buildings renewals (16.01)	Renewal of station footbridge at Wendover	Improvement to footbridge	Station	Network Rail	5	2008/09
I Track renewals (16.01)	Plain lining works planned at Little Kimble	Renewal	Track	Network Rail	4	2007/08
J Civils Renewals (16.01)	Steelwork repairs, cleaning and painting of underbridge no.22 near Harrow-on-the-Hill	Renewal	Structures	Network Rail	4	2007/08
K Chinnor & Princes Risborough Railway (16.01)	Extension of heritage railway to Princes Risborough	Extension of line	Track and Signalling	Chinnor & Princes Risborough Railway	4	2007/08
J Civils renewals (16.01)	Paint, waterproof and carry out brickwork repairs to underbridge No.23 near Harrow-on-the-Hill	Renewal	Structures	Network Rail	4	2007/08
J Civils renewals (16.01)	Steelwork repairs and waterproofing work at Viaduct No.24a, near Harrow-on-the-Hill	Renewal	Structures	Network Rail	4	2007/08
L Civils renewals (16.01)	Brickwork repairs to Chalfont Viaduct	Improvements to condition of Chalfont Viaduct	Structures	Network Rail	4	2007

Figure 15 Planned infrastructure investment

Project	Project description	Output change	Main asset type(s)	Funding	GRIP Stage / status	Completion Year
M Track renewals (16.01)	Plain lining works planned at Chearsley, Brill Tunnel and Ardley	Renewal	Track	Network Rail	4	2008/09
N Buildings renewals (16.01)	Repairs to steel on platform canopy at Denham station	Improvement to condition of canopy above platform	Station	Network Rail	3	2008/09
O Buildings renewals (16.01)	Replacement of timber staircases and repairs to footbridge at Great Missenden Station	Improvement to footbridge and staircases.	Station	Network Rail	3	2009/10
O Buildings renewals (previously shown as enhancement scheme) (16.01)	Improve passenger and interchange facilities at High Wycombe station	Renewal (scheme descoped from 3rd party funded enhancement scheme)	Station	Network Rail	2	2008/09
N Denham Station improvements (16.01)	Improve passenger facilities at Denham station	Improved passenger flows and ambience at the station	Station	Chiltern Railways & Network Rail	2	2008/09
P New Station (16.01)	Provision of new parkway station at Aylesbury Vale	Improved access to the rail network and capacity for growth	New asset	CLG, Chiltern Railways, Bucks County Council	2	2007/08
Q Petts Hill underbridge (16.01)	Replacement underbridge in connection with road improvements at Petts Hill	Road improvements	Structures	Local Authority	2	2008/09
R East West Rail Link (n/a)	Reopening of the Oxford / Aylesbury - Bedford railway	New route and services.	Track and Signalling	3rd party	2	2009/10

Figure 15 Planned infrastructure investment

Project	Project description	Output change	Main asset type(s)	Funding	GRIP Stage / status	Completion Year
S Civils Renewals (16.01)	Strengthening and refurbishment of Aynho flyover bridge in order to remove operating restrictions - u/b 54	Renewal	Structures	Network Rail	1	2009/10
T Turnback siding (16.01)	Provision of new turnback siding at Gerrards Cross	Increased capacity and improved performance	Track and Signalling	Chiltern Railways	3	Currently on hold pending completion of the Tesco works

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
U Neasden Aggregates (16.01 & 16.02)	Conversion of the engineers' sidings at Neasden to aggregates siding	Improve operational flexibility	Track	3rd party	0
- Signalling Renewals (Various)	ATP life extension works (National Business Plan programme)	Renewal	Signalling	Renewals	0
V Aylesbury - Princes Risborough new connection (16.04)	Introduction of a new crossover at Princes Risborough	Improve operational flexibility, increase capacity and linespeeds	Track & Signalling	Network Rail	0
W Platform extensions (16.01)	Platform extensions at Princes Risborough, High Wycombe and Beaconsfield	Increased capacity	Stations	Network Rail	0

Figure 16 Infrastructure investment under consideration

Project	Project description	Output change	Main asset type(s)	Funding	GRIP Stage / status
- Linespeed improvements (16.01-16.04)	Linespeed improvements across the route at various locations	Reduced journey times	Track	Network Rail	0
X West Ruislip facing crossover (16.01)	New crossover between West Ruislip and London Marylebone	Enables new service between West Ruislip and London Marylebone, thus releasing station calls in Birmingham and London services	Track	Network Rail	0

Figure 17 highlights Route enhancement aspirations

Figure 17 Route enhancement aspirations

Project	Project description	Output change	Main asset type(s)	Funding	GRIP Stage / status
Y Chiltern Gauge Clearance (16.01)	Gauge clearance works to allow W9 freight traffic between Ayhno and Neasden junctions (via High Wycombe)	Increased freight capability	Earthworks	Potential NRDF	Aspiration

Non Infrastructure developments

Figure 18 Other projects

Description	Key issues	Actions or options being developed	Benefits	Start date
Smartcard introduction	Revenue protection and flexible ticketing	Discussion with DfT, TfL and ATOC	Revenue increase and potentially demand management improvements	TBC

Appendix

Figure 19 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
16.01	Marylebone – Aynho Jcn	NAJ2 & 3 MJC1	London & SE	DfT	No	W7 (W6)	8 (7)	100 (60)	none	TCB	3 (5) (7) (11)	2
16.02	Neasden South Jcn – Harrow	MJC1	London & SE	DfT	No	W6	8 (7)	75 (60)	none	TCB	4	2
16.03	Aylesbury – Great Missenden	MJC2	London & SE	DfT	No	W6	8	75	none	TCB	9	2
16.04	Princes Risborough Jcn – Aylesbury	PRA	London & SE	DfT	No	W7 (W6)	7	40	none	TCB	15	1
16.05	Freight Lines	OXD MJC3	Freight	DfT	No	W8	8 (7)	30	none	KT TB	various	1

Capacity and operational constraints
A Beaconsfield station: no through fast lines
B Aylesbury – Princes Risborough: single track section
C Marylebone: throat capacity constraint

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).

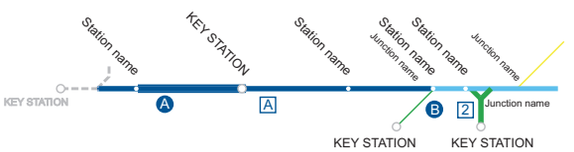
The Route Plan shows in more detail how the strategies set out in the Business Plan will be delivered at a route level across the network, and how we are working with our customers and other stakeholders to improve the performance and utilisation of the network. It presents a portfolio of activities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

Key to route diagrams



Capacity and operational constraints
A Location: capacity or operational constraint

Issues on the route
1 Location: issue on the route

Key planned projects
A Location: planned project on the route

Other symbols
- Key station location
- KEY STATION — Key station on this route
- KEY STATION — Key station on another route
- Other station location
- Station name — Other station on this route
- Junction name — Junction / other landmark

Track descriptions

The colour of the line denotes the route classification
- Primary
- London and South East commuter
- Secondary
- Rural
- Freight only

The width of the line denotes the number of tracks
- Multiple track
- Double track
- Single track

Other lines are shown as follows:
- Line on other route
- Non Network Rail infrastructure
- High Speed One - under construction
- Non operational line

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

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