



Route 10 North Trans-Pennine, North and West Yorkshire

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Today's route

The route comprises the following groups of lines. The relevant Strategic Route Section is shown in brackets:

- rural lines – mainly in East and North Yorkshire carrying local services and, in some cases, freight traffic (10.02, 10.08 and 10.11); and
- freight only lines – mixture of freight only through lines, sometimes used for passenger train diversions, and branches (10.13 and 10.14).
- cross country – from Stalybridge to Hull and Scarborough via Leeds, excluding a short section of the East Coast Main Line around York (10.01, 10.05, 10.06, 10.07 and 10.12);
- urban lines – a selection of routes centred on Leeds carrying PTE sponsored passenger services and, in many cases, freight as well (10.03, 10.04, 10.09 and 10.10);

Route context

The route provides the primary corridor across the Pennines connecting Manchester, Bradford and Leeds. These major cities are then linked by the route with Hull, York and Scarborough, and via Route 8, to the North East. There are also several local lines which add to the spread of the rail network in the area. Much of the route parallels the M62 and its associated motorway links. The fast growing city of Leeds is at the heart of the route.

It carries mixed passenger and freight traffic, providing transport services to local communities, as well as connecting key city

destinations. It serves the three Aire Valley power stations, Hull Docks and a variety of other freight terminals, and is also used by through freight traffic.

We are just starting on the Yorkshire and Humber Route Utilisation Strategy (RUS) on behalf of the industry which will cover this route together with Route 11. The DfT is expected to start its Regional Planning Assessment for the Yorkshire and Humber Region shortly.

Passenger and freight demand

There is a variety of traffic on this route, providing transport services to local communities, as well as connecting key city destinations, both on and off the route. There are many medium distance passenger journey opportunities between major cities and towns for both work and leisure use. Cross-country services operate through Manchester and Leeds to Hull, Scarborough and the North East and between the Midlands, Leeds, the North East and Scotland. There is continuing growth on these services.

Local passenger services are of two types; regular PTE sponsored services in West Yorkshire and more rural services in East and North Yorkshire. The PTE services, in particular, have continued to see a large increase in patronage.

Several lines within the route form key arteries in the long distance rail freight network, particularly the line from Colton Junction via Ferrybridge to Moorthorpe which connects the North East with the Midlands. However, there are several major freight markets on the route itself. The most significant is coal for the three Aire Valley power stations of Drax, Eggborough and Ferrybridge which provide more than 25% of England's electricity. Most of the coal now originates from locations on other Strategic Routes, with the continued reduction in UK coal production, and generates additional tonnages on several lines within the route.

The recent concentration of coal trains from Ayrshire to the Aire and Trent Valley power stations on the line through Skipton has resulted in a significant increase in tonnage on this line. Many of the services have their trunk haul between Scotland and the EWS 'coal hub' at Gascoigne Wood (just west of Selby) in permanent timetable slots running via Shipley, the west end of Leeds, Woodlesford and Castleford. Traffic is then tripped to the different power stations depending on requirements.

There is increasing coal tonnage originating on this route at Hull Docks. Other notable freight flows include intermodal traffic to and from Wakefield

Europort, Selby (Potter Group) and Stourton Freightliner terminal, near Leeds. There is also aggregates traffic from Rylstone quarry near Skipton.

Current services

Figure 1 shows the current level of service to Leeds from principal stations.

Services are provided on this route by Northern Rail, Transpennine Express, Great North Eastern Railway (GNER), Hull Trains, Virgin Cross Country, Midland Mainline, English Welsh & Scottish Railway Ltd, Freightliner Ltd, Freightliner Heavy Haul Ltd and West Coast Railway Company.

The core Transpennine Express operation is between Leeds and Manchester with four tph for most of the day. These extend east of Leeds, one per hour to each of Hull, Scarborough, Middlesbrough and Newcastle (the latter via York). This corridor also carries a number of local services operated by Northern Rail including hourly services from Huddersfield to each of Leeds, and Manchester, and a twice hourly service eastwards from Leeds with one train to York (from Blackpool via Bradford) and one to Selby (from Wakefield via a circuitous route involving Huddersfield and Halifax).

Northern Rail also operate four tph from Leeds to Bradford Interchange including the trains serving Bradford and Wakefield described above and a half-hourly service from Leeds to Manchester via Rochdale. Other services based on Leeds include a half-hourly service to Knaresborough via Harrogate, a half-hourly service to Castleford extended on one half hour to Knottingley (with a couple of trains running to/from Goole) and on the alternate half hour to Sheffield via Barnsley. There is also a relatively new hourly semi-fast service to Sheffield via Wakefield and Barnsley.

The route also has a group of Northern Rail electric local services connecting Leeds, Ilkley, Bradford Forster Square and Skipton, all of which operate on a half-hourly basis. These are supplemented by services operating at slightly more than two-hour

Figure 1 Current train service level (trains per hour)

Originating station	tph to Leeds
Huddersfield	6 peak/5 off peak
Harrogate	4 peak/2 off peak
Skipton	4 peak/2 or 3 off
Ilkley	2
Castleford	2
Hull	1
Manchester	4 via Diggle
Bradford Interchange	4
Scarborough	1

frequencies beyond Skipton to either Carlisle or Lancaster.

There is an hourly West Yorkshire PTE service Wakefield Kirkgate and Knottingley via Pontefract Monkhill.

Away from West Yorkshire, Hull sees half-hourly Northern Rail trains from South Yorkshire and half-hourly off-peak (with additional peak services) from the Wolds Coast line from Scarborough and Bridlington. There are also trains roughly every hour between York and Selby with half of these extending to/from Hull and occasional trains between York and Sheffield via Sherburn in Elmet. As well as the hourly Transpennine Express service between Scarborough and Liverpool, the section

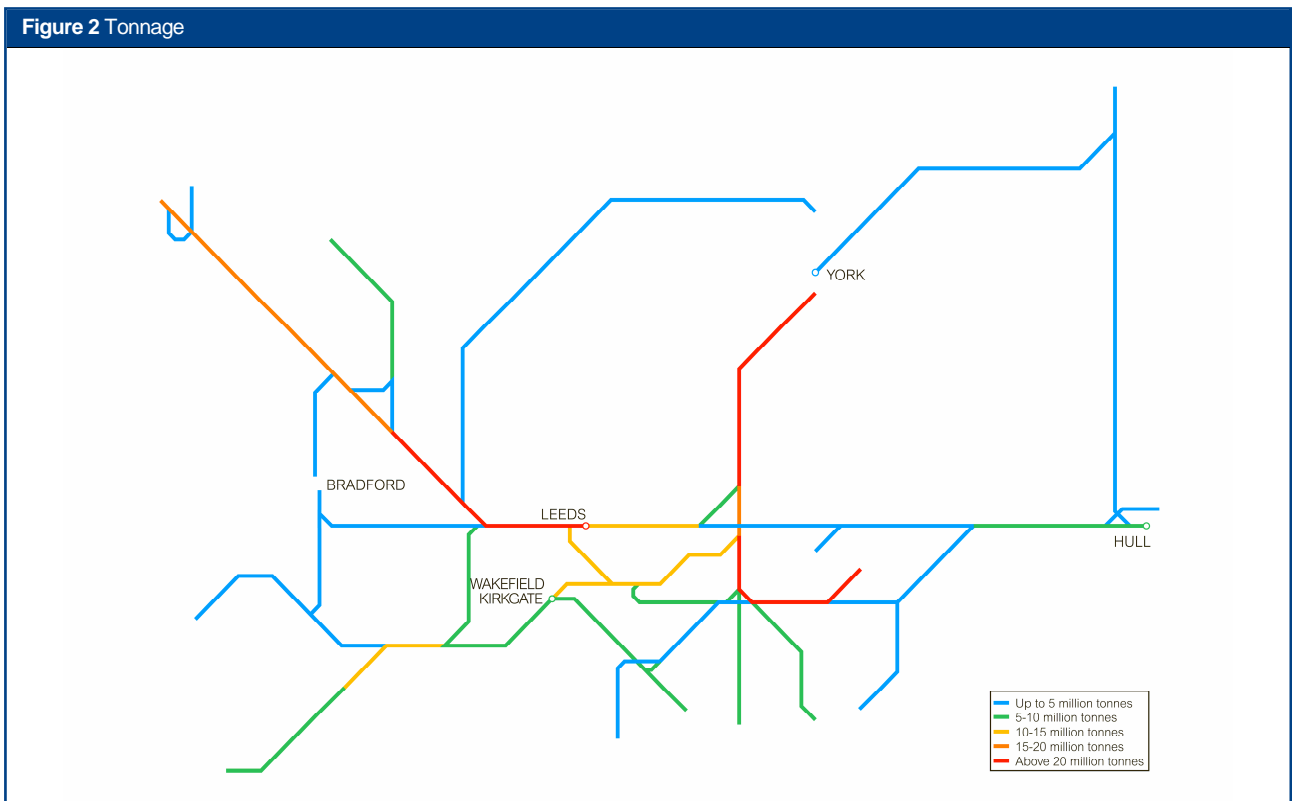
from Scarborough to York is used by additional services in the summer including a Transpennine Express shuttle service and regular steam hauled services operated by West Coast Railway Company.

Hull Trains operates six long distance trains each way per day between Hull and London King's Cross. GNER operates all the trains between Leeds and London King's Cross, and a handful of trains on other parts of the route, with Midland Mainline operating a few trains per day between Leeds and London St. Pancras via Sheffield. The other main passenger service is the hourly Virgin Cross Country service between Scotland, the North East and the West Midlands and South West.

Freight services are described in the previous section.

Current traffic

Figure 2 shows the tonnage levels on the route.



Traffic volumes are summarised in Figure 3.

Figure 3 Current use

	Passenger	Freight	Total
Train km per year (millions)	18	3	21
Train tonne km per year (millions)	2,210	2,751	4,961

Current infrastructure capability

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

Figure 4 Linespeed

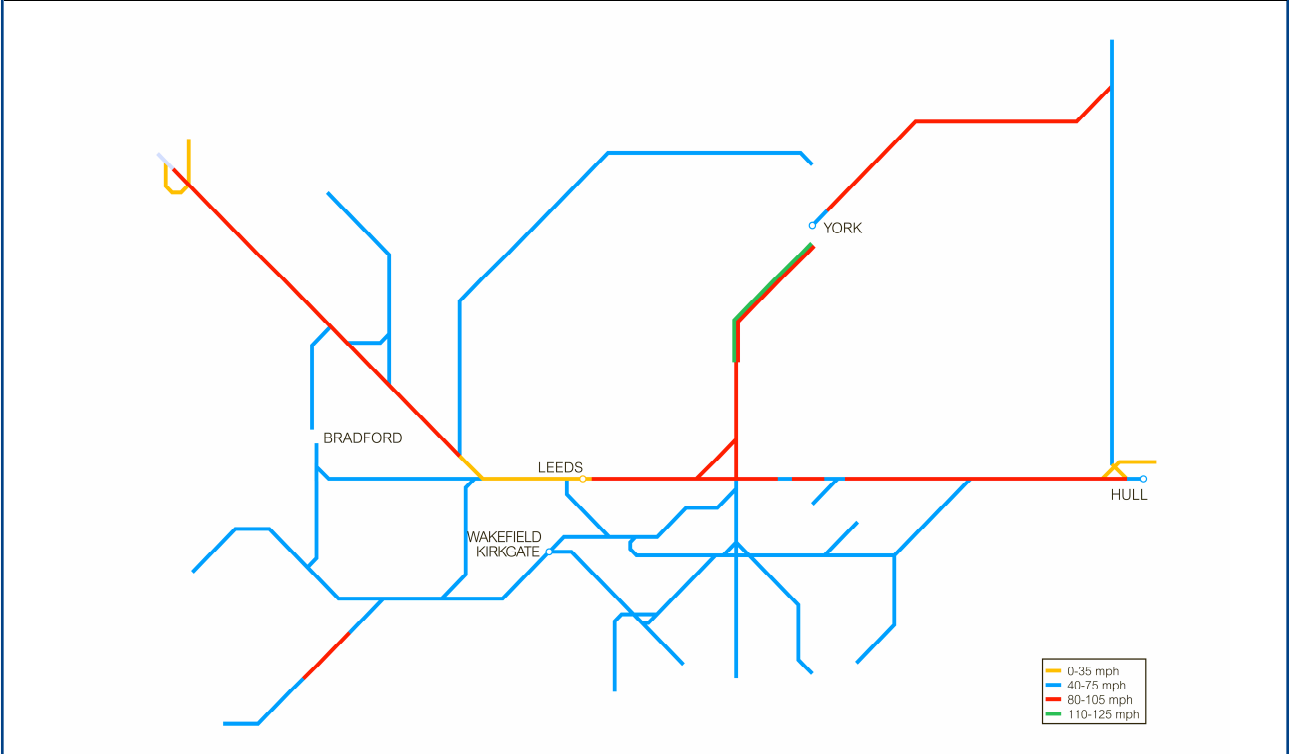
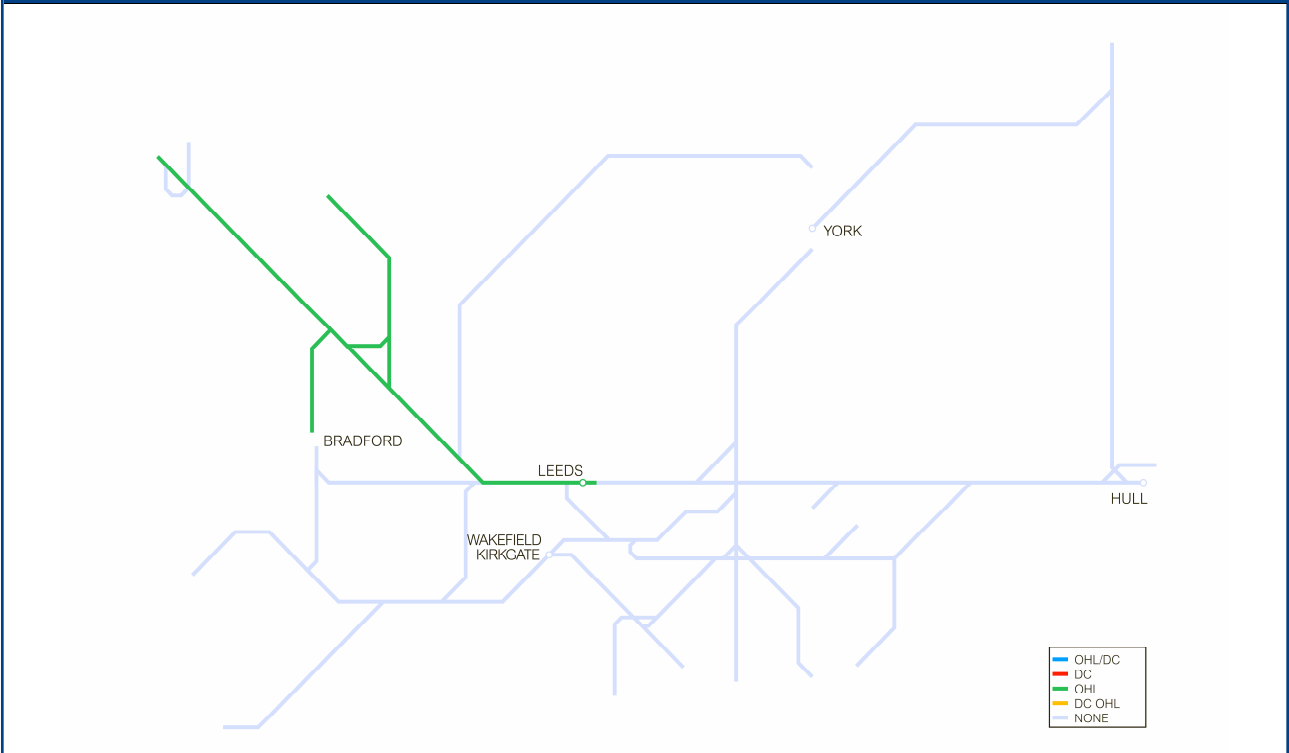


Figure 5 Electrification



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Route 10 North Trans-Pennine, North and West Yorkshire

Figure 7 Route availability

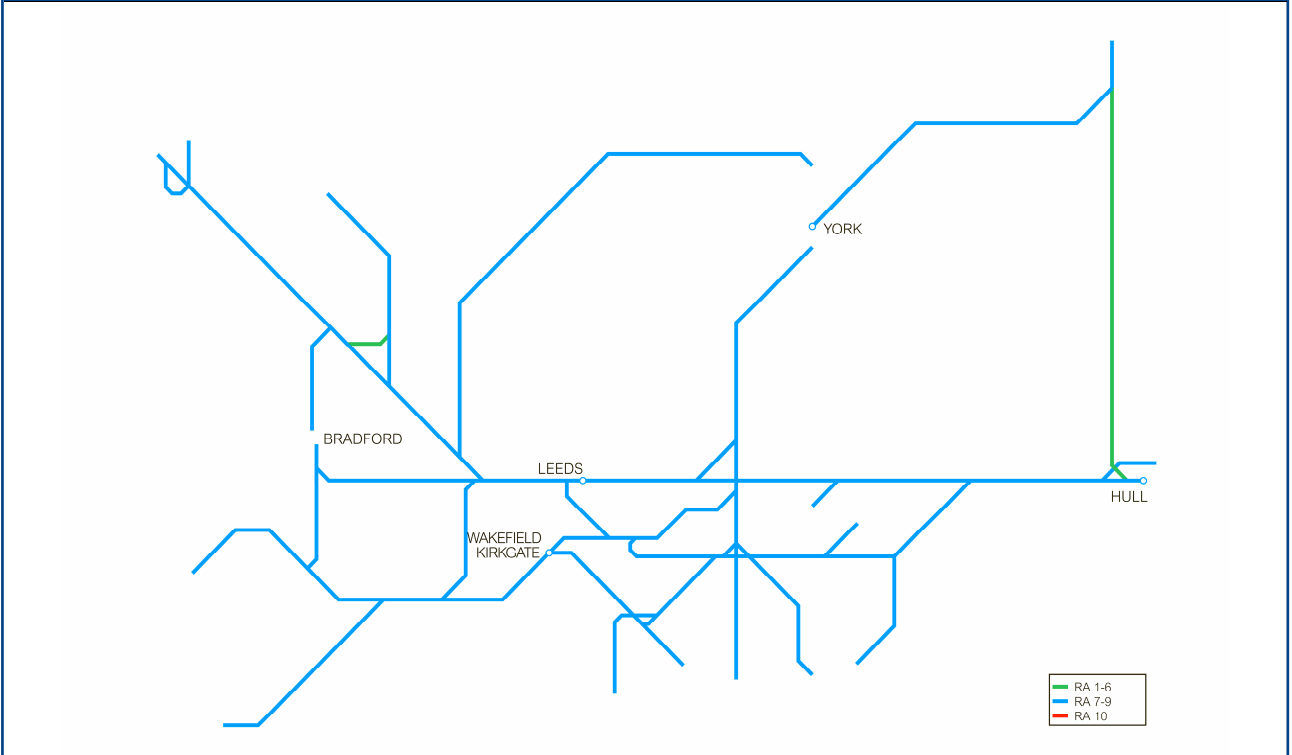
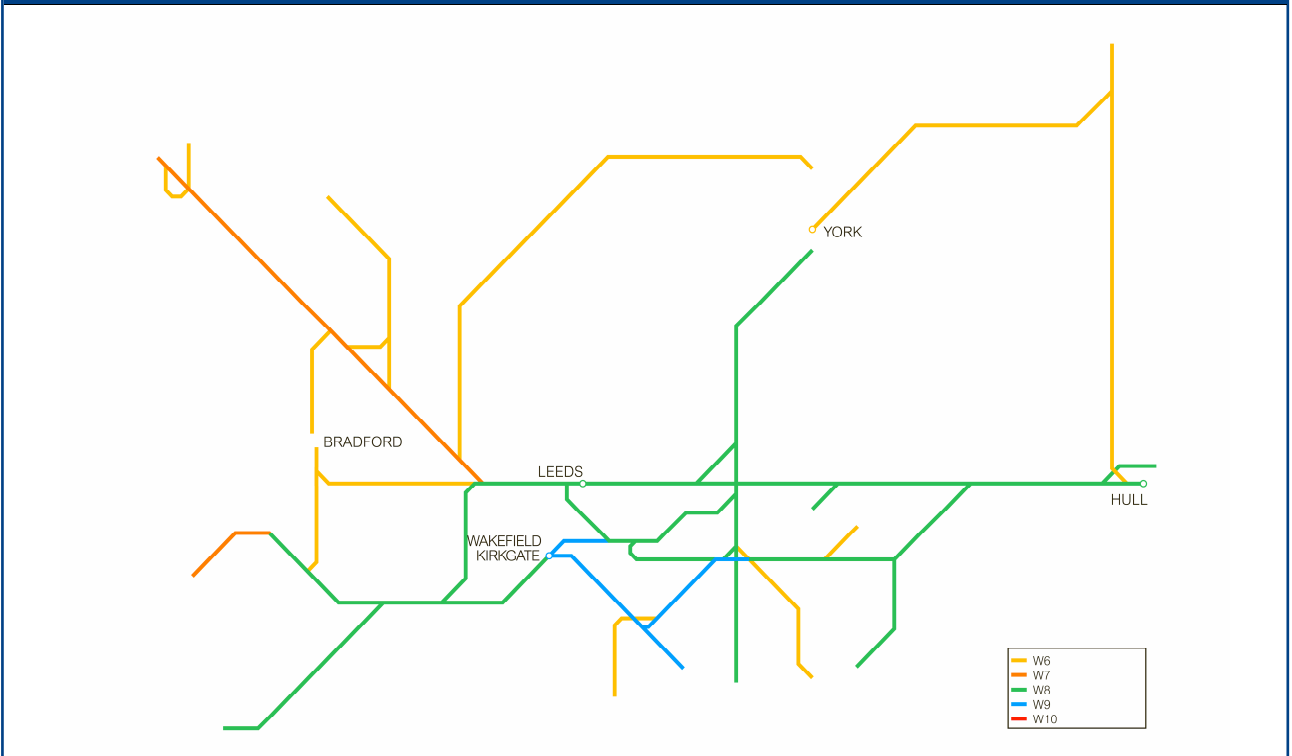


Figure 6 Gauge



Current capacity

The route is operating at or close to capacity on a number of lines, particularly at peak times in the Leeds area.

There are several major capacity constraints on the route:

- Leeds station area: much of the additional capacity provided by the Leeds 1st scheme has now been used;
- Leeds – Micklefield Junction – Church Fenton: busy two track railway with a mixture of fast and stopping services and no overtaking facilities;
- Leeds to Skipton: another busy two track section with stopping and semi-fast passenger trains and heavy freight services, featuring a busy 'at grade' triangular junction at Shipley;
- Leeds – Huddersfield – Stalybridge: largely a two track route with limited overtaking facilities and a mixture of fast and slower services;
- Hull to Gilberdyke; another two track railway with a variety of traffics; and
- Hull Docks branch; partly single track using the Divisible Train Staff method of operation.

Figure 8 shows the current train service level in key sections of the route.

Current performance

The capacity constrained lines listed above also cause performance problems when trains are running out of course, particularly when long distance services are involved.

The new GW train plan which brought additional GW paths to Skipton – Leeds – Castleford corridor from December 2005 is being closely monitored to avoid any detrimental performance effects.

Figure 9 shows the current PPM for the main TOCs running along the route

Future requirements

Strategic direction

Network Rail is starting its work on leading the Yorkshire & Humber RUS on behalf of the industry and wider stakeholders. The RUS will aim to make effective and efficient use and development of the route capacity available, consistent with the funding that is, or is reasonably likely to become, available during the 10 years covered by the RUS.

DfT Rail is also expected to commence their Regional Planning Assessment (RPA) for the Yorkshire and Humber Region shortly and to complete their review of the Northern Rail franchise. The latter will form an input to the RUS while we hope to exploit synergies with the Regional Planning Association RPA process.

Future demand

The RUS process will require much demand analysis and so both the Yorkshire and Humber RUS and Freight RUS will identify future requirements for the route in more detail and will allow a more quantitative analysis in next year's Route Plan. However, the following gives an overview of issues already being considered while scoping the RUS work.

Figure 8 Current train service level (peak trains per hour)

Route section	Main Lines
Neville Hill – Micklefield	9
Wortley Junction – Apperley Junction	9
Bradley Wood Junction – Huddersfield	8
Gilberdyke – Hessle Road Junction	6

Figure 9 Current PPM MAA (2005/06)

TOC	MAA	As at period
GNER	81.5%	10
Northern Rail	86.1%	10
Transpennine Express	77.4%	10
Virgin Cross Country	80.2%	10
Midland Mainline	92.0%	10

Urban and regional journeys between major conurbations are expected to continue growing. In particular, demand on the cross-country services operating through Manchester and Leeds to Hull, Scarborough and the North East is expected to continue to increase significantly with the introduction of new class 185 units which will not only offer a new level of passenger comfort but, subject to pathing, should be able to offer some improved journey times. Their introduction will also provide additional seating capacity which will alleviate current overcrowding on certain services as all trains will be formed of either three or six cars.

PTE services are also expected to see further increase in patronage as roads in West Yorkshire continue to become more congested.

Open access operator Grand Central is wishing to operate 4 trains each way per day between London and Bradford Interchange via Wakefield Kirkgate and Halifax.

In their bid for the new East Coast Main Line franchise, GNER proposed extension of the route's electrified lines by adding Neville Hill to Hambleton South Junction to allow additional services to operate between Leeds and London.

A new parkway station in the Micklefield area was also proposed, primarily aimed at increasing the market for London journeys but it is likely to improve other passenger markets as well.

Freight growth is expected to be associated mainly with further increases in coal from Hull Docks, particularly if the scheme to increase capacity on the Hull Docks branch goes ahead, and with container traffic from the East Coast ports. The growth in the latter will be largely determined by which lines into the ports, and other core arteries, are cleared for deep sea 9'6" containers. In particular, there is a need to understand what additional growth would be stimulated by gauge clearance of the North Trans-Pennine corridor.

Figure 10 indicates percentage change in tonnage to 2015.

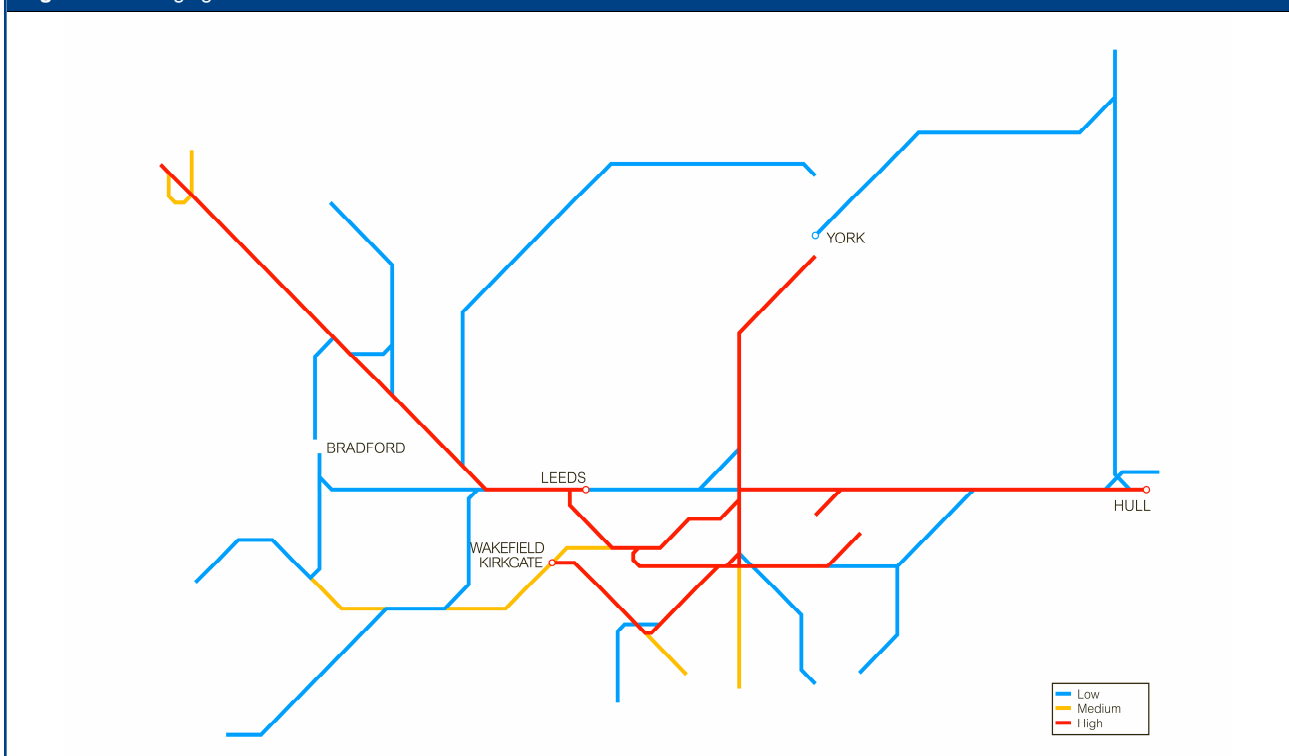
Future capability

Network Rail is working with Transpennine Express to look at options to allow Class 185's to operate at current sprinter speeds on the routes between York and Scarborough and Micklefield Junction and Hull. Whilst it may not be possible to operate these trains at the higher speed at some locations, the better acceleration of these trains on other sections of the route should help to offset the affect of running at the non sprinter speeds.

On other lines journey times are primarily dependant on stopping patterns rather than maximum speeds.

The reconstruction of two bridges should allow the withdrawal of heavy axleweight speed restrictions between Wakefield and Leeds.

Figure 10 Tonnage growth



Our S&C renewal at Bradford Mill Lane may improve operational flexibility by increasing the opportunities for parallel movements between Halifax and Leeds into Bradford. Similar work planned at Church Fenton may also allow increased speeds for trains crossing between the

Normanton and Leeds lines which would make the section of line between Church Fenton and York more flexible.

Extension of the proposed Yorkshire Horseshoe electrification core scheme to Selby and Colton Junction would allow the PTE sponsored services east of Leeds to be accelerated but this would require some additional electric units.

Following the HPUK Ltd project to provide W10 gauge clearance (for 9'6" deep sea containers on standard deck height wagons) from East Anglia to various terminals in Yorkshire, the next steps to consider would be extension of the W10 network to Hull Docks (from both Selby and Doncaster) and across the Pennines via Huddersfield. The former would directly help the rail market in respect of Associated British Port's new container facility. The latter would allow Manchester to receive 9'6" containers from both Hull and Immingham (subject to the necessary gauge work south of the Humber) but could also allow some traffic from Felixstowe and Bathside Bay to the North West to avoid the Great Eastern Main Line into London and the West Coast Main Line.

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 presently 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 Drax Junction – Goole.

Future capacity

The signalling headways generally appear adequate. Capacity on the route is primarily governed by the train occupation of junctions and whilst calling at stations rather than headways on plain line sections. Generally additional train path capacity will require significant infrastructure enhancement.

There are plans to extend the platform lengths at stations between York and Leeds, via Harrogate and on the Calder Valley line to provide additional passenger capacity without requiring extra train paths.

We are working with Yorkshire Forward and Associated British Ports on developing a project to increase the capacity of the Hull Docks Branch.

Future performance

Figure 11 shows the forecast reduction in Network Rail delay minutes compared with 2005/06.

There are plans to increase the line speed across the pointwork approaching Healey Mills Yard from the east in 2006/07. New interlocking control at Healey Mills will result in the closure of Elland and Greetland signal boxes

The roll out of the new Train Regulation Policy to improve performance is underway with the first briefings being undertaken ready for implementation in April 2006.

An area Autumn review has taken place and actions identified to manage leaf fall for Autumn 2006. Our Area Delivery Groups are continuing to renew fencing and undertake vegetation clearance to reduce the risk of route crime and train delays and impact on performance.

Major signalling renewals are being undertaken at Oakenshaw to renew signal interlocking and transfer control from Wakefield Kirkgate.

The introduction of Class 185's with their superior acceleration compared with the current class 158s will give some performance benefit until the December 2006 timetable when the trainplan will try to make the most of the improved running times.

Figure 11 Forecast reduction in delay minutes

	2006/07	2007/08	2008/09
% reduction in delay minutes	10%	16%	24%

Figure 12 Forecast PPM MAA

TOC	2006/07	2007/08	2008/09
GNER	83.6%	85.5%	87.7%
Northern	86.7%	87.5%	88.3%
TPE	88.7%	90.5%	91.4%
Virgin Cross Country	81.6%	83.5%	84.3%
Midland Mainline	91.4%	91.6%	91.6%

Figure 12 shows the forecast PPM for the main TOCs running along the route.

Engineering access

There are currently no major engineering access issues for the route.

Opportunities and challenges

As mentioned above, we are just starting work on the Yorkshire and Humber RUS on behalf of industry and wider stakeholders.

The suggestion of the Yorkshire Horseshoe in the GNER franchise bid offers some challenges for the line east of Leeds but also offers good opportunities for the area as well. The parkway station close to the A1/M1 link road, at which all long distance services could call, would be likely to generate significant additional passenger journeys. This will be examined within the RUS.

Delivering future requirements

Expenditure

The table below shows the planned level of expenditure on renewals on this route over the next five years. The most significant individual renewal items are outlined in the individual asset sections,

which follow. 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.

Figure 13 Forecast expenditure

£m (05/06 prices)	2006/07	2007/08	2008/09
Renewals			
Track			
Plain Line	25	21	20
S&C	5	6	5
Drainage	0	0	0
Track Total	30	27	26
Civils			
Underbridges	3	7	4
Overbridges	1	1	2
Bridgeguard 3	1	0	–
Footbridges	–	0	–
Earthworks	2	2	–
Tunnels	3	2	1
Culverts	0	–	0
Retaining walls	–	–	0
Major structures	–	–	0
Other	0	–	1
Civils Total	10	13	8
Signalling			
Resignalling	15	2	2
Minor works/other	8	5	6
Signalling Total	23	7	8
Electrification			
AC Systems			
Other	0	–	–
Electrification Total	0	–	–
Telecoms			
CIS systems	1	–	–
Other	0	0	–
Telecoms Total	1	0	–
Plant and machinery			
Fixed plant	0	1	1

Signal supply point	0	0	0
Point heating	0	0	0
Plant Total	1	1	1
Operational property			
Stations	2	0	10
Lineside buildings	0	1	2
Operational property Total	2	1	12
Total Renewals	67	49	54
Enhancements (funded by)			
Network Rail (RAB)			
Church Fenton S&T line speeds	0	0	5
Other	0	1	–
Network Rail (RAB) Total	0	1	5
Other Third Party			
Hull Dock Branch capacity enhancements	0	7	–
Kirkstall Forge proposed new station	0	2	–
Other	0	0	–
Other Third Party Total	1	9	–
Total Enhancements	1	10	5

Figure 14 Forecast volumes

	2006/07	2007/08	2008/09
Track			
Rail (km)	29	28	28
Sleepers (km)	31	30	29
Ballast (km)	50	47	47
Switches & crossings (no)			
Complete renewal	7	8	8
Partial renewal/reballasting	9	10	10
Drainage (km)			
	1	1	1
Civils			
Underbridges (square metres)	625	2,629	1,106
Overbridges (square metres)	520	983	1,070
Footbridge (square metres)	–	50	–
Embankments (square metres)	6,128	4,690	–
Tunnels (square metres)	2,314	2,211	2,201
Culverts (square metres)	21	–	15
Retaining walls (square metres)	–	–	160
Major structures (square metres)	–	–	–
Signalling			
Resignalling (SEUs)	159	237	–
Plant and machinery			
Signal supply point (no)	–	4	2
Point heating (point end)	6	14	8

The planned volume of renewals is detailed in Figure 14.

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 15 shows the planned level of expenditure on maintenance on this route over the next three years.

Figure 15 Forecast expenditure

£m (05/06 prices)	2006/07	2007/08	2008/09
Maintenance	32	29	27

Infrastructure investment

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

Figure 16 Planned infrastructure investment							
Project	Scope	Enhancement or output change	Main asset type(s)	Third Party funding	GRIP stage	Completion year	
A	Park Road Bridge nr Pontefract (10.09)	Reconstruction	Improved asset condition and route capability	Structures	None	3	2006/07
B	Knottingley S&C (10.08)	Reballast	Life extension	Track	None	4	2006/07
C	Healey Mills (10.09)	Turnout & linesside signalling equipment renewal	Improved asset condition and line speed increase	Track & signalling	None	5	2006/07
C	Healey Mills	New Signal Interlocking and recontrol of Eiland and Greetland Signal Boxes	Improved asset condition and signal box rationalisation	Signalling	None	4	2007/08
D	Ferrybridge & Knottingley wire degradation (10.08)	Renewal of signal interlocking	Improved asset condition	Signalling	None	6	2006/07
E	Bradford Mill Lane S&C (10.04)	Renewal	Improved asset condition	Track	None	1	2007/08
F	Selby Canal Bridge (10.07)	Reconstruction	Improved asset condition and route capability	Structures	None	4	2007/08
G	Wakefield Kirkgate/Oakenshaw wire degradation (10.09)	Renewal of interlocking and transfer of signalling control from Wakefield Kirkgate to Oakenshaw	Improved asset condition	Signalling	None	4	2007/08
H	Halifax S&C (10.04)	Renewal	Improved asset condition	Track	None	1	2008/09

Figure 16 Planned infrastructure investment

L	Ferrybridge Jn S&C (10.08)	Renewal	Improved asset condition	Track	None	1	2008/09
E	Driffield S&C (10.11)	Renewal	Improved asset condition	Track	None	1	2008/09
K	Church Fenton S&C (10.06)	Renewal	Improved asset condition	Track	None	1	2008/09
O	Leeds Voice Activated Public Address renewal (10.01)	Renewal	Improved asset condition	Telecoms	None	1	2006/07

The following table highlights uncommitted schemes under development.

Figure 17 Infrastructure investment under consideration

Project	Scope	Enhancement or output change	Main asset type(s)	Status	
E	Bradford Mill Lane S&C (10.04)	Revised track layout	Improved linespeed and increased opportunity for parallel moves	Track, signalling	In development for Network Rail Discretionary Funding in association with an S&C renewal
L	W10 Gauge Clearance (10.07, 10.09 and 10.13)	Gauge clearance of the East Coast diversionary route to various Yorkshire Terminals in connection with the port developments at Felixstowe and Bathside Bay	To accommodate the carriage of deep sea container traffic from the ECML to Leeds Stourton and Selby (Potter Group) Terminals on this route	Structures, track, signalling	In development for funding by port operator
K	Church Fenton S&C (10.06)	Higher line speed over the junction	Improved capacity and performance	Track	In development for Network Rail Discretionary Funding in association with an S&C renewal
M	Platform Extensions York to Leeds via Harrogate and Leeds to Manchester via the Calder Valley	Platform extension to accommodate 4 car Sprinter trains	To accommodate future growth	Station	In development by West Yorkshire Passenger Transport Executive.

Figure 17 Infrastructure investment under consideration

Project	Scope	Enhancement or output change	Main asset type(s)	Status
Route (10.02 and 10.10)				
<ul style="list-style-type: none"> N Hull Docks Branch (10.14) 	Optioneering to examine opportunities to increase track capacity on the docks branch	Improved capacity, performance and route capability	Track	In development for funding by a Third Party

Non-infrastructure developments

There are currently no recorded non infrastructure developments.

Figure 18 strategic route sections												
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
10.01	Leeds – Holbeck West Jn	DOL2	Primary	DfT	No	W8	RA8/9	25 (40))	25kV	TCB	3 mins	2
10.02	Harrogate Line	HAY1/2	Rural	DfT	No	W6	RA8	60 (65)	None	Various	Various	2(1)
10.03	Leeds North West	TJC3	Secondary	DfT	No	W7	RA8	90 (25)	25kV	TCB	5 (6)	2(1)
10.04	Bradford Interchange Lines	LBE	Rural	DfT	No	W6	RA8 (RA6)	60	None	TCB	4 (11)	2
10.05	NTP: Holbeck East Jn – Stalybridge	MVL3/4/ MDL1	Secondary	DfT	No	W8	RA9 (RA8)	70 (80/60)	None	TCB?	4	2(3)
10.06	Leeds – Colton Jn	HUL4/ CFM/ NOC	Secondary	DfT	No	W8	RA8 (RA9)	90	None (25kV)	TCB	4 (3)	2
10.07	Hull – Mickelfield Jn	HUL1/2/ 3	Secondary	DfT	No	W8 (W6)	RA8	90 (75)	None	AB (TCB)	5	2
10.08	Gilberdyke Jn – Thorne Jn and Knottingley West Jn plus Church Fenton Jn – Moorhorpe	TJG	Secondary	DfT	Yes	W8	RA8	70	None	AB (TCB)	4	2

Figure 18 strategic route sections

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
10.09	Knottingley West Jn – Thornhill Jn (via Crofton Jn and via Castleford Jn) – Leeds West Jn	WAG/C PM	Secondary	DfT	No	W8 (W9)	RA8	60 (50/25)	None	TCB (AB)	5	2
10.10	Rochdale East Jn – Heaton Lodge Jn/Bradley Jn	MVN2	Secondary	DfT	No	W7/W8	RA9 (RA8)	60 (70)	None	AB (TCB)	6	2
10.11	Hull – Seamer	HBS	Rural	DfT	Yes	W6	RA6 (RA7)	70 (40)	None	Various	Various	2(1)
10.12	York – Scarborough	YMS	Rural	DfT	No	W6	RA8	90 (75)	None	AB (TCB)	8	2
10.13	Freight Through Branches	Various	Freight	DfT	No	W8 (W6)	RA8 (RA9)	Various	None	TCB (AB)	Various	2
10.14	Freight Branches	Various	Freight	DfT	No	W6/W8	Various	Various	None	Various	Various	1(2)

Capacity and operational constraint

- A Harrogate – York: single-line and level crossings
- B Bradford Interchange: S&C and curvature
- C Halifax: S&C and curvature
- D Halifax – Bradley Junction: S&C and curvature
- E Church Fenton – Moorthorpe: gradients, S&C and curvature
- F Drax Branch Junction – Goole: single-line and level crossings
- G Wakefield – Pontefract: level crossings and track geometry
- H Leeds: S&C and curvature
- I Huddersfield: S&C and curvature
- J Marsden: curvature on approach to Standedge tunnel
- K Selby: curvature at Swing Bridge
- L York – Malton: curvature and level crossings
- M Hull: curvature and S&C
- N Goole Swing Bridge: load bearing capacity