railfuture
EAST ANGLIA

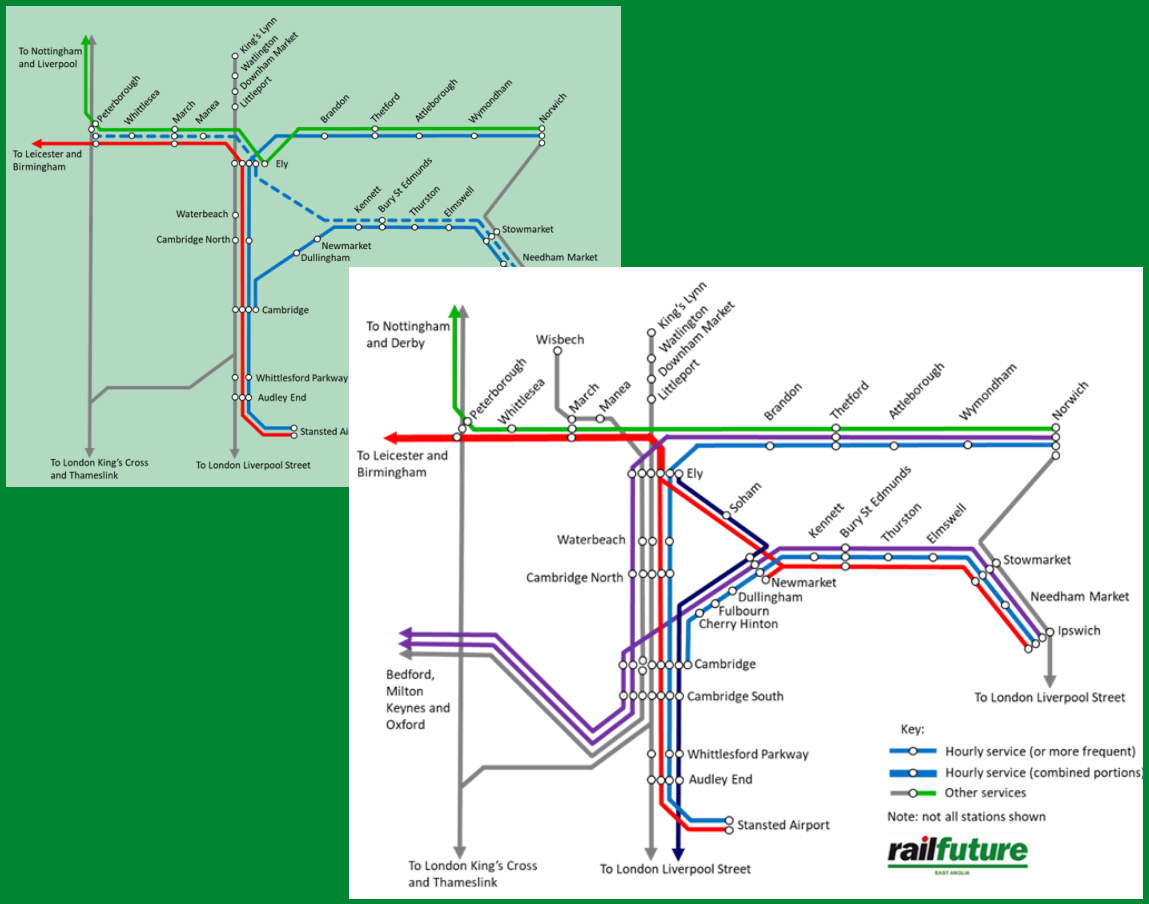
From Rural Branch to Main Line

Upgrading the Mid-Anglia Route

This paper looks at the limited capacity on the Mid-Anglia line and proposes incremental interventions to meet growing demand in both passenger and freight markets, including the creation of a new rail hub at Newmarket.

Part 1 argues that the line should capitalise on the anticipated arrival of 'East West Rail' into Cambridge and develop services eastwards to Ipswich.

Part 2 presses the case for electrification and capacity improvements to attract deep-sea container traffic to and from Felixstowe away from the A14 and onto rail.



Part 1 The Passenger Network

Description of the Mid-Anglia line

The Mid-Anglia line runs east to west linking the Great Eastern Main Line (GEML) with the West Anglia Main Line (WAML). It leaves the GEML at Haughley Junction north of Stowmarket in Suffolk, serving the town of Bury St Edmunds before dividing at Chippenham Junction. The right fork leads to Ely, the left fork to Cambridge via Newmarket. An hourly service runs between Ipswich and Cambridge and an alternate hour one (i.e. every two hours) via Ely between Ipswich and Peterborough, where it meets the East Coast Main Line (ECML)

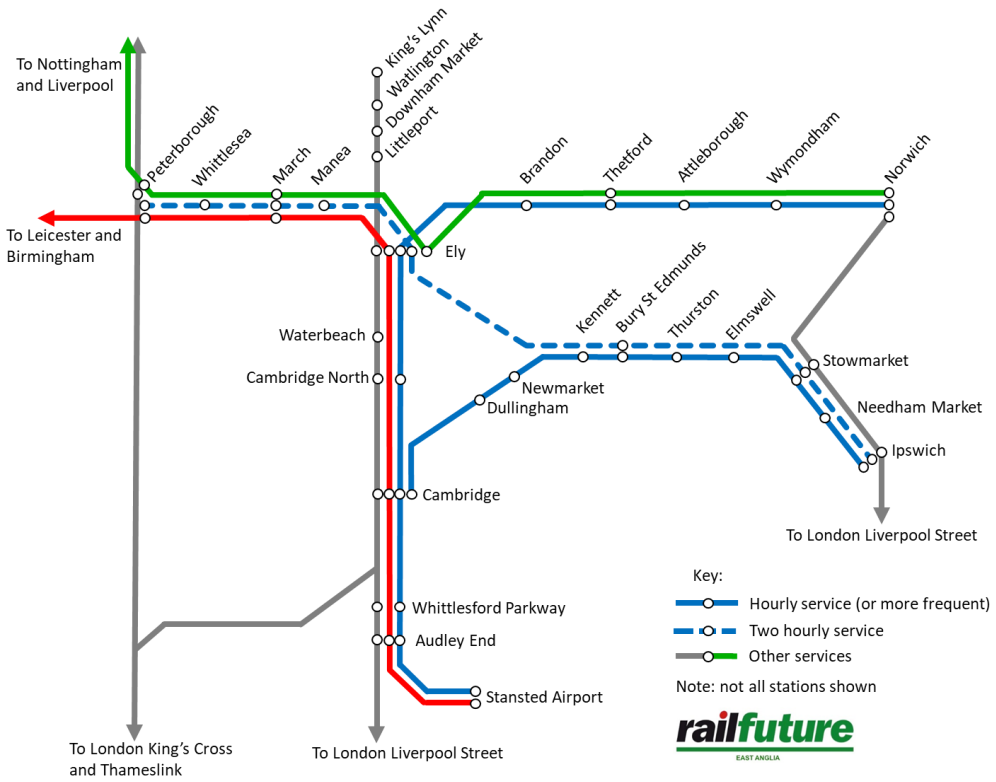


Fig.1 General diagram of the Mid-Anglia line with service pattern

A brief history

The present route comprises lines developed by no fewer than four separate companies in the 19th century. The section between Haughley Junction and Bury St Edmunds was opened on Christmas eve 1846 by the **Eastern Union Railway** (EUR).

In the same year the **Newmarket Railway** (NRly) was incorporated to link the town with the **Eastern Counties Railway** (ECR) at Gt.Chesterford, broadly following the line of today's A11 road. It opened in January 1848.

The 'Cambridge Branch' opened in October 1851 joining the NRly at Six Mile Bottom. It soon became apparent that this would become the preferred route to Newmarket and the line south of Six Mile Bottom closed the same year.

Meanwhile the NRly was extending the line to meet the EUR at Bury. It was opened on April 1st 1854 by the ECR who acquired the NRly the previous day!

Although in 1847 the NRly had obtained authorisation to build a line to Ely, it took until 1879 for this route to be opened by the **Great Eastern Railway** (GER), an 1862 amalgamation of the EUR, ECR and East Anglian railways.

The final piece of the jigsaw was the completion in 1896 of the **Newmarket Curve** between Chippenham and Snailwell junctions, allowing trains from Ely to access the line to Ipswich without reversing at Newmarket.

All lines described above were built with double track except for the section between Soham and Ely which remains single track to this day.

Reduction in capacity 1960s-1990s

Although the only casualty of the notorious Beeching axe in the 1960s was the section of line from Newmarket to Ely between Warren Hill tunnel and Snailwell Junctions (the remainder of the route now only carries trains between Ipswich and Peterborough), the 1980s and 1990s saw a range of cost cutting measures introduced by **British Railways** (BR).
The first was to reduce the line between Cambridge and Newmarket to single track with a passing loop at Dullingham, while the second reduced capacity at **Ely North Junction** where the line from Cambridge forks in three directions, to Peterborough, to King's Lynn and to Norwich. The latter two lines have a *single lead* into the Peterborough line, limiting the ability of trains to pass one another on the junction.

Such reductions in capacity were symptoms of the *managing decline* philosophy that assumed the drift towards private road transport would continue for all but long distance journeys. The view of railways as a subsidised drain on the UK economy was taken to its extreme with publication of the Serpell Report (1983) which suggested that, in pursuit of a profit making railway, not only would the Mid-Anglia lines be closed but even Cambridge would lose its service!

Growth since the 1990s

The graphs in fig.2 show the contrasting fortunes of rail and road transport since the 1950s and how these trends have reversed since the mid 1990s.

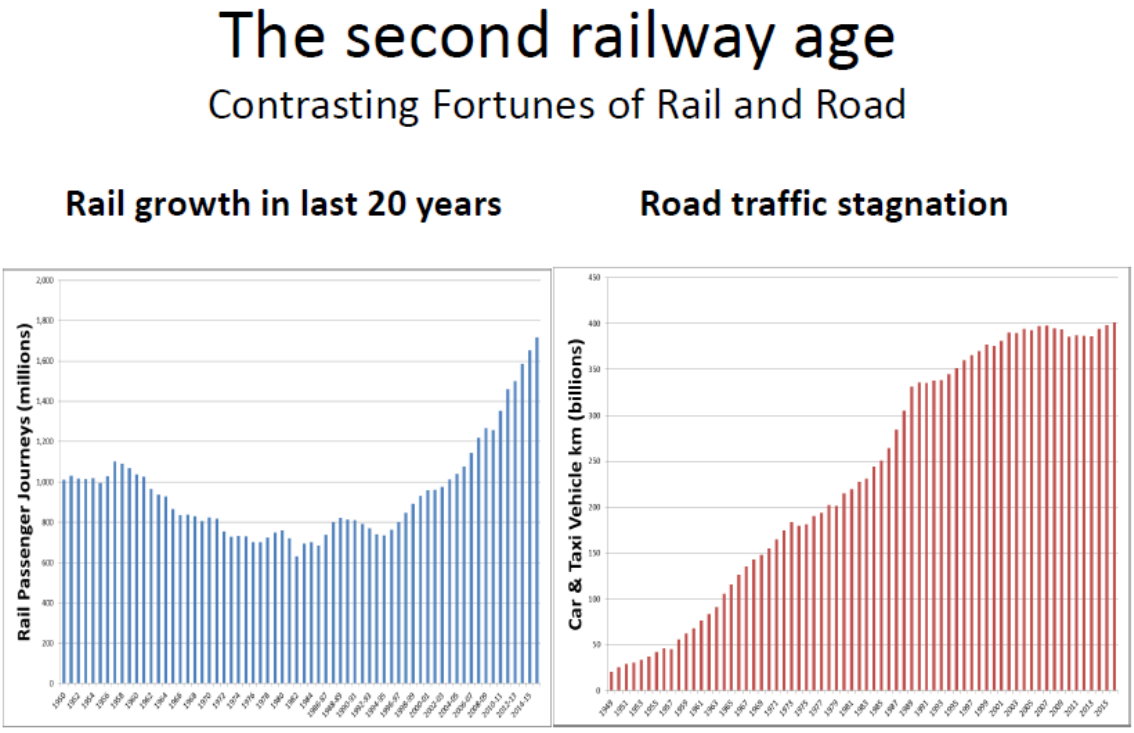


Fig.2 Rail and motoring trends. Source: Department for Transport

Future trends in the travel market

Growth in the rail passenger market has been achieved in spite of rail fare increases that have outpaced inflation for much of the last 20 years, while that of road traffic has slowed despite a freeze in fuel duty. Some pretty powerful forces must therefore be at work. Among these are:-

1. Fewer young people are taking up motoring. The high cost of car insurance and student debt are significant factors, but so is the fact that we are sending more young people to universities in cities where public transport is on tap and timetable information available on a mobile phone. Forty years ago two thirds of 19-year-olds had driving licences, today only one third do.

2. The growth in car ownership that drove the trend in road traffic in the 1950s, 60s and 70s has peaked. There is no longer suppressed demand in a saturated market.

3. More people are choosing to live in towns and cities where we are likely to be near a rail station.

4. Rail companies have seized the opportunity offered by technology. Laptops, tablets and mobile phones supported by on-train wi-fi have transformed trains into offices, shops, banks and cinemas as well as being a means of getting around.

5. Changes to the taxation of company cars have made this option less attractive. Plus time spent in traffic jams is less productive than working on the train.

6. House prices in London, but also in cities such as Oxford and Cambridge, have forced people to commute over greater distances.

7. Train services are now guaranteed in franchise specifications and no longer threatened with withdrawal or line closures. This greater confidence allows people to plan their lives around rail services.

The above factors, allied to the drive for more environmentally friendly travel choices, will ensure that the trend is likely to continue.

How can rail meet this demand?

Until now, the railway has managed to cope with the increased demand.

1. Trains have been lengthened by adding carriages.
2. More seats have been squeezed into carriages at the expense of leg room, luggage space or even toilets!
3. More trains have been run on the network using spare capacity.

Now, however, the railway industry has harvested all the low hanging fruit. There is no room left on the track and there are limits to how many more trains that can run with existing signalling systems. Double-decker trains will not fit without raising bridges and enlarging tunnels at prohibitive expense. Longer trains require longer platforms which is not practical in some locations. The only answer, then, is to reinstate some lines and track as well as planning new routes such as **Crossrail**, **HS2** and **East-West Rail**

Railfuture's proposals for the Mid-Anglia line

The Mid-Anglia line has experienced a faster rate of growth in passenger numbers than the national average (see fig. 3), in large part due to a population increase and associated house building in Cambridge and Ipswich travel to work areas.

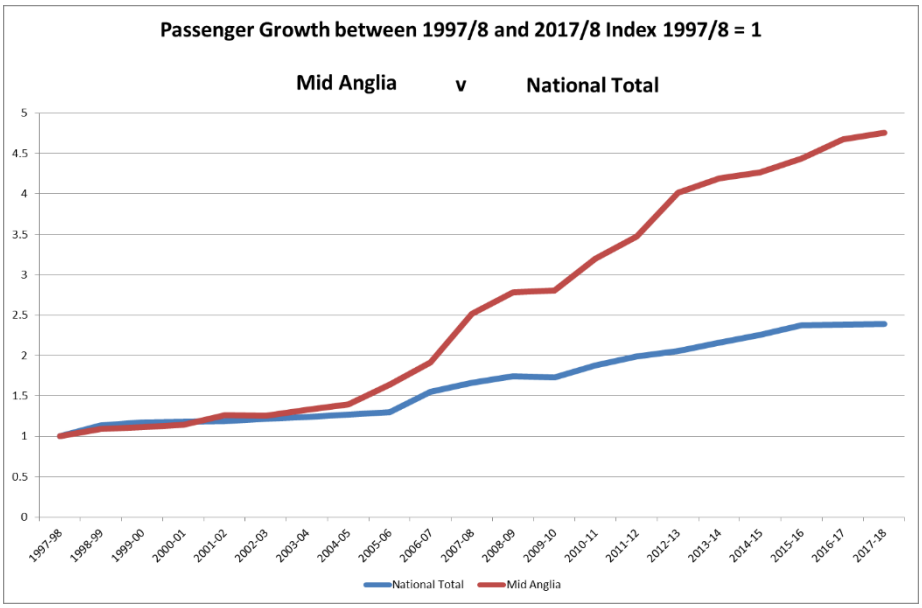


Fig. 3 Passenger numbers compared with the national average. Footfall at intermediate stations between Cambridge and Ipswich only

Forecast modelling

Network Rail forecasts that growth will continue and the number of passengers almost double over the next 10 years. However, its method of calculating this is determined by the Department for Transport (DfT) and based on national growth rates over the previous decade. **Railfuture** believes this to be a significant *underestimate* and bases this conclusion on the following factors:-

1. Growth in footfall on the Mid-Anglia line has been more than twice the average for the UK over the past 20 years and growth at Cambridge has outstripped the national average by a factor of five.

2. Growth in use of the line has been suppressed by poor frequency and overcrowding whereas capacity on other lines has increased.

3. The train operating company is introducing new, larger and faster trains this year (2019) and this is likely to increase the number of users.

4. The arrival of **East West Rail** will increase the range of destinations available by rail by 2029 as will the reinstatement of connections to Soham and Ely outlined later in this paper.

5. The increase in service frequency associated with these extra services will offer a further incentive to travel by rail by removing *connection anxiety* at Cambridge and Ipswich. (Passengers arriving from London who wish to connect onto the Mid-Anglia currently face an hour's wait if they miss their connection.)

Railfuture proposes building on the current network using a step-by-step approach to introduce additional capacity.

Doubling the line between Newmarket and Cambridge

In its **2019 Cambridge corridor study**, Network Rail proposes to double only a short section of this line at the Cambridge end. This would permit two trains per hour along the route as far as Newmarket. Although it claims this would be sufficient to meet demand to 2043, it would be of no benefit to Bury St Edmunds — which would remain limited to one train per hour to Cambridge. It would also expose services to *performance risk* as — by leaving most of the line as single track — a late-running train in one direction would impact on the one in the opposite direction.

Railfuture believes that the line should return to double track over the entire length between Cambridge (Coldhams Lane junction) and Newmarket (Warren Hill tunnel). Although Warren Hill tunnel was only constructed for a single track and the cost of converting to double track would be prohibitive, as it is only 1 km long it does not present a significant timetable limitation.

This proposal would avoid the need to site signals and pointwork in remote locations away from ready power supplies.

Haughley Junction

As described above, this is the junction between the Mid-Anglia and the main Ipswich to Norwich main line (GEML). It is a single lead junction, where both 'up' (westbound) and 'down' (eastbound) lines merge before joining the main line. Converting this to a full double track junction would enable a second, semi-fast Ipswich to Cambridge service to run alongside the existing stopping service as well as an Ipswich to Peterborough train every hour. This improvement would also provide sufficient capacity for the three London to Norwich trains and the increasing number of freight trains using the route (see later section on freight). The strategic outline business case for this work is supported by the Suffolk Growth Programme Board and is likely to cost around £15m.

Service benefits

The combination of *semi-fast* and *stopping* services between Ipswich and Cambridge permits the current hourly service to be maintained for the intermediate stops at Needham Market, Elmswell and Thurston as well as including Kennett and Dullingham (currently served on alternate hours) in the hourly pattern. The major stations at Stowmarket, Bury St Edmunds and Newmarket would, meanwhile, benefit from two trains per hour (TPH) and the overall journey time between Ipswich and Cambridge be brought under an hour from the current hour and twenty minutes. This would not only permit the railway to compete effectively with the A14 but also overcome the problem of *connection anxiety* described earlier.
In addition, separating the stopping service would permit the provision of additional stations at Cherry Hinton and/or Fulbourn near Cambridge to serve these growing communities.

Establishing a faster service between Ipswich and Cambridge would also anticipate the arrival of **East West Rail**, when these services will form part of the route from East Anglia via Cambridge South (new station) to Sandy, Bedford, Bletchley/Milton Keynes, Bicester and Oxford, dramatically improving journey opportunities to neighbouring regions.

Station Capacity

All stations on the route between Ipswich and Cambridge have two platforms with the exception of Newmarket. Here the provision of double track between Cambridge and Warren Hill presents a problem, since the old 'up' (westbound) platform has been dismantled and the site given over to housing development. By a quirk of history, this former platform site lies within Cambridgeshire while the track bed and current station platform is in Suffolk. However, this only uses a short section of the original platform which is still intact.

This legacy and the potential for additional capacity can best be appreciated by referring to figs. 4 to 6 below. The split platform arrangement has recently been done in Cornwall at Penryn Station.

Fig. 4 Looking towards Ipswich with the alignment of the former up line on the right (left) Towards Cambridge showing the disused platform section (right)

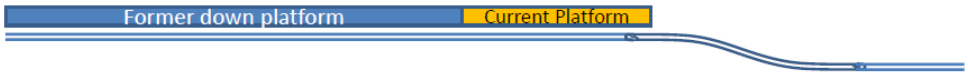


Fig. 5 Diagram of Newmarket station platform as it is today

Fig. 6 Potential 2 track/2 platform layout possible within the existing Network Rail estate

Another constraint in achieving greater service frequency is the available platform capacity at Ipswich and Cambridge. At **Ipswich** there is space to build a second island platform (platform 5 & 6) to the south of the current station. This land is occupied by rail sidings associated with a refuelling depot that is likely to relocate to a site to the north of Ipswich freight yard in the near future. The recently installed access-for-all footbridge at Ipswich has been future-proofed for extension to these new platforms.

Station Capacity cont.

At **Cambridge** services from Ipswich enter from the east and have to traverse the busy main lines to terminate in the north-facing bay platforms to the west. We propose that an independent running line be established using existing space to the east of the station to permit services to terminate in a short bay within platform 7 & 8. (This would be a temporary measure until they run into new island platforms (9 & 10) on the east side, constructed to accommodate through-services towards Oxford that will cross the WAML further south on a grade-separated junction.

Further capacity at Cambridge will require a second 'access for all' footbridge to link the 2 island platforms to the main station entrance as well as to a new entrance to the east of the station (see separate publication 'Cambridge Station, Time for an Eastern Entrance?' www.railfuture.org.uk/East+Anglia+Cambridge)

Electrification

The current and projected service pattern is unlikely to provide a strong business case for the Mid-Anglia line electrification as a standalone project. However, there are growing demands for the East-West Railway to be electrified at the time of construction and it would be logical to electrify the Mid-Anglia line at the same time. The strategic case for electrification is discussed in the **freight** section of this paper.

After 'East West Rail'

So far we have considered the line and service pattern between Ipswich and Cambridge but, as described earlier, the Mid-Anglia forks at Chippenham Junction to take trains from Ipswich towards Ely and Peterborough, the passenger service running on alternate hours and serving Stowmarket and Bury St Edmunds.
The current East Anglia franchise includes a proposal to increase this to hourly, pending agreement with Network Rail due to capacity constraints in the Ely area.

Soham

Soham lost its rail station when the direct line to Newmarket and Cambridge closed in 1965. Since then, in common with many towns in the Cambridge sub-region, it has witnessed rapid growth from a population of just over 9,000 (2001 census) to the latest estimate for 2017 of 13,340, an increase of 46%. There have been calls for the reinstatement of passenger services for many years and in 2019 Network Rail and the Cambridge and Peterborough Combined Authority (C&PCA) published firm proposals for a new station. The C&PCA has since pledged to bring this project forward — construction could start in autumn 2020.

However, although Soham's principal economic links are with Cambridge and Newmarket, as it lies on the Ipswich to Peterborough route connection to Cambridge is not possible without changing trains at Ely — and travel to Newmarket all but impossible.

Reinstatement of the Newmarket west curve

What is clearly needed is a direct service to both Newmarket and Cambridge. This could be achieved by reinstating the portion of line removed in 1965 between Warren Hill tunnel and the former Snailwell Junction, known as the 'west curve' or 'Snailwell loop', a formation which remains largely intact (see fig. 7). Although not in the ownership Network Rail, our proposal for its reinstatement has obtained the full support of the racing industry and, more recently, the backing of the C&PCA. It is also supported by both West Suffolk and East Cambridgeshire District Councils.

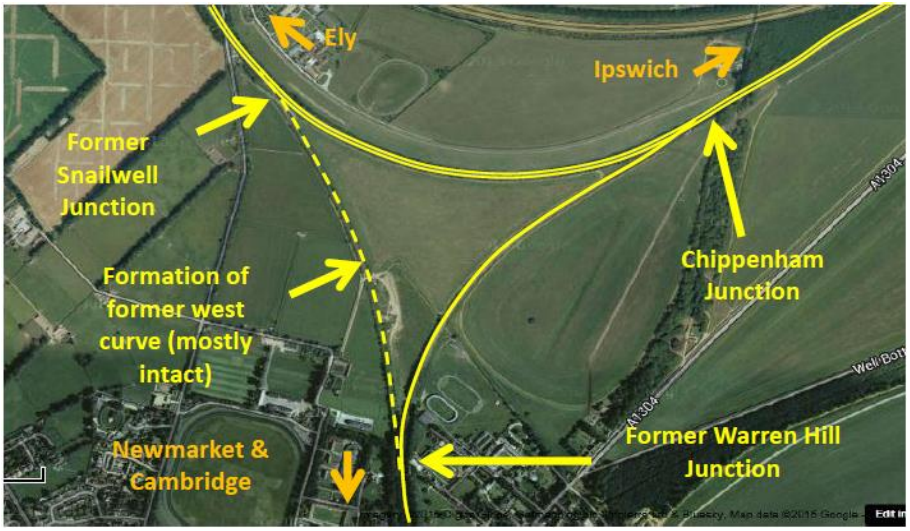


Fig.7 Arial view of the triangle of lines at Newmarket. Soham is on the line to Ely

Benefits to Newmarket & Cambridge

Such a service would not only give Soham a direct link to both Newmarket and Cambridge, but Newmarket would also gain a direct service to Ely, permitting connections to Peterborough, King's Lynn and Norwich. Newmarket could also be included in the calling pattern on the Ipswich to Peterborough service. (Trains would reverse in the same way that those between Norwich and Nottingham do at Ely.) The benefit to Cambridge would lie in offering Soham a car-free alternative to the city as well as offering Newmarket a third train every hour, besides the stopping and East-West services from Ipswich.

Newmarket underperforms similar towns in the region in its use of the railway because of poor service provision. Fig. 8 shows how it compares with Stowmarket and Ely. The latter in particular is the same distance from Cambridge (and hence from London).

	Miles from London	Population (2011)	Rail Footfall (2017/8)	Departures per hour
Ely	70	20,256	2,281,710	9
Newmarket	**70**	**20,384**	**358,798**	**2**
Stowmarket	80	19,280	935,244	5

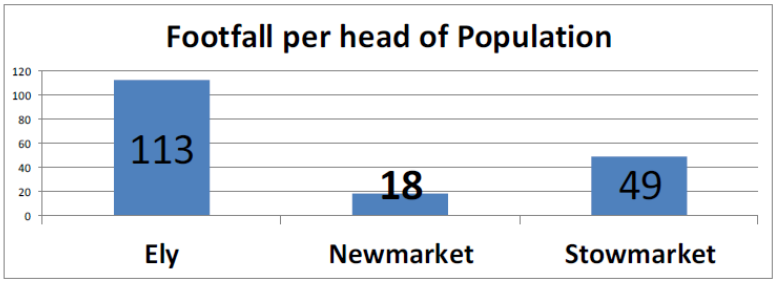


Fig.8 More trains and choice of destinations would transform Newmarket's use of rail

Potential for a Newmarket to London service

Technically a challenge, a direct Newmarket to London service would need to wait until any future electrification scheme reaches Newmarket. Both the Liverpool Street and King's Cross lines from Cambridge are at capacity and a standalone service is unlikely to be accommodated, particularly as trains south of Cambridge would need to be formed of eight or 12 cars if overcrowding is to be avoided.

One solution would be to divide trains at Cambridge and run four cars on to Ely via Newmarket and Soham, with the return working to London made up by attaching a corresponding 4-car train in the opposite direction. Accommodating longer trains at Newmarket would require further alterations to the track and platform layout.

And further north?

Although the present Ipswich to Peterborough service will use three- or four-car bi-mode trains from 2020, this operates as a shuttle and — unlike the Stansted to Birmingham or Norwich to Nottingham services — does little to promote inter-regional traffic, with passengers having to change at Ely or Peterborough. In addition, all three services pass though Ely which adds to congestion at Ely North Junction, and the Stansted to Birmingham trains experience considerable overcrowding west of Peterborough. The distance between Ipswich and Ely is covered in about an hour, the same as the journey time between Ely and Stansted. Although this would require some re-mapping of the current franchises (assuming we still have franchising in future) an attractive option would be to combine these two services at Ely to strengthen capacity by saving a train path in each direction.

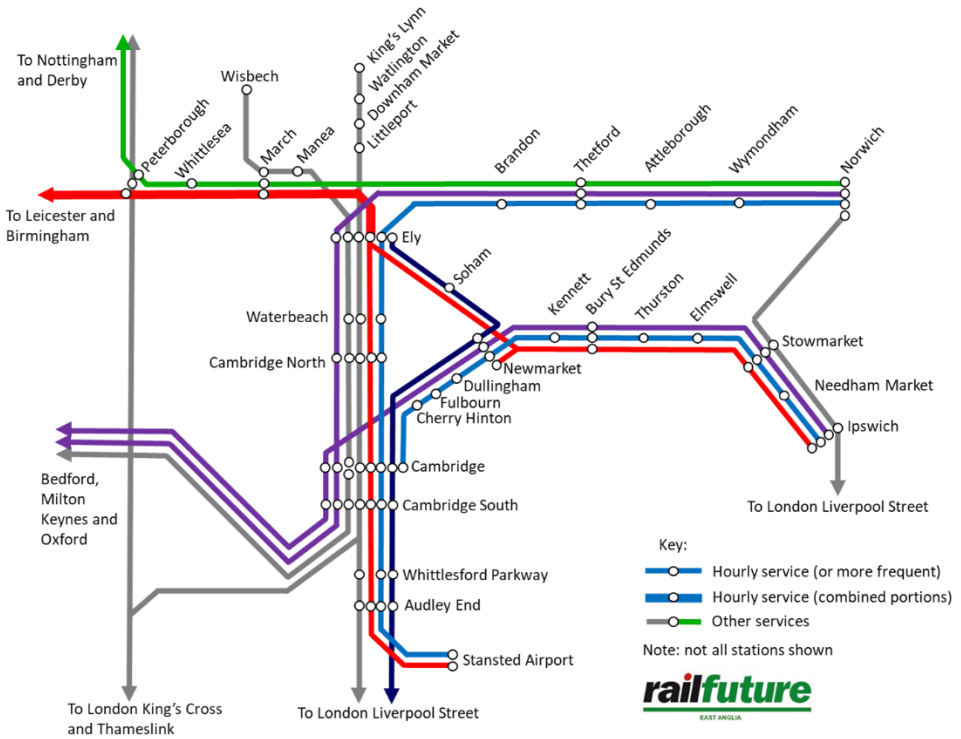


Fig. 9 Potential pattern of future passenger services (compare with fig.1)

Newmarket rail hub

With eight services now arriving and departing every hour at Newmarket, plus the possibility of longer trains from London, an increase in platform capacity at Newmarket should be explored. It may be possible to include a platform on the south ('up') side but would have to be sited to the west of existing homes.

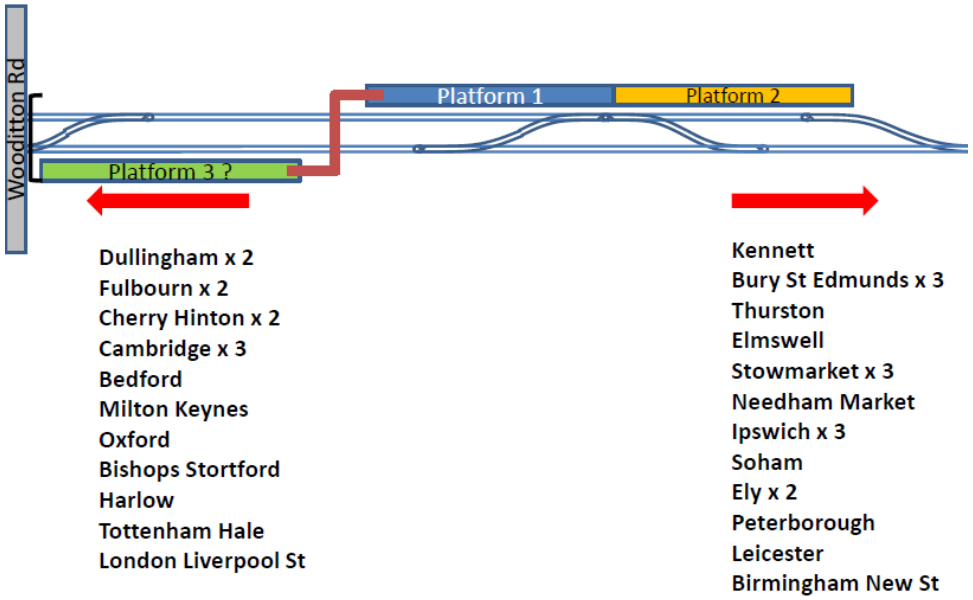


Fig. 10 Possible additional platform at Newmarket and travel opportunities

Summary of frequency improvement between key Mid-Anglia locations

Each way between	**Cambridge**	**Ely**	**Newmarket**	**Bury St Edmunds**
Ipswich/ Stowmarket	**3** *(1)*	**1** *(.5)*	**3** *(1)*	**3** *(1.5)*
Bury St Edmunds	**3** *(1)*	**1** *(.5)*	**3** *(1)*	
Newmarket	**3** *(1)*	**2** *(0)*		

(Existing frequencies in brackets — direct services only)

Part 2 Freight

Changing patterns of freight demand

In the 19th century railways were invented to answer the need to move coal and iron ore to feed the industrial revolution. Lines in East Anglia were mainly for passenger services with some seasonal demand for livestock and agricultural produce and some movement of coal for domestic heating.
Today however, the Mid-Anglia has become one of the busiest freight routes in the country. To appreciate this phenomenon we first need to understand what is happening at sea, where the Far East dominates international trade.

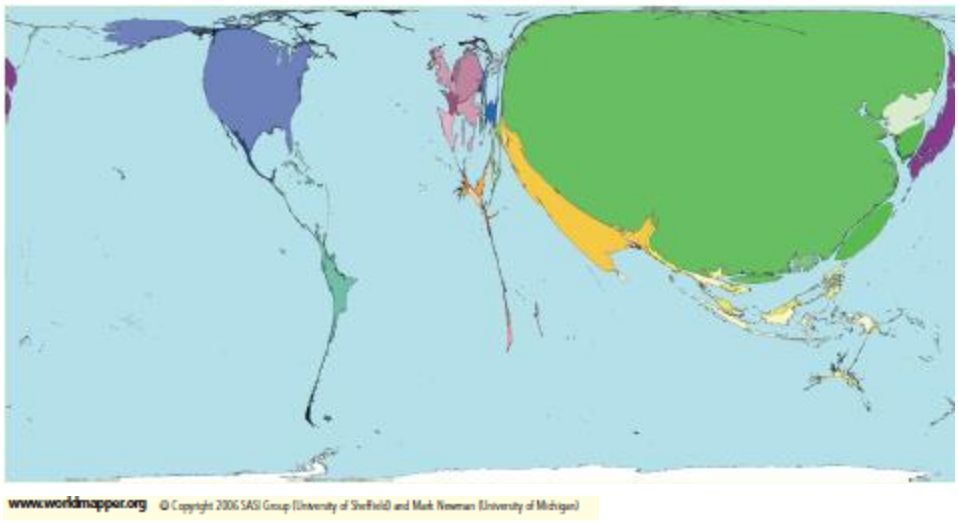


Fig. 11 World map of countries re-sized in proportion to the number of container ports

Economies of scale have driven the increase in the size of deep-sea cargo vessels. The newest ships carry upwards of 20,000 TEU (Twenty-foot Equivalent Units - although most maritime containers are 40-foot long) and call at multiple ports on their route around the North Sea (effectively a gigantic milk round to drop off full containers and pick up empties before returning home). Ports of call are therefore dictated by geography — straight lines save time and fuel.

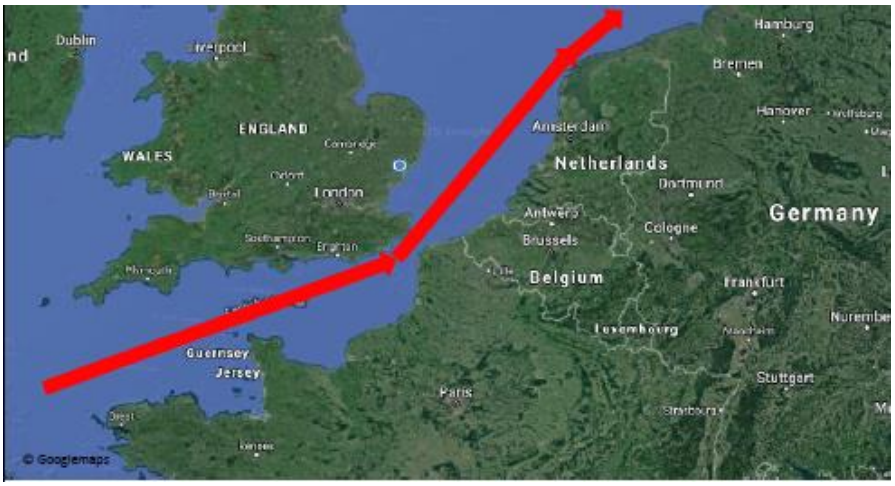


Fig. 12 Route through the north sea towards Sweden. The blue dot is Felixstowe.

The Port of Felixstowe

The only UK ports on this 'Far East to Northern Europe' shipping rotation are Felixstowe, Southampton and DP World on the Thames Estuary. Of these the busiest is Felixstowe which handles 42% of the UK's deep sea container business —and of this traffic, 70% is for the Midlands and northern England. (Although ports such as Liverpool and Sunderland are further north, the economics of shipping dictate that the deep-sea ports of choice will be in the south.)

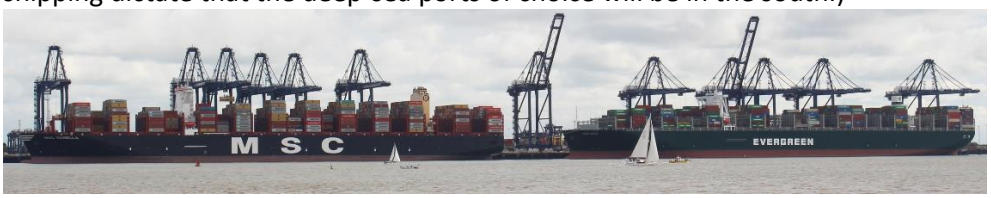


Fig. 13 *MSC 'Isabella' (23,656 TEU) and 'Ever Genius' (20,388 TEU) at Felixstowe*

Rail dependency

Moving the blockage up the pipe

Felixstowe port has gradually been increasing the proportion of containers it sends by rail to inland distribution centres. Although about 25% of containers currently go by rail which, as rail favours longer distances, represents nearly 50% of the container miles travelled, the port wants to **double** this as traffic sent by rail is already three times more fuel-efficient than road and, with electrification, could be up to **ten times** more so. Indeed this becomes ever more significant in the light of the **climate emergency** and up to one million tonnes of CO2 could be removed from the UK road network if we switched this traffic to **rail**.

Progress so far has, however, been slow due to constraints in the rail network. Although the opening of the **Ipswich freight chord** in 2014 permitted trains to access the Midlands and north via Ely without reversal at Ipswich, thereby increasing the number of freight trains from around 20 per day to 34, and provision of a loop at Trimley on the single-track line to Felixstowe will see this rise to 45 trains per day (TPD), the latter also requires investment to remove two **major pinch points** on the Mid-Anglia line — the junctions at Haughley and Ely.

Haughley Junction

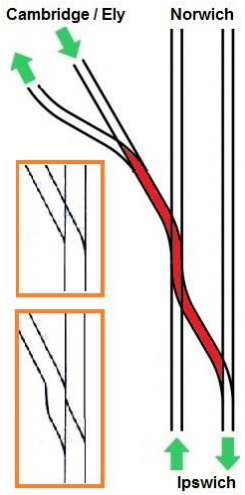


Fig. 14 *Haughley junction options*

Haughley Junction is a single lead junction, i.e. a double line merges into a single line before joining the main line. It is therefore impossible for trains to pass one another on and off the main line. Instead, a waiting train occupies the junction which reduces overall capacity of the line. As this junction forms the connection with the GEML, doubling is in the interests of the **Felixstowe to Nuneaton** (F2N) freight route, **East West Rail** and the ambition to run regular **'Norwich in 90'** services. Indeed in recognition of this, The **Suffolk Growth Programme Board** of local council leaders has earmarked £1m towards the 'Strategic Outline Business Case' for this work to the junction that is likely to cost around £15m. It is hoped that this work can be carried out by 2024.

Ely Area

By far the biggest bottleneck in East Anglia is **Ely North Junction**. This was 'rationalised' in 1992 to save maintenance of signals, switches and crossings, yet demand on the junction has grown. As outlined in Part 1, it will be expected to accommodate hourly services between Norwich and Oxford, Norwich and Cambridge/Stansted, Stansted and Birmingham, Norwich and Nottingham, Cambridge and Wisbech, Ipswich and Peterborough and 2 trains per hour between London and King's Lynn. Freight services, up to three an hour in each direction, take longer to clear the junction due to their 700m length and the fact they are often accelerating from a stand at Ely.

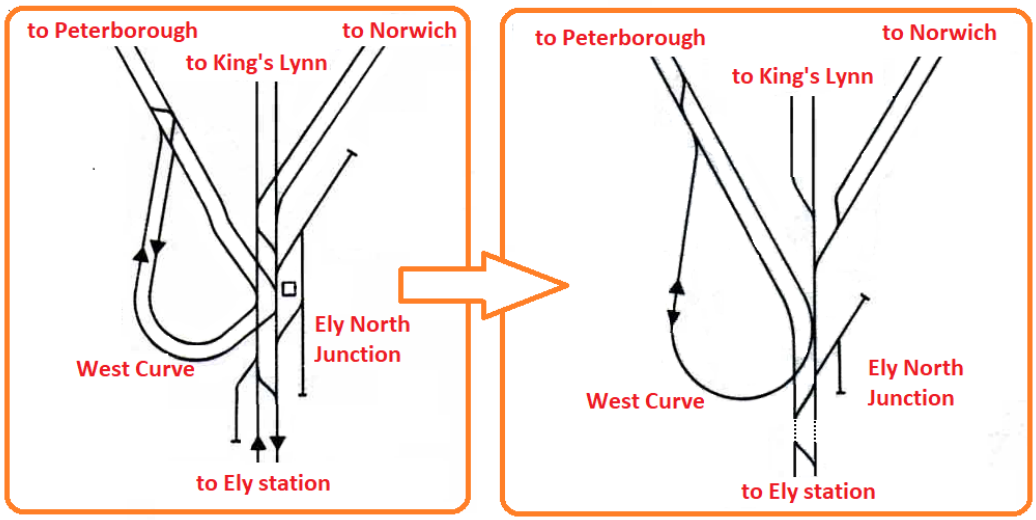


Fig. 15 *Ely North Junction before rationalisation (left) and now (right)* (diagram not to scale)

The solution is more complex than simply reinstating the former layout. The Prickwillow road runs east-to-west across the three lines to Peterborough, Lynn and Norwich, crossing all three by means of level crossings. Lowering the barriers at one could create a traffic tailback until it fouls the next set. A road as well as rail component is required to solve the capacity problem. Network Rail's 2015 Anglia Route Study even suggested building a new line to the south and west of Ely to link the line from Ipswich to the south-east with the Peterborough line to the north-west. Railfuture believes an urgent solution needs to be found to meet both freight and passenger growth forecasts.

Single line to Soham

In addition to the considerable problems at Ely North Junction, the line towards Ipswich is single track as far as Soham. Various plans have been mooted since before World War 2 to double this section and this must surely be addressed as part of the **Ely Area Improvements**. Along with junction improvements at Syston and Wigston (near Leicester) and further doubling of the Felixstowe branch, these works form part of the **Felixstowe to Nuneaton** (F2N) strategic freight route and provide a modern, reliable link between Britain's premier container port and the rest of the country.

Fig. 16 *The 'Far East to Northern Powerhouse' (F2N) strategic link. In the distance lie Soham and Felixstowe. Behind the camera lie Ely, the North and Midlands!*

Measures to allow a mix of freight and passenger services

Freight and passenger trains have different operating characteristics. An express or 'fast' passenger service will have a limited number of station stops and a top speed of 100 mph, while a 'stopping' service will have more stops. A freight train, while not stopping at stations, will have a top speed of 75mph. Depending on the number of trains and the sequence they run, it is likely that trains will need to overtake one another. This is achieved by the provision of passing loops (laybys).
Several opportunities exist to provide these at little cost as all land required is within Network Rail ownership.

Passing loops at Bury St Edmunds

Passing loops used to exist to allow freight trains to pause on the 'centre roads' while passenger services called at the platforms. The illustrations demonstrate how easy it would be to reinstate and lengthen these to meet modern demands. As Bury St Edmunds lies at the foot of an incline to both the east and west, freight trains have to run down these with their brakes on to accommodate the reverse curves into the platforms. The loops would instead allow them to run through the station at line speed. In the case of a passenger train being behind the freight train the latter could pause in the loop to allow it to pass. While if a 'stopping' passenger train were in front, the freight could overtake it while it was in the platform. Passengers would not be delayed as the driver still has a kilometre of track to traverse before the points are changed, allowing it to follow the freight.

New lengthened goods loops permit regulation of freight trains allowing passenger trains to pass.

They also permit freight trains to pass at line speed when not required to 'loop' at Bury St Edmunds

Fig. 17 *The sharp reverse curves at Bury St Edmunds*

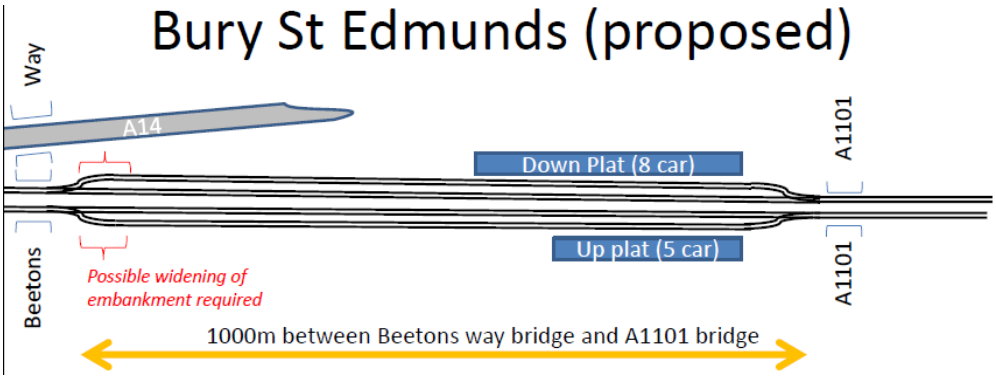


Fig. 18 The extended 'goods loops' at Bury St Edmunds. Long enough to fit a 700m train

The west curve at Newmarket

Reinstating the Snailwell loop at Newmarket to allow all passenger services to call at the town would make the remaining north curve a freight-only line. Although the passing of passenger trains to and from the Chippenham and Snailwell junctions would inevitably conflict with freight movements, at 1,100m the north curve is easily long enough to regulate freight trains on the approach to Ely.

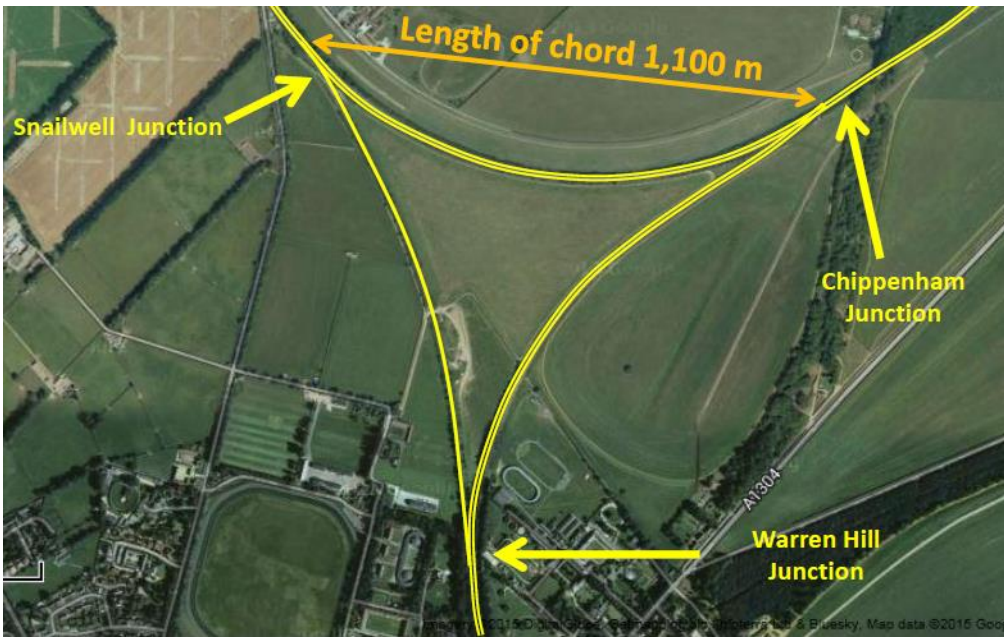


Fig. 19 The west curve at Newmarket showing the freight only north curve

Other interventions between Ipswich and Peterborough

The railway is judged on its reliability (performance measures). The more services it tries to run, the greater the risk of conflicts between trains and the greater the impact that a delay to one train will have on other services on the same line. Train planners assess the capacity of a line based on its ability to accommodate the number and *performance characteristics* of the desired services. The more flexibility that can be built in, the greater the line capacity. Besides the interventions covered above, Railfuture would like to see the following projects scoped into the Mid-Anglia upgrade:-

1. Re-signalling to reduce distances (headway) between trains
2. 4-tracking between Ipswich and Haughley Junction. This would permit the Peterborough, Cambridge and Oxford trains and up to three freight services to fit in the timetable alongside the three Norwich trains every hour. Although this has been endorsed by Network Rail in their Anglia Route Study, it needs to be given higher priority.
3. A freight refuge loop on the western approach to Haughley Junction to regulate and recover the timetable
4. The double tracking of the remaining single track Felixstowe branch. This is feasible within existing land ownership. The only single portion would be for about 1km over Spring Road viaduct.
5. Lengthening the freight yard at March

The above would provide a refuge for freight trains every 12 to 15 miles between Felixstowe and Peterborough

Electrification

There is currently no rolling programme of electrification in the UK as recent schemes have fallen foul of cost over-runs. However, the electrification cause is again gaining ground due to environmental concern and Railfuture is calling for the return of a rolling programme.

Electrification is usually advanced in response to perceived passenger priorities and yet its true value lies in avoided cost of fossil fuel. The lines to King's Lynn and Norwich for example were electrified for a passenger market of one or two trains per hour each weighing around 600 tonnes, and yet the potential for moving three freight trains per hour, each weighing up to 2,000 tonnes, between Felixstowe and the Midlands must become a national priority if we are to take climate change seriously. Up to a million tonnes of CO2 could be removed from the road network as a result of switching to electrified rail transport for freight.

Summary of Mid-Anglia interventions and their current planning status

Intervention	Railfuture Priority	Network Rail Programme	Project Sponsors
Ely North Junction remodelling	1	Due by 2024 but no details published	Network Rail, C&PCA, NALEP
Ely-Soham doubling	1	Due by 2024 but no details published	Network Rail, C&PCA, NALEP
Haughley Junction	1	Due by 2024	Network Rail, GEML Task Force, SGPB
Doubling Cambridge to Newmarket	1	Cambridge route study for 2043 but only first 3 miles	East West Rail Consortium of Local Councils
4-tracking Haughley-Ipswich	1	Anglia Route study to 2043	Network Rail, GEML Task Force, SGPB
Soham Station	1	Due by 2024	Network Rail, C&PCA
Additional platforms at Cambridge	1	Identified as part of East West to be delivered by EWR Company	Network Rail, EWR Co., East West Rail Consortium
Resignalling	1	Anglia Route Study, no date fixed	Network Rail
Newmarket west curve	2	No	C&PCA
Additional platforms at Newmarket	2	No	C&PCA, East West Rail Consortium
Electrification as part of the Felixstowe to Nuneaton strategic freight route. Should include Newmarket to Cambridge to serve distribution depots in the south Midlands via East-West and as diversionary capacity for F2N.	2	No. Although Network Rail refers to Electrification, including Newmarket to Cambridge, in its 2014 Anglia Route Study as a potential scheme listed in the Electrification Route Study	None at present but the Rail Freight Group and many industry commentators believe this to be a priority case. Many are calling for East-West to be wired during its construction
Freight loops at Bury	2	No	No
Loop on the western approach to Haughley	2	No	No

Further reading

Cambridgeshire and Peterborough Combined Authority Transport Plan
cambridgeshirepeterborough-ca.gov.uk/about-us/programmes/transport/ltp

East West Rail Consortium Eastern Section Prospectus
www.eastwestrail.org.uk/eastern-section-prospectus/

Network Rail Anglia Route Study
cdn.networkrail.co.uk/wp-content/uploads/2016/11/Anglia-Route-Study-summary-document-1-2.pdf

Network Rail Cambridgeshire Corridor Study
cdn.networkrail.co.uk/wp-content/uploads/2016/12/Cambridgeshire-Corridor-Study-2019.pdf

The Great Eastern Railway by Cecil J Allen
ISBN: 0711006598

Text and photos by Phil Smart

Track diagrams by Paul Hollinghurst, Phil Smart and Jerry Alderson.

Railfuture East Anglia www.railfuture.org.uk/East+Anglia

Twitter @RailfutureEA

Paul Hollinghurst, Secretary Railfuture East Anglia paul.hollinghurst@railfuture.org.uk