

NETWORK RAIL KENT ROUTE UTILISATION STRATEGY DRAFT FOR CONSULTATION (SUMMARY)

The Kent Rail Utilisation Strategy (RUS) - draft for consultation was issued by the Network Rail (NR) on the 28 April. Comments are invited before a deadline of 23 July with an intended publication of the final RUS by early 2010.

The following pages are a summary of the document with references to the relevant paragraphs in the original document, which can be accessed at;-
www.networkrail.co.uk/browse%20documents/rus%20documents/route%20utilisation%20strategies/kent/kent%20rus%20draft.pdf

For commentary see the report to the Cabinet Member for the Environment.

INTRODUCTION

The Kent RUS primarily covers the area of the main line or “outer” services from Victoria (eastern), Charing Cross and Cannon Street and the High Speed 1 (though it is not required to). In compiling the strategy Network Rail have taken into account any committed schemes that have an effect on services in the area (East Kent re-signalling, Howbury Park freight terminal, Thameslink and Crossrail).

At the end of the consultation draft Network Rail outline their initial “emerging strategy” based on their current conclusions. This is summarised at the end of this paper.

THE PASSENGER MARKET

The rail network in Kent is dominated by the commuting market and that two thirds of all rail journeys involve London terminal stations (3.4.1). Between 1998 and 2008 patronage on Kent services increased overall by 28% (3.6.6). Daily demand from Maidstone to London is shown as increasing from c 3,000 to 4,800 (60 %!) during this period.

Elsewhere in Kent travel between commercial and residential areas is not always easy. There could be significant local growth opportunities with even small levels of modal shift. One figure quoted for this area is for trips between Ashford and Maidstone, showing an increase of 120% over 10 years. This is the largest increase of all the local journey figures quoted.

Rail heading (driving to a station further away) represents a lost opportunity for the rail industry and also has detrimental effects on road congestion (3.9.4). Postcode analysis shows (3.9.5) that Headcorn and Staplehurst experience significant rail heading, with both seeing potential abstraction from the Maidstone East line.

Whilst there is uncertainty over future demand it is assumed it will recover with reasonable growth expected in the medium term, particularly from the Thames Gateway and Ashford areas. Maidstone’s population is shown to grow by about 8% in 2008 -19 (figure 6.1) – taken from the DfT TEMPRO model. The increase

in passenger volume between 2006 and 2026 is mostly as a result of growth areas and improved services (6.4.4). Demand is expected to build up over a period of time as people respond to new and better travel opportunities.

THE FREIGHT MARKET

A significant volume is carried through the area. The primary route to and from the Midlands and the North is via the South London line and on to the Channel Tunnel via Maidstone East (3.11.3). At present Class 92 (electric) hauled freight services are not permitted to use the secondary (diversionary) route via Tonbridge and Redhill due to signalling immunisation issues. A business case for the works to allow this is being developed (6.5.8). It is not possible to use the route via Sevenoaks as it is of too small a loading gauge. Most of the lines in the area can accommodate the historic W6 gauge, but those to the Channel Tunnel (via Maidstone East or the diversionary via East Croydon) are capable of accepting W9 gauge vehicles (3.12.1).

Since the Freight RUS was published in March 2007 forecasts have been supplemented by aspirations from the DfT and other stakeholders who wish to see a transfer from road to rail (6.5.1). Whilst there has been a short term reduction in freight traffic it is assumed that it will return to higher levels. The potential for further growth exists through increased aggregates movements and international traffic. There are 35 paths from the Channel Tunnel which have been protected until 2052 (3.11.6), which should cater for traffic in the short and medium term. However with the international market increasingly using unitised containers, gauge issues may become a limiting factor requiring provision of gauge W12 on the Maidstone East and diversionary lines (6.5.7) (See options considered and recommendations – Gap E).

In addition to the main flows there are aspirations to develop sites as key freight nodes – including a rail freight terminal at Hollingbourne (through the local authority planning processes) (6.5.14).

INFRASTRUCTURE

Whilst much of the track on the Maidstone East line is operable at speeds of 45 to 60 mph, sections of it are restricted to 25 to 40 mph (figure 3.15). Many services on the Maidstone East line are currently limited to six car length due to short platforms at Charing, Harrietsham, Hollingbourne, Barming and Kemsing. Lengthening these platforms to eight car would enable unrestricted eight car operation but Network Rail's delivery plans currently anticipate Selective Door Opening for these services with the use of Class 375 stock (4.4.8). The Medway Valley line is a 2-car route and the Ashford to Tonbridge route 12-car.

There are various capacity constraints on the network towards London caused by the mixture of fast and stopping services, flat junctions, track layout and other operational issues (3.14.3). They also particularly refer to lack of spare capacity at platforms 5 and 6 at Ashford and on the line through the Medway towns (3.14.4)

COMMITTED SCHEMES

It is stated that the December 2009 service changes by Southeastern result in broadly current levels of service to existing London terminals (4.2.3).

The first stage of the Thameslink programme resulted in a small number of peak only trains being extended on the Maidstone East route (4.3.2). It is not until Key Output Two, in December 2015, when construction works have been completed, that Thameslink services will permit the operation of the full 24 trains per hour through the central core. Based on the train service specification in the agreed South London RUS, Thameslink services in the Kent RUS area would then run to and from Tunbridge Wells, Paddock Wood and Maidstone East (4.3.5). This is assumed regarding the figures for the expected December 2015 timetable (4.5.1 and figures 4.3 and 4.4).

The "access to all" programme will see improvements at some stations (e.g. Staplehurst). Work will also be carried out at other locations under the National Stations Improvement Programme, though no other stations in this area are listed for this.

PLANNING CONTEXT

The RUS analysis must be consistent with Government (DfT) policies, and be informed by the South East Plan (SEP), Local Transport Plans and local planning bodies. In the same way the RUS can influence major planning decisions. It is recognised in 5.2.4 that within the SEP the transport network is described in terms of regional "hubs" (of which Maidstone is one) and that good linkages between the regional "hubs" by the "spokes" are encouraged.

Section 5.2.5 also makes mention to the SEP identifying the need for up to three new road/rail interchanges for inter-modal traffic.

A section on designated growth areas (5.3) concentrates on the Thames Estuary and Ashford areas and does not mention the growth point status of Maidstone.

Note: The comments on the South Eastern Planning Assessment in section 5.7 may be out of date. An updated policy was being drawn up in March which included the need to improve services from Maidstone's "hub" on the "spokes" to other "hubs".

IDENTIFIED STRATEGIC GAPS

The RUS process identifies and considers six main potential strategic gaps;-

Gap A – is between committed capacity and the forecasts of future demand on peak services to/from London, leading to a prediction that such trains will become unacceptably overcrowded.

Whilst the High Speed line and other measures in the December 2009 timetable will address some issues, in areas such as West Kent benefits will be less significant. It would appear that overcrowded trains in the peaks will remain an issue, and more importantly, worsen during the RUS period (7.2.2).

Gap B - is between the planned train service within Kent (including linkages to adjacent areas) and the need to provide a train service consistent with future levels of demand across all transport modes.

There is a desire amongst stakeholders to see some areas of the standard off peak service expanded. It is suggested that some aspects of the current service constrain demand. Initial evidence does not however prove this (7.3.3), though such improvements would be expected to have positive and beneficial results. In many cases it would be possible at low (operating) cost to improve off peak frequencies though the cost/benefit case would need to be tested (7.3.5).

In the period to 2014 there are stakeholder concerns about off peak frequencies – the loss of Maidstone East to City trains and Maidstone West to Tonbridge which only has one train per hour (7.3.8). It is stated that on most routes there is capacity to provide additional services at off peak times using existing infrastructure and without requiring any additional rolling stock (7.3.11).

Stakeholders have raised the following issues;-

- The Medway Valley line does not have links into major conurbations at each end of its route which limits its effectiveness resulting in increased use of the car.
- From December 2009 there are no direct trains between Maidstone and Canterbury.
- There are limited rail links between Kent and Gatwick. The alternatives are such that many journeys are now made by road.

Whilst the High Speed line brings benefits it is difficult to access it from some areas to make journeys to and from France.

Long rail journey times, especially to London, lead to areas being isolated from wider economic activity. Poor transport links put off prospective employers from relocating to an area, which limits opportunities for employment. Whilst these points are primarily made in respect to areas of the Sussex and Kent coast it is acknowledged that they equally apply to Maidstone. It is brought out in 7.3.23 that journeys will take longer to Maidstone than to Ashford.

It is concluded that further analysis of the potential to reduce journey times is required.

Gap C – concerns accessibility to the rail network.

There is a high degree of reliance on travel by car to reach stations in the RUS area. This can be a problem at stations with insufficient parking space or poor road access. The option of using public transport is not always possible.

Ebbsfleet fulfils its role as a “parkway” well but access to it by public transport could be improved. It is inaccessible by rail from Maidstone (7.4.9).

Gap D – is between the train service on offer at evenings, weekends and on bank holidays and the predicted demand for travel at such times.

Services at such times are much less frequent, but prone to being affected by engineering works. It is not clear that demand exists but society is changing to a 24/7 culture, and actions may be possible to address this (better planning of engineering line “occupations”).

Gap E – is between the current capability of the railway network to accommodate freight and the likely needs of the freight industry in the future.

There appears to be unanimous support for increasing rail’s share of freight movements, which is consistent with Government policy (7.6.1). Many of the issues relate to either the Thames Gateway area or freight operations between the UK and mainland Europe.

Whilst the High Speed line has been designed to carry freight at some stage no firm plans are in place at present. The existence of a single W9 gauge route (via Maidstone East) to the Channel Tunnel which can be used by Class 92 electric freight locomotives, means diesel locomotives must currently be sourced from elsewhere on the network whenever the route is closed for maintenance.

Gap F – is between anticipated train performance on an increasingly busy network and the need for strategic level interventions to reduce major delays.

Certain parts of the network will become busier once the new High Speed services are in operation. This is likely to put pressure on train performance unless interventions are taken.

OPTIONS CONSIDERED AND RECOMMENDATIONS

Gap A – options to increase peak capacity between Kent and London

Possibilities for lengthening existing trains to provide additional capacity are primarily limited to the shoulder peaks. On the Tonbridge line there are track constraints in central London and between Orpington and Tonbridge together with conflicting train movements on key sections. Advanced signalling systems and other infrastructure improvements are unlikely to address these problems.

On the routes into Victoria via Bromley South there appears to be more spare capacity (outside of the London area) and consideration has been given as to whether an additional two trains per hour, in the peaks, could be operated from Medway, Maidstone East or Swanley (8.6) . However network pressures on the London approaches, at Herne Hill and at London terminals are such that end to end train paths do not appear to be available (option 3.2 assessment). It is recommended that further work on this is carried out as part of the development of the future 2015 Thameslink programme.

They have therefore looked at the potential for lengthening trains on services on the Maidstone East line (8.7). Extending platforms on the line to accommodate 12-car trains would require major re-modelling of Maidstone East and provision of a turning facility near Bearsted at an estimated cost of £75m and has

therefore been discounted (12-car trains cannot turn at Maidstone East). Selective door opening (SDO) would cause operational problems at a number of stations but might be considered by operators as a tactical solution for the busiest services (Option 4.3 assessment). They have therefore only recommended that all high peak services on the line be extended to 8-car.

It is not considered practical to extend the spread of the high peak service due to the pressure that this places on the network leaving little room for "service recovery". There will however be additional services when the Thameslink network is introduced (Option 5.1 assessment).

It is recommended that all main line trains are, as far as operationally possible, extended to their maximum length for the three hour peak period. By doing this it is hoped to encourage travel in the "shoulder peaks", possibly by the introduction of fare incentives (Option 5.2 assessment).

Due to limited options for increasing capacity on "classic" services the RUS has turned to the St Pancras (High Speed) services as the only practical means of responding to the gap in a meaningful way (8.9). In particular there is scope to lengthen some peak services from 6-car to 12-car. Also two trains in each peak hour between Rochester and St Pancras could start further back e.g. Faversham (though this may adversely affect "classic" services). In addition the planned Ebbsfleet – St Pancras peak shuttle could be more usefully employed by starting somewhere else. Constraints on track capacity preclude these being extended through Rochester. This leaves two options – either Maidstone West (operationally limited to 6 car operation) or Ashford (which has congested domestic platforms) (8.9.5). Operation to Maidstone West gives a number of calling options but risks overcrowding due to its constrained length, whilst journey times must be kept competitive to offer potential relief to services operating on the Maidstone East line (Option 6.4 assessment). The cost benefits of this option are lower than that for Ashford, so more development work on the Ashford option is recommended once demand is known after December 2009.

Gap B – increasing off peak frequencies

Such interventions are normally deliverable within committed infrastructure and rolling stock. These issues are generally considered by the Department for Transport at the time of re-franchising.

In line with the strategic planning aspirations of the main local authorities, the RUS appraised the case for implementing the following off-peak options on the "classic" railway (8.12.2);-

- Retaining a service from Maidstone East to the City of London
It is anticipated Thameslink services will provide the missing off peak service from 2015 so this is not further appraised (Option 7.1 assessment).
- Providing a two train per hour service on the Tonbridge – Redhill line (reversing recent reductions).
This and the alternative of extending services to Gatwick Airport are not recommended due to insufficient demand.

- Providing a two train per hour service over the Tonbridge – Maidstone West line to match the frequency between Maidstone West and Strood.
Not recommended due to insufficient demand (Option 7.3 assessment).
- Providing a two train per hour service on the Marshlink route between Ashford and Hastings.
This is not recommended due to insufficient demand.

A number of towns in Kent are not well connected by rail (8.13.2). Opportunities to deliver improved links that were considered are;-

- Extend the Maidstone East – Ashford service to Canterbury West, which would also improve Ashford to Canterbury links.
This is considered to be the most likely candidate but requires an additional platform and track changes at Canterbury the cost of which currently outweighs the benefits of easing congestion at Ashford station (Option 8.1 assessment).
- Extend the Medway Valley line service through to the Medway Towns and Sheerness.
Although this has some benefits it increases train numbers in congested sections of the network, and has a poor economic case (Option 8.2 assessment).
- Extend Victoria to Gillingham services to Sheerness.
Not recommended due to insufficient demand.
- Link Medway Valley line and Tonbridge to Redhill line (and possible extension to Gatwick).
Not recommended due to insufficient demand and adverse effects on train service patterns beyond Tonbridge (Options 8.4 and 8.5 assessments).

The benefits of reducing journey times are briefly covered in section 8.14, with some suggestions, one of which is the western end of the Maidstone East line between Eynsford and Swanley. Various potential schemes to reduce journey times are currently being evaluated and will be covered in more detail in the final published document.

Gap C – improving station accessibility

The principal options are considered to be expanded station car parks, improved local bus/taxi links and improving access on foot (8.15.1). There are no current schemes listed to increase car parking at any stations in the Maidstone area. Though other places will be considered it is not always practical or possible to extend car parking facilities, so other solutions may be sought (8.16.4).

It is anticipated bus operators will, in conjunction with local authorities, enhance their services to match increased demand. It is not practical for the RUS to consider walking and cycling issues which they expect would be addressed at a local level.

The RUS considered stakeholder aspirations for new stations at Ashford South and Minster/Manston Parkway and in both cases recommended that improvements to local bus services be considered to respond to the demand. It also does not support the proposal for a merged Strood/Rochester station but leaves open the possibility of a new one at Rochester (8.22). Suggestions of a new High Speed station near Maidstone are not considered to be within the scope of the RUS (8.19.4).

Ebbsfleet was conceived as a Park and Ride station, for the M2, M20 and M25, and has been relatively successful (8.21.1). It is difficult to access by rail from most of the RUS area, and from parts of London. There is a local fast-track bus service to Dartford and Gravesend. Building on this it is considered that if the demand exists, feeder bus links to Ebbsfleet could be provided from key interchange stations in Kent – Sevenoaks, Swanley and Maidstone East. Whilst the concept is supported it is on the basis of further development by local authorities (Figure 8.6).

Gap D – evening and weekend services

Although demand for train services at such times is increasing there is conflict with the need to undertake engineering works during these off peak periods. It is intended to improve the delivery of engineering works so that these track occupations can be minimised to reduce their adverse effect on train services.

Gap E – freight capability

The train pathways per day that have been protected are considered to be more than enough to meet anticipated demand. However various options have been considered for increasing the capability of the network (8.24.2). These include;-

- Use of High Speed line for freight.
This is considered likely in the short to medium term.
- Construction of new terminal capacity.
The shortage of capacity is a significant issue and a factor that would be considered as part of any planning enquiry.
- Use of electric haulage on the diversionary routes via Redhill.
Enhancement of the infrastructure on the diversionary route via Redhill is recommended (a business case for the works is being developed).
- Gauge enhancements via Catford/Maidstone East (8.24.6).
This is currently W9 gauge, but if increased (together with diversionary routes) would enable the carriage of bigger W12 gauge containers. This is a national issue so no investigation has been carried out by this RUS.
- Running longer freight trains on Channel Tunnel routes.
Operators have indicated aspirations for 1000m trains in the long term, which would require major changes to infrastructure.
- Providing new run-round capability, for example at Plumstead.
This is intended primarily to benefit the Howbury Park terminal.

- Providing new routes, in particular a chord connecting the Higham area directly to the Grain branch.

Detailed consideration is currently taking place.

Gap F – performance improvement

Train performance could be adversely affected by increasing levels of traffic on a congested network. Consideration is given to infrastructure improvements in conjunction with the forthcoming East Kent re-signalling scheme. Particular reference is made to improving the layout at Ashford and providing a turn-round facility at Canterbury West but both require further development.

THE EMERGING STRATEGY

RUS interventions recommended for further development, for potential implementation in CP4 (Control Period 4 - up to 2014) are:-

- Investigate increased capacity through the Medway Towns as part of the East Kent Re-signalling programme
- Develop journey time improvements on both High Speed and “classic routes”, including the western end of the Maidstone East line.
- Improved walking routes and bus services to stations
- Additional station entrances on walking routes
- Potential re-location of Rochester Station
- Increasing the capacity of station car parks
- Limited infrastructure improvements to assist freight capacity and performance.

Recommendations for CP5 (Control Period 5 to 2019) and the next Kent Franchise;-

There may be scope for a limited amount of train lengthening. Once this and the Thameslink programme have been completed it is recommended that the bulk of any further additional capacity needed between the Kent RUS area and London is delivered by the High Speed line. This is because no realistic way has been identified to provide significant additional capacity and the importance of the High Speed line will increase as passengers adjust to its availability.

The highest level of benefits has been identified if the Ebbsfleet shuttles were extended to Ashford or beyond, which would also provide relief to the Tonbridge corridor, for which no other solution has been identified. However, this option is not deliverable with the existing constrained track layout at Ashford. This is unlikely to be economically viable. The alternative is to extend the shuttle to Maidstone West which is economically viable and deliverable. A later extension

to 12 car operation is desirable, probably with SDO (Selective Door Operation) on the Medway Valley line.

On the classic network all services would run at the maximum length for the capability of the route concerned – 8-car on the Maidstone East line. In the longer term, it is possible a limited number of Maidstone East to Victoria services could be 12-car towards the end of the period with SDO in operation east of Swanley. Whilst Maidstone East cannot economically be rebuilt for all train doors to open, some limited platform extensions elsewhere on this route may assist.

Apart from peak services there is no pressing need to make decisions on service levels after 2014. The exception is the Maidstone East to Canterbury link via Ashford. It is recommended that further work on this take place to see if the costs of the necessary infrastructure can be reduced to an acceptable level.

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