



Promoting Britain's  
Railway  
for Passengers  
and Freight

South East Route: Sussex Area Route Study  
Consultation  
Strategic Planner  
Network Rail  
The Cottons Centre  
Cottons Lane  
London SE1 2QG

*Please Reply to:*

20A Park Road  
Bromley  
Kent  
BR1 3HP

**E-Mail:** [christopher.austin@railfuture.org.uk](mailto:christopher.austin@railfuture.org.uk)

12<sup>th</sup> January 2015

Dear Sir,

### **Response to Network Rail's draft South East Route Sussex Area Route Study**

Railfuture is the UK's leading independent organisation campaigning for better services for passengers and freight. A voluntary organisation to which many rail user groups are affiliated, the organisation is independent both politically and commercially.

The Sussex route runs through the area served by the Railfuture branch in London and the South East. The comments made are not confidential, and we would be happy for them to appear on your website and you are welcome to use them in discussion with funders and other stakeholders. We would be happy to enlarge on any of the points made above or to work with you to identify the best options for the future.

**Scope and Objectives of the Study.** Railfuture endorses the long-term and strategic outcomes-based approach adopted in Network Rail's Passenger Market Study [PMS] and followed through in this draft Route Study [RS], looking ahead over the 30 years which are the lifespan of many industry assets and over the lengthy lead-times necessarily involved in planning, funding and delivering significant if incremental development of the railway. In that context we also welcome the more focussed view over the next decade and the needs and opportunities anticipated to arise in the next rail infrastructure investment period, Control Period 6 to 2024.

Railfuture appreciates the contributions of both the objectives-led PMS and this RS to the evolving and inclusive dialogue with stakeholders leading to and across the Periodic Review for CP6. To be undertaken by the Office of Rail Regulation [ORR], it will move first to Network Rail's Initial Industry Plan in 2016 and culminate in NR's CP6 Delivery Plan in 2019. If we find ourselves taking issue with some specific aspects of this RS, and in subsequent stages of the Periodic Review process, that is offered in the spirit of creative, constructive challenge between fellow advocates of shared strategic goals and aspirations.

[www.railfuture.org.uk](http://www.railfuture.org.uk) [www.railfuturescotland.org.uk](http://www.railfuturescotland.org.uk) [www.railfuturewales.org.uk](http://www.railfuturewales.org.uk)

[www.railwatch.org.uk](http://www.railwatch.org.uk)

Twitter: [@Railfuture](https://twitter.com/Railfuture) [@RailfutureScot](https://twitter.com/RailfutureScot) [@RailfutureWales](https://twitter.com/RailfutureWales) [@Railwatch](https://twitter.com/Railwatch)

The Railway Development Society Limited

Registered in England and Wales No: 5011634

A Company Limited by Guarantee

Registered Office: 24 Chedworth Place, Tattingstone, Suffolk IP9 2ND

**A bigger better railway.** An increasingly successful railway over the past decade or so, even in the face of recent and near-unprecedented national economic challenges has proven the role of rail as a generally resilient contributor to the nations' economic and social as well as transport infrastructure. Not as dramatic as Dawlish, but route closures in 2014 enforced by events such as multiple landslips north of Hastings (with ten stations in East Sussex) and flooding in Patcham tunnel between Brighton and Keymer Junction (Wivelsfield) served to highlight communities' vulnerability to severance of key rail links. Alternative routes for diversions around planned and unplanned works are increasingly vital for resilience of the rail network, whether for passengers who clearly prefer a rail journey throughout even if slower/longer or for freight operators who must be able to offer potential and existing customers all-week/every-week rail services. While the vulnerability of the Hastings route will be addressed by the proposed upgrade of MarshLink, for HS1 services, an alternative for the much larger economic centre of Brighton has yet to be proposed by the rail industry.

This hard-won reputation for success must now be harnessed to making the case to opinion-formers, decision-makers, and purse-string holders for sustained investment in our geographic area of a capital-intensive service industry which delivers economic, environmental and social as well as transport benefits to wider society, nationwide, as well as to users of the Sussex route. "Bringing communities and businesses closer together" is a rallying-cry to underscore the role of a higher-performing railway in delivering higher economic and environmental performance for this part of the country. It is one, which Railfuture will be communicating in support of the case for that sustained investment.

**General.** We recognise that the Brighton Main Line faces particular challenges of performance and capacity both pre- and post-Thameslink Programme i.e. across CP5 and CP6. We would caution however that these legitimate pre-occupations, with their inevitable London focus, must not be allowed to exclude proper consideration of delivery around other themes mentioned in the earlier PMS which reflect aspirations of local stakeholders for e.g., better connectivity and journey times between regional centres.

**Capacity.** A seemingly arbitrary reduction of the standing allowance for the new class 700 Thameslink train fleet, used on regional as well as metro journeys, will likely have a strongly adverse passenger reaction. Reduction of the allowance from 0.45 to 0.25 sq. metre per standing passenger (even less than London Overground trains, used predominantly for short-distance journeys) hides the fact that by 2043 an additional 68 carriages (above that proposed by the RS) will be required on services in the peak hour between East Croydon and London Bridge to achieve an acceptable level of accommodation (but see below on direct links to Docklands to alleviate this). It is not safe in our view for the infrastructure strategy to be based on the assumption that this level of crowding will be acceptable to passenger's long term. The conditional output articulated in the PMS, to improve the level of passenger satisfaction, will be adversely impacted by the reduced standard for standing accommodation in the class 700s, on top of their lack of wifi, comfortable seats and other amenities considered basic by today's passengers.

The introduction of high-density rolling stock will mean that crowding (measured by the ratio of standing to seated passengers) will worsen for other sections of the journey, such as Haywards Heath to Gatwick Airport. Fewer seats on high-density stock are a reflection of more crowding, and, for passengers, do not create more capacity. We have to ask whether the latent demand (due to the overcrowding which already exists) between the Sussex Coast and Gatwick that will be released when extra capacity is provided has been included in demand projections?

Standing is normally deemed acceptable for up to 20 minutes, measured to arrival at the London terminus or to arrival at an earlier station if the train is busier at that point, because more people alight than join the train at that station, as happens at Clapham Junction. However for services from East Croydon to London Bridge, the RS asserts that the busiest point is on departure from East Croydon [p.51]. Whilst this may be true for the two peak-hour services which stop at Norwood Junction, the

sixteen peak-hour services which run non-stop from East Croydon to London Bridge will be equally busy on departure from East Croydon as on arrival at London Bridge. By combining these disparate service groups the RS is misrepresenting the true position for the non-stop services. Based on this approach, the RS is not planning to provide sufficient capacity to eliminate standing from as far out as Gatwick (around 20 minutes to East Croydon) which means that some passengers will actually have to stand for around 35 minutes from Gatwick to London, as overcrowding means that they will not be able to locate a seat vacated by someone alighting at East Croydon. Railfuture consider that sufficient capacity should be provided such that there is no standing from further out than South Croydon (20 minutes to London Bridge).

Furthermore, changing the target for seat utilisation from 85% to 100% for 2043 just because it produces an “unrealistic quantum of trains” [p.55], i.e. there is a big increase in demand, is not acceptable in our view. Changing that target, together with the artificial reduction in standing space per class 700 passenger, has the combined effect of hiding the inconvenient truth that a further three 12-car trains in the peak hour, and therefore crossing the threshold triggering the need for an additional route, will be required between the Sussex Coast and London before 2043 just to achieve the standard seat utilisation 85% target; up to a further eight peak-hour 12-car trains will be required to achieve that target and the conventional 0.45 sq. metre per standing passenger and the maximum 20-minute standing allowance.

This RS approach is in marked contrast to the open approach of the Wessex Route Study. For example, whilst the figures show that there is no standing from Southampton Airport, the Wessex RS declares that there is standing on the fast services to Waterloo and spare seats on the stopping services, which are overtaken, and proposes solutions to address this.

There is a need to augment capacity from Hove and Lewes rather than Brighton. Both will be 85% utilised by 2023 so will go over target during CP7. Lewes appears to have been ignored when setting the 100% seat utilisation target, but as a key point on the BML network the 85% target should also apply at Lewes. The Keymer Junction intervention however is not proposed until CP7, which will be too late. This illustrates the general point that interventions need to be completed in time to meet demand when it arises, rather than waiting until the overcrowding has already happened.

**Other Conditional Outputs.** In its focus on London the RS misses the opportunity to define conditional outputs to stimulate economic growth in the region by improving connectivity through journey time and quality enhancements for journeys other than to London. Examples are Eastbourne–Brighton, Worthing–Brighton, Chichester–Brighton, Hastings–Brighton, Hastings/Eastbourne and Gatwick Airport, Uckfield– Brighton, and given the 30-year planning horizon also Tunbridge Wells [pop.c.75,000] – Brighton. Conditional outputs are particularly required for reduced journey times along East and West Coastway to/from Brighton, a regional city whose area population of c.560,000 is similar to three of the national capitals in the UK.

The RS should therefore re-align conditional outputs to the strategic goals in the PMS of stimulating economic activity and improving the prosperity of communities and businesses and the quality of life for individuals. In particular the lack of provision in the RS for residents of the Weald to access Brighton and other Sussex coast centres by quick rail connections for jobs and education, or for Brighton’s visitor economy to be maintained by ensuring rail access to the city at all times (CO22) needs to be addressed now, not indefinitely deferred.

**Wealden Line Extension.** This is neither merely re-opening Uckfield–Lewes nor the ‘grand projet’ of the mis-named BML2. That nomenclature has distracted attention from the near-term case for an additional, not alternative, route which would re-connect Brighton and East Sussex coastal centres – before a second main line is required – via the county town of Lewes, with their Wealden hinterland

communities centred on towns such as Uckfield and Crowborough – and Tunbridge Wells. No previous study with which Network Rail has been associated – 2008, 2014, this RS – has yet considered all the potential benefits to be captured, and delivered incrementally.

The May 2014 study and this RS, both published since the PMS which spoke of ‘what should be achieved to deliver desired outcomes, rather than ‘what can be achieved given existing constraints,’ have omitted to apply four of the nine PMS themes, namely:

3. Improved connectivity within the Market Study area, other than to central London (Weald-Brighton/Sussex Coast)
4. Improved access to international gateways (Port of Newhaven-so-designated by the South East LEP)
5. Improved connectivity to centres of service provision including retail, tourism and higher education (Weald-Brighton/Sussex Coast/South Downs National Park)
6. Competitive services to abstract trips from congested roads (rail trips via Uckfield-Lewes in 10 minutes)

The conclusion that bridging the gap between Uckfield and Lewes only adds value when new lines are built north of Sanderstead ignores the range of local and network benefits that can be achieved within the next decade, even without redoubling and electrification of the Uckfield line. It would provide the resilience of diversionary capability between London and Brighton for the Brighton visitor economy, ‘the visitor pound’ being the primary economic justification, as well as local commuting trips, and this is especially important at weekends when much planned route improvement work is undertaken. The link would also provide access to jobs and education in Brighton (centre of an urban agglomeration of over half a million people) and other East Sussex coastal centres for residents of the Weald, it enables Brighton to continue to grow by expanding its catchment area to Wealden communities and businesses, and it also lays the foundations to offer future connectivity between Tunbridge Wells and Brighton. An improved service at Uckfield would also help reduce rail-heading at Haywards Heath and the pressures on local roads and car parking this brings. Together with committed housing growth in the area, this is likely to create demand for faster and more reliable, and in time more frequent, services to London from Uckfield given the significantly cheaper fares on the route.

Re-signalling the existing Wealden line, planned for CP7+ (if not needed sooner to improve reliability) will likely be the opportunity to progress the line’s re-doubling. Electrification would need to accompany the extension, if not already implemented between Hurst Green Junction and Uckfield, both to improve operational performance and release scarce diesel trains to other parts of the country, and it would also enable the through route to fulfil its role as an alternative during BML closures. We note that the draft Network RUS: Electrification due for consultation later this year will consider the case for infill schemes such as this. Whatever the general policy preference may be, there is a strong case for third rail in this instance as that is the system in the surrounding network, it is likely to be cheaper as less infrastructure alteration is required, and resources other than those committed elsewhere to the long-term rolling national programme for overhead electrification are more likely to be available. The undoubted benefits of electrification for passengers, the train operator, and the local environment can therefore be realised sooner than joining the back of the already-long queue for 25kV. Meanwhile we also note that the Lewes area is planned for re-signalling in the current Control Period and given the life expectancy of such assets we must urge that passive provision be made now [ref. final para. of 5.1, p.97] for the Wealden Line Extension including the Lewes horseshoe loop (illustrated at [www.railfuture.org.uk/Uckfield+Lewes](http://www.railfuture.org.uk/Uckfield+Lewes) ).

Without any extra paths being required at East Croydon, the current timetable can deliver initial Wealden Line Extension services, and accompanying economic benefits, within a decade. It requires a broader view of the strategic goals of the PMS looking beyond the London commuting market, and of the appropriate conditional outputs of the RS, focussing instead on the major metropolitan centre that is

Brighton. Extending the current regular hourly Uckfield service to/from Brighton via a horseshoe loop at Lewes, and extending the current weekday peak services in the intermediate half-hours to/from Seaford (accelerating them by stopping only at the larger stations) can be achieved using existing paths as the vital first evolutionary increment in the route's progressive development. The extra train this would require would be offset by releasing a train currently used on the Brighton–Lewes shuttle. It would avoid the splitting and joining of the current peak Seaford–London service, creating additional capacity on both the other portion of that service from Eastbourne, and from Seaford to London.

The TfL approach for South London suburban services of a simplified network with a reduced choice of London termini [para 6.4.2] is equally applicable to long-distance commuter services; a similar approach is reflected in NR's 'Improving Connectivity' document, taking Anglia Route as a case study. By reducing the conflicting movements required to serve all termini from all locations the full potential capacity can be achieved. Therefore following the initial Wealden Line Extension opening described above, re-doubling and electrification of the Uckfield line well before 2043 would enable 4 tph, two limited-stop to East Coastway and two stopping to Brighton, using the additional two paths available between East Croydon and London Bridge.

Even without reopening Uckfield–Lewes, the provision of a horseshoe loop at Lewes in CP6 would provide resilience with valuable diversionary capability for the BML between Keymer Junction and Brighton, enable additional Brighton–Lewes services for major events at either town or at Falmer, and potentially improve stock utilisation and platform occupation by avoiding reversal of Brighton–Lewes shuttles at Lewes.

Railfuture therefore proposes an addition to Appendix C: Operational Planning Work – Next Steps. The task to be added is to evaluate the combined, wider benefits case for a phased Wealden Line Extension (based on the range of possible re-opening schemes including through links with Brighton such as the Lewes horseshoe loop), including diversionary and additional peak capacity between London and the Sussex Coast, local traffic between the Weald/Tunbridge Wells and Brighton and Sussex Coast centres, and the wider economic benefits of every-day rail access to Brighton for jobs, education and the visitor economy. This work needs to be undertaken over the coming year or so, so that a first incremental phase of the Wealden Line Extension can appear as a proposed CP6 Enhancement in next year's Initial Industry Plan, and later inform the specification for the post-GTR franchise. Meanwhile we also advocate a second 'Improving Connectivity' case study, for the South East Route in preparation for the next South Eastern and South Central franchises.

**Access to Docklands (Thameslink 2).** A significant and increasing proportion of the demand between East Croydon and London Bridge is passengers travelling between East Croydon and Docklands, who continue their journey beyond London Bridge via the Jubilee line. This is a symptom of the continuing expansion of London's economic centre eastwards, reflected in recent versions of the Central London tube map to include the DLR network, which also includes Stratford. Providing a direct heavy rail route between East Croydon and Docklands, which could support a metro service, would reduce overall journey times and relieve congestion on both the London Bridge route and the Jubilee line. Whilst such a solution would be a major project, it would not be as ambitious as some of the ideas canvassed in the 2010 RUS to relieve capacity in this busy corridor and would be worth further examination.

We would propose consideration of a possible metro solution connecting East Croydon with Kent Route's Hayes branch, and then by tunnel from Lewisham through Canary Wharf to Stratford, linking with the capacity-enhanced West Anglia Lea Valley and North London Lines. There are various possible solutions to secure the connectivity required. With a sixth track between South and East Croydon, this 'Thameslink 2' solution would allow Tattenham Corner and Caterham services to be removed from the fast lines to London Bridge, creating paths for other longer distance services. The capacity of this

additional route, whatever the final detailed alignment, will be necessary before 2043 to achieve a level of standing space (i.e. 0.45 sq metres per person with up to 85% seat utilisation) which will be acceptable to passengers long-term, and to meet the PMS 407% growth prediction of an additional 100 million annual passenger journeys using the parallel East London Line, with its tightly-constrained interchange at Canada Water for the Jubilee line.

**Other comments.** Planned housing developments at centres such as Burgess Hill, Uckfield and Stone Cross [Eastbourne] could materially affect travel demand, in the case of the latter potentially justifying a new station. West of Stone Cross and considering the strategic goals and themes of the PMS across the 30-year planning horizon, restoration of a Polegate-Pevensy link (a.k.a. Willingdon Chord) might be expected to deliver similar benefits to East Coastway centres where the demand is evident from the recent investment in the A259.

Local rail users would prefer the retention of at least the present level of service to/from Victoria at Redhill.

If the Wessex Route Study proposes fast line peak hour trains stopping at Clapham Junction that would increase journey opportunities for South Western passengers but significantly increase demand on the West London Line. Platform lengthening on the North London Line to support 8-car trains, although hugely disruptive and expensive, may ultimately be needed to provide the capacity required and would be preferable to forcing breaks of journey at Old Oak Common. Passive provision for this would be a positive first step.

The proposed improvement in West London Line signalling headways is endorsed to enable higher frequencies.

The lack of demand on the Epsom Downs branch is almost certainly due to the poor service frequency and routing to Victoria via West Croydon. If that could change it would increase demand, and relieve Tattenham Corner services.

We support skip-stopping to accelerate the Brighton–Bristol/Cardiff service and improve West Coastway journey times, but suggest that loops to enable limited-stop services to pass stopping services are also required to improve journey times and frequencies further. We also support routing the Brighton–Bristol service via Southampton. Another cross-boundary issue is local aspirations for improved links via West Coastway with Southampton Airport. As indicated in our response to the Western Route Study, we believe this important corridor between Cardiff, Bristol, Southampton, Portsmouth and Brighton requires better coordination with and strong and unified leadership in route planning terms to meet the latent demand on the route

Terminating additional Wimbledon loop services at Blackfriars would provide better utilisation of capacity.

We support 2 tph to Gatwick, 3 tph overall on the North Downs line, in peak as well as off-peak periods. Timesaving from improved acceleration of limited-stop services with AC electrification are likely to be offset by the frequent switch between AC and DC electrified sections, unless switchover can be achieved on the move. As with the Wealden Line Extension/Lewes Loop, DC electrification could be completed sooner.

We believe that it is time now to seek to change the legal requirement to protect the large number of Channel Tunnel freight paths, as they now appear to be preventing best use of the network and could require expenditure to protect paths which may not be required for the foreseeable future. Circumstances have changed since freight started to use HS1, and it is time to review the original legal

requirements. We would suggest both a review of the quantum of paths required and of the timing of the paths required. This would allow continued protection of paths where this can be readily achieved, for example at off peak times, but that at other times the paths should be used where required for other services and if required by freight in years to come, then an mechanism would enable all parties to cooperate to deliver them, including a requirement for TOCs to flex times to accommodate them.

In addition to providing some diversionary capability and extra capacity, the Arun chord could also provide shorter journey times from West Coastway towns to Crawley for access to jobs and the provision of a direct Brighton to Horsham link is an imaginative idea that would be welcomed. However we accept that it does not offer either an effective, value-for-money diversionary or capacity relief route. In our view this increases the need for the Lewes horseshoe loop and Wealden Line Extension, as an effective diversionary route, which also delivers significant benefits in the terms indicated by the PMS.

**Small-scale interventions.** As performance and resilience are of increasing importance to the industry and its funders, including passengers, the following schemes, mainly to enable greater operational flexibility through curtailments with reversals to recover schedules, are suggested as contributors:

- Additional Epsom-Sutton capacity with restored through lines at Cheam;
- Bi-directional platforms at Belmont, Reigate, Sanderstead, Tonbridge, Worthing;
- Re-instated platforms at Arundel, Chichester [and re-instated loop in goods yard];
- Redhill platforms all accessible for Tonbridge line, including allowance for a Maidstone-Gatwick link;
- Stoats Nest passing loop created from long siding;
- Track/signal and platform arrangements to allow curtailments/reversals at Coulsdon South and Norwood Junction;
- Reversal capability north of Hampden Park.

**Corrections/inconsistencies.**

- Fig. 2.7 and 3.13 There are actually 3 tph in the peak hour from East Coastway to London, not 2 as shown. It is possible that the confusion has arisen because one has an arrival time of 08.00. Possibly a working timetable/public timetable difference?
- Table 5.2 Similarly the current timetable appears to have 14 peak hour services between Keymer and Balcombe, not 13 as shown – no doubt the third service from Lewes has been missed. Same comment as above applies.
- Para 3.5.5 should also cover Heathrow southern access, referred to in the Wessex route study, which may have some impact on Sussex routes passengers via Clapham Junction or via Guildford and the North Downs line.

We trust these comments will be of use.

Yours faithfully,

*CAustin*

Chris Austin OBE MA FCILT  
Railfuture  
Head of Infrastructure and Networks Group  
for Director of Policy