



Proposed new passenger station at Glyne Gap, Bexhill

Technical note – Stage 1: Review and updating of existing studies

November 2012
Rother District Council, East Sussex County Council, Land Securities Group PLC

Confidential



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1. Introduction

The study into the proposed new railway station at Glyne Gap has been commissioned by Rother District Council (RDC), East Sussex District Council (ESCC) and Land Securities Group PLC (Land Securities) in order to build on earlier studies which suggested, at an outline level, that there might be a case for the provision of a station at this site. In particular, the purpose is to inform RDC and ESCC's transport and land-use planning processes as to the desirability of planning strategy including the station.

This document is the Technical Note referred to in section 2.2 of our proposal document, providing a "Review and Update of Existing Studies". Its purpose is therefore to summarise the results of our review of the previous studies carried out into the proposed new railway station at Glyne Gap, Bexhill, with a particular focus on the areas where the findings of that previous work may have changed. In this way, this note will provide the foundation on which the subsequent stages of this study will bring the earlier work up to date and cover additional areas.

1.1 Previous studies by Steer Davies Gleave (SDG) and Mott MacDonald (MM)

For convenience, we summarise here briefly the main findings of the previous studies carried out in 2000 (SDG), 2002 (MM) and 2004 (MM, updating 2002 work but without carrying out an economic appraisal). Note that we are assuming for the new work that the Metro service will not be going ahead and will not be assessed.

Table 1: Summary of previous studies into Glyne Gap station

Study	SDG 2000	MM 2002 ¹		MM 2004 ²		Notes
	4 tph 'With Metro'	4 tph 'With Metro'	2 tph 'Without Metro'	4 tph 'With Metro'	2 tph 'Without Metro'	
Capital cost	£1.036m	£1.0m		£3.3m		Including optimism bias, contingencies etc.; prices in nominal terms in year of report
Daily trips	767/607	772/612	538/427	855/695 [†]	640/517 [†]	Including/excluding trips abstracted from other stations (particularly Bexhill)
Implied additional rail journeys/yr	151,000*	153,000*	104,000*	174,000* [†]	129,000* [†]	Net of abstraction from other stations
Additional revenue/yr	£191k	£193k*	£135k* [£330k]**	£610k* [†]	£450k* [†]	Net of abstraction from other stations
Benefit:cost ratio	3.8	n/a	[2.09]**	>2.0	>1.5	2004 report did not quote exact BCR figures
Net present value	£2.873m	n/a	[£4.34m]**	>£7m	>£4m	NPV of benefits (i.e. benefits less costs)
Operating ratio	1.1	n/a	[1.53]**	n/a	n/a	i.e. ratio of revenue to operating costs (not given in 2004)

¹ From MM technical note dated 16 August 2002.

² The main work was reported in May 2004 but the business case appraisal was added, together with slightly revised demand and revenue forecasts, in a presentation dated 7 October 2004. The revised figures are quoted here.

* These figures use an annualisation factor of 250, which effectively means that only the weekday usage and revenues are counted. This is consistent with SDG's methodology but MM also provide alternative figures using an annualisation factor of 312 to take account of weekend demand, with correspondingly higher annual revenue and ridership figures.

** While the main MM reports did not quote appraisal values (their main purpose being to verify SDG's forecasting methodology and calculations), a technical note dated 16 August 2002 reworked the forecasts and appraisal for the "non-metro" option. This found daily demand of 580/420, implied additional trips of 103,000 and annual net revenue £330,000 based on real-world net revenue figures provided by South Central. Assuming capital costs of £1m to £1.5m (and taking the upper value for appraisal purposes), the note found a benefit:cost ratio of 2.09, a net present value of £4.34m and an operating ratio of 1.53.

† Figures include additional demand from Bexhill College, which was not counted in the figures given in 2002 (and the May 2004 report). It should also be noted that the October 2004 figures are based on higher assumed average revenue per journey figures provided by South Central.

All values given for trips and revenues above are "snapshots" for the scheme opening year. To calculate the benefit:cost ratio (BCR) the relevant costs and benefits were projected forward over the scheme appraisal period and the values for each year discounted back to the present day.

2. Changes since 2004

We set out below in summary form the main changes since the last study was carried out, including those on the railway itself, in the physical environment of the proposed station, in project appraisal, and in the regulatory framework in which the business case appraisals are carried out. In each case we set out briefly the form that the change has taken, before at the end showing in a table the nature of the impact that we would expect each change to have on the business case for Glyne Gap station. The information in this section has been gathered from the following main sources:

- Rail Technical Standards for Interoperability;
- Network Rail generic data in relation to costs;
- Historic public rail timetables;
- Initial conversations with Network Rail and Southern Railway, the current Train Operating Company (TOC), as well as with Land Securities Group PLC (Land Securities);
- TOC, Network Rail, DfT, bus operators' and other public websites;
- ORR station footfall data;
- Information provided by RDC and ESCC; and
- The DfT database TEMPRO.

RDC and ESCC planning documents have not been reviewed in detail at the current stage in the study.

2.1 Policy Framework

The possibility of a station at Glyne Gap is, we understand from information provided by RDC, referred to in RDC's current Local Transport Plan (LTP3), as well as in its Core Strategy.

Network Rail's Route Utilisation Strategy (RUS) process led to the production of two RUS documents, which have until recently been NR's principal strategic planning documents.³ The first emerged in January 2010, covering Sussex specifically, and then the second-generation RUS for London and the South-East, produced in July 2011. However, neither document, nor the March 2010 Route Plan supporting the Sussex RUS, included reference to Glyne Gap station.

2.2 Changes on the railway

Physical standards and requirements for new stations

While new Technical Standards for Interoperability have been introduced which affect station design, these make only minor changes as against the standards previously in force. However, Part L of the building regulations, which would also apply, was amended in 2010 in respect of energy consumption – high-level, generic estimates are that this would add up to about 10% to capital construction costs for the station.

In addition, general costs inflation in the construction industry, in nominal terms (that is, in money terms) is reckoned to have increased the likely capital costs by around 26% since 2004 for infrastructure generally, but by 40% for building works excluding mechanical and electrical work – the higher figure likely being the one more relevant for station construction. However, over the same period, RPI inflation has been 31%, so the real-terms increase in construction costs over the 8 years is only some 9%.

³ They have now been replaced by the Long-Term Planning Process (LTPP), but no LTPP documents have yet been produced covering this area.

Changes in present-day rail services

In 2002, the basic off-peak service on the line past the Glyne Gap site was:

- 1 tph⁴ London Victoria – Eastbourne – Hastings
- 1 tph Brighton – Eastbourne – Hastings
- 1 tph Eastbourne – Hastings – Ore – Ashford

This was essentially unchanged in 2004.

The service pattern is now slightly different in 2012:

- 1 tph London Victoria – Eastbourne – Hastings – Ore
- 1tph Brighton – Eastbourne – Hastings – Ore
- 1 tph Brighton – Eastbourne – Hastings – Ore – Ashford

There have therefore been improvements in connectivity to Ore to the east (1 tph to 3 tph), and to Brighton in the west (1 tph to 2 tph). Journey times are broadly similar. Previous studies assumed that London services would not stop at Glyne Gap⁵, and it is likely that the question of whether or not direct London trains would stop at Glyne Gap would influence the profile and level of demand to use the station.

We would add that there have been no significant changes to services on the Hastings – Tonbridge – London line. This is relevant because passengers travelling to London from the Bexhill area in some cases either drive or take a train to a station on this route to take advantage of the two direct London services the line enjoys every hour.

Beyond this, it has been possible since December 2009 to travel from Ashford to London St Pancras in only 38 minutes. In turn, the Bexhill area can be reached using the Marshlink service, leading to through journey times, depending on connections, of around 1 hour 40 minutes to St Pancras.

Looking forward, the Thameslink programme will have some, largely indirect, impacts on the East Coastway, in that there will be a re-cast of the Brighton Mainline timetable and therefore potential changes to the timings of Hastings – Eastbourne – London services, as well as the likely loss of the trains which operate from Hastings via Tonbridge to Cannon Street at peak times.

Rail ticketing

Since 2004 there have been only minor changes in the types of ticketing on the East Coastway line, and fares have risen generally in line with national trends. However, the main 2002 business case appraisal work was based on an assumption that fares would rise at 0.5% *less* than RPI; in fact since January 2004 increases have been at RPI *plus* 1%, rising to RPI plus 3% before falling to RPI plus 2% for 2012 for Southern. This would influence both the assumed levels of ridership and the forecast revenues.

While the “Key” smartcard ticket has been introduced and can be expected to have a significant effect *in the future*, so far its scope and coverage are limited: it only acts at present as a replacement for traditional paper tickets for weekly and monthly season tickets (not single-journey tickets) and there is no pay-as-you-

⁴ Train per hour. Note that peak service patterns are slightly different, with additional stops and services.

⁵ Implying that for 2 tph service one train would be the Brighton – Ore service and the other the Brighton – Ashford train (currently a limited-stop service west of Hastings).

go facility, nor is there any discount in the fare for using the Key. In addition, Bexhill is currently the easternmost point at which it can be used (Worthing is the westernmost). As such, we do not consider that it is likely, yet, to have had much impact on travel trends or revenue.

Physical infrastructure on line

Although the East Coastway line through Bexhill and past the proposed new station site towards Hastings saw little change in its infrastructure until 2012, the line is now in the process of a major resignalling and upgrade. This will see operating headways (i.e. the minimum time between trains in one direction) reduced throughout the day – with Bexhill signal box being abolished the current variations in capacity according to whether the box is in use will disappear. It should also see linespeeds rise (Network Rail intend the maximum to rise to 90mph eventually), reducing journey times. It is possible that this extra capacity and increased speed may make it easier to timetable an extra stop at Glyne Gap, but whether this is the case will only become clearer once the timetable analysis process has been carried out.

We are aware that one constraint on the possible layout of platforms at Glyne Gap has been the position of signals. The existing signals will shortly (early 2013) be removed and will be replaced by new equipment at new positions. It is not, however, necessarily the case that all possible conflicts between platforms and signal posts will be avoided, and this will need to be checked by reference to the new layouts. A key issue is whether the new signalling positions can be influenced, if necessary, to allow for the introduction of Glyne Gap station.

Background rail demand

The Mott MacDonald 2002 studies (and as updated in 2004) assumed year-on-year rail demand growth at 1% beyond the forecasts for the base year, whilst the previous SDG study had assumed 2% annually, but capped after ten years. Table 2 below shows the observed demand growth between the 2002-03 and 2010-11 rail years for a collection of stations along the East Sussex coast, Marshlink and Hastings lines along with the Cumulative Annualised Growth Rate (CAGR), as obtained from Office of Rail Regulation data for station footfall for these years⁶.

Table 1: Daily station footfall along the East Coastway, Marshlink and Hastings lines (2004-05 and 2010-11)

Station Name	Footfall 2002-03	Footfall 2010-11	Change	CAGR
Eastbourne	4,419	5,664	28.2%	3.2%
Ashford International	3,321	5,005	50.7%	5.3%
Lewes	3,295	4,397	33.4%	3.7%
Hastings	2,279	3,098	35.9%	3.9%
Bexhill	1,379	2,295	66.4%	6.6%
Falmer	1,169	1,605	37.2%	4.0%
Polegate	1,160	1,407	21.2%	2.4%
St.Leonards Warrior Square	769	1,088	41.5%	4.4%
Hampden Park	786	876	11.5%	1.4%
Battle	747	836	11.9%	1.4%
London Road (Brighton)	503	752	49.5%	5.2%

⁶ Calculated by adding annual station entries and exits and then halving this total, before dividing the number by an annualisation factor of 312.

Station Name	Footfall 2002-03	Footfall 2010-11	Change	CAGR
Rye	329	619	88.2%	8.2%
Moulsecoomb	286	566	98.4%	8.9%
Pevensey & Westham	188	243	29.3%	3.3%
Collington	132	242	82.9%	7.8%
Ore	31	203	547.4%	26.3%
Cooden Beach	152	183	19.9%	2.3%
Ham Street	76	131	72.1%	7.0%
West St Leonards	119	125	4.6%	0.6%
Berwick (Sussex)	132	123	-7.0%	-0.9%
Glynde	62	107	73.4%	7.1%
Crowhurst	63	63	0.0%	0.0%
Appledore	25	55	121.1%	10.4%
Normans Bay	14	19	28.9%	3.2%
Doleham	2	6	167.8%	13.1%
Pevensey Bay	4	6	38.9%	4.2%
Three Oaks	9	2	-72.0%	-14.7%
Winchelsea	8	1	-90.9%	-25.9%

It is clear that annual growth rates observed have been in excess of the levels predicted in the original business case for Glyne Gap, and very much in line with the strong growth in travel by rail that has been observed throughout most of Britain even during the recession.

2.3 Appraisal and funding

DfT appraisal methodology

It should be noted that in 2000-2004, when the previous SDG and MM studies were carried out, the SRA guidance for appraising rail projects was significantly less prescriptive than that subsequently put in place by DfT through WebTAG. Since then, the changes in the following areas have taken place, and these are likely to be of relevance to the business case appraisal of Glyne Gap station:

- How long from the scheme opening date background rail demand is assumed to grow, before then being assumed constant for the remainder of the appraisal period;
- The appraisal period itself: it is now standard to appraise costs and benefits over a 60-year period for a railway station;
- The discounting rates used to convert future money into present values are now standardised at a lower level, which will tend to give more weight to costs and benefits arising further into the future than the older discounting rates did;
- Optimism bias, the uplift applied to costs to guard against over-optimistic assumptions in capital costs estimating, is now generally taken to be 50% for a Network Rail GRIP2 study;
- Other changes cover the treatment of indirect taxes (i.e. money spent on untaxed rail fares rather than other products in the economy, and lost fuel taxes); providing more detail on what types of traveller benefit from the time savings forecasts, and to what degree; plus a move to include the “distributional” effects of transport schemes – i.e. looking at which sections of society actually benefit and whether that is different from those who bear the social costs such as those of extra road traffic.

Finally under this heading, the general increase since 2004 in GDP (despite the recession) means that values of time will in real terms now be higher.

Funding framework

Since 2004, the way in which the railway in Britain receives its core funding has not been subject to radical change such as would significantly affect the fundability of a station at Glyne Gap. However, specific funds available for targeted transport infrastructure improvements have changed, particularly since the change of government in 2010. One example is the Local Sustainable Transport Fund administered by DfT where the final instalment was announced in June 2012, and therefore no further funding is available by this source – however other sources of DfT capital funding do exist.

Network Rail also funded some station projects, whether as part of its core funding settlement (addition of the investment to its Regulatory Asset Base) or other funds such as its Discretionary Fund. In such circumstances funds for the project have been provided by Network Rail in return for a stream of regulated charges paid by the TOC. Where DfT support is required it is often paid to the TOC in the form of increased subsidy.

As previously, in addition to local and regional authority funding being a possibility, the PPP mechanism remains an option – though it may be that continuing difficult circumstances especially in the property investment and building sector, as well as tight private-sector finance and restrictions on the availability of credit, may tend to make this more difficult at present.

In addition, the current government has indicated that it has a policy of moving towards longer franchise lengths, one reason for this being to encourage more direct infrastructure investment by TOCs (by lengthening the payback period). However, in the case of the South Central franchise, this will on current plans in July 2015 become a part of the new Thameslink franchise (currently in the process of being let), and this franchise is only scheduled to run until 2020, so it seems relatively unlikely that this source of funding would apply to Glyne Gap.

At the time of writing, it is, however, difficult to be certain as to the future direction of rail franchising. This is because the failure of the Intercity West Coast bidding process in autumn 2012 has led to a full review of the wider franchising process, with the findings expected at the end of December 2012. We would expect further delay before the findings are translated into concrete franchising strategy and the practical effects are known in terms of any changes to the replacement franchise for South Central/Thameslink. While uncertainty is not desirable, in the context of this study there is some potential benefit in the sense that the delay is likely to lead to the franchising process only restarting once our study into Glyne Gap has been concluded. Should our study findings be positive, this would therefore allow those findings to be fed into the re-franchising process.

Legislation is in place to secure developer contributions to implement key infrastructure projects. The new Community Infrastructure Levy is being brought in to replace the section 106 agreement system largely, introducing the concept of a fixed tariff of contributions (hypothecated to a specific use), calculated by reference to the size of the proposed development. This is intended to reduce the amount of negotiation necessary and provide greater certainty on both sides of the development process. Clearly any such contribution would have an impact on the net cost of the station scheme to the public purse – though would also filter through in the appraisal process as being a lower net benefit to the private sector and could therefore actually result in a lower benefit:cost ratio.

2.4 Local factors influencing travel demand

Housing around Glyne Gap

Since 2004, data provided by RDC indicates that the population in the three wards surrounding the proposed station site (Sackville, St Michaels and West St Leonards) has increased by 16%. It is, however, notable that almost all of this net growth has been between 2010 and 2012. Some care may also be appropriate in that the strongest growth (36%) has been in Sackville ward, in which most of the residential areas are to the west, which may be closer to Bexhill's existing station; similar comments may also apply to West St Leonards (16%), with the areas to the east of the ward and close to West St Leonards station being more populous. The increase corresponds to an actual population increase across the three wards of just under 2,100.

Our 2004 report included an allowance for an increase of 580 in the number of dwellings in the station catchment – making allowances for areas of the above wards outside the station catchment and for the likely average sizes of the new dwellings (i.e. occupancy), this would seem to be a similar order of magnitude increase to what was allowed for in the forecasts.

Looking forward, the development of North-East Bexhill is potentially relevant to Glyne Gap station. Current planning documents (in particular the RDC Core Strategy) envisage between 2,050 and 2,250 new dwellings being provided in this area by 2018, plus significant employment development. It is likely that at least some of this new development would fall within the natural catchment of a Glyne Gap station. Similarly, we understand that development on the western edge of Hastings/St Leonards (in particular the Bulverhythe area) will see additional housing, possibly around 700 dwellings – once again this is likely to be of relevance to future-year assumptions of demand at Glyne Gap.

Bexhill College and other educational journeys to Glyne Gap

The 2004 forecasts made allowance for trips attracted to the (then) new college, estimating that the relocation of the college to its new (now current) site would add 93/71 trips with/without the "metro" service level (before reduction to reflect those who might have used Bexhill station). We have unfortunately not been able to obtain data directly from the College; however, the TRICS database incorporates the findings of a 2011 survey of travel habits to the College, which gives a breakdown of the modes of transport used by students and staff. Unfortunately, however, it does not give any information as to the origins of those journeys, i.e. the catchment of the College for students and staff. Information on this is necessary in order to ascertain whether the staff or students are reasonably likely to use rail – and if so, for what journey lengths (relevant to revenues and assessing time-saving benefits). We are aware that ESCC and RDC are attempting to provide us with data on this; should it not be available, our demand forecasting work for Glyne Gap will have to proceed on the basis of assumptions agreed with them.

We consider, however, that some caution is appropriate: Bexhill College is roughly 1.2km as the crow flies from the proposed station – a distance which is likely to deter some from using rail. It is also worth pointing out that the existing Bexhill station is only a little further from the College than would be Glyne Gap, so this raises a question mark over how many *new* journeys to the college would be attracted to rail as opposed to simply abstracted from using Bexhill.

Figures supplied to us by RDC indicate that between the 2004/05 and 2012/13 school years, the total roll in Year 11 in Bexhill, Battle, Eastbourne and Hastings has stayed fairly constant, though within that total Bexhill has increased by about 11%. However, generally speaking we consider it unlikely that changes in

pre-sixth-form education numbers will have a major impact on demand to travel by rail, given the shorter distances younger school pupils generally travel.

Ravenside Retail Park

Units within Ravenside Retail Park have undergone various changes of use since the previous studies in terms of changes of owner and use, plus some extension to premises, but it is unlikely that any of these would have significant effect on the likely transport demand to the site. We understand from RDC that footfall at the site has increased since 2004, though we have not seen specific data for the site. ONS Neighbourhood Statistics indicate that between 2004 and 2008 (the most recent year available) the amount of retail floor space in the MSOA⁷ covering Ravenside increased by 20%. However, the MSOA does not solely cover Ravenside, and the value is only retail, so if there were a decline in leisure facilities such as through conversion to shopping use at Ravenside, the statistics could be potentially misleading in terms of the overall effect.

We are aware of plans to convert the bowling alley into a Marks & Spencer branch, which may also be accompanied by further changes of use for existing units. Certain changes of use might be associated with a higher probability of public transport use: for example, “high-end” comparison shopping for fashion items might be amenable to public transport, whereas supermarket, furniture and white-goods purchases would be far more likely to involve a car trip. However, once again we do not believe that this would be likely to alter markedly the scope for rail travel to play a role in journeys to Ravenside in terms of *absolute* numbers of rail trips.

At the time of writing, we are awaiting information from Land Securities in terms of the numbers of employees at Ravenside and also the total gross floor area of the site.

While the previous studies (both SDG and MM) assumed fairly low modal shares (around 2%) being achieved by rail in respect of trips attracted to Ravenside, the ability of rail to capture significant numbers of such journeys is still open to debate: developments of this type could be described as “being built around the car” in terms of both their physical positioning and layout, of the nature of the facilities they offer (shopping for large items), and of the journey units they attract (i.e. typically a family or group of friends travelling together). Our modelling of demand at Glyne Gap station will make use of information from the TRICS database, drawn from comparable retail parks elsewhere in the country which already have a rail link.

Other attractors of journeys

Since the last studies into Glyne Gap, the general distribution of main attractors for leisure trips *from* the area can be expected to have remained roughly the same, with Eastbourne, Brighton and London being significant (alongside Gatwick Airport), plus Hastings in the other direction. However, certain existing or planned “landmark developments” could be expected to act as major attractors in their own right, such as:

- The American Express Community Stadium, opened in May 2011 and close to Falmer station;
- In the near future: the redeveloped Royal Sussex County Hospital site and i360 tower (both in Brighton), Shoreham Harbour (west of Brighton).

⁷ Middle Layer Super Output Area.

Overall, we understand that there is likely to have been since 2004 a net increase in the number of leisure facilities in the wider region which might be likely to attract journeys from around Glyne Gap. One potential additional attractor of journeys to the Glyne Gap area is the planned Countryside Park.

Employment trends for the South-East region in general imply that there has been little overall change in the total numbers of jobs in the region since 2004 – with gains through the early-to-mid 2000s cancelled out by losses since then. London has, however, seen net growth over the period despite the recession – though Bexhill is outside the core commuting belt for London and therefore such journeys constitute a fairly small minority of rail journeys.

By way of context, below is a brief summary of the 2001 Census “journey to work” data, this being the most recent set available. It relates to commuting habits of residents of the wards of West St Leonards, St Michaels, Sackville, Old Town (Bexhill), Central (Bexhill), St Stephens and Sidley⁸, firstly in relation to the modes of transport used at present:

Table 2.2: 2001 Census Journey To Work data: modes chosen

Mode	%
Car (driver)	57.2%
Walk	14.4%
Work at home	9.6%
Car passenger	7.3%
Train	4.2%
Bus	2.9%
Bike	2.1%
Motorbike	1.4%
Taxi	0.5%
Other	0.4%

- and also a breakdown of the districts to which the employment journeys are made by commuters:

Table 2.3: 2001 Census Journey To Work data: destinations of commuting journeys

Work District	%	Number
Rother	52.3%	5777
Hastings	26.7%	2947
Eastbourne	5.4%	597
Wealden	3.9%	436
Tunbridge Wells	1.4%	160
Lewes	1.3%	146
Brighton and Hove	1.1%	117
Westminster	0.7%	81
Crawley	0.6%	65
Tonbridge and Malling	0.6%	64

⁸ These districts cover the areas most likely to use a station at Glyne Gap, but naturally not all of those wards would be expected to fall within the catchment of the station.

Work District	%	Number
Mid Sussex	0.5%	57
Ashford	0.3%	36
City of London	0.3%	31
Bromley	0.2%	27
Lambeth	0.2%	21
Southwark	0.2%	21
Reigate and Banstead	0.2%	18
Wandsworth	0.2%	18
Camden	0.1%	15
<i>All others</i>	3.4%	683
<i>Outside scope⁹</i>	0.3%	30

As can be seen, by far the largest number work locally, within Rother district, but short-distance commuting journeys to Hastings are significant. Of particular potential interest to the East Coastway railway, Eastbourne and also the Wealden area (which includes areas such as Pevensey & Westham, Willington, Polegate, and parts of East Dean and Alfriston wards served by railway stations) attract more than 9% of commuting journeys, or over 1,000 journeys. We would, however, once again emphasise the limitation on this dataset arising out of its age, and so would caution against placing excessive reliance on it. Taken together, and including both the London districts shown above in bold and those which individually attract too few journeys to be shown above, London attracts 2.7% of all journeys in total.

Since producing the above notes, we have been provided by ESCC with a separate analysis also based on 2001 Census Journey To Work data, but looking at the totals of those both resident and working (not just resident as above) in Hastings Borough and in Bexhill Town (all wards), rather than those wards around the proposed station site. We have included tables of that data as an Appendix.

2.5 Other modes of transport

Changes in the road network

The road network between Bexhill and Hastings has not seen major changes since the previous studies were carried out. We note that the original SDG report in 2000 commented on congestion on the A259 along this stretch, and particularly at the Glyne Gap roundabout, describing it at the time as both a problem and an opportunity.

We understand that congestion in this area remains significant and have been provided with traffic count data from East Sussex County Council which confirms that there has been little overall change in traffic flows between 2004 and 2011. ESCC and RDC have commented that the A259 can be described as having, at peak times, reached saturation point. However, looking forward, one would expect that the Bexhill-Hastings Link Road, confirmed as authorised since the previous Glyne Gap studies were carried out, would at least partially alleviate the situation, though could lead to problems emerging elsewhere (and may make rail relatively less attractive for east-west journeys).

⁹ This refers to those who work in locations outside the scope of the wards, such as outside the UK or offshore.

As a condition of the planning permission for the Bexhill-Hastings Link Road and as part of the funding approval given by the Department for Transport, ESCC have advised that the following package of complementary measures will be delivered with the Link Road:

- An improved roundabout junction of A2100 The Ridge/B2092 Queensway;
- An improved roundabout at the junction of Harrow Lane with the B2093 The Ridge;
- A259 westbound bus lane on approach to Glyne Gap roundabout;
- A259 eastbound bus lane on approach to Harley Shute Road;
- A259 westbound bus lane between Filsham Road and Harley Shute Road; and
- A new bus service which would use the Link Road (details of specific routes are, we understand, yet to be settled).

Car ownership

Between 2004 and 2012, DfT data indicates that the proportion of households in the Bexhill area without a car fell from 24.5% to 20.8%, and in the zone to the west of Hastings/St Leonards from 6.4% to 6.2%. Traditional rail demand forecasting would associate this with a fall in rail demand.¹⁰

Cycling

Cycling is generally seen as a “complement” to rail, i.e. cycling acts as a station access/egress mode. However, for some short journeys, such as from Bexhill to Hastings/St Leonards, cycling might be an alternative to a rail or bus journey. There is now a high-quality cycling corridor along the sea front along this stretch. However, it is fair to add that any reduction in demand for rail travel from journeys made instead by cycling would clearly only have an impact on short rail journeys with low fares yields.

We understand that in coming years further development of Bexhill’s cycling network is planned – though this would appear more to benefit the town centre

Bus services

As with cycling, bus can act as a competitor or a complement to rail use. On the Hastings – St Leonards – Bexhill corridor bus services would appear to be potentially competitive with rail, offering around 4-6 services an hour, with journey times to Glyne Gap of around 14-16 minutes from Hastings, 12 minutes from St Leonards Warrior Square and 6 minutes from West St Leonards. We understand this to be a slightly higher level of service than when the previous studies were carried out. In addition to these bus services, complementary improvements relating to the new Bexhill-Hastings Link Road will provide improved bus priority measures between Glyne Gap and Hastings (see above). In conjunction with this there is an expectation that Stagecoach will improve the frequency of bus services along this corridor.

2.6 Summary of changes since 2004

The table below summarises the likely effect of each of the changes listed above on the strength of the economic case for Glyne Gap station, in terms of whether it will be positive, negative or neutral.

¹⁰ The data is from TEMPRO, as are the zones, “Bexhill” and “Hastings (part)” being those relevant to the site. We are aware that in recent years it has been argued that increased traffic congestion has weakened the link between car ownership and the non-use of rail. In any event, the assumed influence of changes in car ownership on rail demand is weak in standard forecasting methods.

Table 4: Summary of expected impacts of changes since 2004

Change since previous studies	Likely impact on business case
New standards and price increases for station building	Negative
Changes in train services (more connections to Brighton & Ore)	Slight positive
Ticketing and Key smartcard	Neutral so far, slight positive in future
Physical infrastructure on line	Not clear yet: infrastructure assessment to confirm
DfT appraisal process:	
<ul style="list-style-type: none"> • growth-cap horizon year now 20 years from appraisal date • lower discounting rates • appraisal period now 60 years vice 30 • optimism bias on capital costs 50% rather than 66% (GRIP2) • indirect taxes • splitting time savings by size category • social/distributional analysis • increase in value of time 	<ul style="list-style-type: none"> • Slight positive or slight negative¹¹ • Slight positive • Slight positive • Positive • Slight negative • Neutral overall • Does not affect BCR directly¹² • Positive
Funding framework (changes to introduce Community Infrastructure Levy)	Not clear at this stage; any 3 rd -party funding could increase affordability but may reduce BCR
Background rail demand (growth higher than assumed in 2004)	Positive
Housing around Glyne Gap (catchment population growth)	Neutral or slight positive (increase broadly as forecast in 2004)
Bexhill College (more attracted journeys potentially in scope than assumed in 2004 studies) ¹³	Positive, though revenue levels and abstraction from existing Bexhill rail users need to be confirmed
Ravenside Retail Park (changes in retail/leisure facilities present)	Broadly neutral, but changes in mix of facilities on site could slightly affect likelihood of rail travel
Leisure attractors in wider region (likely overall increase in leisure travel)	Slight positive ¹⁴
Road network (slight increase in congestion, few new links)	Slight positive, though slight negative if congestion has an impact on accessibility to of the proposed station site. Bexhill–Hastings Link Road would be expected to improve road conditions to Hastings, reducing the attractiveness of rail. Net impact – positive without Bexhill-Hastings, negative with Bexhill-Hastings Link Road.
Car ownership (increase)	Slight negative
Cycling	Overall likely neutral ¹⁵
Bus (improved frequencies Hastings – St Leonards – Bexhill)	Slight negative (shorter journeys) though potentially slight positive (esp. for longer

¹¹ The 20-year guidance would improve the business case as against the 10 years SDG assumed but weaken it as against the 30 years MM assumed.

¹² However, the accompanying analysis would be likely to show benefits to local residents and students.

¹³ However, concrete information has not been received from Bexhill College so forecasting will proceed based on assumptions to be agreed with RDC/ESCC in terms of catchments for staff and students, to supplement TRICS data on modal shares.

¹⁴ Though note that this will be captured by the increase in background leisure travel which has been observed in existing stations in the vicinity so would not be counted separately in demand forecasting.

¹⁵ As noted above, this could be argued either way. The net effect on the business case is likely to be small.

Change since previous studies	Likely impact on business case
	journeys) if buses served new station directly

3. Recommendations for progression of study

Clearly ascertaining the *overall* impact of all of these changes taken together on the strength of the business case for a station at Glyne Gap requires the appraisal process to be repeated. However from the review above we would recommend that the project continues to the next stage.

Appendices

Appendix A. 2001 Journey To Work data for Bexhill and Hastings _____ 17

Appendix A. 2001 Journey To Work data for Bexhill and Hastings

The summary data table appears on the next page.

Journey-to-Work 2001 : Net Movement

1. TOTAL RESIDENT AND WORKING IN BEXHILL TOWN (All wards) **8,224**
2. Gross out-commuters 6,040
3. Gross in-commuters 3,994

RESIDENTS IN EMPLOYMENT (= 1 & 2) **14,264**

PERSONS WORKING IN BEXHILL TOWN (= 1 & 3) **12,218**

LOCAL AUTHORITY DISTRICTS	Out-commuters	In-commuters	Net Movement
Eastbourne	880	413	-467
Hastings	2,275	2,330	55
Lewes	203	66	-137
Rest of Rother	650	529	-121
Wealden	559	464	-95
Total elsewhere in East Sussex	4,567	3,802	-765
Brighton & Hove	166	39	-147
Sevenoaks	18	6	-12
Tonbridge & Malling	69	3	-66
Tunbridge Wells	166	21	-145
rest of Kent	123	39	-84
TOTAL KENT & MEDWAY	376	69	-307
Adur	12	3	-9
Crawley	91	0	-91
Horsham	9	3	-6
Mid Sussex	45	6	-39
Worthing	12	3	-9
Rest of West Sussex	6	6	0
TOTAL WEST SUSSEX	175	21	-154
Inner/Central London	305	12	-293
Outer London	139	15	-124
TOTAL GTR LONDON	444	27	-417
Surrey	60	3	-57
Elsewhere in UK	171	33	-138
Offshore/outside UK	61	0	-61
TOTAL ex EAST SUSSEX	1,473	192	-1,281
TOTAL COMMUTING OUT/IN	6,040	3,994	-2,046

Source: 2001 Census of Population Special Workplace Statistics, ONS
Note: This data has been based on small numbers, many of which may have been rounded for confidentiality purposes. For this reason caution should be made in their interpretation.

Journey-to-Work 2001 : Net Movement

1. TOTAL RESIDENT AND WORKING IN HASTINGS BOROUGH **24,984**
2. Gross out-commuters 10,779
3. Gross in-commuters 7,219

RESIDENTS IN EMPLOYMENT (= 1 & 2) **35,763**

PERSONS WORKING IN HASTINGS BOROUGH (= 1 & 3) **32,203**

LOCAL AUTHORITY DISTRICTS	Out-commuters	In-commuters	Net Movement
Eastbourne	918	607	-311
Lewes	305	132	-173
Rother	5,001	5,006	5
Wealden	743	601	-142
Total elsewhere in East Sussex	6,967	6,346	-621
Brighton & Hove	263	121	-162
Sevenoaks	63	6	-57
Tonbridge & Malling	204	27	-177
Tunbridge Wells	721	126	-595
rest of Kent	394	210	-184
TOTAL KENT & MEDWAY	1,382	369	-1,013
Adur	21	0	-21
Crawley	174	12	-162
Horsham	30	6	-24
Mid Sussex	101	33	-68
Worthing	3	3	0
Rest of West Sussex	12	12	0
TOTAL WEST SUSSEX	341	66	-275
Inner/Central London	846	66	-780
Outer London	376	87	-289
TOTAL GTR LONDON	1,222	153	-1,069
Surrey	105	24	-81
Elsewhere in UK	386	140	-246
Offshore/outside UK	93	0	-93
TOTAL ex EAST SUSSEX	3,812	873	-2,939
TOTAL COMMUTING OUT/IN	10,779	7,219	-3,560

Source: 2001 Census of Population Special Workplace Statistics, ONS
Note: This data has been based on small numbers, many of which may have been rounded for confidentiality purposes. For this reason caution should be made in their interpretation.