

Saunderton Rail Users Group

[REDACTED]
Head of Network Development
Chiltern Railways
Marylebone Station
Great Central House
Melcombe Place
London
NW1 6JJ

Monday 30th January 2012

Dear [REDACTED]

Preparing the Chiltern Railways timetable for the future

I write in response to your presentation and consultation letter dated 2nd December 2011, seeking comments from stakeholders with regard to the Passenger Service Requirement for stations on the Chiltern Line and specifically the PSR as it affects Saunderton. As a User Group we are grateful for the opportunity to have input to your plans.

Summary of response

The Saunderton Rail Users Group is concerned that consultation on the PSR is separate from consultation on the timetable. Whilst the former simply sets a minimum service level, which in this consultation is for no change for Saunderton, Chiltern have indicated in correspondence with our local MP (which we have seen) that the PSR for Saunderton may well become the de facto level of service, an effective halving of peak services over a twelve month period, and the fewest trains since privatisation.

Our view - directed as much at the regulatory authorities as the franchise operator- is that this split consultation and the mixed protection offered to services is inherently unsatisfactory for proper informed discussion, and it is for that reason that our response goes beyond the PSR recommendation as stated. As a small stakeholder group, we do not wish to constantly debate on an annual basis the timetable services in excess of PSR, and that is why we believe that the Peak Time PSR requirement should be doubled to more accurately reflect existing service provision.

For the avoidance of doubt, you currently provide five direct services in the morning that arrive into London Marylebone between 07.00 and 09.59. You also provide six trains that leave London Marylebone for Saunderton between 16.00 and 18.59. Our position is that we wish to see the Peak Time PSRs for Saunderton increased to six (ie two per hour) but for the PSR to remain otherwise unchanged. This matches the service provision that was in place for us before the December 2011 timetable change, when the 0719 departure (1H07), our busiest train, was removed.

We have attached (Appendix 1), for ease of reference, details of all weekday train departures from Saunderton, as provided for in the existing timetable.

Local Sustainability and Transport Issues

We do not accept that this apparent policy of managed decline of smaller stations such as Saunderton meets government objectives in respect of either the environment or rural communities. It also impacts upon the viability of local employees, and the job prospects of those living in Saunderton, travelling not just into London but also to High Wycombe. We strongly believe that although a balance has to be struck between the commercial interests of the franchise operator and local passengers, Chiltern's stated objectives are seriously out of kilter.

Attached (Appendix 2) is a letter from Mike Elliott, CEO of The Clare Foundation. The Clare Foundation is a large office site situated just two minutes from the station that is gradually building up to a sizeable employee base and which also offers conference facilities. The nature of the organisations (charities) that operate from the building mean that a higher proportion of workers than usual, in a rural location, are likely to commute by train. To reduce peak time train services (in either direction) cannot have a positive impact.

The adjacent A4010 is an incredibly busy country road that runs between High Wycombe, Saunderton and Princes Risborough. Any reduction in train service will inevitably force passengers to drive to adjacent stations, increasing traffic and pollution. Bus services along the road are minimal – there is little point in running parallel bus and train services, provided that services are adequate and timed to passenger requirements. (Please see Appendix 3 – Route 321 Bus Timetable.)

"Buckinghamshire has one of the highest carbon footprints in the UK.⁽¹⁾ Buckinghamshire's Local Transport Plan 3 found that when analysing transport-related CO2 emissions by trip length and purpose, a high proportion of carbon emissions arise from trips of two miles and twenty five miles in length." (Source: 'Draft Travel Bucks Strategy', Buckinghamshire County Council 20 January 2012.)

With a clear desire to reduce our carbon footprint, it is clear that reducing the peak time train service from Saunderton can only serve to further increase the number of local car journeys by encouraging passengers to drive to nearby alternative stations with more convenient train services.

Station Comparisons

Chiltern seem to believe that Saunderton and Denham Golf Club are comparable stations and should have a similar level of service. We strongly disagree and refer to the figures below, showing a far lower passenger usage at Denham Golf Club. The housing stock immediately surrounding Denham Golf Club station is totally different to Saunderton, there is much less local employment and the nearest alternative station is easily walkable (Denham), whereas that is not the case for Saunderton. It is difficult to see how any claim of similar demographics or geography between the two stations can be substantiated.

Passenger Usage Figures

	Saunderton	Denham Golf Club
2002/3	49,397	17,558
2003/4	Not Available	Not Available
2004/5	42,288	15,572
2005/6	43,381	10,500
2006/7	54,490	13,991
2007/8	59,914	17,213
2008/9	53,516	18,770
2009/10	48,826	20,564

Source: Office of Rail Regulation

Platform Lengths at Saunderton

Your consultation letter states that Chiltern Railways intend to run fewer but longer trains. This causes us concern as we believe that our platforms are the only ones on your 'Mainline' route, between West Ruislip and King's Sutton that are too short to accommodate seven car trains.

We believe that there is an increasing need to lengthen our platforms (by up to 23 metres) so as to be able to accommodate seven car trains, being the length of trains that form an increasing length of your peak time services. To not do so will mean reduced chances of service recovery (for Saunderton) during operational difficulties.

The shortage of the platforms at Saunderton has led to at least two incidents of over-length trains stopping at the station in the last three months.

The platform lengths also directly led to the removal of our busiest morning commuter service (the 0719 to London Marylebone) at the December 2011 timetable change, due to the train forming that service being lengthened. We believe that there is a consequent and ongoing breach in the existing Passenger Service Requirement for Saunderton. There are no direct trains to London Marylebone between 0651 & 0817, a situation that has caused passenger traffic from the station to drop significantly since the December 2011 timetable change. We have discounted the 0742 departure, as it is a West Ruislip train.

We fear that a failure to lengthen the platforms at Saunderton can only lead to the continued managed decline of train services at the station, with reduced operational flexibility. It will

also mean that you will have difficulty in providing any peak time services that passengers will really want to use – your proposed standard hour timetables suggest that our services will be slower and with more stops than is currently the case.

Parking at Saunderton

On occasion, more passengers attempt to park at Saunderton than can be accommodated in the station car park. The station car park is free to use. This means that station users sometimes park in the adjacent residential road, occasionally with a lack of consideration, which causes friction with local residents.

We believe that it is inappropriate to link the proposed service levels (the worst for many years) with parking issues. At a meeting with Saunderton residents in 2010 about the parking situation, reassurances were given by the Chiltern Railways representative that services would not be cut in order to solve the parking problem.

Consistency of Views

We are aware that Wycombe District Council are working with Buckinghamshire County Council with a view to maintain train services at Saunderton in line with the proposals outlined in this letter.

Our local MP, the Right Honourable David Lidington, is also fully supportive of our aims and desires to protect train services at Saunderton.

Conclusion

We are of course aware that you do not believe that Saunderton warrants the quantum of train services that you currently provide. We do not agree and are of the view that the current level of service is consistent with current usage, the distance the station is located from London, and the lack of alternative travel options within a sensible distance.

We accept that the current PSR is appropriate for most of the day, however we believe that the current service provision (double the PSR) continues to be appropriate for the peak hours, and that is what we seek to protect.

Yours sincerely,



Secretary

Saunderton Rail Users Group

Appendix 1: Existing weekday train services from Saunderton

Appendix 2: Letter from The Clare Foundation

Appendix 3: Bus Route 321 Timetable

Appendix 1: Existing scheduled train services from Saunderton

From Saunderton towards London Marylebone

Dep	Pfm	Arr	Drtn	Service towards	
0525		0628	01:03	London Marylebone	
0609		0700	00:51	London Marylebone	Peak Time
0651		0733	00:42	London Marylebone	
0817		0903	00:46	London Marylebone	
0847		0936	00:49	London Marylebone	
0918		0958	00:40	London Marylebone	
0948		1027	00:39	London Marylebone	
1015		1059	00:44	London Marylebone	
1118		1159	00:41	London Marylebone	
1217		1259	00:42	London Marylebone	
1317		1359	00:42	London Marylebone	
1417		1459	00:42	London Marylebone	
1517		1559	00:42	London Marylebone	
1615		1659	00:44	London Marylebone	
1727		1815	00:48	London Marylebone	
1748		1838	00:50	London Marylebone	
1857		1938	00:41	London Marylebone	
1928		2019	00:51	London Marylebone	
2036		2123	00:47	London Marylebone	
2153		2251	00:58	London Marylebone	
2244		2345	01:01	London Marylebone	
2322		0020	00:58	London Marylebone	

Dep	Pfm	Arr	Drtn	Service towards
0742		0808	00:26	West Ruislip*
*(excluded, as not a 'London' train)				

Departures from London Marylebone to Saunderton

Dep	Pfm	Arr	Drtn	Service towards	
0600	2	0647	00:47	Aylesbury	
0708	6	0747	00:39	Stratford-upon-avon	
0806	6	0844	00:38	Bicester North	
0841	4	0914	00:33	Banbury	
0914	4	0956	00:42	Princes Risborough	
1013	6	1050	00:37	Banbury	
1113	3	1152	00:39	Princes Risborough	
1213	4	1250	00:37	Princes Risborough	
1313	6	1350	00:37	Princes Risborough	
1413	5	1450	00:37	Princes Risborough	
1513	6	1550	00:37	Princes Risborough	
1610	2	1642	00:32	Bicester North	Peak Time
1649	2	1722	00:33	Banbury	
1713	6	1756	00:43	Aylesbury	
1743	2	1827	00:44	Princes Risborough	
1822	4	1900	00:38	Aylesbury	
1853	6	1928	00:35	Bicester North	
1943	6	2030	00:47	Aylesbury	
2040	4	2131	00:51	Princes Risborough	
2113	6	2202	00:49	Aylesbury	
2143	1	2230	00:47	Aylesbury	
2243	5	2330	00:47	Aylesbury	
2330	1	21	00:51	Aylesbury	
0010	3	101	00:51	Aylesbury	

Source: Data provided by Network Rail
For services planned for 31 Jan 2012

Appendix 2: Letter from The Clare Foundation



THE CLARE FOUNDATION.

17 January 2017

Secretary Saunderton Rail User Group

Preparing for Chilterns Railways timetable for the Future

Dear [REDACTED]

Thank you for coming to see me last week and making me aware of the issues associated with the consultation currently in progress on the above.

I have to say I am both surprised and disappointed by these latest developments by Chiltern Railways. I was impressed by the company's open approach to the recent removal of the prime commuter service from Saunderton in the December 2011 timetable revision. I was reassured by the willingness to investigate a platform extension to allow greater flexibility in the future, also the assurances that the station was not to be closed or the PSR amended. I now learn that a platform extension has been ruled out and whilst the PSR will not be changed, the service will be reduced significantly from current levels.

As you know, the Clare Foundation runs a 50,000+ sq. ft office building just 2 minutes walk from the station. We acquired the building 18 months ago and have been steadily increasing our tenancy. We offer office space for charities and not for profit organisations. When full, we will have staff of 300-350 on site. We also run conferences and meetings with up to 150 persons visiting daily. During the period of Chiltern Railways studies on usage (2 and 3Q2011) we were far from fully occupied levels, I estimate less than 25% of these figures, clearly we wish to encourage staff and visitors to use public transport and promote our location because of its excellent rail links.

My concerns are obvious, that the service at peak to Saunderton in both directions in both the morning and evening is no longer suitable to allow my staff to commute by train. Moreover, the service through the day makes attendance at conferences and meetings by train, an impractical proposition for our visitors. The environmental benefits of reducing car movements are to be welcomed not to mention adding to Chiltern Railways revenue.

I gather one of the drivers for this is to move to a clock face timetable. Speaking as someone who has lived on the Chiltern line for 20 years, traveling to and from Beaconsfield, I can say in these days of internet communications and iPhones, it has never been easier to know the next train at any time of day or travel conditions. I am not convinced of the benefits of a clock face timetable especially if it has implications for

The Clare Foundation | Wycombe Road | Saunderton | Buckinghamshire | HP14 4BF

A company limited by guarantee with registration number 06995233

Registered charity number 1131949 and registered office as above

(t) 0300 777 7000 (w) theclarefoundation.org



THE CLARE FOUNDATION

the service at smaller stations such as Saunderton. Another point to mention is the comparisons that I gather are being made between Denham Golf Club, Seer Green and Saunderton. Neither Seer Green nor Denham Golf Club have large offices benefitting from close proximity of the station yet I see that Seer Green will have 6 peak hour trains, Saunderton only 3. This does not make sense. I do not know Denham Golf Club well but my experience as a traveller says it is a much less used station than Saunderton, certainly once our building is at capacity.

I am available to discuss this further should you wish to do so and ask that you and your committee make strong representations to Chiltern Railways. I fear timetable consultation will be too late if the principles proposed here are accepted.

David Lidington is fully aware and supportive of our operation at Saunderton and has visited the Foundation to see our work at first hand. I have taken the liberty in copying him on this letter.

Yours sincerely

Mike Elliott

CEO

Mike.Elliott@theclarefoundation.org

CC: David Lidington MP

The Clare Foundation | Wycombe Road | Saunderton | Buckinghamshire | HP14 4BF

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Appendix 3: Bus Timetable for Route 321

This is the only bus service that passes along the A4010 adjacent to Saunderton Station.

Aylesbury - Princes Risborough - Saunderton - Bradenham - High Wycombe **321** MONDAY TO FRIDAY From: 6 February 2012

Notes					Nsch	sch		300	300	M-S
Aylesbury Bus Station	06:58	--	10:47	12:47	14:47	14:47	--	16:40	--	17:50 19:40
Stoke Mandeville, Hospital Main Gate	07:03	--	10:52	12:52	14:52	14:52	--	16:50	--	18:00 19:45
Stoke Mandeville, The Bull	--	--	--	--	--	--	--	16:53	--	18:03 19:47
Butlers Cross, The Russell Arms PH	07:11	09:01	11:01	13:01	15:01	15:01	--	16:57	--	18:07 --
Great Kimble, The Bernard Arms	07:15	09:05	11:05	13:05	15:05	15:05	--	17:01	--	18:11 19:52
Princes Risborough, Market Square	07:21	09:11	11:11	13:11	15:11	15:11	16:20	17:08	17:20	18:18 19:57
Princes Risborough School	--	--	--	--	--	15:20	--	--	--	-- --
Saunderton, The Rose & Crown	07:27	09:18	11:18	13:18	15:18	15:28	16:26	--	17:25	-- 20:02
Bradenham, The Red Lion	07:31	09:23	11:23	13:23	15:23	15:33	16:30	--	17:30	-- 20:06
High Wycombe Bus Station	07:46	09:36	11:36	13:36	15:36	15:46	16:43	17:38	17:43	18:44 20:16

High Wycombe - Bradenham - Saunderton - Princes Risborough - Aylesbury **321** MONDAY TO FRIDAY From: 6 February 2012

Notes	300	300	Nsch	sch						300	M-S
High Wycombe Bus Station, Gate F	06:43	06:57	07:55	07:55	09:45	11:45	13:45	15:50	16:50	17:50	23:30
Bradenham, The Red Lion	--	--	08:05	08:14	09:57	11:57	13:57	16:03	17:05	18:05	--
Saunderton, The Rose & Crown	--	--	08:09	08:18	10:01	12:01	14:01	16:08	17:10	18:10	23:40
Princes Risborough School	--	--	--	08:25	--	--	--	--	--	--	--
Princes Risborough, Market Square	07:11	07:28	08:16	08:33	10:08	12:08	14:08	16:16	17:18	18:18	23:47
Great Kimble, The Bernard Arms	07:17	07:34	--	--	10:14	12:14	14:14	--	--	18:25	23:52
Butlers Cross, The Russell Arms PH	07:21	07:38	--	--	10:18	12:18	14:18	--	--	18:29	--
Stoke Mandeville, The Bull	07:26	07:43	--	--	--	--	--	--	--	--	23:57
Stoke Mandeville Hospital, Main Gate	07:30	07:48	--	--	10:27	12:27	14:27	--	--	18:36	--
Aylesbury Bus Station	07:45	08:05	--	--	10:33	12:33	14:33	--	--	18:43	00:05

Notes: 300 - This journey runs as Line 300 and is operated by Amve 0844 800 4411. See separate timetable for more details.

M-S - Runs Monday to Saturdays Nsch - runs on Bucks school holidays only sch - runs on Bucks schooldays only

Operated by Redline Buses 01296 426786

(The bus stops nearest to Saunderton Station are indicated by the red lines above.)

From [REDACTED]

Date: Tue, Jan 31, 2012 at 2:33 PM

Subject: Preparing for the Chiltern Railways timetable for the Future

To: timetableconsultation@chilternrailways.co.uk

Dear [REDACTED]

I am writing as the Passenger Board member representing the West Ruislip Commuters Association (WRCA) with regard to the proposed changes to the Passenger Service Requirements as outlined in your letter of 2 December 2011.

Unfortunately, I appear to have missed your presentation, and only received a copy of your letter after last Friday's Passenger Board meeting. I have therefore not had the opportunity to discuss with West Ruislip passengers the proposals, or to undertake research at the level I have always done to ensure comments are based on accurate information. Further, I retired last September and, using Chiltern Railways much less frequently than had been the case over 43 years commuting into London, I am not aware of the difficulties being experienced by passengers at West Ruislip, be they resulting from the current schedules or operational problems or incidents. I fear that my comments will not be as comprehensive or well-informed as I would have liked but I want to make sure that you hear something from the WRCA.

We request most strongly that there be no reduction in the PSR at West Ruislip (WR). The present requirement for 7 trains in the morning peak is unable to provide a reasonable service for passengers starting their rail journeys at WR or wishing to interchange with the Central Line. The 53 minute gap after the 0736 is not acceptable for travellers needing to reach a central London destination for the common 9, 9.15 or even 9.30am. A service schedule resulting from a reduction to a PSR of just six trains would not be workable.

My understanding is that in the evening peak there are at present 8 trains stopping at West Ruislip, although four of these are subject to "irritating" delay as a result of waiting times of 9 minutes (on two), 4 minutes and 11 minutes at South Ruislip, and there is already too long a gap between the 1600 departure from Marylebone and the next WR train at 1640. The situation could only deteriorate to unacceptable levels were the PSR to be reduced by two, or even one, train in the evening peak.

Historically, West Ruislip has been "the" station at the Ruislips for rail services on the Marylebone Line and we maintain that it remains so, for many undeniable reasons.

We would draw to the attention of Chiltern Railways, and the DfT, the factors, both long standing and new, that give West Ruislip the potential to achieve increased business and revenue.

Your letter states that the proposals take full account of the size of the market at each station. We would point out the market at West Ruislip is being increased enormously by the development of Ickenham Park (the site of RAF West Ruislip), with 415 new homes, ranging from 2-bed apartments to 3,4,5 and 6 bedroom family homes, affordable housing and an assisted living home. We know from experience when Brackenbury Village was developed that commuters can readily be attracted to Chiltern Railways from this site adjacent to the station. This can happen again. It will take some effort of course to ensure that people moving into Ickenham Park (some homes have been built and are already being occupied; construction of the whole site is due to be finished in 2013) are made aware of the rail services so handy for their new home and that offer travel not only just into London but to an increasing number of destinations in Buckinghamshire and the West Midlands. We hope that Chiltern Railways will be proactive in promoting what they have to offer to the latest residents in the West Ruislip area. If not, perhaps the West Ruislip Commuters Association can assist.

RAF Uxbridge has also been closed and 1,425 new homes, including affordable houses, assisted living retirement home, a 90 bedroom hotel and commercial, retail and office development are to be built on one of the largest development sites in West London. This site is a 20 minute journey on a direct, 15 minute frequency bus route from West Ruislip station. We would not suggest that people would be likely to make that journey to West Ruislip to travel into London, but for Banbury, Birmingham, Stratford-upon-Avon, etc. they could find CR services attractive.

West Ruislip has other interests to attract people, from both north and south. Ruislip Golf Centre (right opposite the station), with a golf course, driving range and centre with indoor sports and dining. The Golf Centre is also host to Jazz West London, which has seen some of the jazz greats and meets monthly, and the weekly Comedy Bunker, which has featured well-known comics such as Harry Hill, Lee Mack, Andy Parsons and Omid Djalili. Three days a month there is activity in the Auctioneers salerooms at the station entrance. A Premier Inn is five minutes walk away from the station. CR rail services provide a convenient means of accessing these attractions.

West Ruislip has facilities which make it a much more convenient and comfortable station to use, including non-step access to one of the platforms (London bound), toilets, waiting room, a shop next door where newspapers, magazines, foodstuff, hot and cold drinks may be purchased on a seven day, early to late, basis. The station is operated by London Underground but the staff there offer what help they can, and their presence, at all hours, is reassuring to rail passengers, especially those who may be travelling alone and in the dark. The lay-out of the station means that the LUL staff have a good view "over" the Chiltern Railways platforms. There is now a Metropolitan Police Neighbourhood Team office at West Ruislip and a base for the British Transport Police.

Another important facility at West Ruislip is not only useful for passengers but of enormous financial benefit to Chiltern Railways, that it is the car park. The

latest revision to parking charges means that every vehicle parking before 4pm on a week day costs £7, arrival after 4pm, at weekends and bank holidays is charged at £4. The car park has a capacity for 160 vehicles I believe and during the week is always completely full shortly after 8am. This is valuable revenue for the Company, perhaps more so since the car park kiosk appears no longer to be manned.

West Ruislip serves a commuting community but it can also add more business, both in rail fares and parking charges, at the weekend. The direct rail service to Wembley Stadium, the large car park, and the easy accessibility from the M40 and M25, make it an ideal place for people attending football matches, concerts, other sporting events and exhibitions at Wembley Stadium or Arena. Chiltern Railways may not be fully aware of the demand and the potential, as I am aware, and have been advised by LUL staff at the station, of the numerous occasions when the ticket machine by the car park entrance has been out of action, including having run out of paper tickets, and LUL has sold £100s, even £1,000s worth of tickets on a "big match" day. I have often seen 100s of people on platform 4, but fear Chiltern Railways have not been sufficiently interested to make the most of the potential.

At the Passenger Board meeting we were asked to make our response about the PSR and not specific timetable issues. Your letter highlights feedback that has been received that is about the timetable and I have many comments to make about current services at West Ruislip. However, I will save these for the appropriate time when the timetable consultation is launched. I am concerned however that a reduction in the PSR at West Ruislip would inevitably mean a much poorer service for all those who use that station, or would do if they knew about the Chiltern Railways services. A minimal, unattractive, service raises doubt the fact that a station is at all "open for business" and makes people less drawn to look into what journeys might be available to them served. West Ruislip has the potential to serve passengers and is particularly valuable for the interchange between rail and LUL services. I made the point this morning of checking the early morning services and can confirm that a significant proportion of the passengers alighting from the 0709 and 0736 appeared to head for the Central Line. My count was meaningless for the other services given the most extraordinary timetabling exercise that leaves one train waiting for 21 minutes. This was only one morning, but I can provide my passenger counts if they would be helpful.

I finish now, as I have exhausted my time at the library computer and the deadline for responses is only a couple of hours away.

It would have been useful to speak with you no doubt but being so late in being aware of the consultation I have not had the chance.

Yours sincerely



West Ruislip Commuters Association

[REDACTED]

From: [REDACTED]
Sent: 31 January 2012 18:00
To: [REDACTED]
Cc: [REDACTED]
Subject: Draft December 2012 timetable

F.a.c [REDACTED]

Dear [REDACTED]

Re: Haddenham and Thame Parkway

We are responding to the consultation for the December 2012 timetable in respect of peak hour services to/from Haddenham & Thame Parkway (HDM) contained in your letter of 2 December 2011 to CR Passenger Board members.

First, on a point of principle, we do not see much overall advantage in having a "clockface timetable" for peak-hour services. Those of us with more than 20 years of experience of commuting on Chiltern recall previous attempts to introduce clockface timetables all of which had to be modified soon afterwards in the light of poor experiences. The fact remains that the majority of commuters usually always use only one or two particular trains in each direction. These they easily remember so having a more 'memorable' timetable is of no advantage to them. That said there is obviously a greater advantage in adopting clockface for the off-peaks where there is likely to be a higher degree of casual travel.

As to the draft for the December 2012 timetable, we are very unhappy at the direction that the timetable seems to be taking users of HDM for four main reasons:


- (1) There has been a continuing reduction in peak hour services. For example, in the May to September 2011 timetable there were 11 departures from HDM arriving at Marylebone between 0700 and 0959; this was reduced to 10 in the September 2011 to December 2011 timetable (and we also lost a prime business train at 0654); and you are now proposing to reduce this to 9 (but note what we say under (2)). We do not believe this is appropriate or right given the increasing numbers of passengers using HDM.
- (2) The spacing of services in the morning peaks has been very unsatisfactory. We have already referred to the loss of the 0654 departure (there is now an unsatisfactory gap between 0639 and 0719 - the 0706 doesn't count, as explained below). Services do not run at regular intervals, and this unfortunate feature seems now to be replicated in your draft timetable for December 2012. Moreover, it seems that a fast service is timed to catch up with a preceding slow service, rather than the more usual course of running the slow service after the fast. This has, for example resulted in few commuters from HDM catching the current 0706 since the following service, the 0719, arrives in Marylebone only 2 minutes after the 0706. Commonsense dictates that there is little point in commuters catching a slow service when they can catch a later faster service. From our perspective, therefore, the 0706 is a 'non-service' so far as London commuting is concerned (and it doesn't even serve Wembley Stadium which is another London commuting venue). The draft December 2012 timetable repeats this approach giving London commuters realistically a choice of only 2 trains an hour. We do not think this honours either the letter or the spirit of the PSR requirement since it results in only 6 viable services (rather than the PSR requirement of 10).
- (3) Despite generally quicker journey times, this has been bought at the cost of earlier departures from HDM and later arrivals back in the evening peak. The perception therefore is that there has been no real improvement for commuters because the effect on them has been longer working days and less time at home. On top of that it looks as if HDM may lose its remaining non-stop services to London.

(4) With the September to December 2011 timetable, HDM lost its off-peak direct connection to Birmingham: some direct peak-hour services were however retained. These are now to be lost in the draft December 2012 timetable, reinforcing the view that Chiltern is more interested in promoting the London-Birmingham market, where it faces competition from Virgin, rather than supporting and developing the commuting market from HDM where it faces no competition. Chiltern is also overlooking the fact that a growing number of people are now taking up jobs - not necessarily on a daily basis - in venues north of Warwick, so changing at Bicester/Banbury is distinctly off-putting for them. (We have yet to see the off-peak and weekend timetable but it would be a travesty if the weekend timetable resulted in a similar loss of direct Birmingham services, as this would seriously damage the market for leisure travel.)

I am sorry that we are having to write in such a negative fashion. Despite much trumpet-blowing by Chiltern of the new faster service, we feel that the advantages of speed have been negated by the unsatisfactory features of the current timetable and we are dismayed to see so many of these being repeated in the draft December 2012 timetable.

We hope these observations help. We would be happy to discuss these points with you.

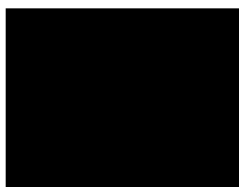
Yours sincerely


Acting Chairman, North Chiltern Rail Users Group

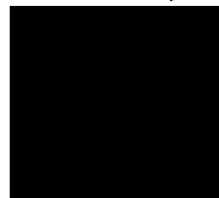
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MARYLEBONE TRAVELLERS ASSOCIATION


Chairman/ Hon. Treasurer



Hon. Secretary



26 January 2012


Chiltern Railways PSR Consultation
Banbury ICC
Merton Street
Banbury
OX16 4RN

Dear 

Thank you for your letter of 2 December consulting on the proposed changes to the PSR.

Your proposal sets out a rationale for the changes that seem *prima facie* attractive. However, upon closer inspection the proposals do not accord with the sentiment of the letter and given our recent experience of timetabling changes we have some serious concerns regarding what is proposed and how it would be implemented. These concerns are sufficient to result in our outright objection to the proposals as they stand.

The reasons for our objections are:

- The stations we represent are the ones most affected by the proposals and ***in every case*** there is a proposed service diminution. Thus, for Beaconsfield it is proposed to reduce the number of morning peak trains by 25%. Likewise the reduction at Seer Green is 17%, at Gerrards Cross 37% and at Denham 33%. We would consider this to be rather more than "slightly" fewer trains. With the severe morning peak overcrowding issues still evident from the Sept 2011 timetable change for Beaconsfield, particularly around 8am when the trains are already running at maximum length, we fail to see how a further reduction in the number of trains can provide an adequate service, as there is no option available to lengthen trains further.
- The proposal assumes the differential requirement for seats hour by hour throughout the morning peak can be satisfied by adjusting the train lengths. As many trains are already running at maximum length reducing the number of trains will result in more people having to stand or not being able to squeeze into the available standing space. The only solution to this is for commuters from the "heartlands" stations to commute earlier or later – not a passenger friendly solution we can endorse.
- The September 2011 timetable change was a disaster in terms of the morning peak service from Beaconsfield. At the various consultation meetings Rob Brighthouse promised attendees the December 2012 timetable would seek to address these

short-comings. We do not see that the issues will be addressed by the proposed reduction in PSR from 16 trains to 12.

- Given our recent experience of the issues raised above, we have no confidence and no evidence that this proposal has been thoroughly thought through with passenger loadings, train lengths, and number of available journeys planned out in 15 minute peak hour intervals for each station. We would like to see a more advanced set of proposals before we could endorse them.
- At present a number of stations (Gerrards Cross, Seer Green and Denham) have a morning peak service in excess of the PSR. Therefore a reduction in service to the current PSR would be an overall service reduction. To propose further reductions seems excessive. The PSR was established to protect stations from service diminution and we see every reason to protect that service level, or to have additional assurances regarding availability of seats and minimum journey times to accompany any new PSR.
- The current implementation of the PSR appears to be "gaming" the PSR definition – the PSR was established to create a minimum service level for stations. When the service from a station (e.g. Beaconsfield) to Marylebone has a 21 minute mid journey delay introduced to what would otherwise be a 39 minute journey, it is effectively two services and should be discounted from the PSR. This means we question the current level of genuine compliance with the spirit of the PSR in the case of Beaconsfield in the morning and Gerrards Cross in the evening. The proposed outline timetable continues to exhibit these "gaming" practices – for us to endorse the proposal we would want assurances that any such "gaming" would not be built into the PSR.
- These proposals have no provision for continued growth in demand from "heartlands" stations and those further afield such as Oxford and the northern end of the line. The Evergreen 3 upgrade has delivered faster services to London and there has been a consequential usage increase. We wish to have assurances as to how passenger growth would be handled in the event of these proposals being agreed.
- We see no need for symmetry of the morning and evening peaks – it is an accepted phenomenon that the evening peak is asymmetric with the morning peak.
- It is desired to have the PSR number of trains to be divisible by three. At present 17 of the 26 listed stations have morning PSRs that do not divide by three (in the evening it is 12). You appear to be leaving 8 stations (mornings), 4 stations (evenings) with PSRs not divisible by three – why?
- Whilst the proposals are supposed to provide easier recoverability we are concerned as to the service that will be delivered in the event of short forming. This is a not uncommon occurrence at present and a reduction in the number of trains combined with the current level of short forming will result in a significantly inferior service with high levels of standing room only.
- A similar repeating pattern timetable was previously introduced in 1992 and after a few years abandoned as it failed to meet passenger requirements. The proposed "standard hour" timetable may be suitable as a template but, as happened before, we expect it will prove necessary to build on it with additional trains and/or stops needing to be scheduled in the central, busiest, hours of each peak.
- We are unsure as to how the Amersham line trains will be fitted into the proposed timetable – especially given they have to work to a 64 minute hour to fit in with the Metropolitan line.
- We feel that the unique characteristics of the Chiltern Line – only a two track railway, a significant number of smaller stations with correspondingly lower passenger numbers and the problems of interworking with London Underground

and their Metropolitan Line – make it doubtful if a fully repeating pattern timetable is really feasible.

We are sorry we are unable to be more positive about a proposal that superficially appears to have some merit. As is so often the case, further scrutiny has revealed otherwise and we would like these issues to be addressed before we can in anyway support these proposals.

Yours sincerely


Chairman
Secretary

[REDACTED]

From: [REDACTED]
Sent: 29 January 2012 20:22
To: Timetable Consultation
Cc: [REDACTED]
Subject: Response to PSR consultation - Met Line

[REDACTED]

thank you for your recent consultation document regarding proposed changes to the PSR. Although there are no proposed changes to the Met Line PSR, I would like to make the following comments and response

1. The overall aspiration to provide a clock face timetable is commendable and will lead to a greater understanding of the service for passengers.
However this needs to be considered carefully with the necessary flows demanded by your passengers during the peak hour, and the need to be able supply the necessary number of seats at the right time at the right stations. It would not be appropriate for reductions in PSR to occur only to find that a clock face TT was not practically achievable for necessary customer flows and the situation to revert to non-clock face but just based on the reduced PSR commitment.
2. The document details a number of stations where Chiltern Railways is seeking a reduction in the PSR requirements.
However for a number of stations you already exceed and will continue to exceed the current PSR requirements in the proposed service.
It maybe appropriate where there is limited risk CR to offer to increase the stated PSR requirements at stations where passenger flows are always going to exceed the stated PSR in an attempt to balance some of the reductions which look harsh to the bystander.
3. Careful consideration needs to made of how a 60 minute pattern peak service for the "mainline" TT can be interleaved with the 64 minute peak TT for the LUL Met Line

I would also like to ask CR to consider the following aspirations with regard to the Met Line

4. Increase of the Saturday evening service from hourly to half-hourly throughout the evening. The revised Met line off peak service now warrants the provision of a half-hourly Chiltern Met Line service.
5. Increase of Sunday service from hourly to half-hourly for the length of the route, if not for the whole day, at least to target the main morning and evening flows.
6. Further peak hour stops for Rickmansworth where train lengths permit.
7. Future planning for the possibility of a 20 minute service on the Met should passenger growth demand it.

Many thanks for your time and consideration of these matters.
Regards

[REDACTED]

Department for
Transport

[REDACTED]
Chiltern Railway Company
Great Central House
Marylebone Station
Melcombe Place
London
NW1 6JJ

[REDACTED]
Franchise Manager, Chiltern
Rail Contracts
Department for Transport
76 Marsham Street
London
SW1P 4DR
[REDACTED]

Our ref:

31 October 2011

Dear [REDACTED]

Chiltern PSR - December 2012

Thank you for your proposal dated 28 October.

Please note that further information will be required to ensure that a decision can be made, including the following:

- A complete timetable for SX, SO and SuO;
- Capacity modelling;
- Modelling to demonstrate improved operational performance;
- Connectivity; and
- Details of any anticipated savings resulting from the proposal.

We look forward to seeing the results of the stakeholder consultation.

Yours sincerely,

[REDACTED]
Commercial Manager, Chiltern

Chiltern Railways

Marylebone Station, Great Central House, Melcombe Place, London, NW1 6JJ

2nd February 2012

[REDACTED]
Commercial Manager East
Rail Commercial Contracts
Department for Transport
33 Horseferry Road
London SW1P 4DR

Dear [REDACTED]

Proposed PSR Changes for Implementation in December 2012

Chiltern Railways is seeking to offer passengers a regular interval, repeating pattern service during peak periods from the December 2012 timetable change date. This will offer performance improvements, additional capacity and a memorable service for passengers and staff alike, in line with industry best practice.

This is not a commercial proposition. Whilst it underpins the ability of the Chiltern Railway Company Limited to generate expected levels of revenue, it is not forecast to generate significant opportunities for additional revenue. Nor are there forecast cost saving opportunities. This proposition is intended to create a marked improvement in performance and offer a marked improvement in the consistency and memorability of the peak train service offered to passengers.

The delivery of the proposed service is currently prevented by Passenger Service Requirement (PSR) commitments which force the production of an irregular pattern of service for many stations, particularly south of Banbury. Chiltern Railways has therefore carried out a detailed exercise to identify an appropriate level of regular interval service for each station, supported by suitable evidence.

Chiltern has carried out a full consultation with statutory consultees, and also invited responses from the rail user groups along the route.

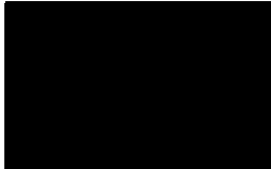
In response to your letter to Graham Cross dated 31 October 2011, I attach:

- A paper setting out our proposals and describing the evidence used to support them
- A full 24 hour SX timetable proposed for implementation in December 2012. We do not propose SO and SuO PSR changes and therefore we do not anticipate major changes to weekend timetables in December 2012
- Analysis showing capacity provision
- Modelling showing improved operational performance
- Evidence setting out improved connectivity
- Anticipated cost impacts
- All responses received from stakeholders

As I am sure you are aware, Chiltern Railways is required to bid a fully PSR compliant timetable for the December 2012 period to Network Rail on the Capacity Request Deadline which is 2nd March 2012, and therefore a timely response to this proposal would be welcomed.

I hope you find the enclosed clear and comprehensive. Please get in touch if you require any further information in advance of our meeting on 15th February.

Yours sincerely



Head of Network Development



Enc.

High Wycombe Route Capacity

AM Peak

December 2011

MYB arrival		Seats
0700	Aylesbury	2 165
0703	Banbury	3 165
0709	Warwick Parkway	4 168
0725	Gerrards Cross	2 165
0730	Aylesbury	4 165
0733	Banbury	5 165
0738	Birmingham MS	4 168
0751	Gerrards Cross	2 165
0757	High Wycombe	2 172 + 3 168
0802	Bicester North	7 165
0804	Banbury	8 411
0806	Birmingham MS	7 411
0818	Gerrards Cross	3 165
0821	High Wycombe	6 165
0824	Banbury	7 168
0825	Birmingham MS	7 411
0838	Gerrards Cross	3 168
0842	Aylesbury	4 165
0848	Stratford-upon-Avon	6 168
0854	West Ruship/Aylesbury	2 172
0900	High Wycombe	3 165
0903	Princes Risborough	3 165
0906	Kidderminster	4 165
0907	Birmingham MS	4 168
0925	Gerrards Cross	2 165
0928	High Wycombe	5 165
0936	Banbury	2 172
0940	Stratford-upon-Avon	3 168
0950	Gerrards Cross	3 165
0955	High Wycombe	7 172 + 3 168
0958	Kidderminster	3 168
0959	Kidderminster	4 168

TOTAL 9872

PM Peak

December 2011

MYB departure

1600	Gerrards Cross	2 165
1607	Birmingham SH	4 168
1610	Bicester North	3 168
1613	High Wycombe	2 165
1630	Birmingham SH	4 168
1633	Bicester North	3 165
1636	High Wycombe	5 165
1640	Gerrards Cross	2 165
1646	Birmingham MS	7 411
1649	Banbury	3 168
1656	High Wycombe	2 165
1707	Kidderminster	3 168
1710	Stratford-upon-Avon	4 168
1713	Aylesbury	4 165
1719	High Wycombe	2 165
1723	West Ruship	2 165
1737	Birmingham SH	2 168
1740	Bicester North	6 172
1741	Princes Risborough	4 165
1750	High Wycombe	3 165
1754	Gerrards Cross	2 165
1807	Kidderminster	7 411
1810	Stourbridge In	4 168
1813	Banbury	8 411
1816	Bicester North	2 165 + 4 168
1822	Aylesbury	4 165
1825	High Wycombe	3 165
1829	West Ruship	2 165
1840	Birmingham SH	4 168
1844	Leamington Spa	4 165
1847	High Wycombe	4 165
1853	Bicester North	3 165
1856	Aylesbury	2 165
1859	High Wycombe	2 165

TOTAL 9424

December 2012 Proposal

MYB arrival		Seats
0710	High Wycombe	4 165
0717	Gerrards Cross	2 172
0721	Banbury	4 165
0724	Princes Risborough	4 168
0727	Warwick Parkway	4 168
0730	Birmingham MS	4 168
0739	High Wycombe	4 165
0748	Gerrards Cross	2 172
0751	Aylesbury	5 165
0754	Bicester North	9 411
0757	Birmingham MS	6 168
0810	High Wycombe	6 165
0817	Gerrards Cross	2 165
0821	Banbury	6 165
0824	Princes Risborough	6 168
0827	Birmingham MS	7 168
0830	Kidderminster	8 411
0839	High Wycombe	4 165
0848	Gerrards Cross	2 172
0851	Princes Risborough	3 165
0854	Bicester North	6 168
0857	Birmingham MS	8 411
0910	High Wycombe	4 165
0917	Gerrards Cross	2 172
0921	Banbury	3 165
0924	Princes Risborough	4 168
0927	Stratford-upon-Avon	1 168
0930	Kidderminster	8 411
0939	High Wycombe	4 165
0948	Gerrards Cross	2 165
0951	Princes Risborough	4 165
0954	Bicester North	4 168
0957	Kidderminster	4 168

TOTAL 10838 difference 964 10%

December 2012 Proposal

MYB departure

1605	High Wycombe	4 165
1615	Birmingham SH	8 411
1618	Birmingham MS	3 168
1621	Princes Risborough	4 168
1624	Banbury	2 165
1627	Gerrards Cross	2 172
1635	High Wycombe	4 165
1638	Birmingham SH	4 168
1651	Bicester North	4 168
1654	Princes Risborough	3 165
1657	Gerrards Cross	2 172
1705	High Wycombe	4 165
1715	Kidderminster	8 411
1718	Birmingham MS	3 168
1721	Princes Risborough	4 168
1724	Banbury	3 165
1727	Gerrards Cross	2 165
1735	High Wycombe	4 165
1748	Birmingham SH	7 168
1751	Bicester North	9 411
1754	Princes Risborough	5 165
1757	Gerrards Cross	2 172
1805	High Wycombe	4 165
1815	Kidderminster	8 411
1818	Stratford-upon-Avon	4 168
1821	Princes Risborough	6 168
1824	Banbury	5 165
1827	Gerrards Cross	2 172
1835	High Wycombe	4 165
1848	Birmingham SH	6 168
1851	Bicester North	6 168
1854	Aylesbury	1 165
1857	Gerrards Cross	2 165

TOTAL 10773 difference 619 7%

High Wycombe Route Train Service Costs

AM Peak

December 2011

AMR arrival

		vehicles	train miles	vehicle miles
0700	Aylesbury	2	44	88
0703	Banbury	3	68	204
0708	Warwick Parkway	4	92	368
0725	Gerrards Cross	2	18	36
0730	Aylesbury	4	44	176
0733	Banbury	5	68	340
0738	Birmingham MS	4	112	444
0751	Gerrards Cross	2	18	36
0757	High Wycombe	2	78	140
0807	Bicester North	7	56	392
0808	Banbury	8	68	544
0806	Birmingham MS	7	112	772
0818	Gerrards Cross	3	18	54
0821	High Wycombe	6	78	168
0824	Banbury	7	68	476
0825	Birmingham MS	7	112	772
0838	Gerrards Cross	3	18	54
0842	Aylesbury	4	44	176
0848	Stratford-upon-Avon	6	104	624
0854	West Ruislip/Aylesbury	7	44	88
0900	High Wycombe	3	28	84
0904	Princes Risborough	3	36	108
0906	Kidderminster	4	135	540
0907	Birmingham MS	4	112	444
0925	Gerrards Cross	2	18	36
0928	High Wycombe	5	28	140
0936	Banbury	2	68	136
0940	Stratford-upon-Avon	3	104	312
0950	Gerrards Cross	3	18	54
0955	High Wycombe	5	28	140
0958	Kidderminster	3	135	405
0959	Kidderminster	4	135	540
TOTAL		132	2005	8901

PM Peak

December 2011

MRB departure

		vehicles	train miles	vehicle miles
1600	Gerrards Cross	2	18	36
1607	Birmingham MS	4	112	448
1610	Bicester North	3	36	108
1612	High Wycombe	2	78	56
1630	Birmingham MS	4	112	448
1634	Bicester North	3	36	108
1636	High Wycombe	5	28	140
1640	Gerrards Cross	2	18	36
1646	Birmingham MS	7	112	772
1649	Banbury	3	68	204
1656	High Wycombe	2	28	56
1707	Kidderminster	3	135	405
1710	Stratford-upon-Avon	4	104	416
1713	Aylesbury	4	44	176
1719	High Wycombe	2	28	56
1723	West Ruislip	2	13	26
1737	Birmingham MS	7	112	784
1740	Bicester North	6	36	336
1743	Princes Risborough	4	36	144
1750	High Wycombe	3	28	84
1756	Gerrards Cross	2	18	36
1807	Kidderminster	7	135	945
1810	Stratford-upon-Avon	4	104	508
1813	Banbury	8	68	544
1816	Bicester North	6	36	436
1822	Aylesbury	3	44	132
1825	High Wycombe	3	28	84
1829	West Ruislip	2	13	26
1840	Birmingham MS	4	112	448
1844	Leamington Spa	4	88	352
1847	High Wycombe	4	28	112
1853	Bicester North	3	36	108
1856	Aylesbury	2	44	88
1859	High Wycombe	2	28	56
TOTAL		126	2036	8799

December 2012 Proposal

MRB arrival

		vehicles	train miles	vehicle miles
0710	High Wycombe	4	28	112
0717	Gerrards Cross	2	18	36
0721	Banbury	4	68	272
0724	Princes Risborough	4	36	144
0727	Warwick Parkway	4	92	368
0730	Birmingham MS	4	112	444
0733	High Wycombe	4	28	112
0738	Gerrards Cross	2	18	36
0751	Aylesbury	5	44	220
0754	Bicester North	9	36	504
0757	Birmingham MS	6	112	666
0810	High Wycombe	5	28	168
0817	Gerrards Cross	2	18	36
0821	Banbury	6	68	408
0824	Princes Risborough	6	36	216
0827	Birmingham MS	7	112	772
0830	Kidderminster	8	135	1080
0833	High Wycombe	4	28	112
0848	Gerrards Cross	2	18	36
0851	Princes Risborough	3	36	108
0854	Bicester North	6	36	216
0857	Birmingham MS	8	112	896
0910	High Wycombe	4	28	112
0917	Gerrards Cross	2	18	36
0921	Banbury	3	68	204
0924	Princes Risborough	4	36	144
0927	Stratford-upon-Avon	3	104	312
0930	Kidderminster	8	135	1080
0933	High Wycombe	4	28	112
0938	Gerrards Cross	2	18	36
0951	Princes Risborough	4	36	144
0954	Bicester North	4	36	224
0957	Kidderminster	4	135	540
TOTAL		148	1917	10023
			96%	113%
			89	1,122

December 2012 Proposal

MRB departure

		vehicles	train miles	vehicle miles
1605	High Wycombe	3	28	84
1615	Kidderminster	8	135	1080
1618	Birmingham MS	5	112	532
1621	Princes Risborough	4	36	144
1624	Banbury	2	68	136
1627	Gerrards Cross	2	18	36
1635	High Wycombe	4	28	112
1648	Birmingham MS	4	112	448
1653	Bicester North	4	36	224
1654	Princes Risborough	3	36	108
1657	Gerrards Cross	2	18	36
1705	High Wycombe	4	28	112
1715	Kidderminster	8	135	1080
1718	Birmingham MS	3	112	332
1721	Princes Risborough	4	36	144
1724	Banbury	3	68	204
1727	Gerrards Cross	2	18	36
1735	High Wycombe	4	28	112
1748	Birmingham MS	7	112	784
1751	Bicester North	9	36	504
1754	Princes Risborough	5	36	180
1757	Gerrards Cross	2	18	36
1805	High Wycombe	4	28	112
1815	Kidderminster	8	135	1080
1818	Stratford-upon-Avon	4	104	416
1821	Princes Risborough	6	36	216
1824	Banbury	5	68	340
1827	Gerrards Cross	2	18	36
1835	High Wycombe	4	28	112
1848	Birmingham MS	6	112	672
1851	Bicester North	6	36	216
1854	Aylesbury	3	44	132
1857	Gerrards Cross	2	18	36
TOTAL		146	1939	9754
			95%	111%
			97	955

Document Control	
File name	EG3 Dec2012 Down Evening Peak
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Version date	31/01/2012
Author	
Reviewed By	
Project Reference	11-R304 Chiltern Dec12 Standard Hour Timetable

Evergreen 3 December 2012 Standard Hour Timetable Down Evening Peak

Executive Summary

RWA Rail has been commissioned by Chiltern Railways to undertake performance modelling work of the proposed December 2012 timetable in order to assess the likely operational performance.

Chiltern recognise the performance and passenger issues that have arisen following the September 2011 timetable change and are now embarking on detailed planning of the December 2012 timetable, which they believe represents the earliest opportunity to properly address these issues. From a passenger perspective, feedback received included disappointment at the long gaps between departures for some Buckinghamshire stations in the evening peak.

Chiltern believe it is possible to make further improvements to the service offered to commuters during peak periods by making changes to the Passenger Service Requirement (PSR). The current version, which prescribes a quantum of train calls across the three hours of the peak that are not divisible by three, prevents the Chiltern peak service from operating to a regular, repeating interval. This not only leads to irregular and longer gaps between calls for certain stations, but makes the timetable harder to understand for passengers and harder to operate and recover following disruption.

Chiltern Railways therefore propose a repeating pattern December 2012 peak timetable that addresses the concerns raised by passengers, with regular journey opportunities for all Buckinghamshire stations (in particular Gerrards Cross, Beaconsfield, High Wycombe and Princes Risborough) and beyond, including Bicester North, Banbury and West Midland stations, and introduces the route to Oxford via Bicester, which could open during 2013 or 2014.

Preliminary modelling of the December 2012 Down Chiltern evening peak timetable shows promise and suggests that it may offer favourable operational performance compared to the equivalent December 2011 timetable, mainly due to the more repeatable and regular service pattern and slightly fewer station calls on the Chiltern mainline. Modelling of this limited period shows a 16% reduction in average delay minutes in the perturbed scenarios.

However, these results are only based on a Down evening peak (based on Marylebone departures between 1600 and 1859), with Chiltern paths south of Aynho Junction. No Up direction trains or other TOCs/FOCs were modelled. After further work to de-conflict Chiltern paths north of Aynho Junction has been undertaken it is recommended that a full 24 hour timetable with Chiltern Birmingham paths and other operators is performance modelled.

Introduction

The September 2011 timetable was the biggest change in the Chiltern timetable since the introduction of the 100 mph Clubmans (Class 168) back in 1998. Capitalising on the benefits of the Evergreen 3 infrastructure the timetable delivers improved journey times, and in some cases frequency, to the main markets on the High Wycombe route. Typically, journey times improve by 20%, and in terms of actual minutes the benefits increase with distance from London.

However, from a performance perspective the first three periods of the September 2011 timetable saw a marked fall in Chiltern Railways' Public Performance Measure (PPM) from pre-September 2011 levels, with poor infrastructure performance suspected to have had a detrimental impact on overall route performance for the period. In lieu of this Chiltern made a small number of performance-related changes to the December 2011 timetable and made the decision to increase the public allowance at destination on 140 weekday trains by 3 to 5 minutes, with the aim of returning to pre-September 2011 PPM levels over the coming year.

From a passenger perspective, feedback received by Chiltern regarding the September / December 2011 timetable included:

- Disappointment at the long gap between departures for Beaconsfield and High Wycombe between 1750 and 1816;
- Disappointment at the long gap between departures for Seer Green between 1743 and 1825;
- Disappointment in consecutive gaps of over 30 minutes for Denham at 1750, 1825 and 1859;
- Irritation with some trains such as the 0720 from Aylesbury to London which recesses at West Ruislip for 23 minutes and therefore is of little or no use to through passengers;
- Concern that some high peak trains operate as a 2-car 165 with many spare seats, for example the 1753 and 1825 Marylebone-West Ruislip, the former of which is amended in December.

Chiltern recognise many of these issues and are now embarking on detailed planning of the December 2012 timetable, which they believe represents the earliest opportunity to properly address these issues.

Chiltern also believe it is possible to make further improvements to the service offered to commuters during peak periods by making changes to the Passenger Service Requirement (PSR). The current version, which prescribes a quantum of train calls across the three hours of the peak that are not divisible by three, prevents the Chiltern peak service from operating to a regular, repeating interval. This not only leads to irregular and longer gaps between calls for certain stations, but makes the timetable harder to understand for passengers and harder to operate and recover following disruption.

Chiltern Railways therefore propose a repeating pattern December 2012 peak timetable that addresses the concerns raised by passengers, with regular journey opportunities for all Buckinghamshire stations (in particular Gerrards Cross, Beaconsfield, High Wycombe and Princes Risborough) and beyond, including Bicester North, Banbury and West Midland stations, and introduces the route to Oxford via Bicester, which could open during 2013 or 2014.

Despite the reduction in the number of calls at some stations, Chiltern believe that the proposals take full account of the size of the market at each station and that a regular, repeating service pattern that is attractive to passengers will outweigh any reduction in calls.

RWA Rail has been commissioned by Chiltern Railways to undertake performance modelling work of the proposed December 2012 timetable in order to assess the operational performance. In the absence of a timetable version compatible with other Train Operators, this paper covers only Down Chiltern services south of Aynho Junction operating in the evening peak (departures from Marylebone 1600-1859).

The following variants were modelled, all using the same September 2011 infrastructure:

Dec2011 Down Peak (Aynho Jn)

December 2011 timetable with additional delay representative of last autumn and increased public allowances on 140 trains (as per the previous work for EG3 Dec11 service recovery), cut down to include only Down Chiltern trains operating in the evening peak (based on Marylebone departures between 1600 and 1859) south of Aynho Jn.

Dec2012 Down Peak (Aynho Jn)

December 2012 Down Chiltern standard hour evening peak timetable south of Aynho Jn, copied across the three hour evening peak period (based on Marylebone departures between 1600 and 1859), with equivalent delay data applied.

Methodology

Dec2011 Down Peak (Aynho Jn)

The December 2011 timetable, imported from CIF file and as used in the previous round of work for EG3 Service Recovery, was cut down to include only Down direction Chiltern trains operating in the evening peak (based on Marylebone departures between 1600 and 1859) south of Aynho Junction.

Freights and other TOCs services were excluded in order to be comparable with December 2012, where Chiltern paths had not been conflict detected north of Aynho Junction.

The same autumn delay data used in the previous round of work was applied.

Dec2012 Down Peak (Aynho Jn)

The December 2012 Down Chiltern standard hour evening peak timetable was provided by Chiltern Railways in Excel format. This was input into RailSys and copied across the three hour evening peak period (based on Marylebone departures between 1600 and 1859). Paths were then cut south of Aynho Jn as conflict detection with other TOCs had yet not been undertaken.

The same autumn delay data was transferred across from December 2011 to December 2012.

Timetable Statistics

Variant Descriptions

Base – Dec2011 Down Peak (Aynho Jn)

- Timetable – December 2011 imported from CIF file + public allowances at destination on 140 trains, cut down to include only Down direction Chiltern trains operating in the evening peak (based on Marylebone departures between 1600 and 1859) south of Aynho Junction.
- Infrastructure – September 2011 infrastructure
- Delay Data – NR Period 12 and 13 delay data + Run 3 Auto Departure Delay

Variant – Dec2012 Down Peak (Aynho Jn)

- Timetable – December 2012 Down Chiltern standard hour evening peak timetable input from Excel, copied across the three hour evening peak period (based on Marylebone departures between 1600 and 1859) and cut to south of Aynho Junction.
- Infrastructure – September 2011 infrastructure
- Delay Data – NR Period 12 and 13 delay data + Run 3 Auto Departure Delay

Train Numbers

Class	TOC	TOC Full Name	Base	Variant
1	CH	Chiltern Railways	25	29
2	CH	Chiltern Railways	22	18
5	CH	Chiltern Railways	2	6
Total			49	53

The table shows the same number of Chiltern passenger trains in both timetables, with an increase in Class 1 and a decrease in Class 2 services in December 2012. This incorporates the addition of six new Class 1 services to Oxford in place of four Class 1 services to Bicester North, one to Princes Risborough and one to Aylesbury (via Princes Risborough) respectively and the re-classification of the High Wycombe terminators from Class 2 to Class 1 in December 2012. The increase of Gerrards Cross services by three is negated by this High Wycombe re-classification and the removal of the two West Ruislip services.

Station Calls

The tables below shows the number of calls made by trains departing London Marylebone between 16:00 and 18:59.

Station	No. Stops		Difference	Trains per hour	
	Base	Variant		Base	Variant
MD701					
Wembley Stadium	9	6	-3	3	2
Sudbury & Harrow Road	3	3	0	1	1
Sudbury Hill Harrow	3	3	0	1	1
Northolt Park	7	6	-1	2.33	2
South Ruislip	6	6	0	2	2
West Ruislip	8	6	-2	2.67	2
Denham	7	6	-1	2.33	2
Denham Golf Club	4	3	-1	1.33	1
Gerrards Cross	14	18	+4	4.67	6
Seer Green & Jordans	6	6	0	2	2
Beaconsfield	13	12	-1	4.33	4
High Wycombe	20	18	-2	6.67	6
Saunderton	6	3	-3	2	1
Princes Risborough	13	12	-1	4.33	4
Haddenham & Thame Parkway	9	9	0	3	3
Bicester North	12	9	-3	4	3
Total	140	126	-14		

Station	No. Stops		Difference	Trains per hour	
	Base	Variant		Base	Variant
MD710					
Harrow on the Hill	6	6	0	2	2
Rickmansworth	3	3	0	1	1
Chorley Wood	6	6	0	2	2
Chalfont and Latimer	6	6	0	2	2
Amersham	8	9	1	2.67	3
Great Missenden	10	11	1	3.33	3.66
Wendover	10	11	1	3.33	3.66
Stoke Maneville	10	11	1	3.33	3.66
Aylesbury	13	11	-2	4.33	3.66
Aylesbury Vale Parkway	4	7	+3	1.33	2.33
Total	79	84	+5		

It can be seen from the tables that station calls on the Chiltern mainline (MD701) are slightly reduced overall and divisible by three each station, reflecting the regular, repeating pattern of service proposed in December 2012. The service proposed on the Metropolitan line (MD710) is not a repeating standard hour and thus the number of calls at each station are not necessarily divisible by three and actually increase slightly overall.

Perturbed Simulation Results

Delay Minutes

Overview by TOC

The table below shows total delay minutes per day by operator. As the number of trains varies between options, drawing direct comparisons is difficult therefore RWA Rail has also calculated the delay seconds per train-km as shown in the table below:

TOC	Class	Total delay time (hh:mm:ss)	Base		No. of trains	Total delay time (hh:mm:ss)	Variant		No. of trains	Total Delay increase (hh:mm:ss)	Base Vs. Variant	
			Total train kilometres (Km)	Delay sec. per Km			Total train kilometres (Km)	Delay sec. per Km			Delay sec. per Km increased (%)	Change in train kilometres (%)
Chiltern Railways	1	00:23:09	2,116	0.66	25	00:19:57	2,475	0.48	29	-00:03:12	-26.34	16.99
Chiltern Railways	2	00:25:53	988	1.57	22	00:21:05	763	1.66	18	-00:04:48	5.36	-22.69
Chiltern Railways	5	00:00:03	11	0.27	2	00:00:10	3	3.33	6	+00:00:07	1155.78	-73.46
Total		00:49:05	3,115	0.95	49	00:41:12	3,242	0.76	53	-00:07:53	-19.35	4.08

Overall delay is around 16% lower in the December 2012 Down evening peak compared to the December 2011 Down evening peak. Overall train kilometres are similar, with the difference being due to running additional services all the way through to Oxford in the Dec2012 model.

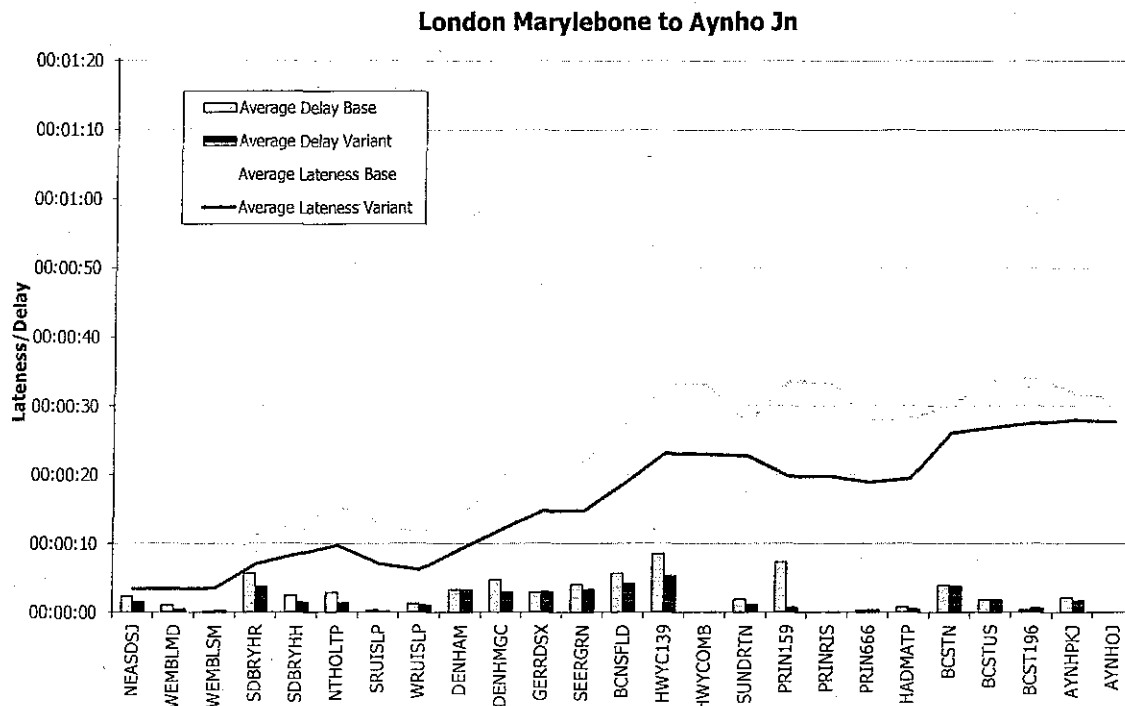
Delay Minutes Overview by Line Section

Line Code	Line Section	Base	Variant	Difference	% Difference
MD701	London Marylebone to Neasden South Jn	00:01:44	00:01:05	-00:00:39	
	Neasden South Jn to South Ruislip	00:07:08	00:04:06	-00:03:02	
	South Ruislip to Princes Risborough	00:15:18	00:11:34	-00:03:44	
	Princes Risborough to Haddenham & Thame Parkway	00:03:29	00:00:54	-00:02:35	
	Haddenham & Thame Parkway to Bicester North	00:02:13	00:02:17	00:00:04	
	Bicester North to Aynho Jn	00:00:52	00:00:49	-00:00:03	
MD710	Neasden South Jn to Aylesbury	00:15:46	00:16:24	00:00:38	
MD720	Princes Risborough to Aylesbury	00:02:14	00:01:19	-00:00:55	
MD725	Aylesbury to Aylesbury Vale Parkway	00:00:21	00:00:36	00:00:15	
MD276	Bicester Town to Oxford North Jn	00:00:00	00:02:08	00:02:08	
Total		00:49:05	00:41:12	-00:07:53	16.1%

The table shows that the reduction in delay minutes is spread along the Chiltern mainline route between Marylebone and Haddenham & Thame Parkway, where the majority of the reductions in station calls are concentrated. There is a small increase in delay between Neasden South Junction and Aylesbury Vale Parkway, where there is an increase in the number of station calls.

Average Minute Lateness (AML)

In the following graphs the line graph represents the average lateness on route whilst the bar chart represents the average delay incurred between TIPLOCS on arrival at the second TIPLOC.



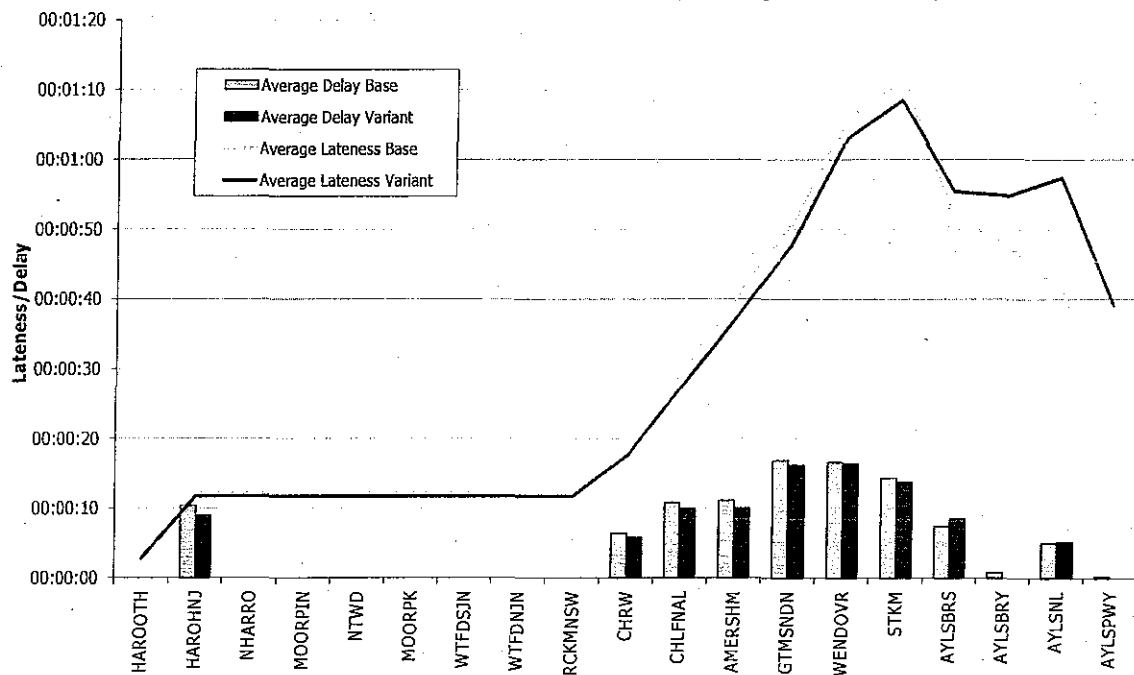
It can be seen that there is less delay in the variant compared to the base. One reason is the construction of the December 2012 Down evening peak timetable itself, with a repeating pattern designed to offer a regular interval pattern with more consistent gaps between stops and less bunching. This is a key reason in a model that includes trains in only one direction.

The slightly lower lateness at Neasden South Junction can be explained by the 30 seconds increase to the Marylebone to Neasden South Junction sectional running time from December 2011 to December 2012.

Furthermore, whilst the six Gerrards Cross services all loop at South Ruislip in Dec2012, they only let one train pass before continuing. This is compared to Dec2011, where the four trains that loop in South Ruislip let up to three trains pass before continuing. This latter scenario means an increase in potential interaction between Down services.

A further reason is that the fewer stops in December 2012 mean that the model is less affected by the two notional departure delay distributions to simulate station overtime that were adopted in order to "calibrate" September 2011 against actual autumn performance in the previous round of work. With less station calls it is less likely that a service will be prone to station overtime and this partly explains the difference in the Buckinghamshire area from West Ruislip to Princes Risborough where most stops are concentrated.

Neasden South Junction to Aylesbury Vale Parkway



The graphs show a very similar pattern in both December 2011 and December 2012 timetables. Unlike the Chiltern mainline, a repeating standard hour is not proposed on the Metropolitan line and there is actually a slight increase in the number of station calls on this line in December 2012. The latter helps explain why delay minutes are slightly higher in the line section between Neasden South Junction and Aylesbury Vale Parkway.

The higher lateness beyond Aylesbury can be attributed to more trains running through to Aylesbury Vale Parkway and having less recovery time in the December 2012 timetable. In December 2011, the four through trains have 6 to 7 minutes running time between Aylesbury and Aylesbury Vale Parkway (including allowances), whilst in December 2012 the seven through trains have only 4½ to 5½ minutes (including allowances).

In Summary

Preliminary modelling of the December 2012 Down Chiltern evening peak timetable suggests that it may offer favourable operational performance compared to the equivalent December 2011 timetable, mainly due to the more repeatable and regular service pattern and slightly fewer station calls on the Chiltern mainline. However these results should be treated with caution as they include only Down direction Chiltern paths south of Aynho Junction, with no other TOCs/FOCs modelled. Further work to de-conflict Chiltern paths north of Aynho Junction and thus incorporate other TOC/FOC paths is required.

Appendix A – Project Plan

Variant Name	Description	Project	Base			Variant			Status	Report
			Timetable	Delay Data	Freight	Timetable	Delay Data	Freight		
September 11 with Autumn delay data	Re-run the September timetable RailSys model with actual infrastructure failure data from the period, given that poor infrastructure performance is suspected to have had a detrimental impact on overall route performance for the period	Service Recovery RailSys R308				September 11	Autumn 11	Spring 11	Completed	EG3 Dec2011 Service Recovery
December 11	Import and test-run the December 2011 timetable	Service Recovery RailSys R308	September 11	Autumn 11	Spring 11	December 11	Autumn 11	Spring 11	Completed	EG3 Dec2011 Service Recovery
	Test the impact of potential revised December 2011 public/working differentials									
December 11 Crew Diagrams	Develop December 2011 crew diagrams	Service Recovery TrainTRACS R309							Completed	SX - submitted by email 07/01/2012
December 12 Std Hour Off Peak	Model an off-peak timetable option representing the incorporation of Oxford paths	Std Hour R304	December 11	Autumn 11	Spring 11	December 12	Autumn 11	Spring 11		
December 12 Evening Peak	Model an evening peak Down direction timetable representing the incorporation of Oxford paths	Std Hour R304	December 11	Autumn 11	Spring 11	December 12	Autumn 11	Spring 11	Content covered by this report	EG3 Dec2012 Down Evening Peak
Re-engined 165	To calculate Sectional Running Times (SRTs) for Class 165 with a replacement traction pack and to compare these with existing Class 165 performance	Std Hour R304							Completed	Submitted by email 17/11/2011
Scenario modelling	Conduct scenario modelling on the December 2011 timetable	Service Recovery RailSys R308	December 11	Autumn 11	Spring 11	As base with scenario, (a) without intervention (b) with intervention				
December 12 Crew Diagrams	Develop December 2012 crew diagrams	Service Recovery TrainTRACS R309								

Chiltern 2012 Timetable

Analysis of Proposed Peak Hour Timetable

Report

February 2012

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Analysis of Proposed Peak Hour Timetable

APPENDICES

Appendix 1	Train Graphs
Appendix 2	Station by Station analysis
Appendix 3	Number of trains comparison with stations on other routes
Appendix 4	Illustration of fastest journeys result

Executive Summary

Overview

1. Chiltern Railways propose to introduce a new timetable on the London Marylebone to Birmingham via High Wycombe route in December 2012, replacing the current irregular peak period service with a regular service based on a standard hour, which repeats in each of the three hours of the morning and evening peak periods. At certain stations, the proposal involves a reduction in the quantum of trains provided bringing the number below that currently specified in the Passenger Service Requirement (PSR).

Timetable analysis

2. We analysed the timetable in order to investigate a number of questions:
 - how does the proposed 2012 timetable compare with the current 2011 timetable in terms of the outputs it delivers, both from an overall route perspective, and from the point of view of the service provided at individual stations?
 - in particular, is there a significant change in the quality of the service provided at those stations for which a reduction in PSR is proposed?
 - where the pattern has altered radically, does the proposed timetable provide an adequate service for significant intermediate flows?
 - have the principles behind the service change been put into practice elsewhere on the network?
 - where a reduction in PSR is proposed, is the proposed level of service comparable with that at similar stations?

Summary of findings

3. Our analysis shows that:

London based flows

- the largest flows to London all experience a reduction in Generalised Journey Time;
- from an overall route perspective, journey times are reduced on average. At most individual stations, the average journey time over the peak period is reduced. The fastest journey time is generally increased, and the slowest journey time is reduced, reflecting a greater consistency in the timetable;
- from an overall route perspective, average intervals between trains are increased slightly in the morning peak, and reduced slightly in the evening peak. At individual stations, there is a mixture of increases and decreases in the average interval, with the largest increases occurring at stations with the lowest demand to London;
- the stations with the largest demand have a reduction, or no change, in the longest interval between trains;

Analysis of Proposed Peak Hour Timetable

- two stations (Denham Golf Club and Warwick) experience a significant increase in the longest interval in the shoulder peak, because of the transition between the peak and off peak service pattern;
- the proposed timetable provides greater consistency of departure times within the peak period, and also, for key destinations, between the peak and off peak periods;
- of the stations with a proposed reduction in PSR, there is a significant (at least five minutes) increase in the average interval between trains at Denham Golf Club, West Ruislip and the Sudbury stations. At the other stations the change is small, ranging between an increase of three minutes and a reduction of three minutes;

intermediate flows

- all intermediate flows between Banbury and London have at least one reasonable journey opportunity per hour, with the exception of a small number of flows with negligible demand;
- connections with London Underground continue to be available, but with a significant reduction in the number of journey opportunities at High Wycombe and Beaconsfield;

evidence from other routes

- there have been a number of instances elsewhere on the network which have involved a simplification of the peak service pattern. The most extensive such change, on South West Trains, was followed by an improvement in both punctuality and passenger satisfaction levels;
- there has been some research which has found evidence that passengers value regular interval timetables;
- where a reduction in PSR is proposed, the proposed level of service is generally comparable with that at similar stations.

1 Introduction

December 2012 timetable proposal

- 1.1 Chiltern Railways introduced a new timetable on the London Marylebone to Birmingham via High Wycombe route in September 2011, taking advantage of infrastructure improvements. Minor revisions were made to this timetable in December 2011.
- 1.2 Chiltern have identified the opportunity to make a more radical change to the timetable, particularly in the peak periods, and have devised a new service pattern which is proposed for implementation in December 2012. The proposed December 2012 timetable change involves replacing the current irregular peak period service with a regular service based on a standard hour, which repeats in each of the three hours of the morning and evening peak periods. The service pattern south of Banbury is radically altered.
- 1.3 The proposed timetable provides 11 arrivals at Marylebone in each of the three hours of the morning peak, and 11 departures from Marylebone in each of the three hours of the evening peak.
- 1.4 Appendix 1 shows a train graph for the Banbury to London route section for the morning and evening peak periods for both the 2011 and proposed 2012 timetables, illustrating the service pattern.

Aims of the December 2012 timetable

- 1.5 The proposed December 2012 timetable is designed to provide the following features, compared with the current (December 2011) timetable:
 - a more regular spacing of departures, particularly for high volume destinations;
 - a repeating pattern throughout the peak period, so that the timetable is more memorable;
 - provision of consistent links to or from traffic centres other than London Marylebone;
 - an increase in the number of seats provided at the busiest times.
- 1.6 At certain stations, the proposal involves a reduction in the quantum of trains provided, in some cases bringing the number below that currently specified in the Passenger Service Requirement (PSR).
- 1.7 We have analysed the proposed December 2012 peak timetable, and this report examines the extent to which the aims of the timetable revision are met, the effect of the changes on other key outputs, such as journey time, and the effect of the changes in key outputs at the stations affected by the PSR change.

2 Summary of proposed PSR changes

- 2.1 The repeating nature of the proposed timetable means that the number of trains serving each station in each three hour peak period will be divisible by three. This is generally not reflected in the current PSR, and at some locations, the proposed number of trains is less than the current PSR, in one or both peak periods. Table 2.1 below shows the stations at which a change to PSR would be required in order for the proposed timetable to be compliant.
- 2.2 There are six stations where the PSR would be reduced in both peak periods, three stations where the PSR would be reduced in the morning peak period only, and two stations where the PSR would be reduced in the evening peak period only.

TABLE 2.1 PROPOSED PASSENGER SERVICE REQUIREMENT CHANGES

Station	Current PSR		Proposed PSR in each peak
	Morning peak	Evening Peak	
Banbury	11	10	9
Haddenham & Thame Parkway	10	10	9
Princes Risborough	11	14	12
High Wycombe	17	20	18
Beaconsfield	16	13	12
Gerrards Cross	17	14	15
Denham Golf Club	4	4	3
West Ruislip	7	7	6
Northolt Park	7	7	6
Sudbury Hill Harrow	4	3	3
Sudbury Harrow Road	4	3	3

The morning peak figure refers to the quantum of trains required to arrive at London Marylebone between 0700 and 0959.

The evening peak figure refers to the quantum of trains required to depart from London Marylebone between 1600 and 1859.

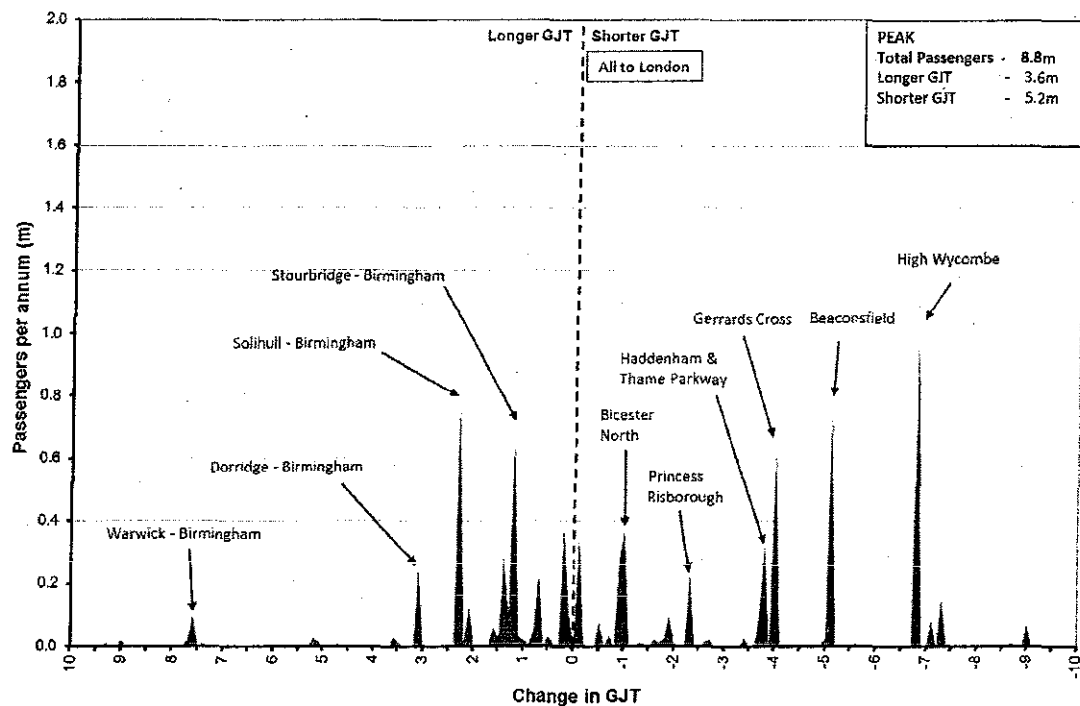
3 Key timetable outputs

- 3.1 This section summarises key outputs of the proposed timetable. Detailed figures for journey times and service provision at each station are shown in Appendix 2.

Generalised Journey times

- 3.2 The Generalised Journey Time provides a measure of the overall quality of the timetable, taking account of journey time, frequency and service spacing, as well as the need to change trains where applicable. Figure 3.1 below shows the change in generalised journey time calculated by MOIRA for peak tickets for the principal flows affected by the proposed timetable change.

FIGURE 3.1 GENERALISED JOURNEY TIME CHANGES



- 3.3 The figure shows that the largest London flows experience a shorter GJT under the proposed 2012 timetable.

Other outputs for London flows

- 3.4 Two sets of summary statistics are shown for journey time and service provision.
- 3.5 The route summary shows an average of the outputs for all stations between Wembley Stadium and Bicester North inclusive, plus Banbury, Leamington Spa, Warwick, Warwick Parkway, Dorridge, Solihull and Birmingham Moor Street. The averages are weighted by the estimated number of London peak passengers at each station. Birmingham Snow Hill, Stourbridge Junction and Kidderminster are not included as these stations do not have a regular service to London in the morning peak period, and have negligible numbers of London peak passengers.

Analysis of Proposed Peak Hour Timetable

- 3.6 The station summary shows a comparison between the 2011 and 2012 outputs at each station, together with the estimated number of London peak passengers at each station.
- 3.7 The number of London peak passengers at each station is estimated from sales of full and season tickets. The total number of passengers estimated by this method is 7,800 for stations served by High Wycombe line services; this compares with a figure of 7,600 peak arrivals estimated from a count taken in September 2011.

Journey times

- 3.8 Table 3.1 below shows the weighted measure of journey time for stations on the route.

TABLE 3.1 JOURNEY TIME SUMMARY FOR ROUTE

		Average Journey time (minutes)		Fastest Journey time (minutes)		Slowest journey time (minutes)	
		2011 timetable	2012 timetable	2011 timetable	2012 timetable	2011 timetable	2012 timetable
AM	Shoulder	44.4	38.7	34.5	33.7	53.6	44.1
	High	40.4	38.7	35.7	33.7	45.5	44.2
PM	Shoulder	38.6	36.1	31.5	31.1	48.0	41.6
	High	39.0	36.1	34.1	31.1	43.6	41.6

- 3.9 This table shows that the 2012 timetable delivers slightly shorter journey times on average. On average over the route, the timings of the fastest journeys are maintained, and the timings of the slowest journeys are reduced.
- 3.10 Table 3.2 below shows the comparison between the 2011 and 2012 timetables, for each station. A positive figure indicates a faster journey time in 2012.
- 3.11 The average journey time shown is calculated by taking the mean over the four peak periods (AM shoulder, AM high, PM shoulder and PM high) of the mean journey time in each of those periods (in effect an overall average, giving double weight to the high peak compared with the shoulder peak.)

Analysis of Proposed Peak Hour Timetable

TABLE 3.2 JOURNEY TIME COMPARISON BY STATION

Station	Estimated daily London Passengers	Average Journey time (minutes)	Fastest journey time (minutes)	Slowest Journey time (minutes)
Kidderminster		14	3	
Stourbridge Junction		18	3	
Birmingham Snow Hill		14	4	
Birmingham Moor Street		7		
Solihull		5	4	26
Dorridge		1	1	16
Warwick Parkway		2	3	12
Warwick		2	8	13
Leamington Spa		6	2	19
Banbury		1	7	14
Bicester		4	3	15
Haddenham & Thame Parkway		2	3	4
Princes Risborough		2	1	7
Saunderton		1	3	7
High Wycombe		4	1	9
Beaconsfield		3	1	8
Seer Green		2	2	8
Gerrards Cross		5	0	2
Denham Golf Club			0	1
Denham		1	0	10
West Ruislip		4	0	15
South Ruislip		4	1	13
Northolt Park		1	2	4
Sudbury Hill Harrow		3	2	5
Sudbury & Harrow Road		3	2	5
Wembley Stadium		1	0	3

3.12 The table shows that average journey times are generally reduced, with the stations experiencing an increase being those with lower demand. The gap between the fastest and slowest journey times is reduced, reflecting the more regular nature of the 2012 timetable.

3.13 The increase shown in the fastest journey time for most stations is generally due to the presence of a single particularly fast train in the 2011 timetable, which explains the apparently counter-intuitive result that the route based average fastest journey time is lower in 2012, while the fastest at individual stations is generally higher. This is illustrated in Appendix 4.

Train service provision

3.14 Table 3.3 below shows the weighted measure of train service provision for stations on the route. The average interval in the morning peak is calculated on the basis of the interval following each train, given that the choice of train is more likely to be governed by the desired arrival time in London, hence passengers will tend to catch the train arriving at or prior to their desired arrival time. The average

Analysis of Proposed Peak Hour Timetable

interval in the evening peak is calculated on the basis of the interval prior to each train, given that the choice of train is more likely to be governed by the desired departure time from London, hence passengers will tend to catch the train departing at or following their desired departure time.

- 3.15 The average is then weighted by the length of the interval, as a proxy for the number of passengers wishing to travel during the interval, so that, for example, the average interval calculated for trains at 15 and 45 minute intervals will be greater than that for trains at regular 30 minute intervals.

TABLE 3.3 TRAIN SERVICE PROVISION SUMMARY FOR ROUTE

		Number of trains		Average interval (minutes)		Longest interval (minutes)	
		2011 timetable	2012 timetable	2011 timetable	2012 timetable	2011 timetable	2012 timetable
AM	Shoulder	10.3	8.0	18.5	20.8	25.4	27.8
	High	3.7	4.0	17.0	19.0	20.4	23.6
PM	Shoulder	9.3	8.0	23.3	20.6	31.0	25.0
	High	3.9	4.0	20.8	20.0	26.7	23.4

- 3.16 The table shows that the weighted average number of trains reduces in the shoulder peak, and increases in the peak. The average interval is slightly longer in the morning peak than in 2011 and slightly shorter in the evening peak. The 2012 timetable has more similar intervals between morning and evening peak, indicating the similar design in both peak periods. The longer interval for the shoulder peak periods is caused by the transition between the peak and off peak service pattern, which results in longer than standard intervals between trains at some stations.
- 3.17 Table 3.4 shows the comparison between the 2011 and 2012 timetables, for each station. A positive figure indicates a larger number of trains, or a shorter interval, in the 2012 timetable. The number of peak trains refers to the total for the morning plus evening peak.

Analysis of Proposed Peak Hour Timetable

TABLE 3.4 TRAIN SERVICE COMPARISON BY STATION

Station	Estimated daily London Passengers	Total number of Peak trains	Average interval (minutes)	Longest interval (minutes)
Kidderminster		1	9	0
Stourbridge Junction		0	9	0
Birmingham Snow Hill		-1	-5	-7
Birmingham Moor Street		-3	-6	-9
Solihull		-3	-6	-9
Dorridge		0	-1	-18
Warwick Parkway		0	1	-4
Warwick		-4	-24	-38
Leamington Spa		1	1	-1
Banbury		-6	-3	5
Bicester		-1	-1	0
Haddenham & Thame Parkway		-1	1	-9
Princes Risborough		-2	-1	-1
Saunderton		-6	-24	-7
High Wycombe		0	3	-11
Beaconsfield		-4	0	0
Seer Green		-1	-1	-18
Gerrards Cross		-9	-1	4
Denham Golf Club		-2	-18	-25
Denham		-4	-6	2
West Ruislip		-3	-5	-11
South Ruislip		0	6	8
Northolt Park		-2	-2	-20
Sudbury Hill Harrow		-1	-13	6
Sudbury & Harrow Road		-1	-8	
Wembley Stadium		-6	-4	7

- 3.18 The table shows that the stations at which the average interval increases most are those with lower demand. As noted above, the higher value for the longest interval at some stations is caused by the transition between the peak and off peak service pattern. This applies particularly at Denham Golf Club and Warwick.
- 3.19 Of the stations proposed for a reduction in PSR, the reduction in the quantum of trains generally has a small effect on the average service interval. At Banbury the average interval increases by three minutes. At stations between Haddenham and Thame Parkway and Gerrards Cross inclusive the average interval reduces. There is a more significant increase in the average service interval at Denham Golf Club, West Ruislip and the Sudbury stations, but these have low demand to London.

Capacity

- 3.20 Table 3.5 below shows the capacity provided - in seats on trains arriving at Marylebone in the morning peak, and departing from Marylebone in the evening peak - for the current and planned timetables.

Analysis of Proposed Peak Hour Timetable

TABLE 3.5 SEATS PROVIDED

		Seats provided ('000)		Demand ('000) based on September 2011 counts
		2011 timetable	2012 timetable	
AM	Shoulder	5.7	6.7	3.7
	High	4.1	4.1	3.9
	TOTAL	9.9	10.8	7.6
PM	Shoulder	6.5	6.5	4.4
	High	3.0	3.6	2.1
	TOTAL	9.5	10.1	6.5

- 3.21 The 2012 timetable provides more seats in both the morning and evening peak hours.

Memorability of timetable

- 3.22 Table 3.6 illustrates the pattern of service for a selection of stations. It shows the variety of departure times (from Marylebone) around the clock face for the off peak period, and for the three hours of the evening peak. Departures are shown in 10 minute timebands.

Analysis of Proposed Peak Hour Timetable

TABLE 3.6 DEPARTURE TIMES FROM MARYLEBONE

Station	Departures in 2011 timetable - minutes past the hour				Departures in 2012 timetable- minutes past the hour			
	Off Peak	16:00 to 17:00	1700 to 18:00	18:00 to 19:00	Off Peak	16:00 to 17:00	1700 to 18:00	18:00 to 19:00
Banbury	07	07	07					
	10		10	10,13	15,18	18	18	18
						24	24	24
	37		37					
		46,49		40,44	45	48	48	48
Bicester	07	07	10					
	10	10		13,16	18	18	18	18
		33	37					
	40	49	40	40,44	45	48	48	48
Haddenham and Thame Parkway				53	51	51	51	51
	10	10	10					
				13,16	18	18	18	18
					21	24	24	24
		33						
High Wycombe	40	49	40	44				
				53	51	51	51	51
	07					05	05	05
	10,13,16	10,13	10,13	16	18	18	18	18
				22,25	24	24	24	24
Beaconsfield		33,36				35	35	35
	40,43	49	40,43	44,47	45			
		56	50	53,56,5	51,54	51,54	51,54	51,54
						05	05	05
	13,16	10,13	13,19	16				
Gerrards Cross				22,25	21,24	21	21	21
		36				35	35	35
	40,43		43	47				
		56	50	56	54	54	54	54
						05	05	05
Gerrards Cross	13,16	13	13					
				22,25	21,24	24	24	24
		36				35	35	35
	40,43		43	47				
		56	50,56	56,59	54,57	54	54	54

Analysis of Proposed Peak Hour Timetable

- 3.23 The table demonstrates that the proposed timetable provides greater consistency within the peak period, and also between the peak and off peak periods.

Non London Flows

Access to London Underground services

- 3.24 Access to the Central Line is available at West Ruislip and South Ruislip stations. The 2012 timetable provides at least one train per hour to one or both of these stations from all stations as far north as Princes Risborough. Journeys to and from Haddenham and Thame, Bicester and Banbury require one change of trains with a maximum of 16 minutes waiting time. In the 2011 timetable, Bicester and Banbury have one service to West Ruislip in the morning peak, and no service from South or West Ruislip in the evening peak.
- 3.25 Table 3.7 shows a comparison between the 2011 and 2012 timetables of access to London Underground services for a selection of stations (those having the largest London demand) on the route. A positive figure indicates a shorter journey time, a larger number of trains, or a shorter interval, in the 2012 timetable¹.

TABLE 3.7 ACCESS TO LONDON UNDERGROUND SERVICES

Station	2012 Average Journey time (minutes)	Comparison between 2012 and 2011		
		Average Journey time (minutes)	Fastest journey time (minutes)	Slowest Journey time (minutes)
Bicester	61	4	0	8
High Wycombe	28	-2	-1	7
Beaconsfield	27	-8	-1	7
Gerrards Cross	7	1	0	5

Station	2012 Total number of Peak trains (morning + evening)	Total number of Peak trains	Average interval (minutes)	Longest interval (minutes)
Bicester	12	1	8	18
High Wycombe	12	7	7	5
Beaconsfield	12	7	9	5
Gerrards Cross	18	-2	9	

- 3.26 The table shows that while the 2012 timetable provides a similar number of trains connecting Bicester and Gerrards Cross with West or South Ruislip, with a more even spacing of services, there is a reduction in the number of services connecting High Wycombe and Beaconsfield.

¹ To enable a fair comparison between timetables the journey times shown are the equivalent times at West Ruislip, calculated by adjusting the time by three minutes in the case of trains calling at South Ruislip.

Other intermediate flows

- 3.27 We have examined other intermediate flows between London and Banbury, to ascertain whether there are any significant journeys which are difficult or impractical under the 2012 peak pattern. There are a number of such journeys, these are summarised in table 3.8. Except where indicated by an asterisk, these apply in both directions.

TABLE 3.8 FLOWS WITH DIFFICULT OR IMPRACTICAL JOURNEYS

Nature of difficulty	Flows affected
No practical journey opportunity	Wembley Stadium - Sudbury and Harrow Road
	Sudbury and Harrow Road - Sudbury Hill Harrow
	West Ruislip - Denham*
	Denham - Denham Golf Club
	South Ruislip - Wembley Stadium*
	South Ruislip - Sudbury Hill Harrow*
Journey has interchange with 30 minutes wait or longer	Sudbury Hill Harrow - Saunderton
	Wembley Stadium - West Ruislip*
	Wembley Stadium - Denham Golf Club
	Wembley Stadium - Saunderton
	Sudbury and Harrow Road - Denham
	Sudbury Hill Harrow - West Ruislip*
	Sudbury Hill Harrow -- Denham Golf Club
Journey requires two changes of train	Sudbury and Harrow Road - Haddenham
	Sudbury and Harrow Road - Bicester
	Sudbury and Harrow Road - Banbury
	Denham Golf Club - Haddenham
	Denham Golf Club - Bicester
	Denham Golf Club - Banbury

- 3.28 These are flows with no journeys, or a negligible number of journeys, shown in MOIRA.
- 3.29 All other point to point journeys can be made on a through train, or with one change involving a wait of less than 30 minutes.

4 Evidence from other routes

Service pattern changes

- 4.1 The are other examples of changes which have been made to timetables on London commuter services leading to a more simple service pattern. Three examples are described below.

Great Eastern Southend Line

- 4.2 The peak Liverpool Street to Southend Victoria service has historically operated on a 10 minute pattern. In the 1970s there was one train in each ten minute period which ran fast to Shenfield on the "M" (fast) line throughout, and a further train which called at stations from Harold Wood and beyond. This involved a weave from the "M" (fast) line to the "E" (slow) line. The pattern was simplified, eliminating the calls in the Southend line trains at Harold Wood and Brentwood, allowing all trains to operate on the M line throughout to Shenfield. The pattern was further modified in the 1990s, with fewer, longer trains. There are currently seven Southend line departures from Liverpool Street in the high peak hour, compared with 11 in 1993.
- 4.3 These changes reduced the performance risk caused by the weave between lines, and provided additional capacity to accommodate growth on the Colchester line.
- 4.4 This therefore is an example of a timetable simplification which has involved a reduction in the quantum of trains.

South West Trains

- 4.5 A completely new timetable for South West trains was introduced in December 2004. The new timetable was constructed on the basis of a repeating pattern throughout the day. In most cases the off peak pattern was carried into the peak period. The timetable allowed for standard platforming at Waterloo, which aided its memorability by passengers. While the level of service was maintained or improved at the majority of stations, a small number of stations had a reduced service although in most cases the "spread" was better.
- 4.6 It was found that performance improved significantly when the new timetable was introduced, with the moving annual average of PPM rising from around 75% to 90%.
- 4.7 The autumn 2005 National Passenger Survey recorded an increase in passenger satisfaction levels compared with autumn 2004. Table 4.1 below shows the increase in the percentage of passengers reporting "satisfied" or "good" with aspects of the service affected by the timetable change.

TABLE 4.1 PASSENGER SATISFACTION LEVELS

Service aspect	Increase in % of passengers reporting "satisfied" or "good" from 2004 to 2005 South West Trains	Increase in % of passengers reporting "satisfied" or "good" from 2004 to 2005 All London and South East
Overall satisfaction	9	5
Frequency of services	7	4
Punctuality / reliability	14	7
Journey time	6	3
Connections with other train services	7	2

- 4.8 This therefore is an example of a complete re-write of a timetable, resulting in a standard pattern of service, and one where there were instances of a reduction in service, but compensated by an improvement in the spacing of services.

West Anglia Route

- 4.9 In December 2011 a new timetable was introduced on the West Anglia service. The new timetable provides additional capacity, and on the Chingford, Enfield, Hertford East / Cheshunt routes the timetable was designed to provide a more even spread of trains. On each of the Chingford and the Enfield Town routes, the number of morning peak services to Liverpool Street has been reduced by one, with a compensating increase in train length.
- 4.10 This therefore is an example of a timetable revision which involved a reduction in the quantum of trains at certain stations, but provided a more even pattern of services, and increased capacity.

Benefits of regular timetables

- 4.11 A limited amount of research has been done on the benefits of regular timetables, and is reported in the Passenger Demand Forecasting Handbook. A Stated Preference analysis was carried out in 2002 based on a survey of passengers on the East Coast Main Line and Cross Country services. This found evidence of a benefit of regular interval timetables for journeys over 20 miles. For business travellers, the introduction of a regular timetable is worth 5 minutes of generalised journey time when there is one train an hour. This increases to 7 and 10 minutes for two and four trains per hour. For leisure travellers, the benefit is 3 minutes for hourly services and 7 minutes for more frequent services. While the survey was carried out on routes with a greater proportion of long distance travellers than the Chiltern route, and therefore the results may not be directly transferable, they do illustrate the principle that passengers attach value to regular timetables.

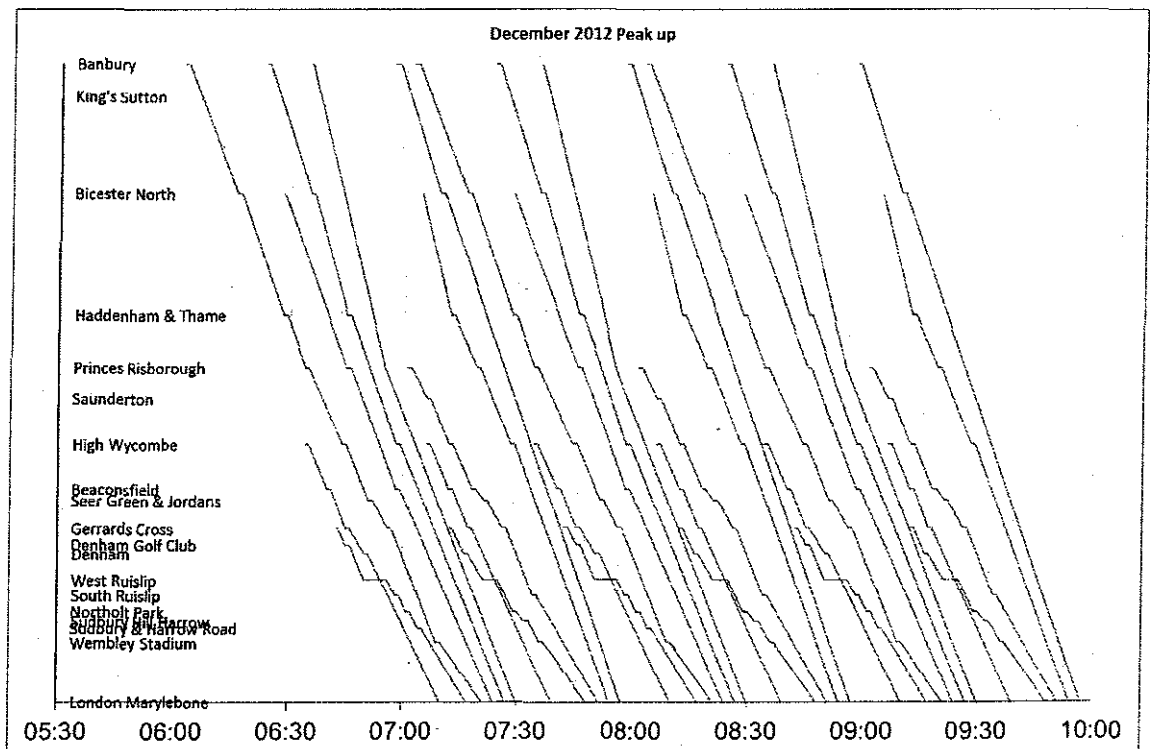
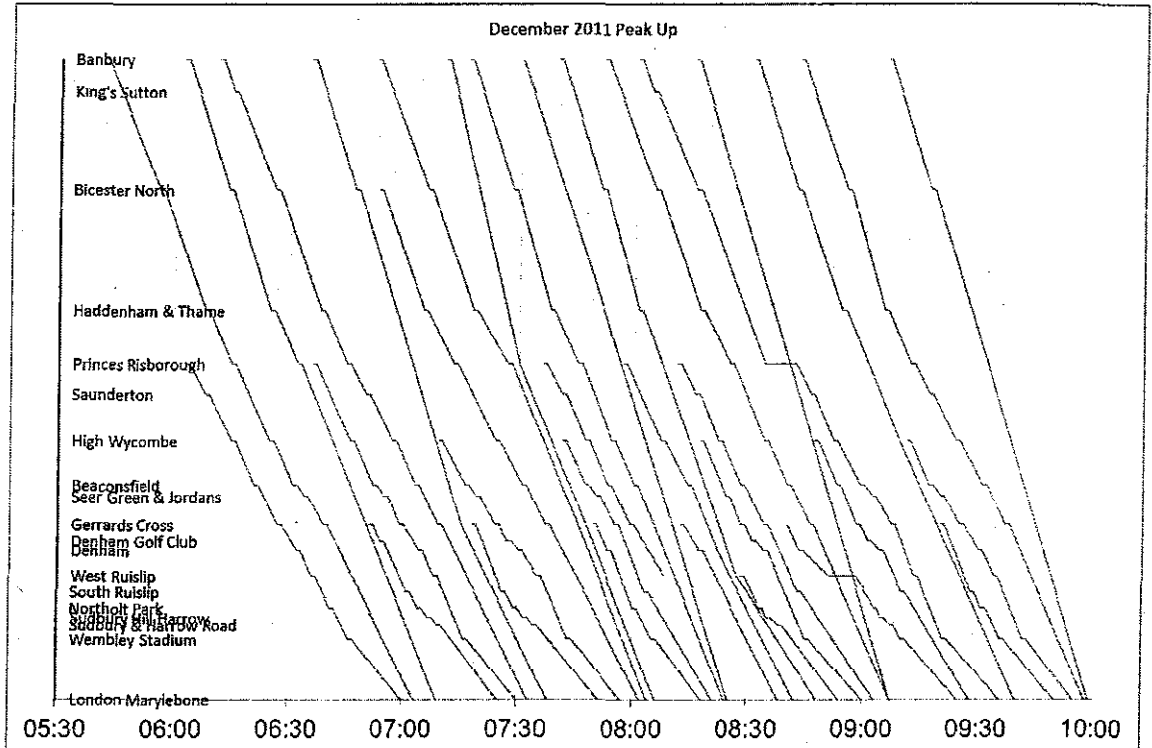
Analysis of Proposed Peak Hour Timetable

Comparison of service levels

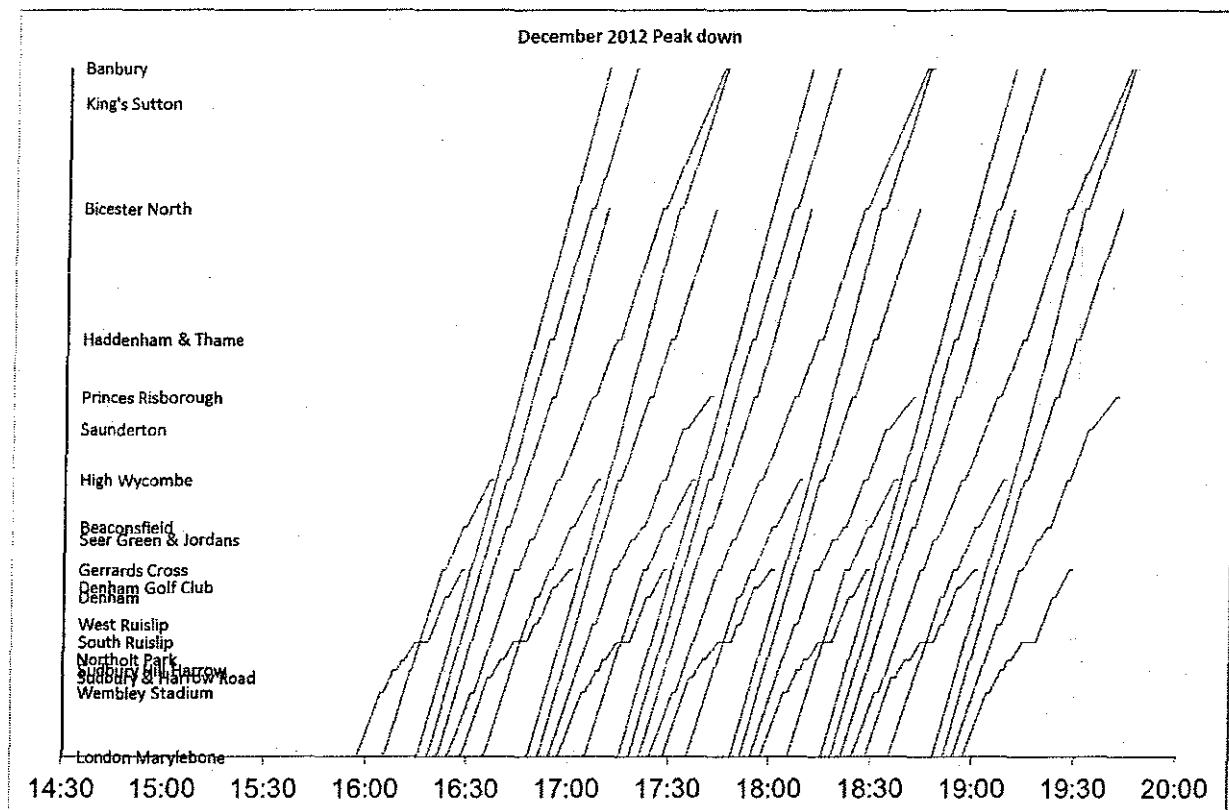
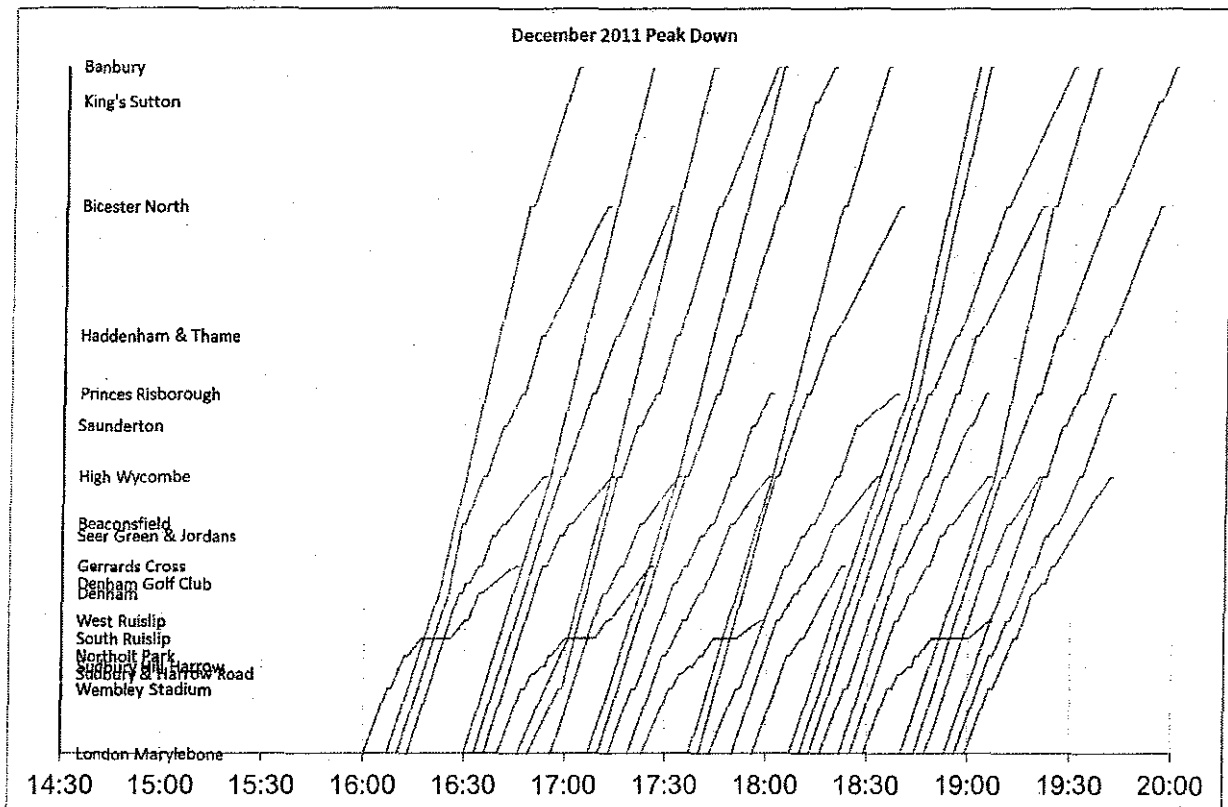
- 4.12 For stations where it is proposed to change the PSR, we have compared the proposed service provision with similar stations in the London commuting area. In each case we have taken stations which are a similar distance (within five miles) from London, and which have a similar peak demand, measured by the number of season ticket entries in the 2009-10 station count data published by ORR.
- 4.13 For stations between Gerrards Cross and Banbury inclusive, the proposed service level is within the range of that at comparable stations. The same applies at Sudbury Hill Harrow and Northolt Park. Sudbury and Harrow Road and Denham Golf Club both have low demand, with few comparable stations, and for these two stations the proposed PSR is lower than the service level at the comparators. West Ruislip has a proposed PSR lower than stations within a similar distance and with similar demand, but unlike its comparators, it is also served by London Underground.
- 4.14 Detailed figures are shown in Appendix 3.

Analysis of Proposed Peak Hour Timetable

APPENDIX 1 TRAIN GRAPHS



Analysis of Proposed Peak Hour Timetable



APPENDIX 2 STATION BY STATION ANALYSIS

Journey times

Journey Time to London - (minutes) by Station	London Demand Estimated weekday passengers	Average								Fastest								Slowest							
		2011 Timetable				2012 Timetable				2011 Timetable				2012 Timetable				2011 Timetable				2012 Timetable			
		AM		PM		AM		PM		AM		PM		AM		PM		AM		PM		AM		PM	
		Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High
Kidderminster		168		143	161	144	140	145	145	149		143	161	140	140	145	145	179		143	161	147	140	145	145
Stourbridge Junction		160		139	148	134	130	130	130	139		127	148	130	130	130	130	171		150	148	137	130	130	130
Birmingham Snow Hill		127		108	118	105	100	106	106	107		96	117	100	100	100	100	141		117	119	109	100	111	111
Birmingham Moor Street		114	98	102	111	100	100	99	99	94	90	90	108	94	94	94	94	131	107	109	114	106	106	103	103
Solihull		105	90	92	98	92	92	90	90	86	82	81	97	86	85	85	85	123	97	98	99	97	97	95	95
Dorridge		105	91	91	93	94	96	97	97	90	91	90	92	92	92	91	91	118	91	93	94	99	99	102	102
Warwick Parkway		90	84	78	82	83	83	80	80	75	70	69	80	75	75	72	72	102	101	82	84	90	90	87	87
Warwick		90	97	78	85	86	86	84	84	76	97	77	81	86	86	84	84	99	97	79	90	86	86	84	84
Leamington Spa		83	80	79	79	75	75	74	74	69	74	73	74	69	69	67	67	94	86	100	86	81	81	80	80
Banbury		71	65	64	61	67	67	67	67	51	55	55	57	59	59	58	58	95	71	77	69	78	78	81	81
Bicester		60	59	56	52	54	54	52	52	41	55	42	45	47	47	44	44	79	68	65	59	64	64	63	63
Haddenham & Thame Parkway		50	48	44	40	45	45	42	42	43	45	42	39	41	41	36	36	54	56	47	41	52	52	50	50
Princes Risborough		48	42	39	43	42	42	40	40	36	36	35	32	34	34	33	33	56	48	46	55	49	49	48	48
Saunderton		46	42	34	44	44	44	40	40	40	42	32	43	44	44	40	40	51	42	38	44	44	44	40	40
High Wycombe		40	35	33	35	32	32	30	30	32	29	26	23	25	25	24	24	47	39	43	43	38	38	34	34
Beaconsfield		33	28	26	31	28	28	25	25	26	23	20	31	25	25	21	21	40	33	30	31	32	32	28	28
Seer Green		34	30	26	28	29	29	25	25	28	30	23	28	29	29	25	25	37	30	27	28	29	29	25	25
Gerrards Cross		28	26	26	25	23	23	20	20	20	24	18	23	21	21	18	18	33	28	46	27	24	24	21	21
Denham Golf Club		28		21	21	31	31	28	28	26		18	20	31	31	28	28	30		23	21	31	31	28	28
Denham		27	22	21	21	25	25	22	22	23	20	16	19	19	19	16	16	41	24	35	22	31	31	27	27
West Ruislip		22	25	26	22	22	22	19	18	20	25	14	14	21	21	14	14	27	25	38	36	23	23	23	23
South Ruislip		21	17	25	22	17	17	17	17	17	17	15	15	16	16	16	16	24	17	31	28	18	18	17	17
Northolt Park		20	19	14	13	16	16	14	14	18	17	11	11	15	15	13	13	22	20	16	18	18	18	14	14
Sudbury Hill Harrow		18	18	14	15	15	15	12	12	17	18	14	15	15	15	12	12	20	18	14	15	15	15	12	12
Sudbury & Harrow Road		16	15	11	12	12	12	9	9	15	15	11	12	12	12	9	9	17	15	11	12	12	12	9	9
Wembley Stadium		13	12	8	9	11	11	8	8	12	12	8	8	11	11	8	8	14	12	10	9	11	11	8	8

Note: Overtaken trains are not included. The 2011 High Peak AM journey from Saunderton requires a change of trains.

Analysis of Proposed Peak Hour Timetable

Service provision

Service Provision - by Station	London Demand Estimated weekday passengers	Number of arrivals in Marylebone / departures from Marylebone								Average Interval (Minutes)								Longest Interval (Minutes)							
		2011 Timetable				2012 Timetable				2011 Timetable				2012 Timetable				2011 Timetable				2012 Timetable			
		AM		PM		AM		PM		AM		PM		AM		PM		AM		PM		AM		PM	
		Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High
Kidderminster		3		1	1	2	1	2	1	41		60		60	3	60	49		60		20	60	60	60	
Stourbridge Junction		3		2	1	2	1	2	1	43		57		60	3	60	49		60		20	60	60	60	
Birmingham Snow Hill		3		5	2	2	1	4	2	44		28	34	60	31	30	58		30	37	65	60	33	33	
Birmingham Moor Street		5	2	6	2	4	2	4	2	28	33	26	26	38	38	31	30	34	36	30	30	45	45	33	33
Solihull		5	2	6	2	4	2	4	2	28	30	26	26	36	37	31	30	35	34	30	30	44	44	33	33
Dorridge		4	1	4	2	3	2	4	2	36	39	56	26	48	51	31	30	46	39	39	30	64	60	33	30
Warwick Parkway		7	3	6	2	6	3	6	3	28	26	26	26	26	20	28	27	36	30	30	40	23	30	30	
Warwick		4	1	3	2	2	1	2	1	45	19	44	52	86	60	50	60	59	19	57	63	101	60	60	60
Leamington Spa		7	2	5	3	6	3	6	3	26	25	33	23	26	21	28	27	35	30	39	27	40	25	30	30
Banbury		10	4	7	3	6	3	6	3	22	18	31	22	27	27	26	25	30	23	39	27	34	34	33	30
Bicester		9	4	9	3	8	4	8	4	18	19	23	23	20	19	24	23	26	23	33	27	25	25	33	27
Haddenham & Thame Parkway		6	4	7	2	6	3	6	3	26	19	26	26	23	21	25	25	37	23	33	30	28	27	27	27
Princes Risborough		9	4	9	4	8	4	8	4	23	15	23	22	19	15	25	25	31	18	30	27	32	18	27	27
Saunderton		5	1	4	2	2	1	2	1	39	35	44	27	62	60	60	60	51	35	57	30	64	60	60	60
High Wycombe		12	4	14	6	12	6	12	6	15	13	18	14	12	11	12	12	21	17	27	21	16	16	16	16
Beaconsfield		11	4	9	4	8	4	8	4	15	14	21	18	19	17	16	16	21	16	27	24	27	22	19	19
Seer Green		6	1	4	2	4	2	4	2	26	36	33	34	29	30	42	30	38	34	42	37	30	30	60	30
Gerrards Cross		15	4	10	4	8	4	8	4	11	13	19	21	18	17	16	16	13	17	26	30	26	21	19	19
Denham Golf Club		4		2	2	2	1	2	1	52	30	57	51	81	60	60	64		69	60	94	60	60	60	60
Denham		7	2	5	2	4	2	4	2	26	19	33	28	33	31	32	32	32	24	43	31	41	34	38	38
West Ruislip		6	1	5	3	4	2	4	2	33	29	31	32	42	30	44	31	53	29	40	39	60	31	64	34
South Ruislip		5	1	4	2	4	2	4	2	30	40	38	39	32	31	30	30	37	40	44	43	36	36	31	31
Northolt Park		5	2	4	3	4	2	4	2	26	31	32	35	42	30	30	30	31	33	40	39	60	32	31	31
Sudbury Hill Harrow		3	1	2	1	2	1	2	1	52	29	62	43	60	60	60	60	63	29	66	43	60	60	60	60
Sudbury & Harrow Road		3	1	2	1	2	1	2	1	72	29	66	43	60	60	60	60	90	29	66	43	60	60	60	60
Wembley Stadium		8	1	6	3	4	2	4	2	22	34	29	20	30	30	30	30	30	30	40	40	33	33	33	33

Note: Overtaken trains are not included. The 2011 High Peak AM journey from Saunderton requires a change of trains. Train service provision at Bicester will increase when the Oxford service commences.

Analysis of Proposed Peak Hour Timetable

Journey times and service provision to London Underground services for a selection of stations

Journey Time to London Underground - (minutes) by Station	Average								Fastest								Slowest							
	2011 Timetable				2012 Timetable				2011 Timetable				2012 Timetable				2011 Timetable				2012 Timetable			
	AM		PM		AM		PM		AM		PM		AM		PM		AM		PM		AM		PM	
	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High
Bicester	61	67	68	63	60	60	62	62	56	67	62	63	56	56	58	58	72	67	74	63	64	64	66	66
High Wycombe	23	19	31	31	28	28	28	28	18	19	21	25	19	19	20	20	33	20	43	39	36	36	36	36
Beaconsfield	17	14	24	21	27	27	27	27	12	13	14	14	13	13	14	14	27	14	31	33	40	40	40	40
Gerrards Cross	8	6	10	10	7	7	8	8	5	5	7	9	5	5	6	6	11	8	15	11	8	8	10	10
Service Provision - by Station	Number of services								Average Interval (Minutes)								Longest Interval (Minutes)							
	2011 Timetable				2012 Timetable				2011 Timetable				2012 Timetable				2011 Timetable				2012 Timetable			
	AM		PM		AM		PM		AM		PM		AM		PM		AM		PM		AM		PM	
	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High	Shoulder	High
Bicester	6	1	3	1	4	2	4	2	31	35	47	65	34	34	40	40	39	35	63	65	41	41	47	47
High Wycombe	9	2	5	3	4	2	4	2	22	31	32	23	29	30	40	40	32	35	42	28	32	32	47	47
Beaconsfield	9	2	5	3	4	2	4	2	22	31	32	23	33	32	40	40	31	35	42	28	38	38	47	47
Gerrards Cross	11	2	5	2	6	3	6	3	21	32	32	44	24	23	23	23	31	35	42	51	30	30	30	30

The number of trains includes both West Ruislip and South Ruislip, and includes journeys where a change of train is necessary. To enable a fair comparison between timetables the journey times shown are the equivalent times at West Ruislip, calculated by adjusting the time by three minutes in the case of trains calling at South Ruislip.

Analysis of Proposed Peak Hour Timetable

APPENDIX 3 NUMBER OF TRAINS COMPARISON WITH STATIONS ON OTHER ROUTES

The table shows the proposed PSR at those Chiltern stations where there would be a reduction compared with the current level. The level of service in the morning peak to London is shown for up to four comparator stations. The stations are at a similar distance (within five miles) from London, and chosen on the basis of similar demand, measured by annual season ticket entries reported in the 2009-10 station usage data, published by ORR. Where suitable comparators exist, two stations are shown (on the left hand side of the table) with demand below that of the relative Chiltern station, and two stations are shown (on the right hand side of the table) with demand above that of the relative Chiltern station.

Station	Annual Season ticket entries '000	Proposed PSR	Station	Annual Season ticket entries '000	Peak trains to London	Station	Annual Season ticket entries '000	Peak trains to London	Station	Annual Season ticket entries '000	Peak trains to London	Station	Annual Season ticket entries '000	Peak trains to London
Sudbury & Harrow Road		3				South Greenford		6						
Sudbury Hill Harrow		3				Angel Road		3	Birkbeck		5			
Northolt Park		6				Castle Bar Park		6	St Helier		7	Northumberland Park		6
West Ruislip		6	Emerson Park		7	Morden South		7	Whyteleafe South		11			
Denham Golf Club		3							Bayford		8	How Wood		4
Gerrards Cross		15	Burnham		11	Carshalton Beeches		12	Thames Ditton		6	Radlett		17
Beaconsfield		12	Berkhamstead		13	Chafford Hundred		8	West Byfleet		14	Greenhithe		16
High Wycombe		18	Crawley		12	East Grinstead		10	Reigate		9	Laindon		19
Princes Risborough		12	Theale		10	Baldock		9	Hockley		15	Marden		12
Haddenham & Thame		9	Bearsted		10	Wivelsfield		18	Hook		9	Shoeburyness		18
Banbury		9	Kettering		11	Barnham		8	Wellingborough		10	Herne Bay		13

APPENDIX 4 ILLUSTRATION OF FASTEST JOURNEYS RESULT

This appendix illustrates the way in which the route based average fastest journey time is lower in 2012 compared with, while the fastest at individual stations is generally higher.

The table below shows fastest journey times in each peak period, for two hypothetical timetables.

	Timetable A - journey times (minutes)				Timetable B journey times (minutes)			
	AM High	AM Shoulder	PM High	PM Shoulder	AM High	AM Shoulder	PM High	PM Shoulder
Station 1	12	24	24	24	20	20	20	20
Station 2	24	12	24	24	20	20	20	20
Station 3	24	24	12	24	20	20	20	20
Station 4	24	24	24	12	20	20	20	20

In Timetable A, the fastest journey time at each station is 12 minutes, compared with 20 minutes for timetable B. However, for the route as a whole, the average fastest journey time in each period (giving equal weightings to each station) is 21 minutes in the case of timetable A, but 20 minutes for the more regular timetable B.