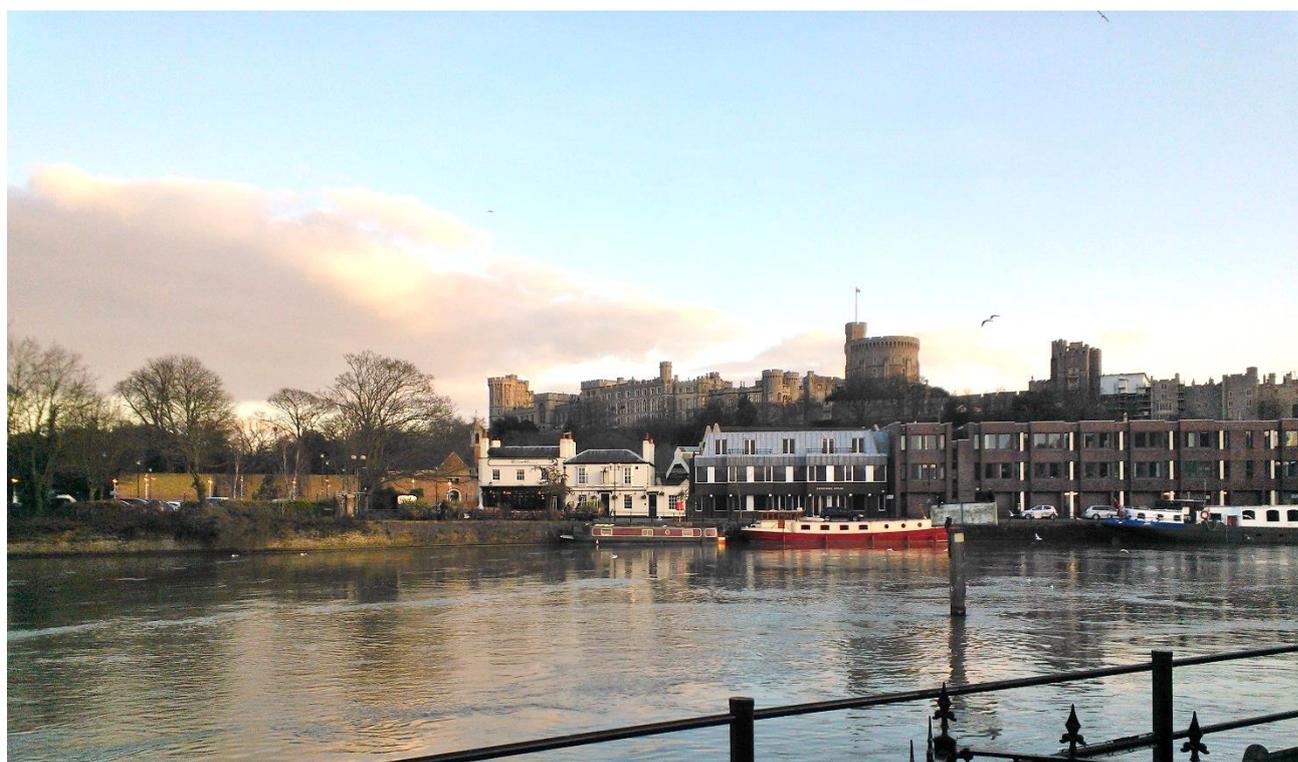


THE WINDSOR LINK RAILWAY:  
VISION STATEMENT TO INFORM THE ROYAL  
BOROUGH OF WINDSOR & MAIDENHEAD LOCAL  
PLAN AND PRE-PLANNING SUBMISSION



**Sir Robert  
McALPINE**



**Network Rail**

**LANDID**

**HAMON INVESTMENT GROUP**



## LEGAL

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### COMPANY DETAILS

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- Annex 1:                [Residents' Survey](#)
- Annex 2:                Exclusivity letter from Network Rail
- Annex 3:                Letter from the Department for Transport

(Annexes 2 and 3 are subject to public release only with the permission of their respective authors.)



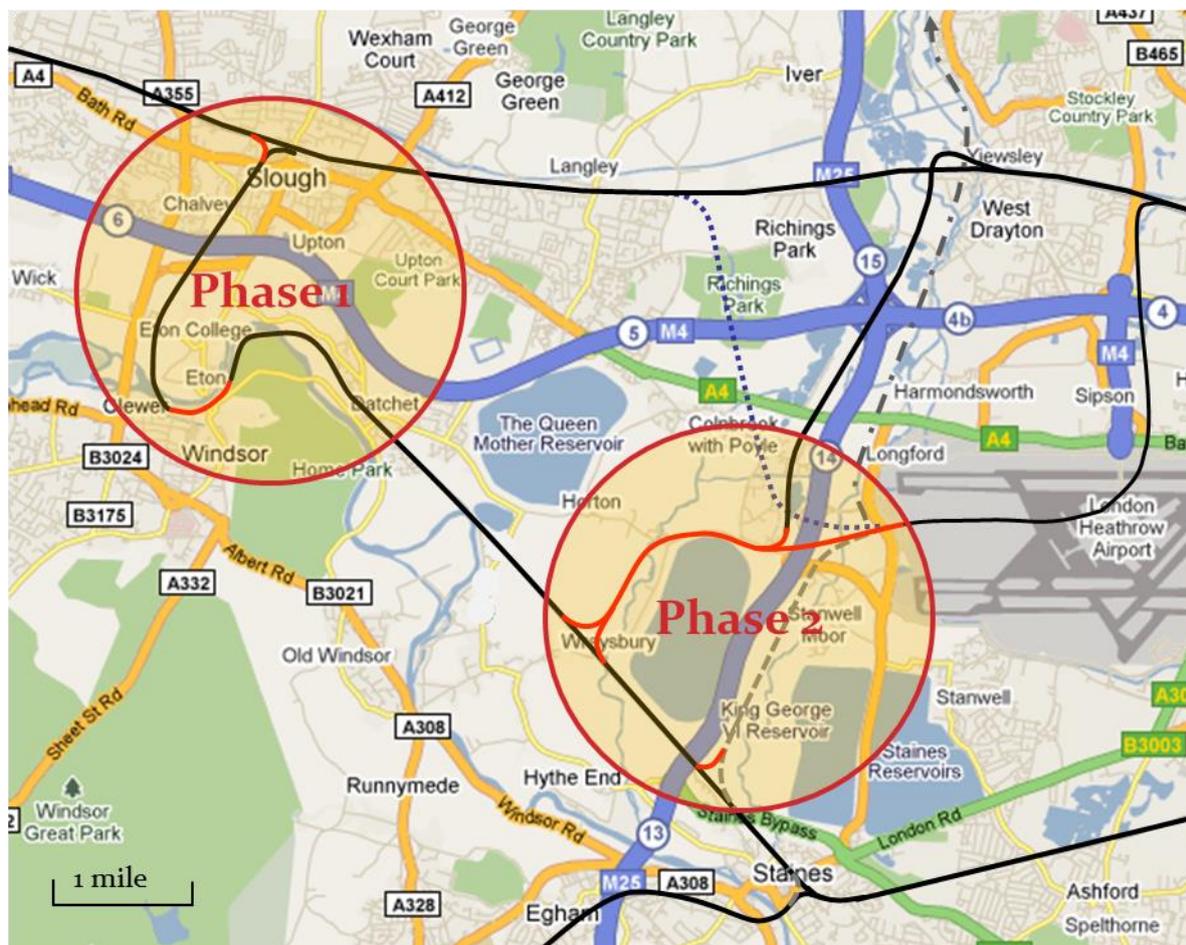
## INTRODUCTION

The vision of the Windsor Link Railway (WLR) is to place the Thames Valley at the centre of a new, better-connected rail network west of London.

There is a strong case for improvement. The economy of the Thames Valley relies on good transport links. However, much of this, such as the M4, is at or near capacity. Well before the end of the period covered by the emerging Royal Borough's Local Plan (up to 2029/2030) and Royal Borough's Local Transport Plan (AD 2026) these are likely to be well over-capacity.

Windsor has particular transport issues and is in danger of declining as a commercial centre if urgent action is not taken to address access issues. The 'do nothing' option is likely to lead to further downgrades of Windsor's trains.

WLR proposes two initial phases of development. The first phase would link the two existing lines into Windsor via a tunnel which would connect Slough to Waterloo, with four trains per hour. The second phase proposes a link to Heathrow Airport from the west. However, it should be emphasised from the outset that this document focuses on Phase 1, and irrespective of other improvements to the railway, Phase 1 has an independent, stand-alone business case.



There are a number of options for the precise alignment within Windsor and associated building. Based on the work undertaken to date, WLR has established that the scheme is likely to be deliverable.



Network Rail has completed a high-level study and concluded that the phase 1 will have high value for money, according to DfT assessment criteria. Additionally, Sir Robert McApline has looked at alternatives for construction and route and has 'a high degree of confidence' that the tunnel and associated rail works are technically deliverable (from an engineering perspective).

In addition to the national and regional benefits, the scheme would have great benefits to Windsor, not limited to better transport and relieving the roads. These include opportunities for an extension of parking in the town, a new park-n-ride scheme at Chalvey, improvements to the riverside area and views of the castle and relief of traffic congestion within Windsor.

The scheme is expected to cost up to £200 million for civil and rail engineering work, in addition to related property development.

Funding for the scheme is expected to be as a hybrid rail and property project. This would seek approval for the overall scheme either under a Transport & Works Act Order, Development Consent Order or under the Planning Act 2008 (as amended 2013). Subject to approval, operation anticipated to commence before 2020. Given the expense of the application process it is anticipated that a smaller initial property project will be brought forward to provide capital to finance this.

The design of the scheme would be highly consultative. WLR has deliberately not brought forward plans for property development at this stage but instead wishes for these to be developed in partnership with key stakeholders such as the Council and local people, in a process called *Enquiry by Design* (EbD). The intention at this stage is that this could be facilitated by the *Prince's Foundation for Building Community*.

WLR has already received widespread local support via a survey, the in-principle support of the Central Windsor Neighbourhood Plan (CWNP) and two petitions containing 1,423 signatures.

WLR asks that the Council responds to this document in two separate ways:

1. At a full council level, responding to the petition previously submitted, by affirming support for and collaboration with WLR (policy **ASF1** of the Royal Borough's Local Transport Plan *inter alia*); and
2. As part of the emerging Borough Local Plan, as requested by the Central Windsor Neighbourhood Plan, to ensure provision is made within the document to support WLR and the associated development to come forward within the plan period.
3. As pre-planning advice, to respond to this document with the Royal Borough's feedback.



## RBWM POLICIES

### CORPORATE POLICIES

The Corporate Strategy 2010 -2015 (CS), the Sustainable Community Partnership Strategy (SCPS), and the Visitor Management Strategy 2016 (VMS) are the main corporate policy documents for the Borough relevant to the WLR. The CS acknowledges:

- That transport and road congestion are key local concerns, and *we will make it easier for people to travel into and around the Royal Borough*
- That putting residents first a critical success factor is to *improve the environment, economy and transport*

The SCPS recognises that:

- To work in the Borough there are *increasing pressures to further improve our transport systems (to improve access by public transport, walking and cycling). This is due to the effects of commuting - some 30,000 people commute into the borough and 28,000 commute out everyday*
- In visiting the Borough *Royal events and Ascot races increase visitor numbers by more than 500,000 – creating a significant number of jobs but also increasing pressure on the local transport network*
- In tackling climate change the future includes more people making their journeys by more sustainable forms of transport by *improving transport infrastructure and facilities*

One of the objectives of the VMS is for the quality of transport to:

- Ensure visitors to the Borough *can get in, out and about with ease. Providing and influencing the use of appropriate alternatives to car travel*

### TRANSPORT POLICIES

The Local Transport Plan (LTP) is the main transport policy document for the Borough and sets out how the Council will improve transport between 2012 and 2016. The LTP aims to:

- Improve access to local services and facilities
- Improve road safety and personal security
- Support economic growth
- Improve quality of life and minimise the negative impacts of transport
- Tackle climate change

The following policies in the LTP are particularly relevant to the WLR proposals.



Policy	Description	Relevance
<b>ASF1</b>	<b>Partnership Working</b> The Council will work in partnership with service providers, developers, public transport operators and neighbouring local transport authorities to improve access for residents and visitors to key services and facilities within and around the Royal Borough.	The key request of WLR
<b>ASF10</b>	<p><b>Interchange</b> The Council will work with public transport operators and the rail industry to deliver improved interchange between transport modes through the creation of new / enhanced facilities, particularly within town centre locations and at rail stations.</p> <p>4.6.17 Making interchange quicker, easier and more convenient helps public transport to cater for the widest possible range of journeys.</p> <p>4.6.21 In terms of walking to a station, distance is the primary factor...</p> <p>4.6.22 Facilities at interchanges are also important, particularly where passengers have a significant wait. Our issues and options consultation highlighted that shelters and seating were particularly valued by elderly residents.</p> <p>3.6.23 The National Passenger Survey 2011 (NPS) showed that across South-East England as a whole 60% of passengers are satisfied with the available connections with other forms of transport. This is lower than any other region of the UK. In relation to parking at stations in the South East, 58% of passengers were satisfied. This implies that there is room for significant improvement.</p>	The key deliverables of WLR

Other relevant considerations in the LTP include reference to the National Framework White Paper 'Creating Growth, Cutting Carbon: Making Sustainable Transport Happen', LTP para. 3.2.5, and on Air Quality (LTP section 7.3 on page 78) in referring to the Air Quality Management Area (AQMA) for Windsor - around the Clarence Road roundabout and Barry Avenue.

#### **RBWM LOCAL PLAN 1999 (INCORPORATING ALTERATIONS ADOPTED JUNE 2003)**

Policy T12 'Rail Services' of the Royal Borough and Windsor and Maidenhead Local Plan (Incorporating Alterations adopted June 2003) was not 'saved' in 2007, although reference to T12 (in that it was planning policy from 1999 to 2007) and general note 6.5.5 to T12 assists for continuity in considering the recently published Borough Local Plan Preferred Options Document:

*"Policy T12: The Borough Council will investigate with British Rail the feasibility of sites for new stations in the Borough.*

*6.5.5 As part of the integrated approach toward the planning of transport infrastructure, it will be necessary to take into account of the potential in the existing rail network for improvements to rail access and the passenger facilities. The enhancement of local services and facilities can help to reduce road congestion in town centres while opportunities for park and ride can also produce environmental benefits. The Borough Council will pursue improved provision with relevant rail operators."*



## BOROUGH LOCAL PLAN PREFERRED OPTIONS

### PLAN OBJECTIVES

The Windsor Link Railway supports the following objectives of the [Borough Local Plan](#) Preferred Options Document (POBLP), January 2014.

Objective	Description
<b>1. Conserve and enhance the special qualities of the borough's built and natural environment</b>	<ul style="list-style-type: none"> <li>i. Protect the openness of the Green Belt</li> <li>ii. Retain the character of existing settlements through guiding development to appropriate locations and ensuring high quality design of new development</li> <li>iii. Protect the special qualities of the built environment including heritage assets</li> </ul>
<b>2. Meet the varied housing needs of residents in an appropriate way whilst steering development to the most sustainable locations</b>	<ul style="list-style-type: none"> <li>i. Provide sufficient new housing to meet the borough's needs</li> <li>ii. Make the most of previously developed land</li> <li>iii. Provide housing that meets the needs of all sections of community including a sufficient level of affordable housing</li> </ul>
<b>3. Enable the continued success and evolution of the borough's distinct visitor economy</b>	<ul style="list-style-type: none"> <li>i. Reinforce the role of key tourism centres such as Windsor, Ascot and the River Thames</li> <li>ii. Provide sufficient accommodation and facilities for tourists</li> <li>iii. Identify and promote opportunities for additional tourism related development</li> </ul>
<b>4. Enable the evolution and growth of the local business economy</b>	<ul style="list-style-type: none"> <li>i. Maintain a buoyant and broad-based economy</li> <li>ii. Support the reuse and redevelopment of existing employment-generating sites and premises in order to maintain a sustainable balance between jobs and local labour</li> </ul>
<b>5. Promote the vitality and viability of our town centres so they are at the heart of our communities</b>	<ul style="list-style-type: none"> <li>i. Promote the town centres of Windsor &amp; Maidenhead as the principal locations for office, retail, tourism and leisure development.</li> </ul>
<b>7. Minimise the impact of flooding and any impact attributable to climate change</b>	<ul style="list-style-type: none"> <li>i. Promote sustainable design and construction</li> <li>ii. N/A</li> <li>iii. Manage flood risk through the location and design of development</li> </ul>
<b>8. Seek to retain, improve and provide new facilities and other infrastructure to ensure a high quality of life for residents of all ages</b>	<ul style="list-style-type: none"> <li>i. Ensure that new development contributes to environmental, infrastructure and service improvements</li> <li>ii. Support the development of new educational facilities.</li> </ul>



**9. Reduce the need to travel by car in the borough and encourage sustainable modes of transportation**

- i. Locate new development close to offices, shops and local services and facilities
- ii. Encourage access to safe, convenient and sustainable modes of transportation.

---

## SUSTAINABLE TRANSPORT

The POBLP makes the following note (author's highlighting).

*15.2.4 The Borough Council recognises the need to improve rail access to Heathrow, to encourage more sustainable travel patterns and relieve pressure on local and strategic road networks. Several proposals currently under consideration would provide new rail links from the Great Western Main Line and the Windsor to Waterloo Line. The Borough Council will consider proposals for rail access to Heathrow on their merits. In addition, there are early local proposals for a Windsor Link Railway (WLR - a line joining the two Windsor stations, connecting Slough to Waterloo via Windsor) and an alternative proposal for a Slough to Windsor tram link. Whilst Network Rail and South West Trains have concluded that the WLR is both likely to have both significant passenger demand and be viable, these proposals are at a very early feasibility stage. In addition, the Borough Council is in discussion with the owners of White Waltham Airfield about the future preferred leisure activities for which the airfield is acknowledged.*

The upper-case development plan policy preferred in the POBLP is: *Preferred Policy Option INF 2: Sustainable Transport*

*The preferred policy approach is to work in partnership with service providers, developers, public transport operators, and neighbouring local transport authorities to improve access to key services and facilities within and around the borough. Accessibility to the borough's centres will be optimised across all modes of travel.*

*Development proposals consistent with the objectives of the transport strategy set out in the Borough Council's Local Transport Plan will be supported, as will proposals that aid pedestrians, cyclists and public transport.*

*Land required to enable the Stafferton Way Link Road and improvements along Oldfield Road and Forlease Road, together with other land required to enable the future provision of priority transport projects, will be safeguarded from development.*

There are several supporting references in the evidence base for the POBLP, including in the Highway Modelling Evidence Base 22/01/2014:

*2.6.4 Although not a topic for discussion within this highway impact report, the Borough Council recognises the need to improve rail access to Heathrow, to encourage more sustainable travel patterns and relieve pressure on local and strategic road networks. Several proposals currently under consideration would provide new rail links from the Great Western Main Line and the Windsor to Waterloo Line. The Borough Council will consider proposals for rail access to Heathrow on their merits. In addition, there are early local proposals for a Windsor Link Railway (WLR - a line joining the two Windsor stations, connecting Slough to*



*Waterloo via Windsor) and an alternative proposal for a Slough to Windsor tram link. Whilst Network Rail and South West Trains have concluded that the WLR is likely to have both significant passenger demand and be viable, these proposals are at a very early feasibility stage. In addition, the Borough Council is in discussion with the owners of White Waltham Airfield about the future preferred leisure activities for which the airfield is acknowledged.*

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## THE DUTY TO CO-OPERATE

With Royal Assent of the Localism Act in November 2011 and subsequent Regulations which came into force in 2012 came a new statutory duty for local planning authorities to co-operate with neighbouring local authorities and transport providers (such as Network Rail and WLR). Failure to fulfil this obligation has been a common reason for the rejection of local plans by planning inspectors.

## THE NEIGHBOURHOOD PLAN

The LTP, referenced above, notes that detailed transport policies and schemes will also be proposed via neighbourhood plans.

The *Central Windsor Neighbourhood Plan* (CWNP) covers the area in Windsor affected by phase 1 of WLR.

On Wednesday 16 October 2013, the CWNP steering group voted to support a Windsor Link Railway. They resolved (with no votes against):

- i. To support a Windsor link railway in principle
- ii. To request that the emerging Borough Local Plan marks the associated land as reserved whilst potential development is considered, so as not to impede the development of a railway
- iii. The Transport Topic Group will consider a Windsor link railway as part of its discussion



## THE CASE FOR IMPROVEMENT

### BOROUGH-WIDE AND REGIONAL ISSUES

The economy of the Thames Valley relies on good transport links. However, much of this, such as the M4, is at or near capacity. Well before the end of the period covered by the emerging Local Plan (AD 2030) and the Royal Borough's Local Transport Plan (AD 2026) these are likely to be significantly over-capacity.

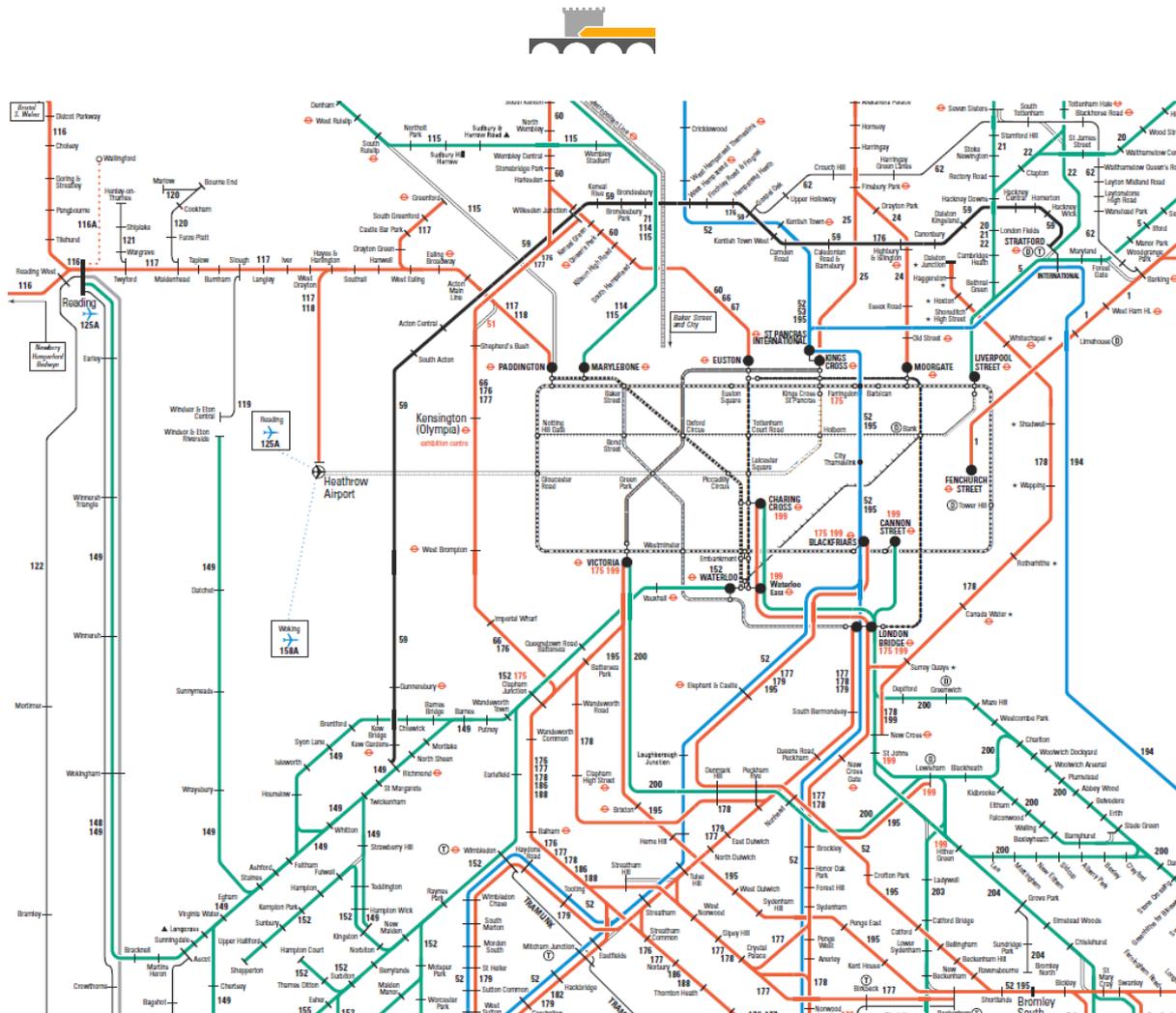
There has also been huge population growth in places such as Slough, Bracknell and Ascot, yet much of the minor road infrastructure is the same as it was when the region was rural.

At the same time, poor connectivity has resulted in a situation where some of the region's railways (particularly orbital links) are curiously under-utilised.

Even the radial links (to London) are not as good as often assumed, with slow journey times. Maidenhead, for example, despite being only 31 miles from the City of London, has morning peak door-to-door journey times that can be over an hour. This increases by 20-30 minutes off-peak, resulting in an effective speed of just 20 mph. Train travellers from Luton, a similar distance from the City, can do the journey in under half the time. Winchester, which is over twice as far from London, has a journey time of under an hour.

If the region is to continue to contribute to the UK's economic growth then train journey times must be resolved as a matter of priority. With further road building becoming increasingly difficult politically and undesirable from an environmental perspective, making better use of existing rail assets is essential.

Whilst London connections are acceptable, orbital connections in the region are very poor, especially compared with the car journey times. This means that they are rarely used, causing further pressure on the roads. The schematic below illustrates how poorly served the area west of London is compared with other peripheries of London.



The following table shows some common local journeys. The second column shows the fastest speed that these can be travelled by rail at peak time, not counting walking time.

Journey	Distance	Train journey time	Effective speed
Maidenhead to High Wycombe	9.1 miles	93 minutes	6 mph
Maidenhead to Bracknell	9.3 miles	55 minutes	10 mph
Maidenhead to Ascot	10.9 miles	51 minutes	13 mph
Slough to Bracknell	13.1 miles	56 minutes	14 mph
Maidenhead to Feltham	16.2 miles	88 minutes	11 mph
Ascot to High Wycombe	18.4 miles	136 minutes	8 mph
Slough to Farnborough	18.7 miles	72 minutes	16 mph

The Great Western Main Line suffers from unfortunate reliability and, as such, 20-40 minutes should be added if one is commuting to a job where it is important to be on time. Even without this adjustment, it can be seen the effective speed of these journeys is much lower than one would expect to achieve by car, even at peak time. Indeed they are in most cases slower than a bicycle.

Addressing this problem is essential if projected increases in population are to be accommodated in a sustainable way and without causing gridlock on local roads



## WINDSOR SPECIFIC ISSUES

Windsor is a beautiful town which residents rightly take great pride in. It is dominated by the castle but is also the historic market town for the surrounding area. However, despite its visual appeal and increasing cachet as a fashionable place to live, it is not without its issues.

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### THE DO NOTHING CASE

If nothing is done to improve Windsor, the town is likely to be detrimentally affected as a commercial centre. Also it is likely that train services will be further downgraded in a vicious circle. Although Network Rail does not release per-line profitability figures, both branches to Windsor are suspected to operate at a higher than usual loss, due to their high capital costs and low volumes. Pressure on the network for greater efficiency would therefore cause other interests to bring forward plans that could push aside the current Windsor services.

For example, the south-west access to Heathrow (as recently re-proposed by the Airports Commission) would require capacity on the Windsor lines and the easiest way to get this would be to abandon direct trains to Windsor, as was an option in BAA's Airtrack proposal.

Slough Borough Council's (SBC) proposal for a tram is another example. This includes closing the branch from Windsor to Slough to heavy trains and replacing it with a tram (light train) network centred on Slough. This is likely to be very unpopular with Windsor residents who, as reported in the LTP, are strongly supportive of upgrades to services. Most residents would prefer, for example, that direct services to Paddington from Windsor are restored, and would oppose moves to make this even more difficult.

Fortunately for Windsor residents, WLR's twenty-year exclusivity with Network Rail makes downgrading the Windsor to Slough branch for trams impossible during the period of the new BLP without WLR's permission. However, it may be, once phase 1 of the WLR has progressed, that some allowance could be made in the initial design for future light rail services in addition to better heavy rail services. WLR would be pleased to work with SBC and other local authorities on this.

Furthermore, WLR provides an opportunity to promote the regeneration of areas of the town centre, through a rail-led masterplan. Without a masterplan, piecemeal development may occur which would prevent co-ordinated redevelopment to the detriment of Windsor town centre.

WLR, therefore, proposes that such development is much better treated as part of a coordinated plan.

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### TRAIN SERVICES

Despite having two stations, Windsor is surprisingly badly served by rail compared with similar and neighbouring towns. The town has fewer train services to fewer destinations and journey times are longer with more changes. The following tables illustrates this.



	Ascot	Slough	Staines	Windsor
Terminal stations directly accessible	Reading, Waterloo, Guildford	Henley, Bourne End, Reading, Oxford/Banbury, Oxford/Worcester, Paddington, Windsor	Reading, Waterloo, Weybridge, Windsor	Slough, Waterloo
Routes	3	7	4	2
Trains per hour	8	19	14	5
Direct destinations	22	39	50	14
Seats per hour	4,000	5,500	7,000	2,400

Train services have also deteriorated over time. For example, there used to be direct services to London Paddington from Windsor Central station. Also trains from Riverside to Waterloo, which used to take as little as forty-five minutes, are now often timetabled to take over one hour.

In the residents' survey, conducted by WLR, 92% of residents agreed that improving train services was important (see Annex 1).

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## ROADS

Windsor is also difficult to get to by road, constrained by the River Thames to the north, the castle to the east and the Great Park to the south. The only new road to be built in recent times is the relief road, now called the 'Royal Windsor Way', which is now the only route to the M4 motorway to the north from Windsor. It also carries a great deal of through traffic (for Ascot, Bracknell and the M3). Also, since the bridge to Eton was closed, local traffic must go on a large loop via either the relief road or Datchet to get to Eton.

The combined result of depreciated rail services and poor road links is that the roads around Windsor are close to capacity, frequently reaching gridlock. In the summer of 2013 this happened so frequently that if not resolved it threatens the viability of the town centre as a commercial location.

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## BUSES

Windsor has bus services that connect to Slough, Ascot, Bracknell and Heathrow. The service to Maidenhead is to be re-launched. Journeys to most other destinations require a change at either Heathrow or Slough. Train and bus services are poorly integrated, with bus stops in the centre some distance away from the stations. Many buses stop outside the Parish Church on the High Street, which is a ten minute walk from Windsor Central and fifteen from Riverside.

The lack of good integration with buses means that less wealthy areas of the town, such as West Windsor, are further disadvantaged by poor connections.

There are two bus services to Heathrow Terminal 5 from Windsor, one via Slough and another via Staines. There are no direct bus services from Windsor to Heathrow meaning a journey time of at about one hour, longer to terminals 1,2,3 and 4, despite the short distance.



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## PARKING

Once in the town, the lack of parking is frequently cited by residents and businesses alike as a major problem. It is a major impediment to the viability of the town centre both for offices and for shopping, especially with many neighbouring towns such as Bracknell and Staines dramatically improving their offer. On the other hand, large car parks can blight the townscape quality of the town and harm the setting of parks and the riverside.

There is a great need for a park-n-ride scheme to alleviate parking problems in central Windsor. A proposed scheme in meadows north of Eton was turned down because of the damage to the Green Belt and the vehement opposition of Eton and Eton Wick residents. An alternative scheme in the Windsor Racecourse has limited success due to not being on the route into Windsor for most people. The Great Park restricts the possibilities for park-n-ride schemes to the south.

---

## POPULATION

Despite decreases in train services and very little road improvement, the population of Windsor has grown substantially. The latest census reports a 12.5% increase in the population of central Windsor over the last ten years. Even more dramatic is the increase in population in the south of the borough, around Ascot and Bracknell, which puts enormous pressure on the link to the M4.

The recently published preferred options borough local plan envisages further increases in population, including in central Windsor, which are arguably unsustainable without significant improvements in transport infrastructure.

In the residents' survey (Annex 1), a majority of residents agreed with the proposition of residential development by the riverside, showing some recognition and support for the idea of improving provision for a growing population.

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## TOURISM & SHOPPING

Windsor castle is one of the top tourist destinations in the UK. It is also a popular shopping destination (growing out of Windsor's other historic role as a market town). However, according to the borough's own visitor survey (2014), the proportion of visitors coming by car has grown much more sharply than other forms of transport. This is clearly an unsustainable trend and an improvement to the rail connections and park and ride facilities would greatly improve the situation.

There are a number of popular destinations around the town including Legoland, which currently cause severe peak-time congestion at opening and closing times. These include Legoland, Windsor and Ascot races courses, Saville Gardens, Wentworth Golf Club plus a number of special events such as the dog show and the Windsor Horse Show. The open spaces and parks around Windsor are particularly suited for events, especially in the summer. However, difficulty of access, however, discourages these.

---

## SPATIAL

Like Maidenhead, Windsor currently partly turns its back on the river. This riverside was historically slums, heavy industrial and docks. Visitors today are not naturally drawn to this area, meaning that



the natural beauty of the river from both the Windsor and Eton sides is under-utilised. Additionally, the coach park, traffic and other amenities in the riverside area do not reflect the international standing of Windsor.

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## ENVIRONMENTAL

Alexandra Gardens is cut-off from the river by Barry Avenue, the latter being effectively an elongated car park. This has destroyed part of the original intention of this park as a riverside recreational area.

Datchet Road was historically connected to the High Street as the main thoroughfare but more recently traffic has been encouraged to go via the Goswells. This creates a U-shaped route around the National Trust land therein. This land was originally purchased by public subscription to preserve the view of the castle and includes tennis courts, a bowling green and the much appreciated Jubilee Fountain. However, this area is again much diminished by being surrounded by roads which also separate the area from the river.

Areas such as Arthur Road, one of the main routes into central Windsor, suffer from levels of air pollution in excess of EU limits, putting the council under a legal obligation to seek remedies.

---

## ECONOMIC

Whilst the main driver for Windsor's economy is not office-based commercial activities, the current configuration of the town does not encourage any improvement. Office space is disparate and does not accommodate modern requirements. It is particularly hampered by a lack of adequate parking and difficulties accessing the town by either road or rail.

Addressing the problems of office space is also closely related to improving and sustaining Windsor's vitality as a retail destination. This is because a significant proportion of shops' income comes from people working in the town centre. Given the cachet that Windsor already has as a destination, the improvements suggested by WLR to the town centre would help attract back major stores to the town and secure the town's retail economy.

## OTHER SIGNIFICANT INFRASTRUCTURE PROJECTS

Crossrail can be expected to improve transport for Maidenhead and Slough but, again, only in respect of journey times to London. However, as Theresa May, the MP for Maidenhead, is at pains to emphasise, Crossrail could be a mixed blessing if it is accompanied by reductions in fast services stopping at Maidenhead and Slough, something that is yet to be ruled out.

HS2 is a major UK infrastructure investment that will bring reductions in journey times from London to the Birmingham. However, it will bring little benefit to people and businesses in the Thames Valley or the south generally, as it will still be quicker to drive to Birmingham. Better connections either to HS2 and Old Oak Common or to the north via High Wycombe should therefore be a priority for the Thames Valley.

A western connection to Heathrow from the Great Western Main Line (GWML) has been included in government funding for the next rail control period and Network Rail's preferred route is currently a tunnel direct to Slough. However, the Thames Valley is split between boroughs south of Heathrow



and those north of it. The link to the GWML only serves those to the north, meaning that a link to the south is still required.

Depending on the eventual government decision after the Airports Commission reports in 2015, Heathrow may stay the same, may expand dramatically (and move westwards) or be replaced by an airport in the Thames Estuary. The region will need a transport system that not only provides short-term improvements in airport connectivity but also is flexible as airport plans develop.



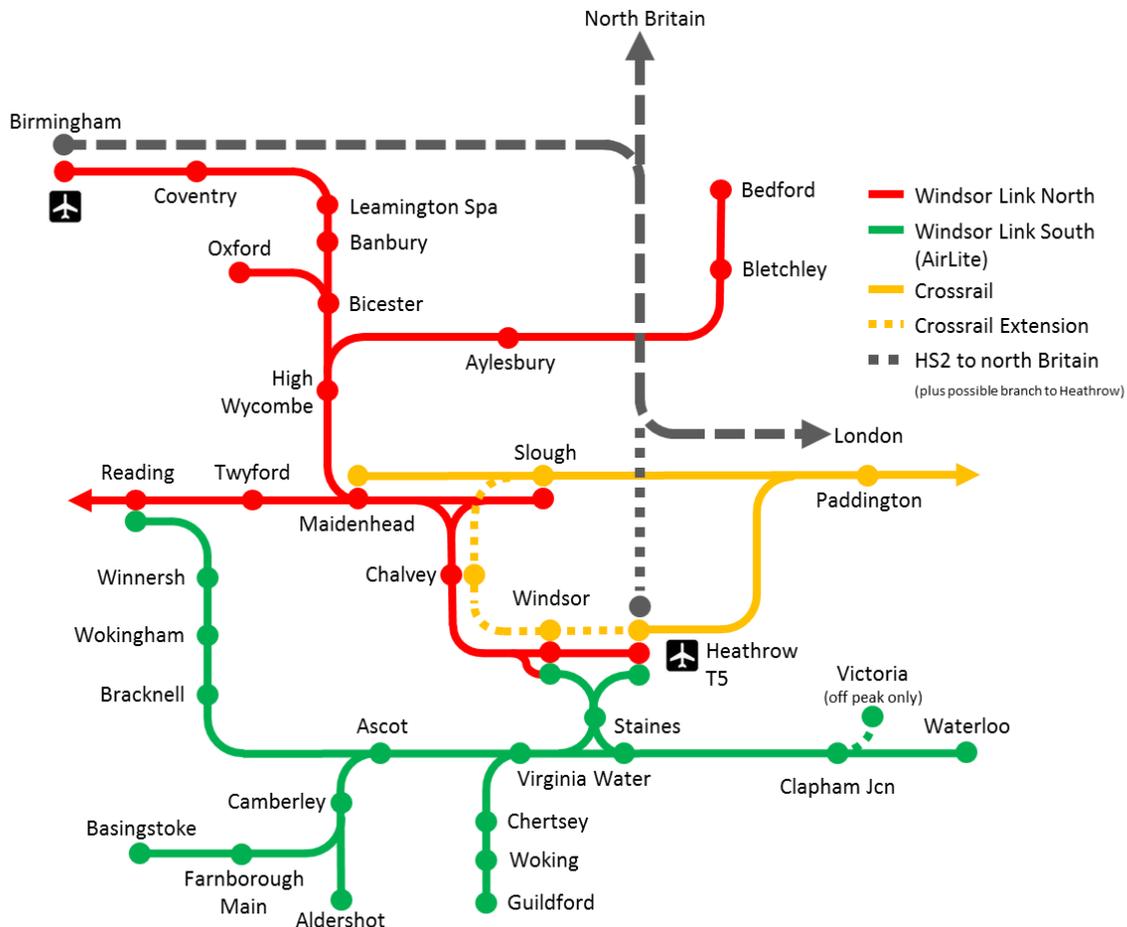
## THE WLR RAIL PROPOSAL

### VISION

The vision of WLR is to place the Thames Valley at the centre of a new, better connected rail network west of London. Moreover, that the rail links will be better connected with the towns they serve and better integrated with roads, for both bus and car users, as well as enhanced connections to Heathrow, Gatwick and any future airports.

With WLR, the Thames Valley will not only have good connections to London but also better orbital connections, greatly improving the area as a region of economic growth and prosperity.

The following schematic shows how this future network could look, greatly expanding upon the existing, mostly radial, connections that exist today.



As most of these new links either previously existed or are close geographically to each other, they could be provided at a fraction of the price of a completely new railway. Moreover, because Metcalfe's network theory tells us that the value of a network is proportional to the square of the number of nodes, the value of this better connected network should be disproportionately high compared with the investment.



## INITIAL SERVICES

Clearly, the whole network cannot be delivered at once so WLR's proposal is to split the work into phases.

Phase 1 is to connect to Slough to Waterloo via Windsor. This necessitates the tunnel through Windsor.

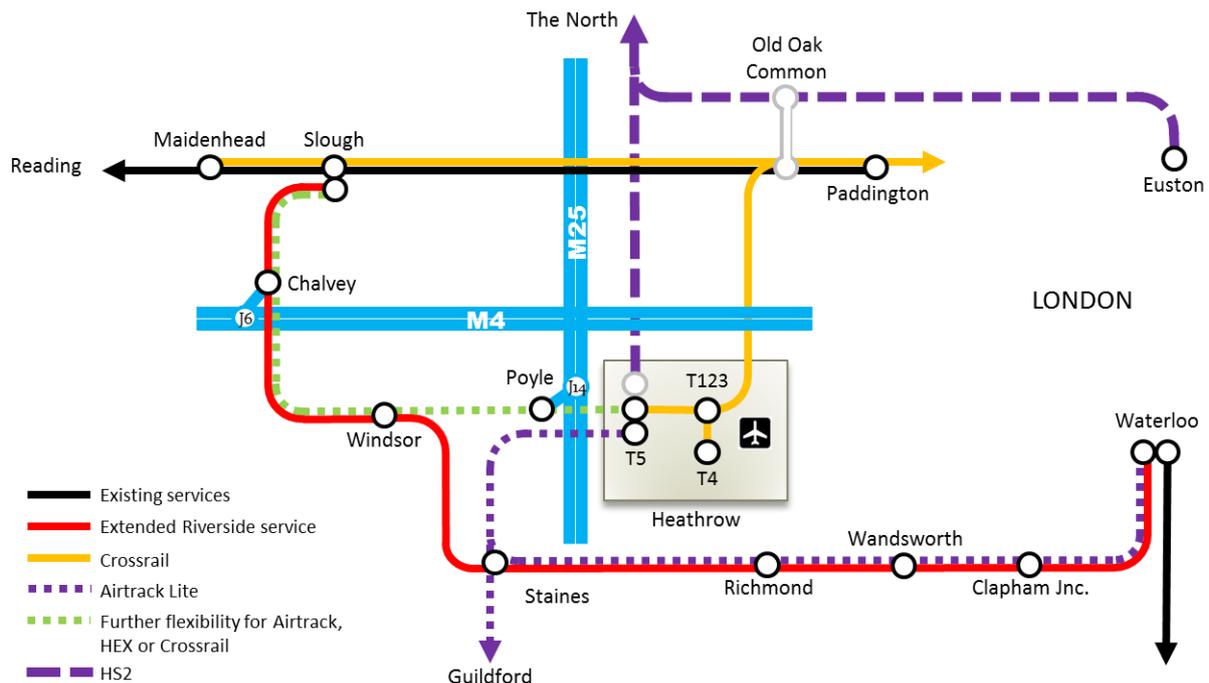
The existing services to Windsor are three trains per hour (tph) in each direction between Windsor Central and Slough plus 4 tph between Windsor Riverside and Waterloo. This would become one through service of 4 tph from Slough to Waterloo.

A new station would also be provided at Chalvey, in Slough, with direct connection to junction 6 of the M4 motorway. This would enable the development of a bus and rail served park and ride, for the benefit of Windsor, Slough and the national rail network.

Phase 2 would connect Heathrow to the west. This would be either by the direct route to Slough, as recently announced as Network Rail's preferred option, or a more general purpose connection to the due west of Heathrow Terminal 5. The latter is WLR's preferred option as it demonstrates a better return on investment. Heathrow Airport have also stated their preference for all options to be considered. WLR's option may emerge later as the preferred overall solution, as a result of work currently being undertaken by Network Rail on southern access as well as being more compatible with all the options in the Aviation Commission's shortlist.

It should be emphasised, again, that the focus of this document is merely on phase 1 and that whatever option is eventually chosen of the westerly connection (including none) that phase 1 has an independent, stand-alone business case.

These first two phases are illustrated in the following schematic.

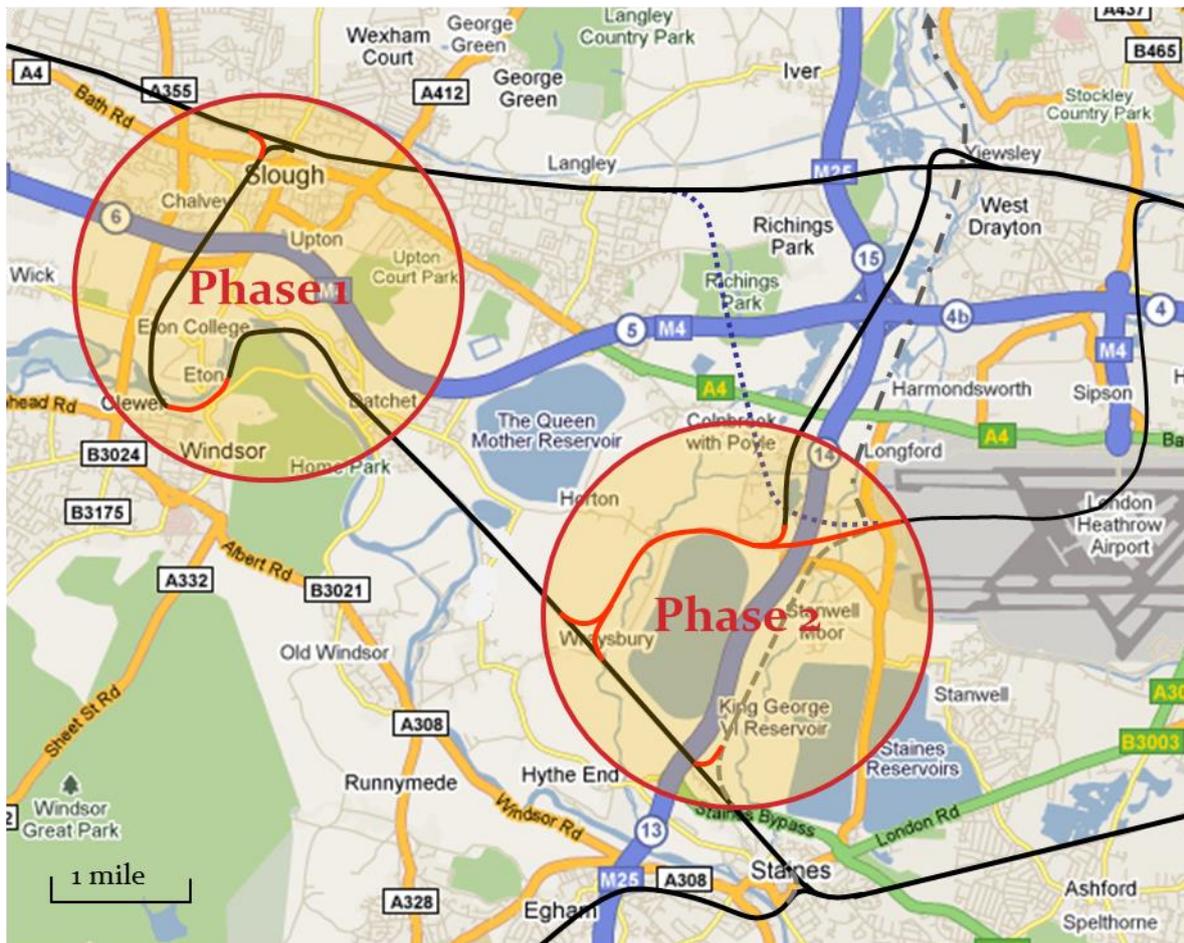




Future phases would include re-opening the line from Maidenhead to High Wycombe (the Wycombe section of which is already reserved in the Wycombe district plan) and restoring curves at Staines and Farnborough to allow better connections between the M4 and M3 corridors.

## GEOGRAPHICAL MAP

The following figure illustrates how phases 1 and 2 of the Windsor Link railway (shown in red) would link up with the existing rail network (in black).



Phase 1 of the WLR has no conflict with any other projects proposed by the DfT or Network Rail and has been confirmed as such by both. It comprises approximately 300 m of tunnel and approximately one mile of new track, including ramps to connect to the existing lines.

Phase 2 is an alternative to both the tunnel from Slough to Heathrow (Network Rail's preferred option for western access, shown in dotted blue) and the south-west access to Heathrow (previously proposed by BAA and now supported by Wandsworth, Wokingham and Bracknell Councils as well as called for by the Aviation Commission, shown in dotted grey). The DfT has confirmed that WLR phase 2 complies with its high-level output specification (HLOS) for linking Heathrow to the west by rail.

Future phases of the WLR involve restoring missing links in places such as Maidenhead to High Wycombe and Farnborough to Ascot, as well as additional motorway interchange stations on the M3, M40 and M25, allowing much better connectivity throughout the region.



## WINDSOR WORKS

There have been previous attempts to connect the two stations in Windsor. This is in common with other towns, such as Reading, which also previously had two stations. In Windsor, the idea had previously floundered on the difference in height between the two stations, which a direct connection between would have had a gradient beyond what was possible with normal trains.

The breakthrough with the Windsor Link Railway was to realise that it was not important to connect the two stations but the two lines coming into the town, making the rail gradients and curves feasible.

Subsequently WLR has worked with Sir Robert McApline on feasibility and deliverability. This included checking that the horizontal and vertical alignments were consistent with both the relevant rail standards and with civil engineering good practice.

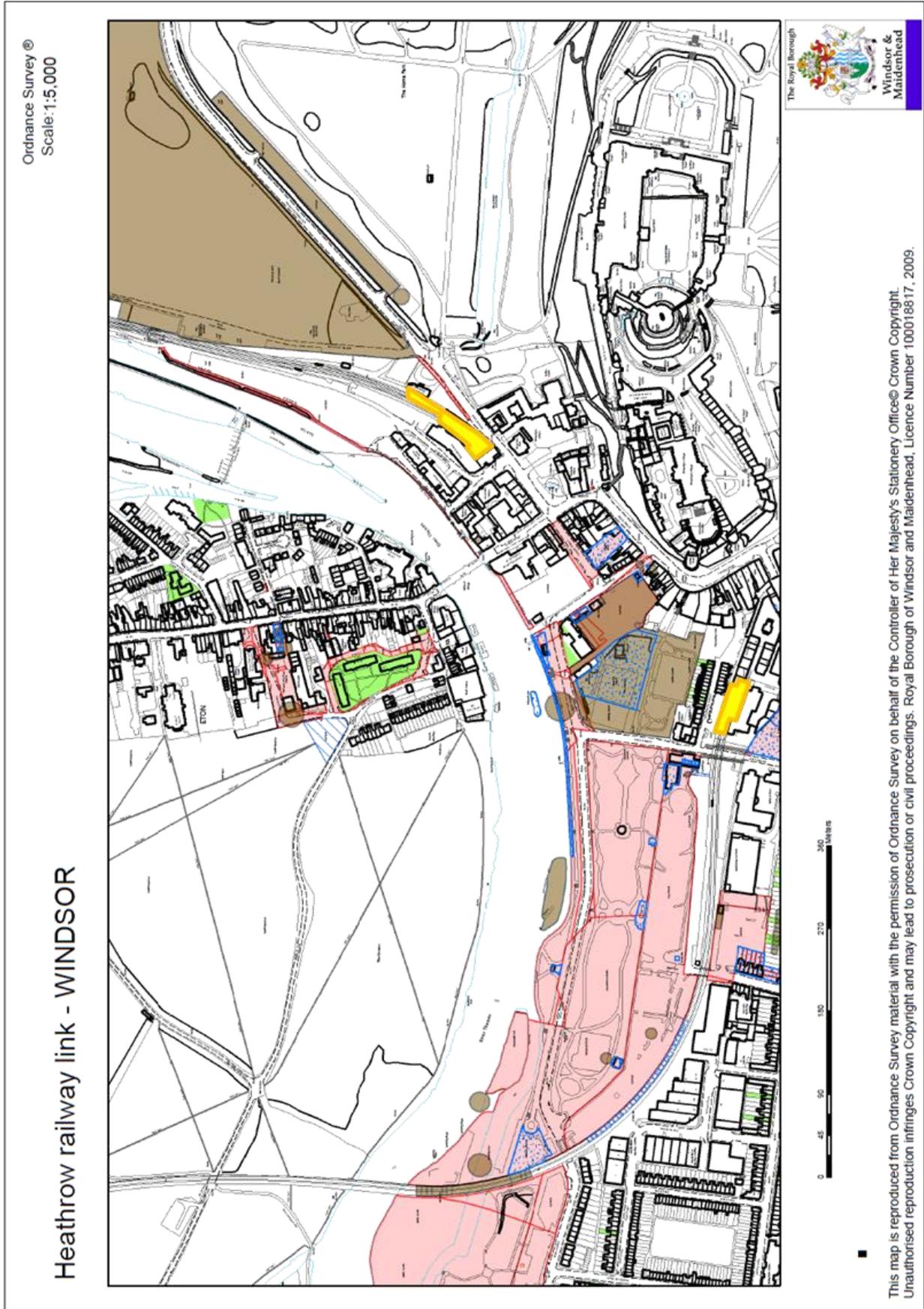
The result of this work was that Sir Robert McApline has generated detailed drawings for the scheme and has concluded that they had 'a high degree of confidence that the scheme was technically deliverable'.

## EXISTING ALIGNMENT

There are two lines coming into Windsor. The first, from Slough, enters the town via a Grade II\* listed bridge across the Thames, the oldest iron railway bridge still in use in the world. From there, the existing line curves to the east linking to the existing Windsor Central Station. The second line, from Waterloo, enters Windsor via Potts Bridge to the north-west of the Town in the Home Park and terminates at Windsor Riverside Station. The plan below shows the existing arrangement with land owned by the Royal Borough marked in pink. Land not owned but managed by RBWM is marked in brown (including the Goswells and the Home Park).



The two stations are marked in yellow. They are under 400 yards apart.





## DESIGN CONSTRAINTS



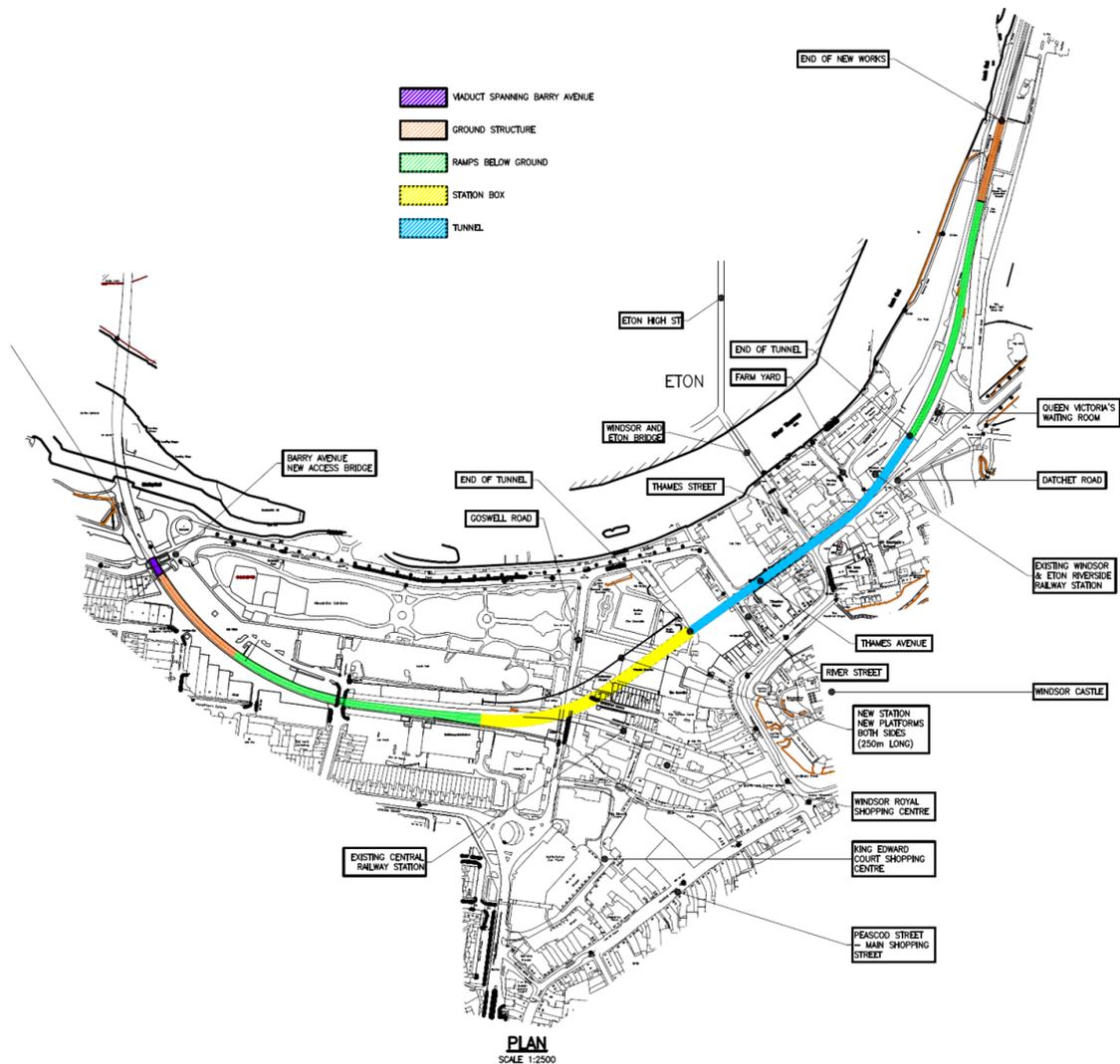
There are a number of potential alignments for connecting these two lines. However, there are also a number of constraints to be considered, including:

- The need to preserve and ideally enhance the riverside environment in this sensitive location
- Listed buildings
- Geology
- Design standards (e.g. the limitations of trains, minimum curvatures at speed, safety)
- Properties and businesses
- Utilities
- Environmental (including air quality and flooding)
- Interface with pedestrians, shops etc.
- Interchange with other forms of transport (buses and cars)

## HORIZONTAL ALIGNMENT

With these constraints the alignment is narrowed down to leaving the existing line from Datchet somewhere north-east of the town, passing along Datchet Road, going through the Goswells (marked in brown in the centre of the above plan) and then joining the line to Slough to the west of where Alma Road enters the coach park.

One possible alignment is illustrated by the drawing below.



(A larger scale version of this and subsequent drawings are available subject to a non-disclosure agreement.)

Within the constraints there are a number of potential options (although future more detailed work may rule these out):

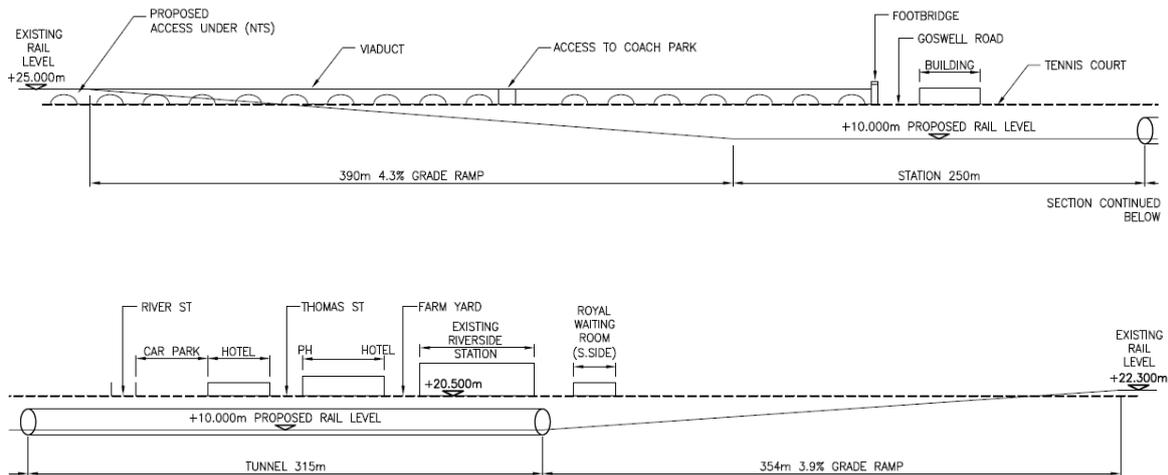
- Avoiding Bridgewater Terrace. This is the only residential area affected by WLR. It may be possible to flex the alignment to the north. This would have the advantage of not having to move any residents. On the other hand, from a station management and retail planning point-of-view, it may be desirable to have the alignment (and hence the station) as close to the existing town centre and Central station as possible. WLR would be keen to work with RBWM and local people to investigate the various options and look at the pros and cons of all options.
- Keeping to the existing alignment in Riverside station or going south of it under Datchet Road. The alignment at the east of the above drawing shows the smoothest rail flow into the town. If a cut-n-cover construction method is used, it may be necessary for the alignment to go south of Queen Victoria's Waiting Room in a wider curve along Romney Lock Road, which may entail loss of existing mature trees in the Home Park.



- Going north or south of the existing viaduct to the west. The above drawing shows the new alignment going down, through the existing viaduct (i.e. maintaining the horizontal alignment but going down through the arches). This would involve retaining the existing viaduct but altering the arches. However, technical reasons, e.g. modern gauge regulations, may require a different solution and an alignment to the south or the north of the viaduct. In this case a decision would be necessary whether to keep the viaduct as a feature, e.g. as a walkway as in New York, or to partly demolish it. English Heritage at this stage have raised no objection to such demolition but the arches are deemed attractive by many and therefore may be worth keeping.

## VERTICAL ALIGNMENT

The vertical alignment is mostly a function of the tunnelling method chosen (see below). However, a shallower alignment is better for rail gradients and pedestrian access. A potential alignment section is illustrated below.



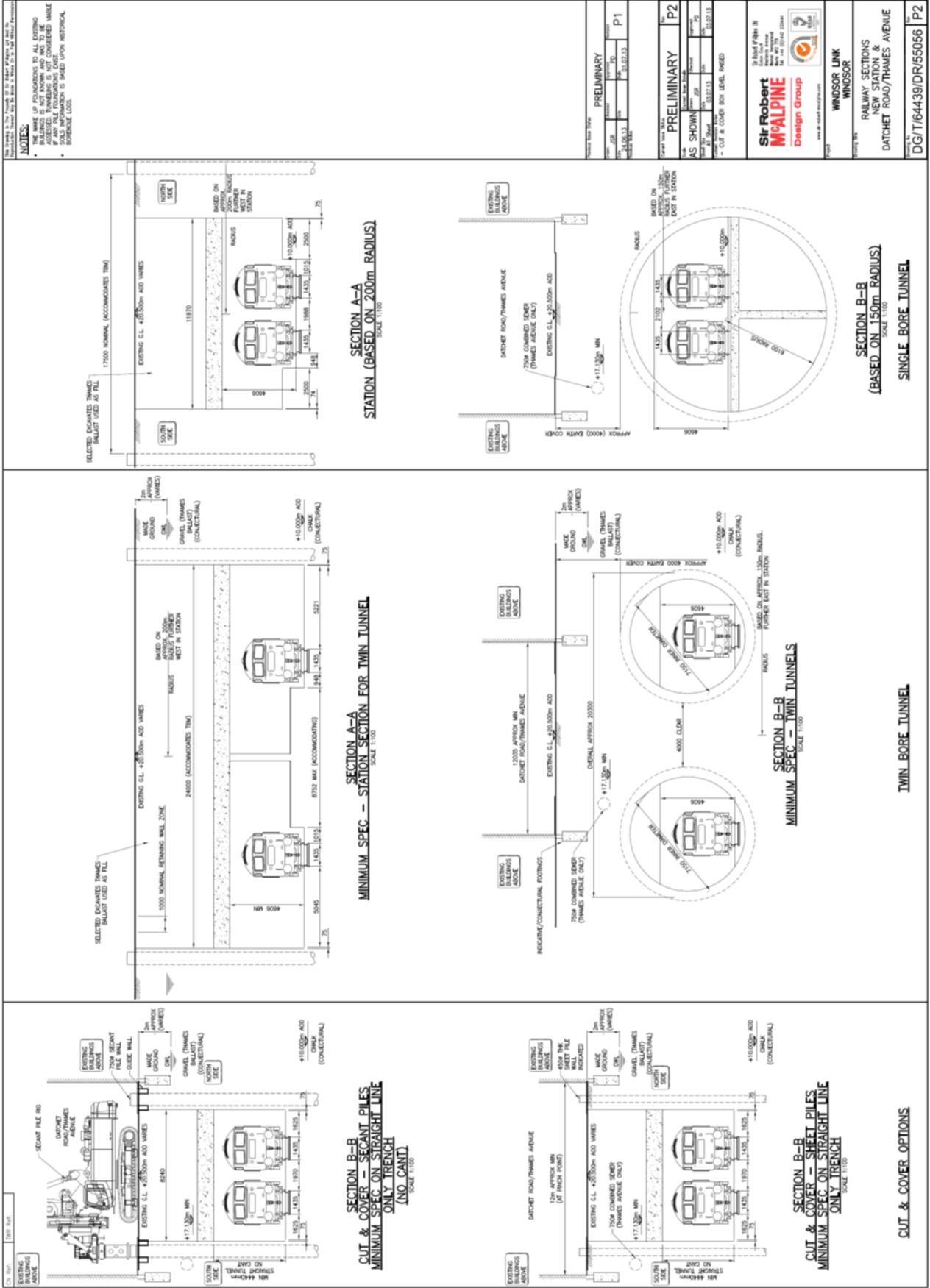
## CONSTRUCTION METHODS

The following methods have been considered for the tunnel construction

- Cut-n-cover
- Twin bored (one track in each bore)
- Single bore (single track)
- Single bore (double track)

These are illustrated by the drawing below and different costs, risks and advantages. (As above, a larger version of this drawing is available under non-disclosure.)

Of these options, the two preferred are the single bore double track option and the cut-n-cover option and the following table shows the pros and cons of each.





Tunnel option	Pros	Cons
<b>Bored</b>	<ul style="list-style-type: none"> <li>• Less risk to existing buildings by freezing ground as tunnel is bored</li> <li>• Less disruption whilst being built</li> <li>• Gauge capacity for larger trains meaning more future-proof</li> </ul>	<ul style="list-style-type: none"> <li>• Cost (£120m excluding rail engineering current point estimate)</li> <li>• Steeper rail gradients (although still within spec)</li> <li>• Deeper station</li> </ul>
<b>Cut-n-cover</b>	<ul style="list-style-type: none"> <li>• Cost (current point estimate of £70m)</li> <li>• Less steep rail gradients</li> <li>• Shallower station</li> </ul>	<ul style="list-style-type: none"> <li>• Gauge capacity for commuter trains only. Would require standards deviation for inter-city</li> <li>• More disruption during construction; closure of Datchet Road and Thames Street</li> <li>• Some risk to buildings on Thames Street during excavation/construction. whilst trench is dug</li> </ul>

The alternative construction methods including tunnelling alignment will need further investigation but WLR is keen to work with stakeholders including Network Rail, the Royal Borough and local people on this question.

## PARKING

If the new station is located close to the existing central station, the Windsor Riverside station car park is not a good use of this riverside area either visually or because of its location far from the town centre. It is therefore proposed that it be redeveloped. At the northern end, this is likely to be residential in keeping with the development on the opposite side of the river. At the western end this could be residential, commercial (such as a hotel) or leisure or a mixture of these.

The Castle car park, which is privately owned, may be necessary as a works area whilst the tunnel is constructed. As the owner has not so far responded to enquiries, this may require a compulsory purchase order (either under the council's powers, a Transport & Works Act Order by the Secretary of State or a Development Consent Order).

Given the already existing shortage of parking in Windsor, it is unlikely that it would be acceptable to have a net loss of parking so other provision would be necessary to replace this.



## PARKING OPTIONS

The following options have, therefore, been considered:

Parking Option	Pros	Cons
<b>Additional parking decks on Riverside station in conjunction with new development</b>	<ul style="list-style-type: none"> <li>• Relatively easy to do</li> </ul>	<ul style="list-style-type: none"> <li>• Would not maximise value of development or visual appeal of riverside area. Far from town centre</li> </ul>
<b>Additional parking decks on Castle Car Park in conjunction with new development</b>	<ul style="list-style-type: none"> <li>• Easy to do</li> <li>• Close to shopping area and riverside</li> </ul>	<ul style="list-style-type: none"> <li>• Parking is a poor use of this site.</li> <li>• Visual intrusion (residential or commercial properties would have better visual appeal)</li> <li>• Would likely require compulsory purchase</li> </ul>
<b>Additional decks of parking on the council's River Street car park</b>	<ul style="list-style-type: none"> <li>• Easy to do</li> <li>• Visual impact reduced by surrounding building</li> <li>• Closest to shopping area</li> </ul>	<ul style="list-style-type: none"> <li>• Would have to wait until after tunnel was constructed</li> </ul>
<b>Additional decks of parking on the existing car parks at Alexandra Gardens, the coach park or Alma Road</b>	<ul style="list-style-type: none"> <li>• Easy to do</li> </ul>	<ul style="list-style-type: none"> <li>• Visual impact on park and/or residents on Arthur Road. Vehemently opposed by residents when previously proposed in 2003</li> <li>• Distance from town centre at far end</li> </ul>
<b>A new multi-story on Vansittart Industrial Estate</b>	<ul style="list-style-type: none"> <li>• Easy to do</li> </ul>	<ul style="list-style-type: none"> <li>• May improve visual impact of estate and crime at weekends.</li> <li>• Requires purchase of property</li> <li>• Distance from town centre</li> </ul>
<b>No additional parking in Windsor but relying on the new park-n-ride at Chalvey</b>	<ul style="list-style-type: none"> <li>• The cheapest option</li> </ul>	<ul style="list-style-type: none"> <li>• Unlikely to be favoured by businesses or residents</li> </ul>
<b>An underground car park, under Alexandra Gardens itself, between Barry Avenue and the existing coach and car park</b>	<ul style="list-style-type: none"> <li>• The least visual impact</li> <li>• Would create a unique opportunity to restore Alexandra Gardens to its original Edwardian vision</li> <li>• Would enable Barry Avenue to be closed (reconnecting the park with Edwardian riverside)</li> <li>• Close to proposed new station and to town centre</li> </ul>	<ul style="list-style-type: none"> <li>• Most expensive (although not excessively so due to the existing topology)</li> <li>• Problem of what to do with mature trees: <ul style="list-style-type: none"> <li>○ Cut down/replace</li> <li>○ Move</li> <li>○ Build around</li> </ul> </li> </ul>



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## TEMPORARY PARKING

An additional consideration for parking is temporary arrangements whilst the new railway is built.

Such options may include:

- The Home Park (temporary decking)
- Bringing forward one of the longer term sites in the table above (although care would have to be given to not making the railway more difficult to deliver both in construction and financial terms.

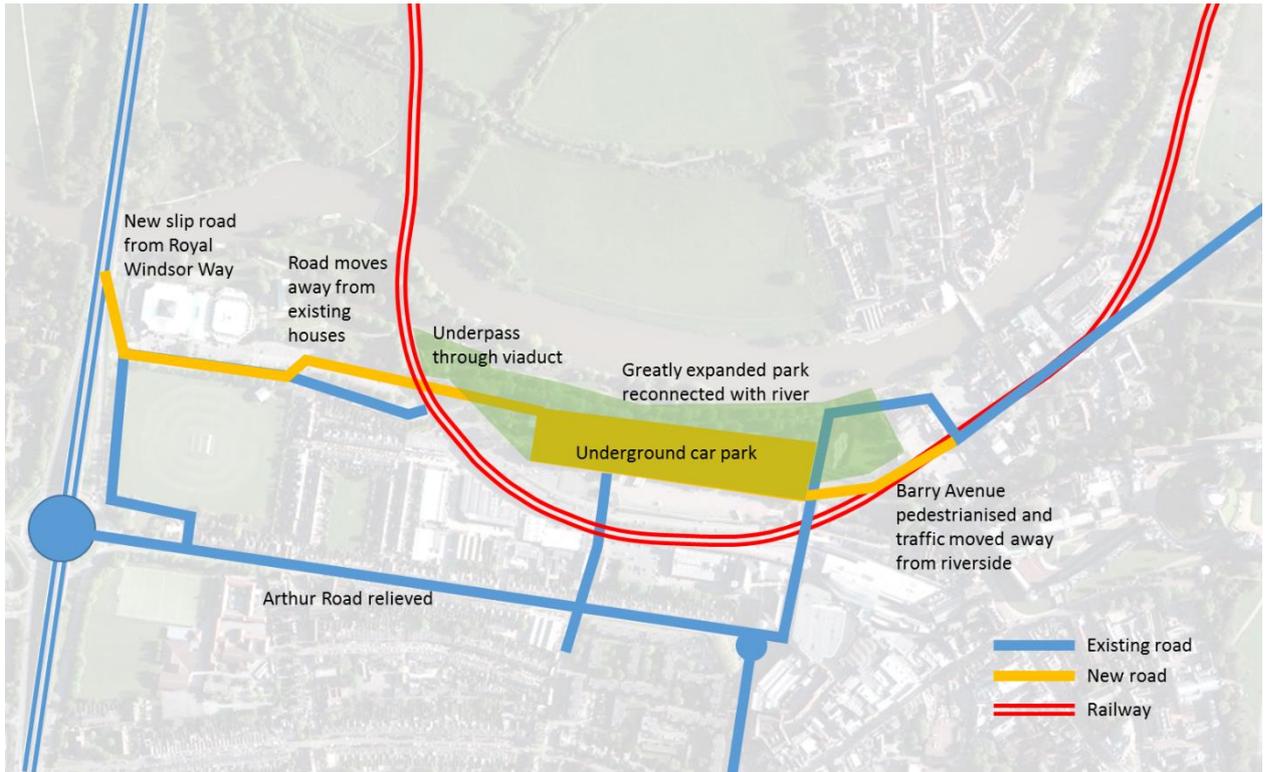
## ROADS

Phase 1 of the WLR is anticipated to take 7,000 cars off the roads, including many trips through and around Windsor. This is based on forecast train journeys and assuming that a proportion of these will replace existing car journeys.

Given the above relief to the road network, no changes to the roads are necessary as part of the Windsor Link Railway. However, WLR has identified two options for improving Windsor's road that could be co-ordinated with the project to give further improvements to traffic flow.

1. The traffic around the Goswells currently travels in a U-bend from Thames Street, via Barry Avenue and then onto Goswell Road. The route could be straightened-out, going parallel with the new railway alignment and taking traffic away from the riverside area. This would enable the area in front of Brown's restaurant to be pedestrianised as well as making areas such as the Jubilee Fountain much more pleasant.
2. If parking is provided under Alexandra Gardens, as per the last option above, the remainder of Barry Avenue could also be closed. Access to this car park could be either via Alma Road or via Stovell Road. Via Stovell Road could be an interesting option as this would address the air quality issues on Arthur Road. Whilst some properties on Stovell Road would be negatively affected, the parking nearest the viaduct could be easily directed away from the existing houses leaving only four buildings with increased traffic and several hundred on Arthur Road having much reduced traffic. This could also be combined with a new slip road between the Royal Windsor Way (A322) and Stovell Road, which would further ease traffic flow into the town.

The following sketch illustrates these ideas for improved road access.



The above could be in addition to the proposed park-n-ride at Chalvey or as an alternative to it. However, further work, including traffic modelling, is required to assess which or other options may be the best.



## PARKS



The above drawing is from a postcard in 1902 and shows what Alexandra Gardens looked just after it was built. It should be noted that it provides excellent views of the castle and a pleasant riverside park.

The photograph below shows the gardens today from a similar viewpoint.



Whilst the castle is still just visible through the trees (in winter), the park has been completely disconnected from the river by the road, which is behind the row of trees to the left. This road is



effectively an elongated car park which cannot be easily moved for two reasons: the shortage of alternative parking and the fact that it is raised to form a flood defence.

However, the combination of new parking under the Gardens plus the revised road arrangement considered above would solve this problem. The new car park would have the effect of raising the ground level so that it once again the park is reconnected visually with the river. Secondly the additional parking and revised road arrangement would make it possible to close Barry Avenue to traffic without any loss of amenity to road users whilst dramatically improving the park.

## STATION & SHOPPING

A new single station is proposed. The two existing stations, both Grade II listed buildings, would remain but be used for new purposes. The Central station is already almost entirely a shopping centre and the rail platform is highly congested at peak times, with the station platform doubling as the main access from the coach park. The new station would be linked to the existing central station by lifts, escalators and stairs and the central station shopping area potentially extended.

The Riverside station building could potentially be used by St George's School opposite or as a new hotel, business or leisure area.

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## LOCATION

Locating the station as close as possible to the existing shopping area would maximise the synergy between the two and encourage more people to travel to the town by train rather than using the roads.

The platform area should be capable of accommodating commuter trains of up to 12 carriages (to be compatible with long term plans for the Waterloo line).

Given the constraints on the rail alignment, the train platforms are likely to be between the northern edge of River Street car park and the existing coach park.

The exact location of the new station, connectivity to the existing central station and shopping area will need careful consideration and a sensitive design approach. The alignment will also affect the need to acquire properties and needs to be carefully considered as designs are progressed further.



## TRAIN SERVICES

Phase 1 of WLR would significantly increase the train services from Windsor, bringing up its level of train services more into line with those of neighbouring towns, as illustrated by the table below.

	Ascot	Slough	Staines	Windsor	New Windsor
Routes	3	7	4	2	2
Train departures /hour	8	19	14	5	8
Direct destinations	22	39	50	14	14
Seats per hour	4,000	5,500	7,000	1,400	4000

Although the routes would remain the same in the first phase, the additional services will have two advantages.

The first advantage is a significant reduction in journey times. For direct trains to Waterloo for example, the expected reduction is a 20 minutes saving in journey time. The effects are even more marked for journeys involving a change of train, as the increased frequency from Windsor means less waiting for connections. This could mean journey saving times of often 30 minutes to both south London and for residents travelling back from London Paddington in the evening, as examples.

Further journey saving times could well be possible. However, these will require the agreement of the DfT and Network Rail and so are not specified here. However, as more capacity is planned as the former international station at Waterloo is converted to domestic use, the addition of the tunnel in Windsor, connecting to the Thames Valley, will mean that the town is well placed to win the competition that there will inevitably be for this capacity.

The net result of phase 1 would be a dramatic improvement in the town's attractiveness as a place to live as well as to visit, because would be so much better connected, not just to London but to the surrounding region. It would also become a more attractive business location, offering the opportunity to reverse the decline in the heart of the town as businesses have been squeezed out by the unavailability of parking and access.

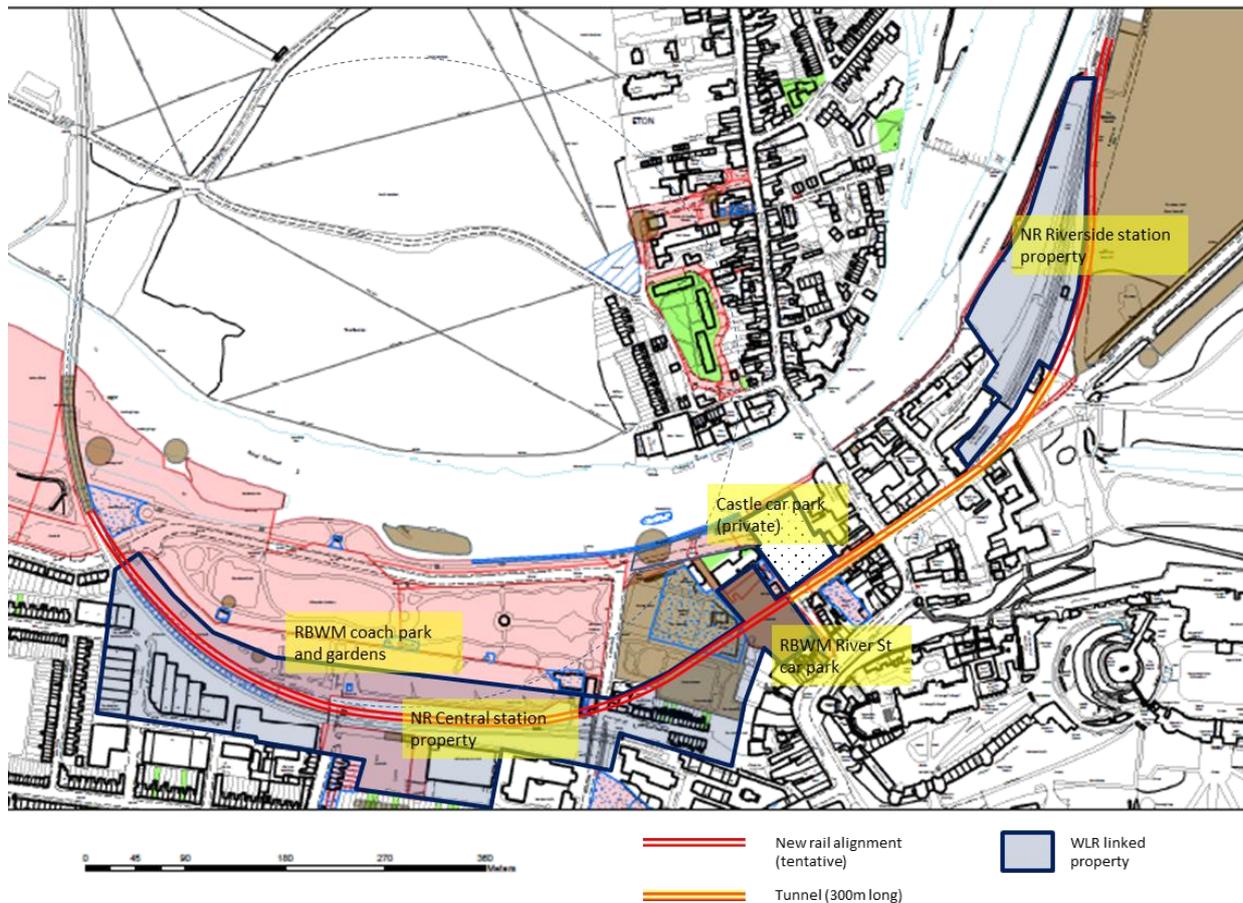
## HOUSING AND COMMERCIAL DEVELOPMENT

The map below shows the areas surrounding the new railway alignment that could benefit from improvement. This is not to say that they could not be improved separately but that it is WLR's view that it is better to consider them as part of a broader master plan, as this is likely to lead to a better coordinated and more sustainable town plan. The new railway link creates an opportunity to do this.

Not all the areas marked in blue on the map are necessarily for development. They are simply marked as related to the project and which could benefit from being improved.



## PROPERTY PLAN



The main areas, which together comprise approximately 20 acres, are as follows:

- Riverside station and car park
- Riverside station track bed
- Castle car park
- River Street car park
- The Goswells south of the new alignment (including the tennis courts and potentially Bridgewater Terrace)
- The existing viaduct and Network Rail land associated with the Central station
- Alexandra Gardens and car and coach parks
- Alma Road car park
- Vansittart Industrial Estate

As supported by the CWNP, WLR request that provision is made within the emerging Borough Local Plan to safeguard these sites for railway-related development and to reserve the proposed route of the railway.

The investment in the WLR would increase investor confidence in Windsor, and would therefore create opportunities for appropriate related development such as, retail, leisure, residential, commercial etc. (which will help in-part cross-funding the rail infrastructure investment). It is



proposed that following *Enquiry by Design* principles, in partnership with the Council, CWNP, the public and other key stakeholders a comprehensive masterplan will be developed.

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### PROPERTY PHASING

The phasing of the rail infrastructure, station and related property development will need careful consideration in order to ensure build-ability, minimise disruption, create the best end-result as early as possible and maximise value (to help in part-funding the rail project) all at the same time.

A candidate for early development may be the Riverside station car park. As mentioned above, there are a number of options for replacement parking with better long-term solutions. The Riverside station car park could thus be submitted for outline planning consent at an early stage.

Alternative designs would be developed and discussed with the Council, as well as stakeholders, but it seems likely that this area would be ideal for high quality apartments or town houses with views of the river on one side and the castle and Home Park on the other.

This would be highly sustainable and in-line with what has already been built on the Eton side of the river. The views from the Home Park would be mostly preserved due to the screen provided by the existing trees. It is also arguable that Network Rail could successfully gain planning permission for such a development even without the railway, especially under the new National Planning Policy Framework.



## WORKS IN OTHER TOWNS

### SLOUGH

Although Slough is a separate planning authority, it is hoped that RBWM can consult Slough Council and, with their agreement and that of the other boroughs in the Local Economic Partnership (LEP), act as the lead authority on this project and provide a single LEP point of contact for WLR.

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#### SLOUGH STATION

In phase 1, Slough station would be extended to have at least one additional platform to take 12-carriage trains. This would likely be an extension of the existing but disused platform 0, next to platform 1, which currently serves trains to Windsor.

As trains to Slough would run on third rail power in phase 1, there would also be a requirement for an AC/DC isolator in anticipation of the overhead electrification of the Great Western Main Line.

Fortunately, although houses have been built in the railway triangle to the west of Slough station, the track bed of the *Royal Curve*, which allows trains from the west to go to Windsor without having to reverse at Slough, is still largely intact apart from one missing bridge. Network Rail has advised that for future phases of WLR and for anything other than off-peak trains, a graded junction would be required to the west of this, although there is plenty of room.

If the Royal Curve were re-opened, it would further be useful to have additional platforms to enable trains from the west to still stop at Slough main station. These could either be on the Royal Curve itself or west of it or on the branch to Windsor.

A further additional station could be provided for the Slough Trading Estate. Although Network Rail have previously advised that this is not economically viable, the case could be changed with the new connection to Windsor.

These upgrades to Slough's rail infrastructure would enable more long-distance services to stop at Slough, as well as taking pressure of local traffic, improving the attractiveness of Slough both as a place for business and to live.

Phase 1 of the WLR would be particularly beneficial because it would connect Slough to the south of London, another major economic area and source of labour, which is currently a very difficult journey by either car or train.

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#### CHALVEY INTERCHANGE STATION

This could be built optionally either north or south of the M4 station.

The south side, at Eton Meadows or the area directly south of the M4 that was recently used as a road works marshalling area, has been repeatedly suggested over previous years. However, it suffers from the disadvantage of being in Green Belt and although planners could argue that the benefits outweigh the environmental damage, as said above, this was vigorously opposed by local residents previously.





## DATCHET

Datchet suffers from particularly bad traffic congestion and the resultant poor air quality. It is on the confluence of traffic from Eton, Slough, London, Old Windsor and New Windsor. The situation is exacerbated by the two level crossings, which cut the village off from the river. These have significant down-time and this is likely to get worse in the near future, when longer trains are brought into service.

WLR Phase 1 would double the frequency of trains from Datchet from 2 tph to 4 tph, which could further increase level crossing down-time. Whilst this would significantly benefit residents who use train services and the business that serve them, it could be less appreciated by residents reliant on the roads. Technically, Network Rail has the legal right to close level crossings for as long as it sees fits. However, as WLR is committed to trying to ensure that all communities benefit from its proposals, the company would prefer an alternative solution making three options in total:

1. Do nothing
2. Replace one of the level crossings with an under-pass. This is WLR's preferred solution, the budget for which is included in the phase 1 costs. This solution has the additional advantage that it could contribute to improvements in Datchet's flood defences (POBLP Objective 7).
3. Provide a road by-pass for Datchet, possibly to the north of the village. This may be required even without any improvements to the railway, from the usual increases in traffic associated with base-line economic growth and the already choked village centre.

## STAINES

The only work that may be required in Staines is a bay platform to the north of the existing platform 1, to take trains from Slough that would then return there. This is similar to the works anticipated for BAA's Airtrack proposals. Although this was opposed by South-West Trains, no such objection has been made to WLR's proposals.

The need for this is based on the assumption that two of the trains per hour from Slough via Windsor would not have slots to continue to London. Based on initial conversations with Network Rail and SWT, this may not be the case after the conversion of the former international station at Waterloo, and the bay platform would not then be required. However, it is included in budgetary estimates for WLR phase 1 to be conservative and because the availability of slots to London on this route is a fraught political issue. However, it would be a great advantage to Windsor, Datchet, Slough and Staines residents if such slots were allocated to WLR as a result of this project.

No increased level-crossing downtime will be caused by phase 1 of the WLR at Staines, Egham or at any other crossings towards London.



## THE REGIONAL BENEFITS OF WLR

### OVERALL ASSESSMENT

#### TRANSPORT BUSINESS CASE

Network Rail has assessed, according to Department for Transport guidelines, phase 1 of WLR as likely to have a benefit-to-cost ratio of 'over 2'. This corresponds to the DfT category of 'high value for money'.

The Network Rail assessment was at a high level and omitted many factors including the revenue from the new station at Chalvey.

WLR believes that it is possible that rail revenues could be significantly higher. Based on work by Southampton University using their 'small station model' the projected revenues from phase 1 alone are suggested as up to £20 million per annum.

It should be caveated that, even after spending significant sums of money, rail revenue forecast models are notoriously unreliable. This is not true for small incremental changes to existing networks, where the models can be extremely accurate, but is especially true for transformational changes or completely new routes, such as for the Windsor Link Railway. Whatever the actual numbers, the underlying argument seems sound. That is, by correcting an anomaly left over by the original train companies the two rail regions, which are currently surprising difficult to travel between, are better connected. This will become increasingly important as the population and economy of the region continues to grow.

### OTHER THAMES VALLEY TOWNS THAT WILL BENEFIT

#### DUTY TO CO-OPERATE

By presenting an integrated transport plan across the region, Windsor Link Railway can facilitate a key plank of the Borough's statutory duty to co-operate, thus reducing the risk of the Borough Local Plan being rejected by the Inspector.

Also, although there would be no new rail infrastructure in the following towns in phase 1 of the WLR, there would still be benefits as follows.

#### MAIDENHEAD

Maidenhead would have dramatically reduced journey times to South London, Windsor and Ascot.

For future phases of WLR, the scheme would facilitate bringing more frequent Crossrail trains to Maidenhead. It would also improve the business case for more fast trains stopping at Maidenhead.

Compared with the direct tunnel to Heathrow proposed by SBC (which only proposes half-hourly services unlikely to tempt many away from using cars) WLR would offer services every 15 minutes to



Heathrow via Windsor which would give much reduced average journey times and greater economic benefit.

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### ASCOT

Ascot would have dramatically reduced journey times to Windsor and Maidenhead. There would also be significant journey time savings to other locations on the Great Western network.

Future phases of WLR, particularly the SW link from Heathrow, would not only connect to the airport but also facilitate extending Crossrail to Ascot

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### BRACKNELL & WOKINGHAM

These towns would experience similar benefits to Ascot

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### READING & TWYFORD

Reading and Twyford could see journey time savings to Waterloo of 20 minutes in phase 1, making these towns significantly more accessible.

Future phases of WLR would facilitate extending Crossrail to Reading, as well more frequent, lower average journey-time services to Heathrow compared with other options for connecting to Heathrow by rail.

## ROADS

WLR estimates that about 7,000 cars per day would be removed from the roads by phase 1 of the scheme. A large proportion of these would be to, from or via Windsor. This would make a significant contribution to reducing traffic congestion in Windsor and the surrounding region.

Not only would this make any proposed development in Windsor (not just that of the WLR) more sustainable, it could also make the need for a new Windsor by-pass, say, between Bracknell and Windsor via Bray, less urgent.

The Chalvey interchange can also be expected to take significant traffic from the centres of both Windsor and Slough as well as reducing the pressure on the M4 east of junction 6, including the notoriously congested junction with the M25.

## ECONOMIC

More detailed modelling will be required before figures could be put on the difference that this scheme would make to the economic activity locally, sometimes called Gross Value Added (GVA). However, it is expected that it would be significant. Network Rail's crude estimation is that the increase in socio-economic value is approximately three times the ticket revenue, which is the approach used for the high level business case assessment of WLR. This would imply £60 million per annum added to the local economy for phase 1 from the railway alone.



## **FISCAL**

There are currently a number of fiscal offers from the government in order to promote development. The Localism Act now allows local authorities to take these into account when considering planning decisions. However, there is no guarantee that these will be available beyond the next election. In addition to this there would be significant receipts to RBWM from the development both in terms of better use of public land and higher council tax receipts. This could in turn enable a significant reduction in council tax across the borough whilst improving quality of life for residents.

## **GREEN BELT**

There is significant pressure to build on the Green Belt around the country and especially in the Thames Valley. By making better use of existing sites in town centres this pressure can not only be reduced but be much more sustainable when combined with new transport infrastructure.

Moreover, if rail infrastructure is not upgraded then there will be more pressure on roads. Areas such as Bray may then find pressure for a new roads through the Green Belt irresistible, which would in turn could encourage more out-of-town development.



## FUNDING

### COSTS TO BE FUNDED

Civil Engineering costs for phase 1, at 2014 prices, are estimated at between £100 to 200 million. The lower number is for a cut-n-cover solution and the higher for bored. This is based on estimates provided by civil engineering contractors.

The rail engineering costs, necessary to support the proposed services of 4 trains per hour, are estimated as an additional £50 million, based on work by contractors and Network Rail. This includes doubling the line between Windsor and Slough and third rail electrification to Slough.

This makes the total cost for the rail project as up to £250 million.

The above cost includes the rail operational parts of the new train stations at Windsor and Chalvey but does not include associated buildings, which are defined as part of the wider redevelopment masterplan. The cost of the property project could be several hundred million pounds.

The cost of preparing an informed outline planning application for the railway and associated development is estimated to cost about £10 million. This is based on the recent experience of BAA and Chiltern Rail as well as work by the partners in the proposed rail and associated development.

### FINANCIAL FINAL STRUCTURE

There are a number of options for the final financial structure of the railway, once it is constructed.

1. Sold to Network Rail on completion
2. Owned by a pension fund and operated by Network Rail or a third party
3. Owned and operated by WLR as part of a new regional railway company

These have little impact from a planning perspective and are mentioned here for information.

### LAND OWNERSHIP

Land relevant to the scheme is marked in blue on page 35.

The main landlords are:

- Network Rail
- The Royal Borough (see the map on page 22 shows the land marked in pink)
- The National Trust
- Private landlords (although some of these areas may not be required depending on the final design and rail alignment)

The map on page 22 shows the land (marking in pink) owned by RBWM.



To facilitate the scheme, Network Rail has entered into a twenty-year exclusivity with WLR. It has also confirmed that it is prepared in principle to grant options over its land as part of a development agreement.

An initial meeting has been held with RBWM property officers. Although discussion is less advanced than with Network Rail, the officers indicated that they too would prefer to be a long-term partner in the project, on a similar basis to Network Rail, rather than simply seeking an initial cash payment.

This has important ramifications for the scheme as it reduces the cash and debt requirement in the early stages, making the overall rail project more deliverable.

## FUNDING OPTIONS

There are also a number of funding options compatible with the above final ownership, although with different EU procurement and planning implications.

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### PUBLICLY FUNDED AS A RAIL PROJECT

Network Rail has already established, at a high level, that the rail project is likely to have a positive business case ignoring any property gain (although more work is required before this could be considered robust). However, given the other priorities for government spending and that this is a new project in a relatively affluent area, it would not be expected that this could be brought forward this way very soon, to the detriment of local residents.

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### PRIVATELY FUNDED AS A RAIL-LED PROJECT

Although there is a great deal of money looking to invest in infrastructure projects, the investors are mostly from abroad and looking for already operating assets – not ones that still have significant construction and, even worse, planning risk associated with them. Thus, in the current financial climate, it is unlikely that a funder could be found who would be prepared to take the £10m planning risk cost at this stage.

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### PRIVATELY FUNDED PROPERTY-LED PROJECT

This is not possible, as any profits from associated property development would simply not be sufficient to fund the rail project because of its high costs relative to the expected property profit.

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### PRIVATELY FUNDED AS A HYBRID RAIL AND PROPERTY PROJECT

This combines raising money for property-led investment but maintains the rail-led nature of the overall project. However, as the maximum property value usually comes after the rail infrastructure is completed, some careful phasing is required to make this work. One potential solution is described in the Property Phasing section on page 36, where an ‘initial scheme’ is brought forward to secure an outline planning permission for part of the site first – securing finances to invest in the overall design of the project and then later securing planning approval for the total rail project and associated development.



However, it should be noted that the RBWM would need to treat the first application as though the railway was not happening as it would have to be a stand-alone permission to secure the necessary capitalisation and fund raising.

## **TIMETABLE**

It is anticipated that, subject to securing the necessary funding, an application for Phase 1 of the railway development will be submitted in 1-2 years, under the Transport & Works Act or Planning Act 2008 (as amended 2013). Construction is anticipated to commence by 2020. This would be using the twenty-year exclusivity arrangement WLR has with Network Rail, for the purposes of bringing forward this scheme (as mentioned above). It includes agreement in principle to enter into a development agreement within five years.

Subject to discussion with the council, an initial scheme could be brought forward sooner.

The wider masterplan will need to be worked up in conjunction with the Royal Borough, the public and key stakeholders. WLR is keen to progress discussions with RBWM as a matter of urgency, to ensure the development can be brought forward within a reasonable timescale (well within the timeframe of the Local Plan).



## ABOUT THE WINDSOR LINK RAILWAY

### WLR

The Windsor Link Railway (WLR), when built, will be the first wholly privately promoted and funded railway for over 100 years.

As well as needing to be financially sound WLR also has social aims include preserving our heritage, improving our environment, improving standards of living for local residents, increasing social mobility and creating economic growth and employment.

It was founded by George Bathurst in 2009 and Richard Wickerson is its Corporate Development Director. WLR is working in partnership with Sir Robert McAlpine and others in order to ensure that the project is fully deliverable and financially viable.

WLR is committed to working with stakeholders to deliver its vision for a better connected region and an improved Windsor. Critical to its success, is also working with private-sector partners with the ability to deliver its vision.

### SIR ROBERT MCALPINE

Sir Robert McAlpine (SRM) is a leading UK building and civil engineering company. Committed to the highest standards of safety and sustainability, the company delivers outstanding projects which meet and exceed clients' expectations.

Recent high-profile projects include the O2 Arena, Emirates Stadium, the Eden Project, Cabot Circus in Bristol, the M74 Completion in Glasgow and the Olympic Stadium.

A family-owned company with a wealth of experience accumulated over more than 140 years, SRM recognises that understanding clients' core values and aspirations is key to its success. It works with clients across all the major market sectors, tailoring its design, construction, technical and management capabilities to meet their evolving needs.

The company also looks to fulfil its responsibilities to the communities and environments in which it operates. Its success is underpinned by corporate stability, the quality and expertise of its staff, its collaborative approach to business and skill at providing cost-effective solutions to construction challenges.

SRM has been instrumental in bringing the WLR project forward and establishing technical feasibility.



## LANDID

Landid was formed in 2005 by Trevor Silver the former CEO and Director of The Akeler group of companies.

The management team has collectively over 50 years' experience in asset management, development and refurbishment with the key individuals having been involved in some of the largest projects throughout the UK and continental Europe.

Landid has assisted WLR with planning and development proposals advice.

## NETWORK RAIL

Today more people travel by rail than at any point since the 1920s, when the rail network was around twice its current size. Every year 1.3 billion journeys are made on Britain's railway and 100 million tonnes of freight is transported. A million more trains run every year than just five years ago but the increasing popularity of rail means that, at peak times, there is no space for more trains on the busiest parts of the network. Despite this, demand is still increasing.

Over the next 30 years passenger demand for rail will more than double and freight demand is expected to go up by 140%.

A system operator plans and operates the network seamlessly. It also ensures all current or potential future train operators, whether they carry passengers or freight, are treated fairly when they use or seek to use the railway. Network Rail wants to be as effective as it can be as system operator, which is why it is trying to improve how it chooses where to invest, and how it timetables trains to make best use of the network.

Network Rail has committed to bring forward joint development proposals with WLR.

## HAMON INVESTMENT GROUP

Hamon Investment Group (Hamon) is based in Hong Kong and was founded in 1989 to provide investment management services in Asia. The firm and its operating subsidiaries are regulated by the Securities and Futures Commission in Hong Kong and the Securities and Exchange Commission in the United States.

The Bank of New York Mellon Corporation (BNY Mellon) became a minority shareholder in 1998. BNY Mellon has US \$1.4 trillion assets under management for both individuals and institutions and is one of the world's leading providers of financial services.

Hamon has been managing Asian equities in Hong Kong for over 24 years and the company seeks to build up a trusted, long-term partnership with clients. It is a client driven organization committed to providing high quality service across a product range including mutual funds, separate accounts and sub-advised funds.

Hamon currently has over US \$1 billion [assets](#) under management. Its clients include mutual fund companies, private banks, financial institutions, pension funds and family trusts.



## CONCLUSION

### STAKEHOLDER SUPPORT SO FAR

The Windsor Link Railway has the formal support of South West Trains and Network Rail, which together comprise an alliance for operating trains in this region.

The project also has the support of many local MPs, including both representing the Royal Borough, Theresa May and Adam Afriyie, as well as nearby MPs, including Michael Gove, Dr Phillip Lee, Steve Baker, John Redwood, Sir Gerald Howarth and Zac Goldsmith.

The Department for Transport has confirmed that phase 1 of the project is in line with policy and has 'welcomed' the WLR proposal. This was via a letter signed by Theresa Villiers MP as the then Transport Minister. This was reconfirmed by officials from the DfT in a meeting facilitated by Network Rail on 22 January 2014.

In 2013 the central Windsor neighbourhood plan formally voted and decided to support the proposals for a Windsor Link Railway in principle (see page 10).

WLR has also consulted the residents of central Windsor via a survey delivered to over 98% of addresses. This had a very high response rate (more in fact than the responses to the local plan consultation for the entire borough) and found overwhelming support for the project, with 95% agreeing that it was important or very important for Windsor. The full results are published at <http://windsorlink.co.uk/windsor-residents-survey-final-results/>.

Many other stakeholders have been consulted, the plans have featured regularly in the local newspapers and on the BBC, and over 20,000 hits on the WLR website in 2013.

On 10 December 2013, the council received two petitions on the Windsor Link Railway with a combined 1,423 signatures in support.

### SUPPORT REQUESTED

WLR asks that the Council responds to this document in two separate ways:

1. At a full council level, responding to the petition previously submitted, by affirming support for and collaboration with WLR (policy **ASF1** of the Royal Borough's Local Transport Plan *inter alia*); and
2. As part of the emerging Borough Local Plan, and as supported by the Central Windsor Neighbourhood Plan (see p11), ensure provision is made within the document to support WLR and the associated development to come forward within the plan period.
3. As pre-planning advice, to respond to this document with the Royal Borough's feedback.

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End of document