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## 17 Science Vale Area Strategy

### The Local Context

1. Science Vale is the UK's leading centre for science, technology and innovation. It includes the fast growing settlements of Didcot, Wantage and Grove along with employment centres of Harwell Oxford and Milton Park at the heart of the area
2. Science Vale is already one of the most successful areas of science based industry in the country. The area has high concentrations of businesses and employment in industries such as research and development, publishing, education and hi-tech manufacturing activities such as motor vehicles and IT, reflecting the presence of some large and prestigious employers in these industries. The success of science based enterprise in central Oxfordshire relies on connectivity between Oxford's university campuses and the centres of innovation.
3. The growth documented in the Vale of White Horse draft Local Plan 2029 (published February 2013) and South Oxfordshire Core Strategy 2027 (adopted December 2012), is to deliver job led growth of 16,000 new jobs, principally at the main employment centres of Harwell Oxford, Culham Science Centre and Milton Park. There is significant medium to longer term potential for 1,500 - 4,000 jobs on the site of the recently decommissioned Didcot A Power Station. This will be supported by 14,000 new homes by 2029.
4. At the core of this growth area is the Science Vale Enterprise Zone covering 64 hectares within Harwell Oxford and 28 hectares within Milton Park Business Park. Development within the Enterprise Zone will generate income for the Local Enterprise Partnership (LEP) for investment in infrastructure to support wider economic development in Oxfordshire. Oxfordshire County Council is part of the Enterprise Zone Delivery Group (EZDG) helping to deliver the projects and work streams identified in the Enterprise Zone Investment Plan. Our role is predominately leading projects around skills, inward investment, broadband and transport.
5. We are working closely with South Oxfordshire and the Vale of White Horse district councils to deliver a shared vision for growth set out in the Local Plans. The main focus is to create the conditions to facilitate and enable residential

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and employment growth: creating a thriving place that is an attractive place to both live and work. Expansion of the science and technology business and creation of attractive town centres that offer good local services and amenities are key to achieving this.

6. Didcot is a focus for new growth, where over 9,000 homes by 2029 are proposed. Four strategic housing schemes have been identified as priorities (Didcot North East, Lady Grove East, Great Western Park, Valley Park). These schemes have the capacity to provide around 2,700 homes over the next five years. A further phase of town centre retail and leisure development is also underway. The town centre development is estimated to create more than 1,000 new jobs.
7. Wantage and Grove will receive major housing development to support the expansion of employment in the Science Vale area. The existing Local Plan 2011 allocated Grove Airfield for 2,500 homes and the emerging Local Plan 2029 is proposing to allocate up to 2,250 homes across sites north-east of Wantage and north of Grove.
8. To support and enable this planned growth it is vital that new and improved transport infrastructure is delivered. This includes ensuring excellent access to international gateways. Fast, reliable access to Heathrow Airport and international rail at London St Pancras is a critical factor in attracting investment and growing the knowledge sector business in Science Vale. Didcot Station, as the main transport hub for the area, has a key role in delivering this. Movement within Science Vale and connections with the rest of Oxfordshire's transport network also need to be efficient and reliable.
9. Effective partnership working with the Highways Agency, Bus Operators and Network Rail, achieving a common ambition, will be required to deliver the vision and transport aims for the area.

### **Transport Aims**

10. The transport priority for Science Vale is to improve access to the Enterprise Zone sites at Milton Park and Harwell Oxford for international, national and local travel. To achieve this we will improve:
  - Access to the strategic road and rail networks
  - Connectivity to Oxford's universities and the centres of innovation
  - East-west journeys across the Science Vale area

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- Journeys between Didcot and the Enterprise Zone
  - Trips to town centre facilities and amenities

### **Strategic Road and Rail Networks**

11. To support the global nature of businesses within the Science Vale area good reliable access to and along the A34 is crucial. The A34 provides essential access to Birmingham, Heathrow, the ports at Southampton, and the Channel Tunnel.
12. Didcot Station has a significant role in enabling the vision for Science Vale to be achieved. There is an ambition for Didcot Station to be transformed into a 'state of the art' multi-modal interchange and gateway to the area, fronted by a new public square. Improved rail services will enable journeys to connect to Eurostar services and airports at Heathrow, Birmingham and Gatwick.
13. Strengthening the public transport networks between Science Vale and Oxford's universities and the centres of innovation is essential. Public transport will be significantly improved to provide high quality, high frequency dedicated bus services linking Didcot Station, the centres of innovation, and university campuses. These will offer a 'turn-up-and-go' frequency throughout the day, and provide integrated connections at the core interchanges, as well as cashless payments with the ability to switch between modes of travel without penalty or the need to make separate payments.
14. Culham Science Centre (CSC) benefits from Culham Station being close to the site. Full utilisation of this by CSC and the rail operators is key to support and enable economic growth. Improved services with better station integration will achieve this. Improvements that greater enhance access to the site by bus and cycle are also necessary.
15. Improvements to the Culham and Clifton Hampden road river crossings or implementation of a new bridge are not identified projects within the Transport Strategy. This was discussed extensively at SODCs Core Strategy examination and the arguments still stand. The Strategy to accommodate movement north /south is focussed on rail and the A34. Capacity problems are not only created by the bridges themselves but also by the surrounding road network and junctions. This capacity issue acts as a deterrent to some drivers and aids commuters to make a choice about how/when they Travel.

16. Widening of Cow Lane is also not an identified scheme within the Transport Strategy due to the significant cost and implications of such a scheme. Greater accessibility from Lady Grove East to the Station and Town centre is recognised as important. Creation of a new northern entrance to Didcot Station is promoted as a way to deliver this.

**Proposal SV 1** – We will work with partners to improve accessibility to the strategic road and rail network by:

- **Delivering access and journey reliability improvements at Milton Interchange.** To improve capacity, to relieve congestion and accommodate additional traffic from planned development.
- **Delivering north-facing slips at Chilton Interchange to provide a full movement junction.** To enable full movement to and from Harwell Oxford from the A34, helping attract investment and to relieve local roads.
- **Delivering Harwell Oxford entrance improvements.** An increased capacity roundabout, to facilitate additional trips into/from the site and supplement the improved Chilton Interchange.
- **Promoting an improved level of rail service at Didcot,** seeking a minimum of four trains per hour to Oxford and Bicester.
- **Developing Didcot Station into a ‘state-of-the-art’ multi-modal interchange,** to meet demand from new development and improved rail services. This includes decking of the station car park and station access from the north.
- **Strengthening access from Didcot Station to Milton Park and Harwell Oxford** through dedicated bus and cycle connections.
- **Promoting an improved level of rail service at Culham Station.** To improve accessibility and encourage further business investment.
- **Promoting greater presence and accessibility of Culham Station** both for the local area and Culham Science Centre.
- **Promoting an improved and fully integrated public transport system** linking Science Vale with innovation hubs and research locations in Oxford.

**East-west journeys across the Science Vale area**

17. Delivery of a range of new housing attractive to different markets is required to support the level and type of job growth expected. To accelerate and support housing growth at Didcot and Wantage and Grove settlements the delivery of key new roads, junction improvements, investment in public transport, and walking and cycling routes are required to enable access to housing sites and facilitate movement between homes and the main employment areas.
18. In addition there is a need to promote and provide better opportunities for walking, cycling and public transport. This is in order to give people a real choice about how they travel, with the aim of meeting additional travel demand across a range of modes. This is vital to ensure that the road network can cope with future traffic volumes.
19. Delivery of the following schemes is therefore seen as a priority for retaining and growing businesses in the area and connecting the variety of residential growth areas with key employment and service centres.

**Proposal SV 2** – We will work with development partners to improve east-west journeys across the Science Vale area, connecting new homes with jobs and service centres, by better connecting Wantage and Grove with Didcot, Milton Park and Harwell Oxford through:

- **Promoting the Wantage Eastern Link Road** to support developments in Wantage and Grove and provide relief to central Wantage.
- **Delivering improvements along the A417 corridor** to improve the capacity of the road, improve journeys for public transport users and cyclists, and address the conflict between east-west travel and access to the villages along this route.
- **Delivering improvements at Steventon traffic lights at the A4130 / B4017 junction.** To remove the ‘bottle-neck’ and improve journey times to the A34, Milton Park and other Didcot employment sites.
- **Reducing congestion at Rowstock roundabout** through measures to increase capacity of the junction itself and improvements to Featherbed Lane.
- **Securing Grove Northern Link Road to access development.**
- **Securing new bus services** between new residential sites at Didcot, Wantage and Grove and the employment sites of Milton Park, Harwell Oxford, and Oxford. A minimum standard of two buses per hour during the morning/evening peak travel periods is required to provide a credible level of service.
- **Securing improvements to existing bus services** between Oxford, Didcot, Wantage and Grove and Abingdon and the employment sites.
- **Promoting the use of sustainable transport** by undertaking travel promotions and marketing measures, particularly with partners at Milton Park, Culham Science Centre and Harwell Oxford.
- **Safeguarding and protecting the ability to deliver a Station at Grove** to ensure the future longer term ambition of connecting Wantage and Grove with Didcot , Swindon and beyond can be achieved.

### **Journeys between Didcot and the Enterprise Zone**

20. To enable Didcot to grow, the transport network needs to be developed to improve network capacity between residential areas, and the Enterprise Zone employment areas. Improving highway routes to Harwell Oxford will help provide route choice and travel options between residential and employment areas.

21. To provide an attractive, sustainable and safe alternative to driving within the Science Vale area, a substantial upgrade and expansion of the cycle network is required. This will include developing very high quality cycle routes linking Didcot Station with Milton Park, Harwell Oxford and Culham Science Centre, backed up by a series of feeder and secondary routes, all making use of continental best-practice where possible and being clearly and consistently signed throughout. Use of the network will be supported by a major cycle hub at Didcot Station. The hubs will feature cycle hire, cycle maintenance, secure cycle storage, changing facilities and a route information point. Further local cycle hubs will be provided, where possible, at strategic employment sites.
22. Delivery of the following schemes is therefore seen as a priority to improve connectivity between Didcot and the Enterprise Zone.

**Proposal SV 3** - We will work with development partners to improve connectivity between Didcot and the Enterprise Zone by:

- **Provide relief to Manor Bridge and A4130 through delivery of a new bridge over the railway at the Power Station site** to help relieve congestion, improve the network capacity and reduce severance caused by the railway line.
- **Improving access and connections to Harwell Oxford, Milton Park and Didcot** to provide better connectivity, reduce congestion on the local network and protect villages. We will investigate the provision of a new road from the B4493 to the A417, and improve Hagbourne Hill.
- **Enabling new and substantially upgraded strategic walking and cycling routes** between Didcot and Milton Park, Harwell Oxford and Culham Science Park. These routes will be supported by a network of feeder routes which will result in a high quality, safe and attractive network. Routes will include opening the Back Hill Lane tunnel in Milton Park, in order to reduce the severance caused by the mainline railway.
- **Championing a new cycle hub at Didcot Station**, creating interchange facilities and integrating cycling with other forms of transport.

### **Trips to town centre facilities and amenities**

23. To attract new residents to the area, Science Vale needs to provide a high quality of life by being an attractive place to live, with good accessibility to vibrant town centres providing a wide range of facilities and services. Good transport links to

access town centres, will enable the town centres to grow. This will be achieved through the following schemes.

**Proposal SV 4** – To improve local connectivity to town centre facilities and amenities by:

- **Securing the delivery of a realignment of Hitchcock Way and capacity improvements at Jubilee Way roundabout**, to improve access to the town centre to support the on-going vitality of the Orchard Centre.
- **Delivery of the Didcot Northern Perimeter Road part 3 (NPR3)**, to complete the perimeter road, relieve Didcot town centre and to improve access to Milton Park (from the east).
- **Promoting the widening of Foxhall Road Bridge**, to improve access to Didcot Station car park.
- **Pedestrian and cycle network enhancements** to provide improved routes to the town centre and Didcot Station together with better facilities at local employment and residential sites.
- **Promoting Didcot Station as a public transport hub** providing greater opportunity for interchange.
- **Establishing a parking strategy for Didcot** to identify an appropriate balance of parking provision in the town and at the rail station to support town centre vitality.
- **Establishing green links from new development to Public Rights of Way.**

## Funding

24. Funding for the Science Vale area strategy will be from a variety of sources. Due to the large scale of growth we will seek central Government funding where possible and work with the Local Enterprise Partnership, and Local Transport Board to secure the income from the Enterprise Zone business rate retention to fund infrastructure. Developer contributions will also be sought using a standard contribution rate across the area.
25. The Science Vale area strategy identifies a package of transport measures that are required to mitigate the cumulative impact of development across the Science Vale area where the impact of development is not attributable to a single development. Developer contributions will be sought using the strategic



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transport infrastructure contribution rate to mitigate the cumulative impact of development.

26. The public transport service contribution is based on the estimated cost of new or improved public transport services divided proportionally by the quantum of planned growth to give a cost per development site.
27. The level of contribution has been calculated by dividing the funding required to deliver the package of transport measures by the quantum of planned growth. This will be reviewed if the planned housing growth or infrastructure requirements change.

**Proposal SV 5** – To mitigate the cumulative impact of development across the Science Vale area and implement the transport measures identified in the Science Vale area strategy we will:

- Secure strategic transport infrastructure contributions from all new development based on the contribution rate per dwelling or per m2 for non-residential developments.
- Secure strategic public transport service contributions based on the contribution rate per dwelling or per m2 for non-residential developments.

28. The Strategic Transport Contribution does not include direct mitigation measures, which will be sought separately.
29. This Area Strategy replaces the Didcot Integrated Transport Strategy - 2004/2005 (DidITS). The new Area Strategy accommodates the measures of the DidITS. Planning obligation contributions, secured in order to mitigate the impacts of development, towards DidITS will be able to be used on the LTP3 Science Vale Area Strategy and be in accordance with the planning obligations.
30. A comprehensive list of transport schemes proposed for Science Vale can be found on the Oxfordshire County Council website (Link to web page from which Cabinet Paper can be downloaded).

### Maps and Plans

31. Figures 1- 4 below show the key pieces of transport infrastructure required to deliver the proposed growth and investment in the area. Figures 2 and 3 show the proposed public transport network, and figure 4 the cycle network required

to deliver the proposed growth in the Science Vale area. These include both existing routes and future routes.

## References

Science Vale Enterprise Zone - <http://www.sciencevale.com/>

Oxfordshire Local Enterprise Partnership

<http://www.oxfordshirelep.org.uk/cms/>

Vale of White Horse draft Local Plan 2029 (published February 2013)

<http://www.whitehorsedc.gov.uk/services-and-advice/planning-and-building/planning-policy>

South Oxfordshire Core Strategy 2027 (adopted December 2012)

<http://www.southoxon.gov.uk/services-and-advice/planning-and-building/planning-policy>

Enterprise Zone Investment Plan - <http://www.oxfordshirelep.org.uk/cms/>


Oxfordshire Local Transport Board -

<http://www.oxfordshire.gov.uk/cms/content/oxfordshire-local-transport-board-0>

Figure1: Indicative plan of infrastructure required to support development in Science Vale

**SCIENCE VALE AREA STRATEGY**

- |   |   |
|---|---|
|  Employment Growth Areas |  New Strategic Housing Sites |
| <b>A</b> Culham Science Centre  | <b>I</b> North East Didcot  |
| <b>B</b> N Power Site   | <b>J</b> Ladygrove East   |
| <b>C</b> Milton Park  | <b>K</b> Valley Park  |
| <b>D</b> Harwell Oxford   | <b>L</b> Great Western Park   |
| <b>E</b> Williams Formula 1   | <b>M</b> Harwell Oxford   |
| <b>F</b> Grove Technology Park  | <b>N</b> Crab Hill  |
|   | <b>O</b> Monks Farm   |
|  New Mixed Use Sites     | <b>P</b> Grove Airfield   |
| <b>G</b> Didcot Gateway site  |  Station Improvements        |
| <b>H</b> Orchard Centre   | <b>1</b> Culham Station   |
|   | <b>2</b> Didcot Station   |

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|---|---|
|  Road Improvements |  Junction improvements |
| <b>1</b> A417 Strategy  | <b>a</b> Milton Interchange – ‘Hamburger’ junction  |
| <b>2</b> Featherbed Lane Improvements   | <b>b</b> Chilton Interchange – North facing slips   |
|  New Roads         | <b>c</b> Harwell Oxford Entrance  |
| <b>3</b> Wantage Eastern Link Road  | <b>d</b> Relief to Rowstock Roundabout  |
| <b>4</b> Didcot Northern Perimeter Road 3   | <b>e</b> Stevenon Lights  |
| <b>5</b> Improved accessibility between Harwell Campus, Milton Park & Didcot                        | <b>f</b> Jubilee Way Roundabout   |
| <b>6</b> Relief to Manor Bridge   |   |

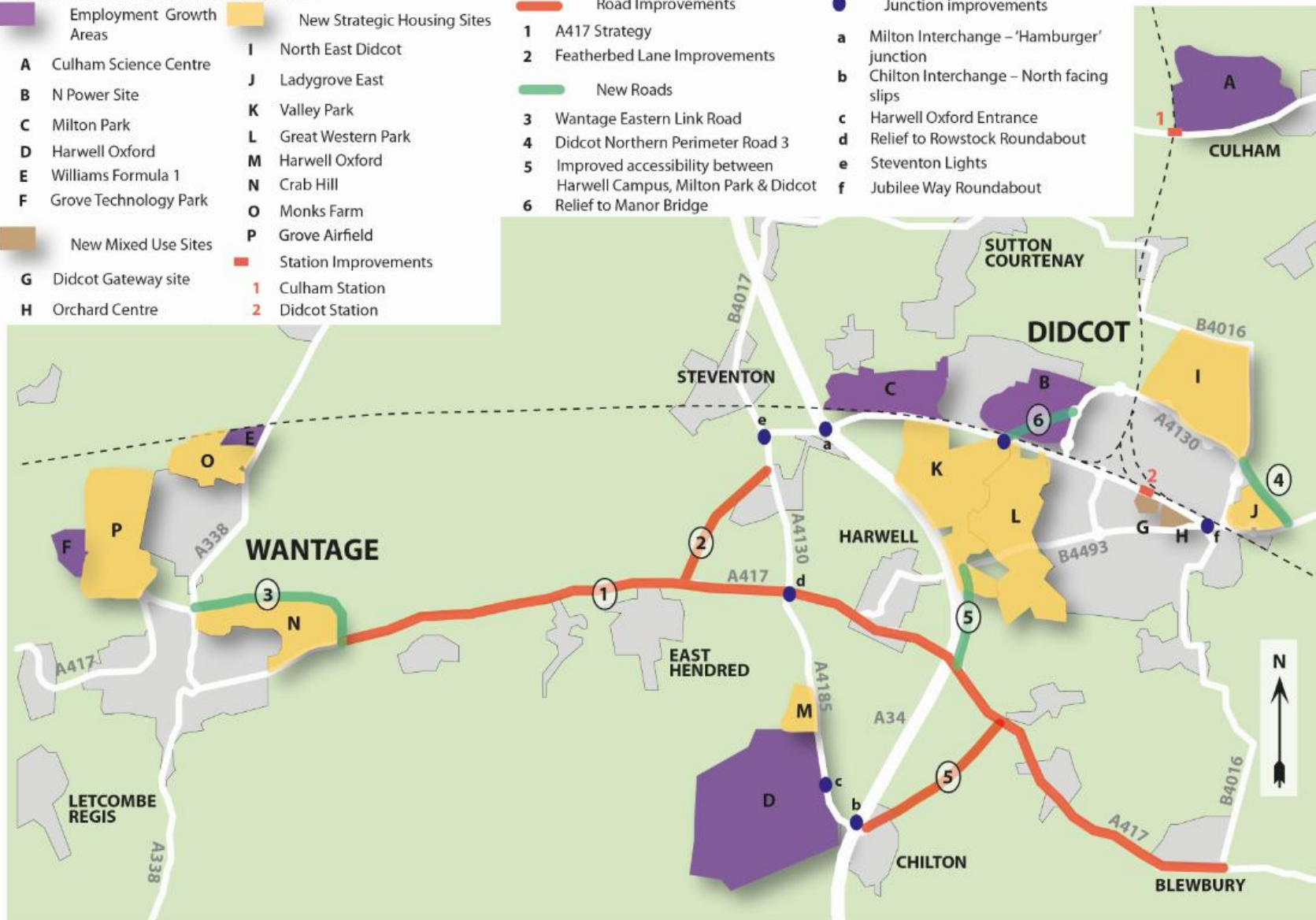


Figure 2: Indicative future public transport routes required to support development in the Didcot Area

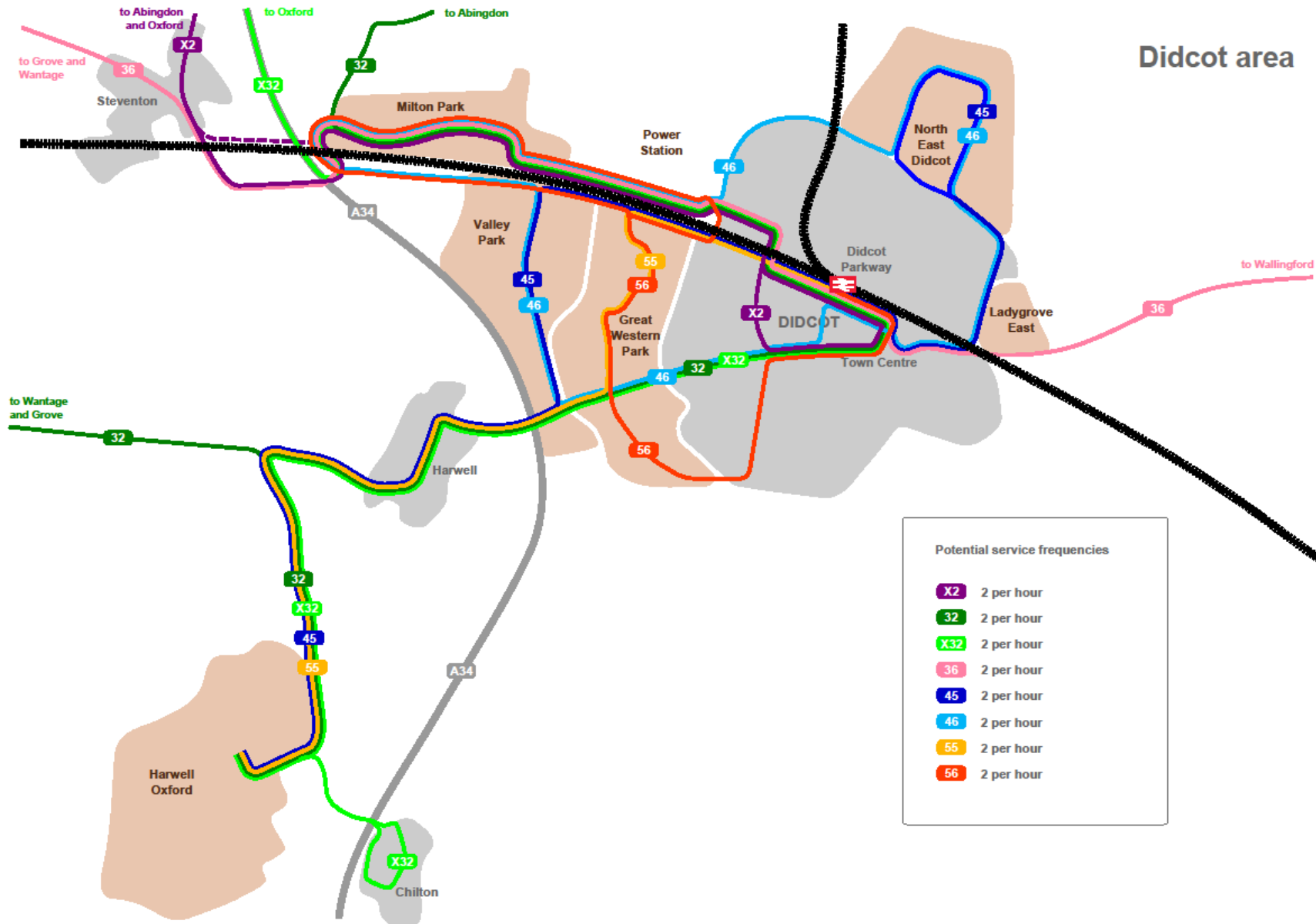


Figure 3: Indicative future public transport routes required to support development in the Science Vale area

### Science Vale UK

Potential service frequencies

- X2 2 per hour
- X30 2 per hour
- 31 2 per hour
- 32 2 per hour
- 36 2 per hour

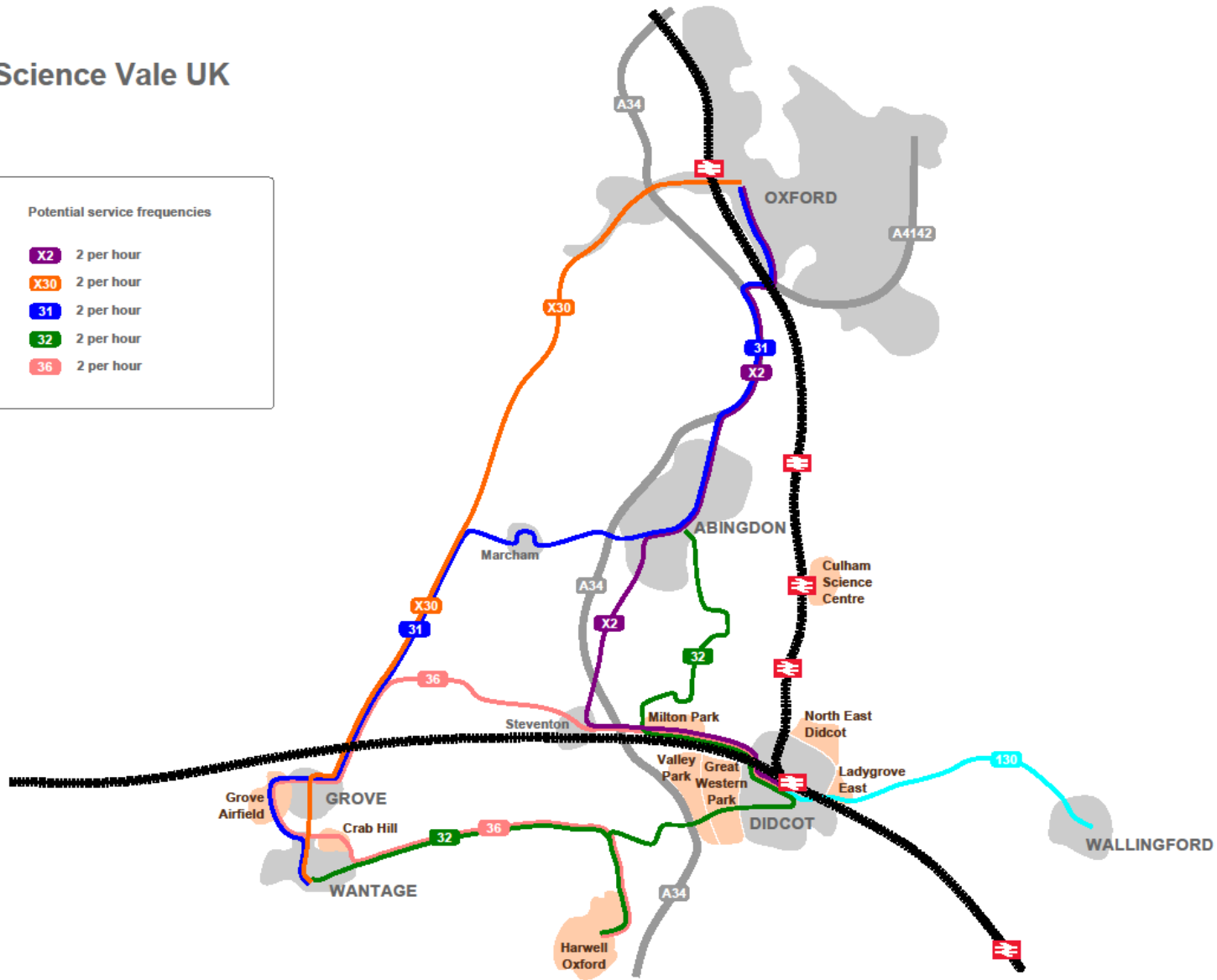




Figure 4: Indicative cycle routes required to support development in the Science Vale area

