

Board

Date: 26 March 2015

Item 10: Cycling Vision Annual Update

This paper will be considered in public

1 Summary

- 1.1 The purpose of this paper is to provide an annual progress report on delivery of the Cycling Vision Portfolio to the Finance and Policy Committee and the Board to ensure ongoing overview of the entire portfolio.
- 1.2 The approach for developing and delivering the Cycling Vision Portfolio received approval from the Board on 4 February 2014. The individual projects and programmes have been progressing on their own lifecycles, seeking the necessary approvals according to their estimated final costs.
- 1.3 The Cycle Superhighways and Better Junctions programmes have separate arrangements in place, which were approved by the Board on 4 February 2014, specifically:
 - (a) Cycle Superhighways – authority was granted for the development of the new Cycle Superhighway routes to Pathway Stage Gate 4 (end of detailed design) with a requirement to return to the Board following public consultation for any approval to proceed with the schemes and associated Project Authority. Approval for Cycle Superhighway (CS) East West, CS North South, CS 2 Upgrade, CS1, CS5 inner and upgrades to CS3,7,8 was granted by the Board on 4 February 2015.
 - (b) Better Junctions – Authority was granted for the development of the schemes being delivered directly by the Better Junctions programme (i.e. those not within the scope of other programmes).
- 1.4 The portfolio has a budget (financial authority) of £913m under the TfL Business Plan.
- 1.5 The portfolio is seeking no additional Financial or Project Authority.
- 1.6 On 11 March 2015, the Finance and Policy Committee noted the Cycling Vision Annual Update. Members requested that milestone information be included in Appendix 1 to the paper. No other issues were raised for the attention of the Board.

2 Recommendation

- 2.1 **The Board is asked to note the progress made to date on delivering the Cycling Vision Portfolio and the progress made in the last twelve months against each programme.**

3 Background

- 3.1 In March 2013, the Mayor's Vision for Cycling set out a comprehensive programme of measures to increase cycling and deliver four key outcomes:
- (a) A Tube Network for the Bike: a network of direct, high-capacity, joined-up cycle routes;
 - (b) More People Travelling by Bike: to 'normalise' cycling, making it something everyone feels comfortable doing;
 - (a) Safer Streets for the Bike: streets and spaces will become places where cyclists feel they belong and are safe; and
 - (b) Better Places for Everyone: improvements will help all Londoners, whether or not they have any intention of getting on a bicycle.
- 3.2 The Cycling Vision Portfolio aims to deliver a 400 per cent increase on 2001 cycling levels, equating to 1.5 million cycle journey stages per day by 2026. This target was set out in the Mayor's Transport Strategy (MTS) (2010). At the time, this would have equated to achieving a 5 per cent modal share for cycling. However, due to higher than expected population growth since the target was set, this no longer equates to the same mode share and therefore, this is no longer stated in TfL cycling targets. Mode share is not appropriate to be used as a target, as it is changeable due to population flux. The target of 1.5 million cycle journey stages per day by 2026, however, remains a relevant challenge and is therefore used in this report in discussion of progress and as part of the annual update.
- 3.3 The Cycling Vision portfolio underwent an annual Independent Assurance Review (IAR) in November 2014. There were no critical issues raised, however clarification of this cycle journey stage target was a key recommendation set out in the IAR of the Cycle Vision Portfolio.
- 3.4 The discrepancy between the targets was discussed and a recommendation was made that the formal target of 1.5 million cycle journey stages should be agreed and then clarified in this report.
- 3.5 The approach for developing and delivering the Cycling Vision Portfolio received approval from the Board on 4 February 2014. As part of that approval it was agreed that progress reports on portfolio delivery would be brought back on an annual basis to ensure ongoing overview of the entire portfolio and to agree any substantial changes to the base programme.
- 3.6 In October 2013, the Cycling Vision Portfolio was externally reviewed as part of the Pathway process and some critical issues were identified. These were addressed in the paper to the Board in February 2014.
- 3.7 As mentioned in paragraph 2.3, a further annual review of the Cycling Vision was conducted in November 2014. The external review identified no critical issues, but has made general recommendations such as the need for clarification of the Portfolio target as set out above, updating the Cycle Vision business case narrative which is underway and completing the benefits realisation plan at a portfolio level, both of which will be completed in spring 2015. Further recommendations were made and are being addressed, such as the development of a more detailed dashboard to assist with portfolio level decision making, as well as progressing

modelling and forecasting work to demonstrate that the composition and scale of portfolio as a whole, rather than at a programme level, is in line with meeting the growth target.

- 3.8 Advice from the Independent Investment Programme Advisory Group (IIPAG) was subsequently received in December 2014. IIPAG supports and endorses the PMO and External Experts' (EE) reports and makes recommendations in line with these.

4 Annual progress

- 4.1 Considerable work has taken place over the last year to define the scope of the Cycling Vision programmes; to develop these through feasibility and design; and to start delivery of relevant projects and programmes. This paper sets out the progress to date in developing the relevant programmes. It also tracks progress in achieving the overarching objectives of the portfolio: to increase cycling and deliver the four key outcomes set out above to help overcome the key physical, cultural and personal barriers to cycling.
- 4.2 Following this paper, the next Cycling Vision Portfolio annual progress update will be in early 2016.

5 A Tube Network for the Bike

Cycle Superhighways

- 5.1 The Cycle Superhighways programme has a budget of £200m committed from the Cycling Vision portfolio.
- 5.2 Four Cycle Superhighways (CS2, CS3, CS7 and CS8) were constructed in 2010 and 2011, and an extension to Cycle Superhighway 2 opened in 2013. The routes have seen an average 77 per cent increase in cycling trips since they opened. Since the second pair of routes were completed in 2011, the approach to designing Cycle Superhighways has continued to be developed to reflect the following, in line with the recently published update of the London Cycling Design Standards:
- (a) lessons learnt from delivering the first four routes;
 - (b) the series of high-profile cycle fatalities in late 2011 across London, which led to the Better Junctions Review and the expectation of higher design standards for cyclists;
 - (c) recommendations from the London Assembly, criticising lack of physical separation on cycling routes;
 - (d) the Mayor's commitment to achieving 'Go Dutch' standards (2012); and
 - (e) the recommendations of the Roads Task Force.
- 5.3 Significant design work and public consultation has taken place on the Cycle Superhighways over the past year. The detail of these was presented and approved by the Board in February 2015.
- 5.4 Throughout autumn 2014, public consultations were completed for the CS2 Upgrade, CS5 Inner, East-West and North-South routes, and proposals were

substantially developed following feedback from the public and stakeholders. Public consultation for CS1 has been programmed to follow in February 2015.

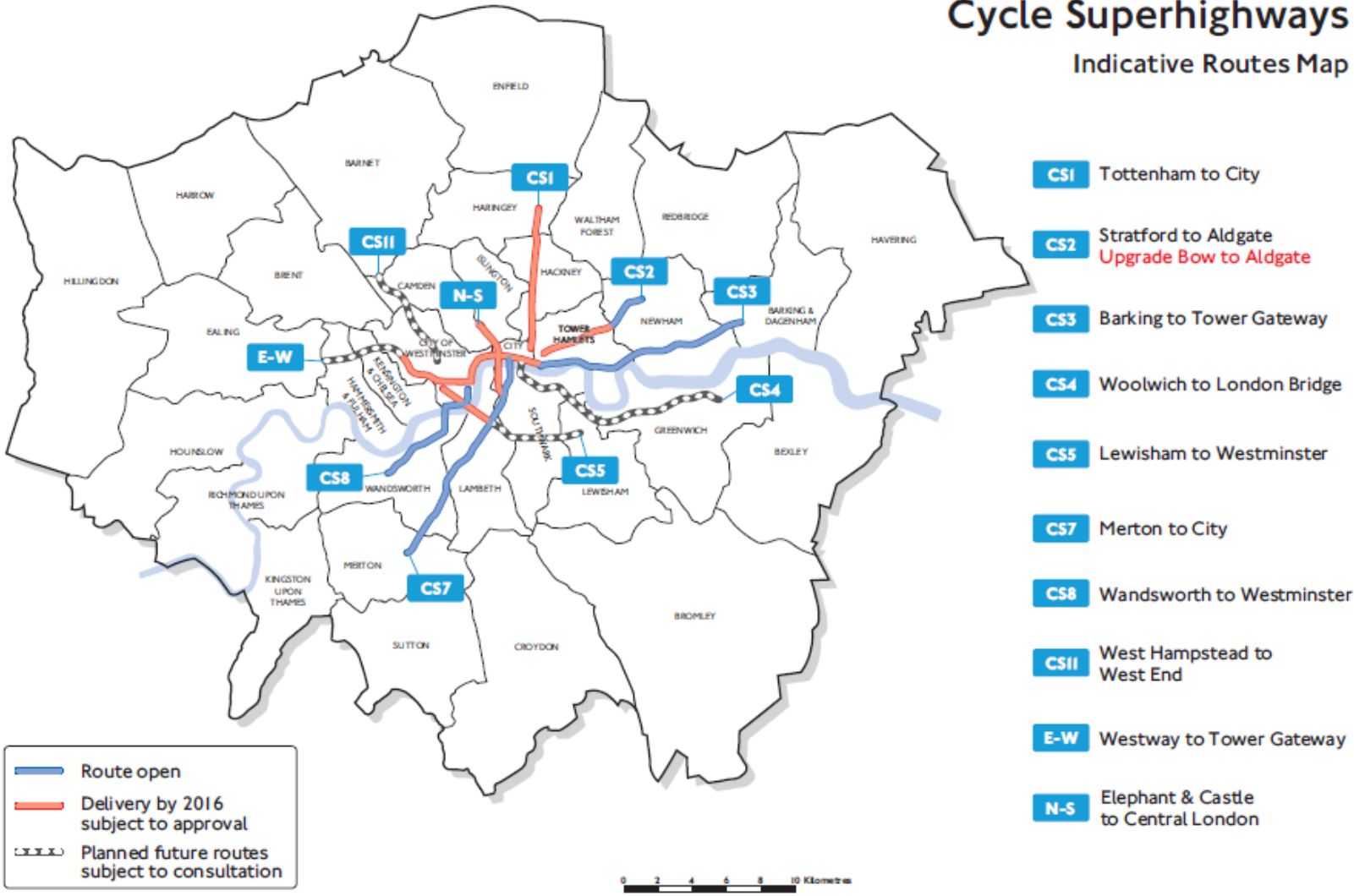
- 5.5 Following approval by the Board in February 2015 four new Cycle Superhighways will be delivered by the end of 2016 including Phase 1 of the flagship East-West route (Westbourne Terrace to Tower Hill), the North-South route (Elephant and Castle to King's Cross), CS1 (Tottenham to the City) and the inner section of CS5 (Oval to Pimlico). The four existing routes will be upgraded (CS2, CS3, CS7 and CS8), with a complete upgrade to CS2 to create segregated cycle lanes between Bow roundabout and Aldgate.

Route	Target Dates	
	Construction Start	Construction End
East-West (Phase 1)	Apr 2015	July 2016
North-South	Apr 2015	May 2016
CS5 Inner	Feb 2015	Oct 2015
CS2 Upgrade	Feb 2015	Apr 2016
CS1	Jul 2015	Apr 2016
Upgrades to Routes 3, 7 & 8	Rolling Programme of works. Detailed design to start in March 2015.	

Table 1 – Cycle Superhighway construction programme

Cycle Superhighways

Indicative Routes Map



The Cycle Superhighways programme will continue to evolve and is subject to further change

Version 4 - 14.1.15

Fig 1 – Cycle Super highways indicative routes

Quietways

- 5.6 The Quietways programme has a budget of approximately £120m to create a network of radial and orbital cycle routes across London. They will be well-signed, linking key destinations that follow direct back-street routes, and may include parks or waterways.
- 5.7 Quietways are designed to appeal to non-cyclists as well as existing cyclists, providing quieter routes away from main roads for cyclists who wish to travel at a more leisurely pace. They also include orbital routes between outer London town centres, to target trips that are currently being made by car.
- 5.8 To meet the target of 1.5 million cycling journeys per day by 2026, the programmes in the Cycling Vision need to encourage new cyclists to cycle, as well as encouraging existing cyclists to cycle more. There is much more untapped potential for cycling in outer London: 54 per cent of all potentially cyclable trips have an origin or destination in outer London¹. These trips are currently being made by motorised transport with 77 per cent of potentially cyclable trips in outer London being made by car. The Quietways and Mini-Holland programmes (Mini-Hollands are set out below) will target this untapped potential in outer London.
- 5.9 Potential Quietway routes were identified with individual London boroughs throughout 2013. TfL developed the following assessment criteria to provide the rationale for route selection: directness and cohesion; attractiveness; traffic composition and impact on other users; buildability; political support; network prioritisation and phasing.
- 5.10 In March 2014, seven pilot Quietway routes were selected in the first phase of the programme:
- (a) Bloomsbury to Walthamstow (phase 1: Bloomsbury to Hackney);
 - (b) Waterloo to Greenwich;
 - (c) Regent's Park to Gladstone Park;
 - (d) Elephant & Castle to Crystal Palace;
 - (e) Tower Hamlets to Hainault;
 - (f) Waterloo to Croydon; and
 - (g) Clapham Common to Wimbledon
- 5.11 These pilot routes meet the Quietways criteria, including buildability by 2016. They include both orbital and radial routes across 16 London boroughs; demonstrate differing Quietway characteristics; complement existing and planned infrastructure; and also represent a good geographical spread across London.
- 5.12 The first two pilot Quietways (Bloomsbury to Hackney and Waterloo to Greenwich) will be open by summer 2015. The remaining five pilot Quietways and extensions (e.g. from Hackney to Walthamstow) will be under construction by early 2016.
- 5.13 Route Delivery Plans (RDPs) have been developed with 16 of the London boroughs plus other managing authorities for the seven pilot routes. These RDPs identify the

¹ Analysis of Cycling Potential, TfL 2010

infrastructure interventions needed along each route and provide indicative cost estimates. These inform the wider programme to determine how many routes and interventions can be delivered over the ten year Quietways programme and within the overall budget.

- 5.14 Following an OJEU procurement, Sustrans has been appointed as the Delivery Agent (Service Provider) to assist with the management and coordination of the Quietways Programme across the boroughs, as well as providing a detailed design and stakeholder engagement resource for the boroughs to develop future routes as these are determined.
- 5.15 The next phase of Quietway routes is currently being programmed in consultation with the boroughs. Routes will be prioritised in boroughs that have yet to benefit from this or other Vision programmes. In addition to Quietway routes, a number of larger interventions have been identified within the programme. These include feasibility studies of key physical barriers to cycling that could 'unlock' further routes, for example, possible cycle crossings of the A406 in North-West and East London, and segregated cycle routes along the A315 and A316 linking to the Quietways network.

The Central London Grid

- 5.16 The Central London Grid (the Grid) has a budget of £54m to create a dense network of routes on borough and TfL roads within Central London, linking to existing and planned Cycle Superhighways. It includes over 100 Transport for London Road Network (TLRN) and borough junctions. The programme is being delivered by TfL and its delivery partners (eight inner London Boroughs, the Royal Parks and the Canal and River Trust).
- 5.17 The highest concentration of potentially cyclable trips is in the centre of London, in the area covered by the Grid. The Grid will provide a connected network of routes between multiple origins and destinations, complementing other cycling programmes such as the Cycle Superhighways, Better Junctions, Cycle Hire and cycle parking programmes.
- 5.18 In December 2013, TfL published a consultation map showing 200km of potential Grid routes developed by the partners for stakeholder feedback. Of these routes, 85km have been agreed for completion by April 2016. The prioritisation process for the network considered a number of criteria including: Grid objectives and level of service; highway consents; deliverability; and stakeholder engagement feedback. Route alignments have been agreed in most places, but route options are still being explored in the design stage for a few locations and will be subject to local engagement.
- 5.19 Phase 1 of Grid construction is now underway, with two schemes already implemented (Goldsmith's Row in Hackney and Piccadilly Bus Gate in Westminster).
- 5.20 Detailed design and construction is underway for schemes in Phase 2 of the Grid. Construction of Phase 2 schemes is due to commence in February 2015 and will be complete by December 2015.
- 5.21 Phase 3 design, including complex schemes which cross the TLRN and Strategic Road Networks (SRN), is taking place in parallel with Phase 2 of the Grid, however construction of this phase will commence later in September 2015.

Mini-Hollands

- 5.22 The Mini-Hollands is a £100m programme to transform outer London town centres and make them as cycle-friendly as their Dutch counterparts.
- 5.23 Eight outer London boroughs produced detailed submissions for Mini-Holland funding, which were assessed by TfL against criteria including level of ambition, political support and deliverability. Following a comprehensive selection process, the three successful Mini-Holland boroughs – Waltham Forest, Kingston and Enfield – were announced in March 2014. Since then, the boroughs have been progressing with their consultations and scheme development.
- 5.24 The successful boroughs were awarded provisional funding of c.£30m each. In addition to this, some town centre improvements from the unsuccessful borough bids will be progressed, e.g. Ealing and Twickenham Town Centres. Other suggestions from unsuccessful Mini-Holland bids will also progress under different programmes where possible, for example the removal of Newham Gyrotory is being considered as a LIP Major Scheme.
- 5.25 In Kingston, a major cycle hub and plaza outside Kingston station is planned, with new high-quality cycling routes and the Thames Riverside Boardway – a landmark project which could see a new cycle boardwalk delivered on the banks of the river.
- 5.26 Enfield is re-designing Enfield Town Centre as well as introducing segregated cycle routes linking key destinations, three cycle hubs and a number of new greenway routes within the borough.
- 5.27 Waltham Forest is introducing a semi-segregated route along Lea Bridge Road as well as a number of measures focused on improving cycling in residential areas and improving the environment for all.
- 5.28 ‘Quick wins’ are in development for all three boroughs, with works planned to start on the first schemes in spring 2015. TfL is working with the boroughs to promote their ambitious programmes for delivery and it is expected that many of their interventions will be delivered by the end of 2016.

Wayfinding Strategy

- 5.29 To ensure that the ‘Tube Network for the Bike’ is used and understood by new and existing cyclists, TfL is developing a new, consistent and coherent cycle wayfinding strategy for London’s cycling network. Significant customer research and user testing has been undertaken during 2014 and the London boroughs have been involved in its development.
- 5.30 The system will offer an innovative approach to cycle route naming, branding, mapping, and signage, and will first be implemented on the two pilot Quietway routes launching in summer 2015.

Infrastructure Programme Risks and Challenges

- 5.31 Traffic and bus impacts of the combined delivery of new Superhighways, Quietways, and other major schemes, could be substantial both in terms of temporary traffic management and permanent changes to allocation of network capacity. TfL has undertaken detailed modelling to determine the potential impacts on the network. This has been fed into TfL’s Roads Modernisation Plan, which will deliver new traffic management approaches and techniques.

- 5.32 The biggest challenge in delivering the Cycle Superhighways is reallocation of road space and resulting reduced road capacity for motorised vehicles, which potentially leads to changes to traffic patterns and traffic delay. It is worth noting, however, that in the majority of cases a similar reduction in capacity would be required for dedicated mandatory cycle lanes (which comprise only coloured surfacing and lines) as for segregated infrastructure. Segregated facilities offer substantially greater benefits, particularly for the near market – those with high potential to start cycling, but do not yet do so.
- 5.33 The predicted benefits and impacts have been documented following extensive traffic modelling, and communicated to customers and stakeholders through the public consultations.
- 5.34 The traffic models take account of a new approach to using traffic signals to manage the movement of traffic at certain key locations. The timings and phasing at these signalised junctions will be changed to more effectively control the flow of traffic on certain routes, in specific directions and at different times. The objective of this operational programme is to ensure that traffic keeps moving.
- 5.35 The biggest challenge for the Quietways programme is ensuring sufficient cycle design resources are available across Greater London. The appointment of Sustrans as the Delivery Agent has helped to coordinate this and centralise resources for the boroughs to draw on. The programme has the largest geographic scope of the cycling infrastructure programmes. This means that the traffic impacts will be more dispersed across London, particularly on orbital outer London routes. The next phase of routes will aim to avoid putting additional pressure on the TLRN and SRN in areas where construction on cycling schemes will already take place in 2015/16.
- 5.36 The Central London Grid is currently over-scoped in terms of routes identified within the available budget. TfL is working with London boroughs to validate individual scheme costs. The key challenge for the Grid is ensuring the central London boroughs have sufficient capacity to design and deliver routes and schemes by 2016, given the large amount of other construction work taking place in central London in 2015/16. The next phase of the Quietways programme is also being assessed in this context, so as not to overload particular boroughs pre-2016.
- 5.37 Availability of resources, both within TfL and the boroughs, has been a considerable challenge in developing the Cycling Vision. However, TfL has undertaken significant staff recruitment and there are now around 270 full time equivalent staff working on cycling projects in TfL. During 2014, a dedicated TfL Borough Cycling Team was established and recruited to manage and coordinate the delivery of cycling schemes on borough roads. In addition, the boroughs have recruited more staff. For example, each Mini-Holland borough now has a project team managing their programmes.
- 5.38 To ensure value for money across TfL funded projects, all boroughs and delivery partners are required to benchmark costs against the LoHAC contract for all projects and programmes over £200,000.
- 5.39 In summary, while there are a number of significant challenges to delivery of the proposed major cycling infrastructure in the next two years, a number of actions have taken place or are underway to ensure these are managed and mitigated including management of an updated Portfolio Risk Register by the Cycle Outcome Board [as recommended by IIPAG in December 2014].

6 More People Travelling by Bike

Expanding and improving Cycle Hire

- 6.1 Target areas have been identified for intensification of Cycle Hire including the City, West End and Royal Parks. These are areas with intense competition for footway and kerbside space and finding space is a significant challenge. TfL is confident, however, that 900 spaces can be identified for delivery over the next 18 months. A further 460 docking points per year will be added to the network each year up to 2022.
- 6.2 Expansion of the scheme to the Queen Elizabeth Olympic Park (QEOP) was announced at the end of 2014. Delivery of eight new docking stations to add QEOP to the Cycle Hire network is expected to commence in March 2015. By March 2016, expansion to QEOP will deliver 320 new docking points and fully integrate the Olympic Park into Cycle Hire.
- 6.3 The Cycle Hire spring/summer marketing campaign was live through to October 2014. There has been campaign activity to drive use over the winter, including promotion of the scheme over the 2014 Christmas break. The 2015 campaign launches again in March 2015 and will be live for spring/summer 2015.

Helping commuters cycle

- 6.4 Cycle safety training, awareness and cycle maintenance courses are being delivered for commuters with the re-launch of the Cycling Workplaces scheme in September 2014. Fifty businesses have already signed up for the scheme, with 11,776 employees engaged. Thirty cycle safety sessions, have been delivered with 177 individuals attending these sessions.

Helping children cycle

- 6.5 The Schools Education and Training Programme has continued to encourage safe and active travel to school through a range of projects involving primary and secondary schools. In partnership with the London boroughs, in the past year, TfL has offered cycle training to every school across the Capital through the LIP and Borough Cycling Programmes; awarded 144 Cycle Grants for Schools; and worked with Sustrans to deliver Bike It Plus to 200 schools.

Encouraging cycling through the boroughs and other partners

- 6.6 Since April 2014, over £17m has been made available under the Borough Cycling Programme across the 33 London boroughs over a three year period (2014/15 to 2016/17) to deliver a range of cycling measures. These include residential, on-street and station cycle parking; cycle training (for children and adults); Safer Urban Driving courses to reduce lorry, van and coach conflict with cyclists; and monitoring and support. The funding available is in addition to the LIP allocations.

7 Safer Streets for the Bike

Better Junctions

- 7.1 TfL is substantially redesigning 33 locations known as 'Better Junctions' which are the largest, highest profile and worst performing junctions and gyratories for cyclists and pedestrians across London (see Appendix 1). TfL has plans to transform places like Elephant and Castle Northern Roundabout, Old Street Roundabout, Archway

Gyratory, Oval Triangle, Wandsworth Town Centre Gyratory and other key locations. The aim is not only to provide substantial cycling infrastructure improvements, but also to provide improvements for other vulnerable road users, to enhance the urban realm and create places where people will want to come and visit.

- 7.2 Of the list of 33 identified Better Junctions locations, around half will be delivered through other delivery mechanisms including the TLRN Major Projects and Cycle Superhighways programmes. TfL has committed to delivering 10 junction improvements by 2016.
- 7.3 In 2014, TfL undertook a number of public consultations at locations including Oval Triangle, Stockwell Cross, Old Street Roundabout, Archway Gyratory, Elephant & Castle Northern Roundabout, Wandsworth Town Centre Gyratory and Vauxhall Cross. Construction is underway at Oval and at Kings Cross to provide improved facilities for cyclists and other road users. Subject to the completion of consultation, and necessary approvals, works at other locations are anticipated to commence in 2015.

Revised Cycle Safety Action Plan

- 7.4 The revised Cycle Safety Action Plan (CSAP) was published in autumn 2014. The plan outlines 32 key actions which will directly target the key factors in collisions and help further reduce cyclist casualties across London. Work will continue to implement the plan in order to:
- (a) ensure the growth of cycling in London is accompanied by a reduced rate of cycling casualties;
 - (b) increase the perception that cycling is a safe and attractive transport option;
 - (c) make progress towards achieving existing and future targets for reducing cyclists killed or seriously injured; and
 - (d) ensure London continues to be a world leader in developing effective cycling safety improvements, underpinned by analysis and a sound understanding of the causes of collisions.
- 7.5 CSAP and its 32 actions will be delivered by TfL and key partners through a wide range of initiatives ranging from large junction redesign projects; enhanced and additional cycle training; awareness raising campaigns to encourage better respect and road user behaviour between all road users; working with industry to increase lorry safety; and continuing to use high visibility enforcement operations at key junctions.

Improving Cyclist Safety

- 7.6 Heavy goods vehicles (HGVs) and lorries are over-represented in fatal collisions involving cyclists and pedestrians. In 2013, HGVs were involved in nine out of 14 incidents leading to cyclist fatalities. Provisional data indicates that in 2014, HGVs were involved in five out of 13 incidents.
- 7.7 In 2014, TfL consulted on the Safer Lorries Scheme, which would see lorries without side guards and safety mirrors banned from London's streets by TfL and London Councils. The Traffic Regulation Order (TRO) for this scheme will be introduced in early 2015 and come into full operation over summer 2015.

- 7.8 Significant progress has been made with researchers, designers, vehicle manufacturers and regulators to improve the safety of cyclists around HGVs and minimise blind spots. New regulations for safer HGV cab designs are proposed and a series of concept vehicles were launched in February 2015.
- 7.9 Furthermore the multi-agency Industrial HGV Task Force, a joint initiative funded by TfL and the DfT, continues to operate across London. This targets non-compliant HGVs (particularly construction-related), drivers and operators using the Capital's roads. It is formed of officers from the MPS, City of London Police and Driver and Vehicle Standards Agency (DVSA).

Construction Logistics and Cyclist Safety (CLOCS) Programme

- 7.10 In 2012, TfL commissioned a review into construction logistics and cyclist safety to examine if there were any technical or operational reasons why construction vehicles were disproportionately involved in a number of cyclist fatalities. The resulting 'Construction Logistics and Cyclist Safety' (CLOCS) report was published in February 2013 by Transport Research Laboratory.
- 7.11 The CLOCS programme has brought together vehicle manufacturers, construction clients, fleet operators, regulatory and enforcement bodies and road safety charities. It is an industry-led programme which aims to change the way the construction industry manages work-related road safety, especially in relation to vulnerable road users: cyclists, pedestrians and motorcyclists.

20mph limits

- 7.12 From summer 2014, TfL began trialling 20mph limits on two TLRN routes in the City of London: on Blackfriars Bridge and London Bridge as well as the roads leading up to the bridges on the City side. These 18-month trials will monitor the effect these trials have on cyclist safety and levels of cycling. TfL's 2013 'Central London Cycling Census' showed that cycles make up almost half of the morning peak traffic on Blackfriars and London Bridges.

Public Awareness Campaigns

- 7.13 TfL launched a 'Cycle Safety: driver – cyclist tips' campaign in late 2014 to promote safety across the capital. This followed the innovative new 'Share the Roads' campaign which ran over the summer months in 2014.

Awareness and Enforcement

- 7.14 The 'Exchanging Places' programme puts a cyclist (or pedestrian) in the seat of a HGV cab to see what the visibility limitations are, from a HGV driver's perspective. Over 12,000 people have attended these events since inception in October 2011. This programme will continue to be delivered in 2015 and the Metropolitan Police Service now has a dedicated lorry cab to provide this.
- 7.15 TfL continues to work with policing and enforcement partners on Operation Safeway, where officers are located at key junctions and cycle and pedestrian incident hotspots. This takes place two days a month, with up to 1,000 MPS officers stationed at around 100 junctions, and mobile deployment to other junctions is carried out on other days. TfL and the MPS will carry out on-going assessment on the impact, sustainability and benefits of the operation, and adapt operational practices accordingly. In total, around 21,000 Fixed Penalty Notices (FPNs) have

been issued to road users under Operation Safeway: approximately 16,000 to motorists and approximately 5,000 to cyclists.

- 7.16 The Cycle Task Force team patrol London's streets by bike, investigating and tackling cycle theft and criminal damage to bicycles. They also run sessions on bike marking and registration and give London's cyclists advice on how to lock up their bikes securely in order to deter theft. This team has been expanded from 11 officers (one sergeant and ten constables) to 23 officers (three sergeants and 20 constables) and 10 PCSOs.

8 Better Places for Everyone

London Cycling Design Standards

- 8.1 TfL published the revised London Cycling Design Standards (LCDS) in December 2014, alongside the International Cycling Infrastructure Best Practice Report. The LCDS sets out guidance and best practice in cycle infrastructure design with a strong emphasis on contributing to better streets and ensuring that everyone benefits from investment in better streets and spaces for cycling.

Streetscape Guidance

- 8.2 TfL is also revising its Streetscape Guidance and working with boroughs to classify parts of their network into the street types identified in the Roads Task Force report. These projects are all geared to ensuring that the character and quality of different locations are primary considerations for any investment, including those made through implementing the Mayor's Vision for Cycling.

Seeking DfT approval

- 8.3 Designs for a number of cycling infrastructure measures previously relied on DfT approval before they could be implemented. There has been extensive joint working between TfL and DfT on off-street trials, and through regular meetings throughout 2014 such as the Cycle Proofing Working Group. This provides an on-going mechanism for testing innovative measures, refining them and, if appropriate, allowing for them to be implemented in future without site-specific approval.
- 8.4 The revised Traffic Signs Regulations and Guidance Document (TSRGD), due to be published in spring 2015, will include a number of examples of infrastructure that has become prescribed through this process, such as low-level cycle signals, deeper Advanced Stop Lines (ASLs) and parallel cycle and pedestrian crossings.

9 Changes to the Cycling Vision Portfolio

- 9.1 Considerable work has taken place over the last year to define the scope of the Cycling Vision programmes and develop these through feasibility and design. The Cycling Vision budget of £913m had pressures due to cost increases for existing projects and scope changes to the programme. The main cost pressures came from increased estimates for delivering the Cycle Superhighways and additional Cycle Hire costs for operating the scheme.
- 9.2 The Cycling Vision Portfolio, approved by the Board in February 2014, identified potential increases in costs for the Cycle Superhighways programme (up to £50m). In the paper it was stated that these costs would be reviewed and tested as part of

the programme management, and “if it is concluded that final costs will be higher than the current budget, we will pursue two possible avenues”:

- (a) consideration of amending the number or length of CSH routes in the programme; and
- (b) consideration of reallocating monies from other areas of the cycling portfolio (either through cost reductions or through changes in scope), to ensure the overall costs of the portfolio do not increase.

- 9.3 In 2014, the Cycling Vision Portfolio went through a value based assessment to re-prioritise the elements that made up the portfolio and initial scoring of the schemes in a matrix was completed.
- 9.4 The Cycling Vision Portfolio Business Case demonstrated that the combined impact of infrastructure and non-infrastructure programmes is greater than their component parts. This case had been made to, and accepted by, the Board [(as well as IIPAG and PMO)], i.e. to deliver the target of 1.5 million cycling journeys per day by 2026, the Cycling Vision Portfolio requires a balance of both infrastructure and non-infrastructure interventions.
- 9.5 TfL assessed the different Cycle Vision programmes according to the extent to which they contributed to achieving the outcome of ‘More People Cycling, More Safely, More Often’. The following process was then used to re-prioritise the portfolio:
- (a) programme elements assessed according to their value for money in achieving the cycling outcome;
 - (b) ‘building blocks’ created of programme components to visually represent the impact of re-prioritisation; and
 - (c) a small number of scenarios generated for different balances of programme spend within the £913m total.
- 9.6 The amended cycling portfolio was included in the 2014 TfL Business Plan approved by the Board.
- 9.7 The reforecast profile of the Cycling Vision is detailed in Appendix 2.

10 Measures of Success

- 10.1 Through the four key outcomes – Tube Network for the Bike, More People Travelling by Bike, Safer Streets for the Bike, Better Places for Everyone – the overall objectives of the Cycling Vision Portfolio are to deliver 1.5m cycle journeys per day by 2026 and to contribute towards a 40 per cent reduction in ‘killed and seriously injured’ (KSIs) on London’s roads by 2020.

Cycling levels

- 10.2 The MTS target of 1.5m cycle journeys per day by 2026 is the Strategic Outcome Indicator for cycling and applies to all of Greater London. Previous growth in cycling on the TLRN has taken place prior to the introduction of most of the cycling infrastructure in the Mayor’s Cycling Vision. However, while the number of cycling customers is growing on the TLRN, there is not the equivalent cycling growth across the rest of the Capital’s road network, including quieter local streets.

- 10.3 The Surface Transport Outcome for 'More and Safer Cycling' is one of 10 Surface Transport Outcomes. The KPI for this outcome currently measures the volume of cycling on the TLRN only, using automatic counters. Levels of cycling on the TLRN are presented as an index of flow relative to a baseline of March 2000, which represents 100 on the index. This shows that levels of cycling on the TLRN during Quarter 2 of 2014/15 were 16.4 per cent higher than the same quarter in 2013/14.
- 10.4 The London-wide figures for 2013 published in Travel in London 7, show a temporary pause in the recent established pattern of cycling growth in London (on both the TLRN and local road network). The latest data for 2014 suggests stronger growth on specific parts of the networks (i.e. the TLRN). In 2013, there were 585,000 cycle journey stages in London on an average day, which is a 0.5 per cent increase on 2012. This follows a 1.8 per cent increase in the previous year, with an overall 58.3 per cent increase in cycle stages since 2003.
- 10.5 The Surface Transport KPI is a suitable measure for cycling growth on TfL's network, but the Mayor's Cycling Vision portfolio seeks to increase cycling across the capital, including on quieter local streets. This growth would not be picked up by the existing KPI. TfL's Cycling Strategy Team and Data Team are therefore developing an additional way of measuring cycling in Central London through the Central London Metric. These counts cycling levels on different types of routes within the Inner Ring Road on a quarterly basis. At this stage, the data has been baselined, and this will be used to measure a new KPI from the 2015/16 financial year.

KSIs

- 10.6 Data on cycling casualties in London is drawn from the reports collated within TfL's AccStats database. As this is dependent on receiving the relevant information from the Metropolitan Police Service, there is a delay in reporting of the data. Provisional data is available to August 2014, and will be finalised for all of 2014 sometime in May 2015. Since August 2014 there have been three further fatalities, bringing the provisional total cycling fatalities to 13 in 2014.

Year	1 Fatal	2 Serious	Total KSI
2011	16	555	571
2012	14	657	671
2013	14	475	489
Jan – Aug 2014	10	289	299

Table 2 - Pedal cyclist KSI casualties, 2011-August 2014

- 10.7 The wider trend suggests a reduction in the number of cyclist KSIs on London's roads. There has been a decrease of more than 11 per cent in the number of cyclist KSIs across Greater London in the first eight months of 2014, compared with the same period in 2013. This improved trend is evidenced on the TLRN, with a decrease in cyclist KSIs of more than 26 per cent in the first eight months of 2014 compared to the same period in 2013.

10.8 Through an annual monitoring programme and data on journeys and KSIs, TfL will track progress against each programme to understand trends and developments and inform future revisions to the Cycling Vision Portfolio.

Analysis

- 10.9 In October 2013, an analysis of cycling potential by scheme was completed for the infrastructure programmes in the Cycling Vision. This assessed which target markets would be attracted by each scheme. Work is ongoing to look at this in more detail to further improve knowledge of how each of the Cycling Vision programmes can contribute to the target of 1.5m cycling trips per day by 2026.
- 10.10 A joint working group to discuss cycling demand analysis and modelling has been set up – the Cycle Demand Evaluation Response (CYDER) Working Group. This is formed of representatives from the teams involved in developing the evidence behind cycling interventions.
- 10.11 A Cycling Policy Evaluation Tool (CYPET) has been developed. This is a spreadsheet-based tool that can be used for testing the impact of proposed cycling schemes in London. CYPET can help identify which interventions in which locations will have the greatest impact on the number of cycling trips. This was used in June 2014 to inform the Quietways business case by forecasting the potential demand of each route, helping to demonstrate the rationale for the first pilot Quietway routes.
- 10.12 The IAR recommended that a simple assessment tool should be developed to provide some objective, quantified prediction to show that the portfolio is the right scale and composition to meet the cycling growth target. Whilst CYPET can offer value in providing evidence on the value of individual infrastructure programmes, it is not a tool that can be used to make the case at a portfolio level and does not assist with quantifying the non-infrastructure elements of the portfolio.
- 10.13 There is a programme of monitoring work and data collection in place to capture data for programmes, such as future Superhighways, Quietways, the Central London Grid and Mini-Hollands. This monitoring will be repeated over the lifetime of the programme, which will enable more data to be inputted into the CYPET tool. This will allow TfL to better predict the demand for interventions and assist in delivering a balanced infrastructure portfolio that offers greatest value to meet the cycling targets and addresses the recommendations of the IAR and IIPAG.
- 10.14 CYPET can now be used to provide a reasonable estimate of the impact of different infrastructure programmes in different locations for which we already have data (e.g. cycle lanes with various degrees of separation, cycle parking, signage, cycle hire etc.). It cannot at this stage show the benefits or demand impacts for cumulative programmes.
- 10.15 Further work will continue to assess the value of programmes within the Portfolio in the medium term, such as the monitoring programme and benefits realisation work expected to be completed by spring 2015.
- 10.16 In the longer term a separate programme of work is being led by TfL to develop strategic models (similar to those used for motorised traffic), and capable of forecasting cycle trip patterns and route choice. CYDER will take some time to mature but will help inform the portfolio scale and composition needed to meet the cycling growth target. This includes further development of the CYPET tool and the new route choice model being developed – Cycle Network Model London

(CYNEMON). The business case for this work was created in spring 2014 and is being used to inform and steer this work.

10.17 The revised portfolio has also streamlined the number of programmes being delivered under the Cycling Vision and combined some projects within other programmes. This has simplified the delivery mechanisms and reduced the number of different monitoring workstreams required.

11 Benefits

11.1 In the Cycling Vision portfolio business case, benefits (including disbenefits) were assessed by calculating and monetising the impacts of 1.5 million cycle trips a day, assumed to occur in 2026. This was then multiplied over a 15-year assessment period.

11.2 With individuals often facing more than one barrier to taking up cycling, a package of cycling programmes is needed to overcome these multiple impediments². This understanding has been important in helping inform the range and types of interventions most appropriate to target an increase in cycling. It is reflected in the range of measures outlined in the Cycling Vision Portfolio.

11.3 The benefits used to calculate the BCR for the vision are listed below:

- (a) Journey time: Savings from mode shift from motorised modes (car / bus / rail / taxi) to bike;
- (b) Journey time: Road users' additional congestion-related journey time (disbenefit);
- (c) Safety: KSIs;
- (d) Vehicle operating costs avoided (private modes);
- (e) Health: reduced mortality;
- (f) Reduced absenteeism; and
- (g) Other congestion-related disbenefit.

11.4 The overall impact of the Cycling Vision on journey times was estimated to be positive, i.e. the journey time savings to cyclists outweigh the worst-case journey time increases to other road user.

11.5 The Cycling Vision Portfolio BCR of 2.9:1 in the paper to the Board in February 2014 remains unchanged. While some programmes have modelled disbenefits for certain road users these disbenefits are mitigated when considering the portfolio as a whole.

11.6 Business cases have been produced and assessed for some of the individual programmes and schemes, which include up to date BCRs (for example the Cycle Superhighways and Quietways programmes). The BCR for the Cycle Superhighways programme was presented to the Board on 4 February 2015.

² NICE Public health guidance, PH41 - Issued: November 2012 Walking and cycling: local measures to promote walking and cycling as forms of travel or recreation.

11.7 The Cycling Vision Business Case narrative is now being updated to reflect the re-prioritised programmes, now these have been defined. This piece of work addresses the first recommendation from IIPAG. The portfolio level BCR however will remain the same until the CYDER tool is further developed and more data is available from early monitoring.

List of Appendices to this paper:

Appendix 1: List of Better Junctions

Appendix 2: Cycling Vision reforecast profile, June 2014

List of Background Papers:

Reports from the TfL Programme Management Office and the Independent Investment Programme Advisory Group and the management response to those reports.

Cycle Superhighways paper submitted to the Board on 4 February 2015.

Paper submitted to the Finance and Policy Committee 11 March 2015

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List of Better Junctions

Junction Name	Borough	Status
Aldgate Gyratory	City of London	In construction
Apex Junction (part of Shoreditch Triangle)	Hackney	On time / Budget
Archway Gyratory	Islington	On time / Budget
Blackfriars	City of London	On time / Budget
Borough High Street / Tooley Street Junction	Southwark	On time / Budget
Bow Roundabout	Tower Hamlets / Newham	On time / Budget
Chiswick Roundabout / Kew Bridge Junction	Hounslow	Scheme design under review
Elephant & Castle Northern Roundabout	Southwark	On time / Budget
Great Portland Street Gyratory	Westminster	Scheme design under review
Hammersmith Broadway Gyratory	Hammersmith & Fulham	On time / Budget
Highbury Corner	Islington	On time / Budget
Kings Cross	Islington / Camden	On time / Budget
Lambeth Bridge Northern Roundabout	City of Westminster	On time / Budget
Lambeth Bridge Southern Roundabout	Lambeth	On time / Budget
Lancaster Gate Gyratory	Westminster	On time / Budget

Junction Name	Borough	Status
Marble Arch Gyratory	Westminster	On time / Budget
Nags Head Gyratory	Islington	On time / Budget
Old Street Roundabout	Islington	Tie in highway works with other development activities
Oval Triangle	Lambeth	In construction
Parliament Square	Westminster	On time / Budget
Rotherhithe Roundabout	Southwark	On time / Budget
Spur Road Gyratory	Westminster	On time / Budget
St Paul's Gyratory	City of London	On time / Budget
Stockwell Gyratory	Lambeth	On time / Budget
Stratford Gyratory	Newham	On time / Budget
Surrey Quays Gyratory	Southwark	On time / Budget
Swiss Cottage Gyratory	Camden	On time / Budget
Tower Gateway	City of London	On time / Budget
Vauxhall Cross Gyratory	Lambeth	On time / Budget
Wandsworth Town Centre Gyratory	Wandsworth	On time / Budget
Waterloo Roundabout	Lambeth	On time / Budget
Westminster Bridge	Wandsworth	On time / Budget
Woolwich Road / A102 Junction	Greenwich	On time / Budget

Cycling Vision reforecast profile

Programme totals forecast for 2013-2022:	Feb-2014 (£m)	(Re-prioritised) Mar-2015 (£m)
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Cycle Vision Portfolio	Infrastructure	TLRN	Cycle Superhighways	150	189	
			Better Junctions	100	99	
			Cycle Hire expansion and improvements	33	113	
			TLRN improvement schemes	10	9	
			Wayfinding Improvements	10	6	
		TLRN Infrastructure Total			303	416
		non-TLRN	Greenways	5	6	
			Biking Boroughs	3	3	
			Mini-Hollands	100	100	
			Central London Grid	54	55	
	Quietways (non Grid)		115	122		
	non-TLRN Infrastructure Total			350	314	
	non-infrastructure	Cycle Hire (Operations)	149	81		
		TfL led marketing and road events	26	30		
		Cycle Safety initiatives	52	38		
Police and company E-Bikes trial		1	0			
Anti-Social Enforcement Ops		10	9			
non-Infrastructure Total			260	183		

Total	913	913
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