Commissioner's Report

22 January 2020



About Transport for London (TfL)

Part of the Greater London Authority family led by Mayor of London Sadiq Khan, we are the integrated transport authority responsible for delivering the Mayor's aims for transport.

We have a key role in shaping what life is like in London, helping to realise the Mayor's vision for a 'City for All Londoners'. We are committed to creating a fairer, greener, healthier and more prosperous city. The Mayor's Transport Strategy sets a target for 80 per cent of all journeys to be made on foot, by cycle or using public transport by 2041. To make this a reality, we prioritise health and the quality of people's experience in everything we do.

We manage the city's red route strategic roads and, through collaboration with the London boroughs, can help shape the character of all London's streets. These are the places where Londoners travel, work, shop and socialise. Making them places for people to walk, cycle and spend time will reduce car dependency and improve air quality, revitalise town centres, boost businesses and connect communities.

We run most of London's public transport services, including the London Underground, London Buses, the DLR, London Overground, TfL Rail, London Trams, London River Services, London Dial-a-Ride, Victoria Coach Station, Santander Cycles and the Emirates Air Line. The quality and accessibility of these services is fundamental to Londoners' quality of life. By improving and expanding public transport, we can make people's lives easier and increase the appeal of sustainable travel over private car use.

We are moving ahead with many of London's most significant infrastructure projects, using transport to unlock growth. We are working with partners on major projects like Crossrail 2 and the Bakerloo Line Extension that will deliver the new homes and jobs London and the UK need. We are in the final phases of completing the Elizabeth line which, when open, will add I0 per cent to central London's rail capacity.

Supporting the delivery of high-density, mixed-use developments that are planned around active and sustainable travel will ensure that London's growth is good growth. We also use our own land to provide thousands of new affordable homes and our own supply chain creates tens of thousands of jobs and apprenticeships across the country.

We are committed to being an employer that is fully representative of the community we serve, where everyone can realise their potential. Our aim is to be a fully inclusive employer, valuing and celebrating the diversity of our workforce to improve services for all Londoners.

We are constantly working to improve the city for everyone. This means freezing TfL fares so everyone can afford to use public transport, using data and technology to make services intuitive and easy to use, and doing all we can to make streets and transport services accessible to all. We reinvest every penny of our income

None of this would be possible without the support of boroughs, communities and other partners who we work with to improve our services. We all need to pull together to deliver the Mayor's Transport Strategy; by doing so we can create a better city as London grows.

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This paper will be considered in public

Introduction

This report provides a review of major issues and developments since the Board meeting of 20 November.

2 TfL Scorecard

Period 9

Breakdown of scorecard measures categories:

Safety and Operations: 25% Customer: 25% People: 25% Financial: 25%

■ Achieved ■ Partially achieved ■ Not achieved

Long-term objectives	2019/20 scorecard	Period 9		Year to date		
Outcome	Measure	Actual	Target	Actual	Target	
Healthy Streets and healthy people (12.5%)						
London's transport system will be safe and secure	Reduction in people killed or seriously injured on the roads from 2005-09 baseline ^l	42.0% (I3 fewer people than in Nov 2018)	42.1% (13 fewer people than in Nov 2018)	39.7% (I79 fewer people than YTD 2018)	42.1% (324 fewer people than YTD 2018)	
	Reduction in people killed or seriously injured involving buses from 2005-09 baseline ^l	71.9% (6 fewer people than in Nov 2018)	54.7% (no more than in Nov 2018)	64.0% (25 fewer people than YTD 2018)	60.0% (3 fewer people than YTD 2018)	Safety and operations (25%)
London's streets will be clean and green	Number of London buses that are Euro VI compliant ²	100	n/a	8,000	8,000	
London's streets will be used more efficiently and have less traffic	Traffic signal changes to support healthy streets (person hours per day)	1,646 ■	1,500	13,433■	11,500	
More people will travel actively in London	Health Streets check for designers ³ (average % uplift)	n/a	n/a	13	10	

- I. Measured in calendar years and a month in arrears. Period 9 shows November 2019. YTD is January-November 2019. In November, 335 people were killed or seriously injured on roads, compared to 348 in November 2018. Between January to November 2019, 3,564 people were killed or seriously injured on roads compared to 3,743 between January to November 2018. In November, 15 people were killed or seriously injured in collisions involving buses, compared to 21 in November 2018. Between January to November 2019, 198 people were killed or seriously injured in collisions involving buses compared to 223 between January to November 2019
- 2. The full year target for this measure is 8,350 buses. There are no periodic targets due to the unpredictability of when operators will offer new buses. The retrofitting programme is on track
- 3. This is a cumulative measure, so period targets are not set

Long-term objectives	2019/20 scorecard	Period 9		Year to date		
Outcome	Measure	Actual	Target	Actual	Target	
A good public trans	port experience (30%)					
Public transport will be accessible to all	Reduction in customer and workforce killed or seriously injured ¹ (compared to 2018/19) ⁴	8 fewer people	9 fewer people (2.4% reduction)	87 more people	74 fewer people (2.4% reduction)	
	Additional time to make step-free journeys (minutes)	9.0	8.5	9.0	8.5	Safety and operations (continued)
Journeys by public transport will be	Tube excess journey time (minutes)	6.48	5.18	5.08	4.57	
fast and reliable	Weighted bus customer journey time (minutes)	34.2	34.9	32.3	33.6	
	Customer satisfaction (percentage of Londoners who agree we care about our customers ⁵	n/a	n/a	53	53	
The public	Deliver key investment milestones (%)	100	90	98 🔳	90	Customer (25%)
transport network will meet the needs of a growing London	Key Elizabeth line delivery milestone: start of TfL Rail/ Elizabeth line service between Paddington and Reading	Dec-19 ■	Dec-I9 ■	Dec-19 ■	Dec-I9 ■	

^{4.} In November 2019, 178 customers and workforce were killed or seriously injured, compared to 186 in November 2018. Between April to November 2019, 1,678 customers and workforce were killed or seriously injured compared to 1,591 between April to November 2018

^{5.} YTD results are as at Quarter 2. Quarter 3 results are available on I5 January, which falls after the publication of Board papers

Long-term objectives	2019/20 scorecard	Period 9		Year to date		
Outcome	Measure	Actual	Target	Actual	Target	
New homes and jobs (2.5%)						
Transport investment will unlock the delivery of new homes and jobs	The cumulative percentage of affordable homes on TfL land with planning applications submitted – post May 2016 (%)	n/a	n/a	55 ■	50	
Mode share (15%)						Customers (continued)
80% of journeys will be made by	Public transport tips (millions)	328	328	2,785	2,747	
sustainable modes in 2041	Average kilometres cycled per day ⁶ (thousands)	596	591	546	549	
People (25%)						
A capable and engaged workforce representative	Workforce representativeness – all staff (%)	70.8 ■	70.7	70.8 ■	70.7	People (25%)
of London	– director/band 5 (%)	38.3	38.2	38.3	38.2	
	Inclusion index (%)6	n/a	n/a	47	46	
	Total engagement (%)6	n/a	n/a	57	57	
Financial (25%)						
We cover our costs and we	Net operating surplus (£m)	93	78	514	507	Financial (25%)
are prudent	Investment programme (£m) ⁱ	69	101	942	1,007	

6. Final results

¹ The RAG status for the year to date result for the investment programme was corrected to red following the publication of papers on I4 January 2020. The red status indicates that the year to date actuals are more than 3 per cent below the budget. The 3 per cent floor target was approved by Board on 20 November 2019. Prior to this, there was no floor for this measure and spend below budget would have been shown as green.

Our Period 9 scorecard covers 10 November to 7 December 2019.

Safety and Operations

This period we met our overall target for reducing the number of people killed and seriously injured on London's roads. We also met our target for people killed or seriously injured in incidents involving buses. However, we just missed our target for deaths and serious injuries to our customers and workforce on our public transport network. We remain focused on these for the remaining periods to ensure we do everything we can to achieve and in some cases exceed our targets.

Reliability continues to be behind target on London Underground. Action plans are in place to improve train operator attendance and overall rolling stock availability. This target has however been more recently impacted from faults identified on a number of Jubilee line trains, all of which have now been rectified.

We remain on target so far this year for our other Safety and Operations measures.

Customer

All of the key investment milestones have been delivered, and we remain on track for more than half of the homes in the planning applications we bring forward to be affordable.

As planned, we started operating services from Paddington mainline station to Reading under the TfL Rail brand in December which was a key milestone in our ongoing delivery of Elizabeth line services.

Public transport trips also remain on target, and more than 2.8 billion journeys have now been made on public transport since I April.

People

We now know the final results of our annual Viewpoint survey with total engagement at 57 which meets our end of year target.

Our latest workforce diversity results were measured in Period 9. We have made good progress on overall workforce diversity having slightly exceeded both our 'all staff' and senior management representativeness.

Financial²

Our strong financial performance has continued. However, we did not meet our investment target this period. We will continue to monitor this closely over the coming periods.

² The text in this paragraph was updated following the publication of papers on I4 January 2020. The update reflects the correction to the RAG status on the Investment Programme measure on the previous page.

3 Safety and security

Croydon tram overturning

On 3I October, the Crown Prosecution Service (CPS) announced that the driver of the tram would not face a criminal prosecution in relation to the incident on 9 November 2016. The CPS also concluded that no corporate manslaughter prosecutions would be brought against Tram Operations Limited or Transport for London.

The Coroner held a pre-inquest hearing on II December 2019 with a second pre-inquest hearing due on 29 January. The inquest is expected to commence on I4 September 2020. The victims and all others affected by this incident remain in our thoughts. We continue to offer support to those people directly affected as well as the wider community.

The Rail Accident Investigation Branch (RAIB) conducted an independent investigation and published its report in December 2017. It included 15 recommendations to address safety on London's tram network as well as other networks across the country. We have made significant progress to implement these recommendations. The vast majority have been completed, with the remaining in the late stages of implementation. We are in the final stages of introducing new system on all 35 trams that will automatically apply the brakes and bring a moving tram to a controlled

stop if it exceeds the speed limit at designated locations.

We continue to work closely with the Office of Rail and Road (ORR) to ensure they remain satisfied with our progress. We are implementing the recommendations by working closely with all parties concerned, including the RAIB, ORR, Light Rail Safety and Standards Board and the wider UK tram industry.

Bus crash in Orpington

Our sympathies go out to the family and friends of our colleague Kenneth Matcham, a bus driver working for Metroline (part of Go Ahead), who tragically died in a traffic collision involving a car and two buses on 3I October 2019, after a car failed to stop at a junction. We continue to work with Go Ahead and the Metropolitan Police Service (MPS) to find out what happened and will continue to assist with the police investigation.

A visit took place on 4 November to look again at the incident location and consider whether any infrastructure changes could prevent future incidents of this nature. In addition, our Bus Operations team will be commissioning a study into bus cabs under crash conditions to see whether the integrity of these vehicles can be enhanced in future design to improve their safety.

Terror attack on London Bridge

On 29 November 2019, Jack Merritt and Saskia Jones were murdered in a terror attack at a prisoner rehabilitation conference at Fishmongers' Hall, which spilled out onto London Bridge. While this incident did not happen on our network, we are working closely with various agencies including the police, Home Office and the wider Government and London boroughs to help protect London from the threat of terrorism. We have published new security guidance for marauding attacks that start away from London Underground stations but have the potential to move towards them. This guidance includes a requirement for station teams to build links with other neighbouring crowded places so that they can effectively communicate should these incidents happen in future. The guidance also provides advice on the options of evacuating stations prior to a marauding attack or evacuating if the threat is close by.

Crime and antisocial behaviour on public transport

While our public transport networks remain a low crime environment, we have seen an upturn in the number of criminal incidents reported this year, largely driven by increases in reports of theft and pickpocketing. In December, our partners in the British Transport Police (BTP) and the MPS worked together in a significant

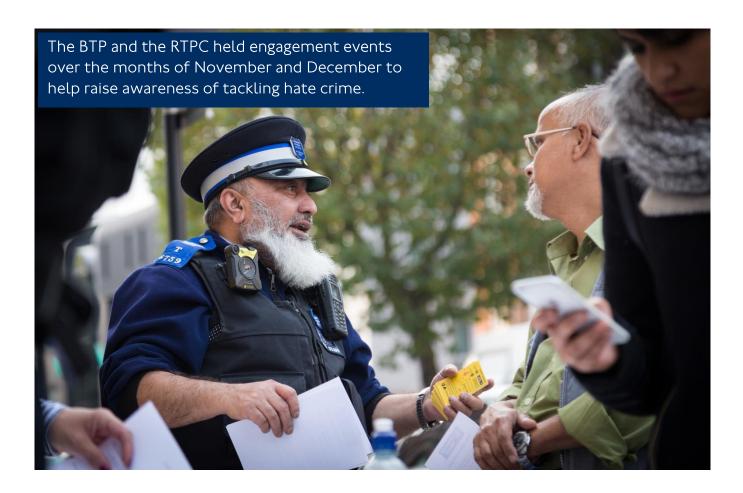
joint operation to take action against theft on our network. Between 9-13 December 2019, hundreds of officers worked with our staff at our busiest stations to give advice to customers on how to protect their belongings and avoid becoming a victim of theft.

From 2 December 2019 to 5 January 2020, the MPS also increased activities to help keep people safe over the Christmas period. Officers from across the force were involved in a number of preventative and engagement activities across London. These included increased patrols of both highly visible and covert officers, knife arches at busy events and locations, local and centrally co-ordinated operations and automatic number plate recognition patrols. These activities are part of our ongoing work to help deter criminals and identify those who demonstrate anti-social behaviour.

Tackling hate crime

On 20 November, the Roads and Transport Policing Command (RTPC) and the BTP held a combined total of 45 engagement events at mosques and Islamic centres to raise awareness of islamophobia and how to report it. A second day of engagement was held on 23 December.

The RTPC and BTP held 32 engagement events, which included visits to community centres and local branches of



charities for disabled people, such as Mencap and Dimensions.

Following the horrific homophobic attack on a lesbian couple who were traveling on a night bus in Camden on 30 May, three teenage boys were found guilty of Section 4a of the Public Order Act 1986 and other offences at Highbury Corner Youth Court on 28 November. One teenager was sentenced to an eight-month youth referral order and fined £100 on 19 December 2019, while a 17-year-old has been given a four-month youth rehabilitation order and supervision. A third boy, 15, was also sentenced to an eight-month referral order, along with community service on 23 December 2019.

A Jewish family were subjected to a torrent of anti-Semitic abuse on the Underground on 22 November and two young men assaulted a rabbi at Stamford Hill London Overground station on 30 November. The two men have since been

arrested for the assault on the rabbi with the trial date set for I7 March, and a suspect was arrested by the BTP in Birmingham in relation to the anti-Semitic abuse on the Northern line and is currently on bail pending a court appearance.

Police activity to support Vision Zero
The MPS continues to support the
Mayor's Vision Zero target to eliminate
death and reduce serious injury on
London's roads by 2041, through a number
of initiatives aimed at making London's
roads safer.

The RTPC continues to run an intensified operation along the AI0 in response to community concern about an increase in anti-social behaviour and speeding in the area. In just one evening in Enfield in November, officers arrested two drink drivers and a disqualified driver, enforced more than 25 offences, including I3 speeding drivers, and seized three

vehicles. They also disrupted and dispersed around 80 vehicles gathered in a local car park. No fatalities have been recorded since the targeted blitz began last year and more than 50 vehicles have been seized.

On 27 November, the RTPC spent a successful 24 hours targeting uninsured drivers as part of Operation Cubo. A total of 65 vehicles were seized and 245 Traffic Offence Reports were issued. In addition, officers made 19 arrests for drink and drug driving, burglary, theft and other offences and conducted 34 stop and searches. This work is vital to making London's roads safer, as uninsured drivers are six to seven times more likely to be involved in a fatal collision.

The RTPC has also been using automatic number plate recognition to identify and stop vehicles involved in crime or featured on their high-harm hotlist.

Operation Sparta was carried out on 22 November, and resulted in 26 arrests, 16 seizures, 57 stop and searches and 17 Traffic Offence Reports.

Safer Travel at Night

From 2 December 2019, our Safer Travel at Night (STaN) campaign returned for three weeks to help keep London safe over the Christmas and New Year period. This project delivers targeted police enforcement and engagement activity to identify, disrupt and deter illegal cab

activity and keep Londoners informed on how best to travel safely at night. Our Taxi and Private Hire Compliance officers were deployed to support the STaN campaign objectives, engaging with the public and taking enforcement action against illegal drivers. Our policing partners in the MPS and City of London Police (CoLP) carried out intelligence led patrols, stopping and checking vehicles and drivers through the night, to keep our customers safe. MPS officers promoted the campaign in all 32 boroughs. The operation saw II,777 leaflets distributed and 285 discrete deployments which involved 9,660 vehicle checks and resulted in a 17 per cent non compliance rate (1647 vehicles).

Alcohol campaign

A new campaign ran during November and December 2019 to help tackle aggressive incidents and accidents linked to alcohol consumption on the London Underground. The campaign aimed to address both passenger safety and abusive behaviour towards our staff, with posters encouraging people to sober up and travel safe, and making it clear that abusive behaviour of any kind will not be tolerated. We will always press for the strongest sanctions against anyone who physically or verbally abuses a member of our team.

Workforce safety

Work-related violence and aggression is a growing concern among our frontline people and our customers and we are looking at what more we can do to protect and support them. On I3 November, we held our third joint work-related violence steering group with our trade unions. We announced a series of proposals for discussion to strengthen support for frontline staff, as well as tackle the common triggers of work-related violence and aggression, such as antisocial behaviour and fare evasion.

These proposals include recruiting a new team of approximately I50 directly employed Transport Support and Enforcement Officers (TSEOs) to prevent work-related violence, aggression and anti-social behaviour and help ensure our customers and our people feel safe across our network. Recruitment is currently underway and we expect the first of our trained officers to be out on the network in spring 2020.

We will also fund 50 additional BTP officers who will form a dedicated work-related violence taskforce to provide visibility, reassurance and enforcement at our priority stations. Plans are underway to ensure these new officers are established to coincide with the first rollout of TSEOs.

The size of our workplace-violence team will also be doubled. This will help provide additional focus on activity to prevent work-related violence and aggression, better support our people when they experience it and increased focus on investigations and prosecutions.

We are also consulting on increasing the size of the London Underground Revenue Control team to tackle fare evasion, which can sometimes trigger violence and aggression towards our frontline staff.

Body worn video cameras will be rolled out to frontline staff, in line with operational requirements, from May 2020 to reduce the risk of them being physically or verbally abused. This technology has been proven to reduce assaults on staff and is already being used successfully in other parts of our organisation, such as Revenue Protection Inspectors. Evidence recorded can also be used to take action against those who harm or abuse our people.

We are currently seeking feedback on these proposals from our people and trade unions. Our fourth joint work-related violence steering group will take place with our trade unions in January to discuss the next steps in taking this important work forward.

On 7 November, we held our third Zero Harm forum for our staff and supply chain colleagues who work on our capital programmes. This forum had our best attendance to date with good representation from TfL and across our tier one, two and three suppliers. The day was hosted by our Director of Projects and Programmes, Nick Fairholme, and focused on the theme of making safety personal.

Road Safety Week

We were proud to help support this year's Road Safety Week, which is the UK's biggest road safety event, and ran from 18 to 24 November. This year's theme was 'Step up for Safe Streets' and we used it as a platform to raise awareness of Vision Zero and to highlight the importance of introducing safer junctions and 20mph speed limits.

We also launched new trial projects, including Travel Safe Priority Areas in Shoreditch and Camden. These are designed to tackle community road safety issues in local areas over a short period of time. Action includes higher visibility and covert policing, Community and Junior Roadwatch sessions. This is where members of the public work with the police to educate drivers about the dangers of speeding, and communicating more information about speeding and road safety to the public. The trial took place at Hawley School in

Camden on 2I November following engagement with local residents. On Shoreditch Inner Road, measures are now in place to tackle a large number of collisions involving motorcycle and moped riders, as well as a higher than average number of people cycling injured at junctions.

Work to reduce road danger includes lowering speed limits to 20mph in central London, with speeds recently lowered on London Road, St George's Circus, Westminster Bridge Road and Newington Butts in Elephant and Castle. Overall, around nine kilometres of roads in the Congestion Charge zone will have their speed limits lowered by March 2020. Work will be completed overnight to minimise the impact on road users and we will use single lane closures to avoid any roads being fully closed.

Bus Safety Summit

We held our third Bus Safety Summit at the Wellcome Collection venue in Euston on 27 November 2019.

The event, sponsored by bus operator Go Ahead London, focused on specific technologies we have been developing and how, with the help of manufacturers, operators and technical assistance, we can get the most out of them.

We are changing our approach around the risks we face on London's congested road

network and how we collaboratively manage these to get the most out of the industry's knowledge and expertise. This change will help us do everything possible to reduce the high rates of casualties. At the event we looked in detail at the introduction of Intelligent Speed Assistance (ISA) to around I,000 vehicles in the bus fleet. Around II per cent of our fleet is now fitted with ISA to reinforce compliance with a digital speed map of London. Vehicle performance can be monitored using data and analysis from the iBus system, which helps us target areas for average speed reduction.

Acoustic Vehicle Alerting Systems

An innovative new bus sound will be trialled on the route 100 from the end of this month, and on other routes across London in the months to follow. It will be played through special speakers inside the front of the bus, to ensure that all road users are aware of electric and hybrid buses when they are moving at slow speeds. Without this sound, these vehicles are almost silent which could pose a safety risk, particularly for people who are blind or are partially sighted.

The trial on the I00 bus route comes ahead of an artificial sound becoming a regulatory requirement for all new 'quiet' running vehicles in 2021. The sound has been developed with input from London TravelWatch and other walking and cycling groups including:

- Guide dogs for the blind
- Royal National Institute for Blind People
- Bus Operators and their drivers
- Union representatives

This has helped ensure that it accommodates the needs of all road users, including pedestrians and cyclists, children and disabled people. Feedback from road users, residents, passengers and drivers will be collected to help develop the most effective future system for all road users.

Bus Safety Standard

There are now 45 buses in the fleet that meet all the requirements of the new Bus Safety Standard – several months earlier than expected. These vehicles are fitted with better visibility mirrors, enhanced anti-slip floors, ISA, early warning of unintended acceleration and acoustic alerting systems for quiet running (mainly electric and hybrid buses) to raise awareness of their presence.

We have also introduced camera monitoring systems to some buses. These are being tested in operation to see if they can supersede conventional mirrors ahead of their planned introduction from 2021. Cameras protrude far less than side mirrors and do not hang down, as well as providing drivers with an enhanced digital view.



The Bus Safety Standard is our most important single measure to help reduce both the severity and number of casualties, and over time will evolve to reflect the more advanced technologies that become available for adoption by the bus industry. This will contribute significantly to helping us reach our target of no-one being killed on or by a bus by 2030, and no-one killed or seriously injured on our road network by 2041.

Almost 5,000 of London's 24,700 bus drivers have attended our innovative bus driver training course, Destination Zero. The learning material and virtual-reality headsets give a drivers' eye view of potential highway risks and invite attendees to select the best course of action under the circumstances.

Bus driver fatigue management

We are working with our bus operators to develop fatigue risk management systems following the publication of independent research by Loughborough University and the Swedish National Road and Transport Institute. We are launching a £500,000 Bus Fatigue Innovation Fund in early 2020 so operator-led initiatives can attract financial support and we can incentivise more advances in this area.

To provide advice to drivers and operational staff at garages, we jointly launched a wellbeing bus at Metroline's Perivale Garage on 4 November. This was a joint project involving us, the Unite trade union and bus operators to support wider work on health and fatigue management.

The vehicle stays at garages and is staffed by occupational health service provider Medigold Health. These specialist staff offer guidance and health screenings to our people to help them identify issues or risk factors that could contribute to poor health and fatigue.

4 Healthy streets and healthy people

Walking and cycling

Cycleways

We continue to make good progress on the development of the wider Cycleway network, with a focus on completing and opening whole or significant sections of these routes. We have constructed more than I40km of cycle routes since 2016 and have a further five kilometres under construction through inner and outer London.

Design work is also progressing well to rebrand existing high-quality cycling routes to Cycleways, with 50 per cent of the designs finished at the end of December 2019. Cycleway 6 is now extended from Elephant and Castle to Kentish Town. The rebranding of C28 along Portsmouth Road in Kingston also started in December 2019, with completion forecast by the end of March 2020.

Cycleway 4 – Tower Bridge to Greenwich

Cycleway 4 construction is making good progress along the A200 Jamaica Road and at Rotherhithe Roundabout, with a section of the cycle route along Tooley Street already open. Work for these sections are on track to be completed by spring 2020. The Greenwich section of the route along Creek Road commenced on 20 November and is due to be completed by summer 2020. We are also preparing plans with a view to starting construction for the remaining section

along Evelyn Street in May 2020. Southwark Council has completed the consultation for the Lower Road section of the route, which also includes its proposals to transform the area. The council is reviewing the issues raised from the consultation responses and will publish a summary of the consultation results in early 2020.

Cycleway 9 – Olympia to Brentford

Following the completion of the detailed design for the Kew Bridge section in November 2019, advanced work at Kew junction commenced on 12 December, ahead of the main works that started on 22 December. This enabled the most disruptive work to take place over the Christmas period where traffic flows at this location were at their lowest. The London Borough of Hammersmith & Fulham Cabinet approval to construct the scheme within their borough was granted on 2 December 2019. Advanced works at the Hammersmith Gyratory is planned to start in early 2020 by the borough. Construction along Kew Bridge Road, within London Borough of Hounslow's highway, is planned to start in February 2020 following the completion of its traffic order process.

Cycleway between Hackney and Westferry

Following publication of the public consultation for this route on 3 October 2019, advanced works started in late

November 2019 with the relocation of a cycle hire station, bus shelters and utility diversions. The main construction works are due to start in early 2020.

We are continuing to work closely with the London Borough of Tower Hamlets to coordinate the Grove Road proposals with its planned Liveable Neighbourhood scheme in the same area. The northern section of the route is being led by the London Borough of Hackney, which is finalising plans for the first section, which runs through Frampton Park Road, Ainsworth Road and Skipworth Road, and discussing next steps within the council. Further work on options for the Isle of Dogs section is being led by Tower Hamlets Council and they are currently investigating alternative alignment options. We will continue working with Tower Hamlets Council to develop plans for an improved cross-river ferry service to consider how cyclists can quickly and conveniently travel between Rotherhithe, Canary Wharf and beyond. This route will now finish at West India Dock Road, connecting to CS3.

Cycleway between Camden and Tottenham Hale

We are continuing design and modelling assessments for the route that is planned to run between Camden and Tottenham Hale. This review has enabled us to further refine the proposals and to engage with key stakeholders including

the relevant local councils. These activities aim to ensure the scheme that goes out to public consultation in 2020 is the best that can be achieved for the local communities and road users along this route and surrounding areas.

Future Cycleway routes

Design work continues on several major new cycle routes. In addition to the public consultation for the first route between Hackney and the Isle of Dogs, other public consultations that have recently closed include the proposed Cycleway between Ilford and Barking Riverside and the Cycleway between Lea Bridge and Dalston, the second phase of which finished consultation in mid-December.

On 6 January, we also launched a public consultation for a Cycleway between Woolwich and Charlton. This is the next phase of work to create a route that will connect with Cycleway 4, currently under construction, and the Greenwich Town centre scheme that we are working on with Greenwich Council.

Walking and cycling improvements

The works are progressing well to deliver 3.5km of upgraded shared-use facility for pedestrians and cyclists and a new off-carriageway, bi-directional cycle track along the A40 between Wood Lane and Acton.

Works to install the new cycle track and footway are complete between Savoy Circus and Gibbon Road and are progressing well between Leamington Park and Kathleen Avenue, including installation of new signalised cycle crossings at junctions. Upgrades to the existing shared-use facility between Wood Lane and Savoy Circus are now complete and work has commenced on improvements to pedestrian and cycle crossings at Savoy Circus.

The consultation report for the proposed improvements between Wood Land and Notting Hill Gate was published on 5 November 2019. We continue to work with the London Borough of Hammersmith & Fulham to finalise plans for their section of the route, while developing a series of improvements for the section in the Royal Borough of Kensington and Chelsea to address concerns raised during the consultation. We are engaging with the borough and key local stakeholder groups to discuss these changes.

Mini-Hollands

The Mini-Hollands programme involves 98 infrastructure schemes and five behaviour change schemes across three outer London boroughs – Waltham Forest, Enfield and Kingston. Of the I03 Mini-Hollands schemes, 32 are now complete, including the AI05 Green Lanes scheme – a five-kilometre protected cycle route

linking Enfield Town to Palmers Green and the Kingston station plaza, which sees improved accessibility for both pedestrians and cyclists. At the end of this financial year, Waltham Forest will complete their Mini-Hollands funded programme. Schemes currently under construction include protected cycle routes on Wheatfield Way in Kingston and on the Al010 in Enfield. Further schemes are progressing through design and consultation, including several cycle links and Enfield's Quieter Neighbourhoods.

Santander Cycles

We installed I05 new Santander Cycles docking points around Network Rail stations in central London by the end of December 2019, boosting connectivity between different transport modes and enabling commuters and visitors arriving into London to pick up a cycle easily.

New docking stations were installed around Paddington, Blackfriars and Victoria stations, as well as near Queensway Tube station. Customers who use the docking station along Tooley Street near London Bridge station will also benefit from an expansion of ten extra docking points for cycles. Having more docking stations around key transport hubs will make it easier for people to make cycling a part of their everyday routine.



We also encouraged people to get active during the Christmas and New Year period, by offering everyone 24-hours of free 30-minute journeys on Santander Cycles. This offer was promoted to customers through posters, emails and social media and more than 7,000 journeys were made in December using the code.

Walking and cycling grants

On 19 November, we awarded more than £400,000 of grants to 60 community and not-for-profit groups that encourage local people to walk and cycle more. The winning projects target a range of traditionally underrepresented groups, such as people with physical disabilities and refugees and asylum seekers, enabling them to feel confident while walking and cycling in London. This is the first year the grant has included walking projects, with more than a third of projects focusing on walking. These

schemes help people to connect with their local communities, learn new skills, get active and improve their physical and mental health.

Sustainable Travel: Active, Responsible, Safe (STARS) programme

On 13 January 2019, we launched a campaign among teachers and parents to raise awareness of the STARS accreditation scheme for schools. This programme makes a real difference to the lives of young people in London by helping them travel in safer and more sustainable ways. Growth in the programme will help increase active and sustainable journeys to school and reduce car use. On average a STARS school achieves a six per cent decrease in car usage each year.

Air quality and the environment Ultra Low Emission Zone

The Ultra Low Emission Zone (ULEZ) expansion project enlarges the existing

central London ULEZ up to the North and South Circular Roads. The Mayor announced the scheme on 8 June 2018, for delivery in October 2021. The project is now well into the design phase with work progressing to define the system, infrastructure and operational changes needed to expand the scheme. Work is also underway with the supply chain commercial agreements that are required. Survey work has commenced on the camera and signage infrastructure and the signage designs have been completed and submitted to Department for Transport (DfT) for approval.

The first phase of updated traffic modelling has been completed and engagement with affected boroughs is underway. Work continues to develop a largescale marketing and communications plan to ensure there is broad awareness of the scheme well in advance of the expansion.

Low Emission Zone 2020

The existing Low Emission Zone (LEZ) standards will be made tighter from October 2020. The emissions standards for lorries, vans and other specialist heavy vehicles over 3.5 tonnes as well as for buses, minibuses and coaches more than five tonnes will change from Euro IV to Euro VI. Owners of vehicles not meeting the tougher emissions standards will need to pay a daily charge to drive within the LEZ. To ensure a successful launch we are

making updates to our website and business and enforcement operations systems. These changes will also be supported by a comprehensive communications campaign. A joint marketing campaign for both LEZ 2020 and the HGV Safety Permit Scheme, including the Direct Vision Standard to reduce blind spots, was launched in October 2019. This was also supported by the successful launch of a joint Vehicle Registration checker, targeted at HGV drivers for both LEZ 2020 and the HGV Safety Permit Scheme.

London Underground

Every year, we carry out routine monitoring for respirable airborne dust exposure on the London Underground network. London Underground's air quality is safe and within the Workplace Concentration Exposure Limit of 4 mg/m3, but to improve air quality further and to increase our understanding, we are doing more research and trialling innovative solutions. These include encapsulating dust with suppressants, deep cleaning the dustiest station platforms and 50 metres of the tunnel either side of these stations, track trolley and vacuum cleaning on sections of the Piccadilly line, investigating whether rail grinding dust can be captured at source, and assessing the impact of capturing more foot trodden dirt at station entrances. In addition, we are undertaking initial trials of air purification and filtration systems and assessing the feasibility of using electrostatic precipitators on our deep Tube lines. We are in the process of purchasing a Local Exhaust Ventilation plant to capture welding fumes at their source and we aim to have this in use by the end of January 2020. The next round of routine monitoring will take place in February 2020 and will include even more locations to improve our understanding of dust levels across the network.

We continue to work to minimise noise and vibration levels whilst running a safe and reliable service for our passengers. We currently spend approximately £150m each year on track improvements, including a dedicated annual budget of £1m to develop rail noise technology.

Rapid electric vehicle charging

To support the growing number of Zero Emission Capable (ZEC) taxis and the wider take-up of electric vehicles, we are spending £18m and working with the boroughs and other organisations to build a network of rapid charge points across London. The total number of charge points installed is currently 232 and we are on track to achieve 250 by March 2020, which will be a significant step towards our target of having installed or supported the installation of 300 rapid charge points by December 2020.

On 28 December 2019, a brand-new charging hub opened in Stratford, allowing six vehicles at a time to rapid charge. The six 50kW rapid chargers provide connectors that are fully accessible to all electric vehicle drivers, including taxis, allowing them to pay for charging with a simple tap of a contactless card or smartphone, with no registration or membership required.

At present, there are more than 3,072 ZEC taxis licensed in London. Of the rapid charge points that have been installed under this scheme. 73 are dedicated to taxi use. We are working with the taxi trade to identify the most favourable locations and are focusing on the central charging zone for taxi-dedicated sites following feedback from the taxi trade. We are also developing designs for two hub sites, one in Greenwich and another in the City of London, which will be complete in summer 2020. The hubs will consist of a cluster of rapid charge points to support both taxi and public electric vehicle users. We are also in discussion with several third parties about supporting their potential hub sites across London.

Making our bus fleet greener

The ultra-clean proportion of the bus fleet now stands at 87 per cent following the continuation of our programme to retrofit mid-life buses and replace older vehicles. We expect to raise all remaining vehicles to this standard or better by autumn 2020. We now have more than 200 electric vehicles and have progressively introduced double-deck electric buses into the fleet on routes 43 and I34, which operate between Hallwick Park and London Bridge Station and North Finchley Bus Station and University College Hospital/Euston Road respectively.

By summer 2020, we expect the total electric fleet to rise to around 300 buses, which will continue to give London one of the largest zero-emission fleets in Europe. The new buses have been welcomed by many customers for being quieter, cleaner and for having new features like USB charging points – helping us raise customer satisfaction too.

Direct Vision Standard

We have opened the application process for permits under the Direct Vision Standard. This requires all HGVs of more than I2 tonnes to hold a safety permit to enter London from 26 October 2020. HGVs meeting the Direct Vision requirements will be granted a permit on application. Operators of vehicles that do not meet the Direct Vision Standard will be required to demonstrate that other safe system improvements have been fitted to the vehicle.

Safer Junctions

In April 2017, the Safer Junctions list highlighted the 73 most dangerous junctions on our road network, which are defined as those with the highest vulnerable road user collision rates between 2013 and 2015. Following completion of Highbury Corner in September 2019, we have now completed 3I of these junctions and mitigation measures have been introduced to reduce road danger. Construction of Camberwell town centre Safer Junction began in October, and work continues on the Rotherhithe Tunnel junction as part of Cycle Route 4. The programme is on target to complete 41 junctions by May 2020, in line with the Mayor's Vision Zero commitment.

Public consultation reports have recently been published on the following Safer Junction projects:

- Kingsland Road/Balls Pond Road
- Kennington Park Road/Braganza Street
- East India Dock Road/Birchfield Street
- Edgware Road/Harrow Road
- Clapham Road/Union Road
- Holloway Road/Drayton Park/Palmer Place
- Camden Street/Camden Road

Detailed designs for these projects have been completed and construction is expected to commence early in 2020.

Lowering speed limits

Implementation on the first phase of the central London 20mph speed limit, installing 20mph signs and carriageway roundels, was completed in December 2019. Detailed design work has now been completed on the second phase of the project, to install seven raised traffic calming features on our road network. In March 2020, we will launch the 20mph zone in central London. Marketing communications will take place ahead of the launch of the scheme to help raise awareness.

Dial-a-Ride vehicles

The roll out of I66 new ultra-clean Dial-a-Ride minibuses is underway with 40 of the latest specification vehicles now in service. These have been ordered to allow the service to run in the enlarged ULEZ from 2021. This follows an earlier order for 90 vehicles to comply with the ULEZ area from 8 April 2019.

The most recent vehicles have enhancements like autonomous braking at low speed, enhanced CCTV, improved heating and air conditioning to improve comfort and more tinted windows to reduce glare. They have also been modified to make them easier to access for passengers with new handrails at the

front door and saloon area, and an easier to deploy and stow away ramp at the front door. We are currently in the process of retrofitting the first 90 buses with these modifications.

Old Street

Construction is progressing at Old Street Roundabout, where a new design will bring safety improvements to cyclists and pedestrians by providing new and improved crossings, fully segregated cycle lanes, and a new public space with an accessible main entrance to the Underground station and the shopping arcade.

Following the temporary traffic switch in May 2019, which closed the southeast arm of the roundabout, the main works have been underway with construction of the new station entrance to Old Street Underground station near to Cowper Street, which will be completed later this spring. Utility diversions have all been completed, including a difficult and complex diversion of a 24ft high-pressure water main by Thames Water, which was completed on 18 November 2019.

Other associated highways and drainage works in the southeast arm of the roundabout have also progressed. Within the roundabout peninsula area, site clearance and station roof strengthening works are underway, including installation of a temporary goods lift for the retail

users within the sub-surface shopping arcade area. This has enabled removal of the existing goods lift and works to commence on the substructure elements for the new main entrance to Old Street Underground station situated on the roundabout peninsula.

From 10 to 12 April 2020, a second temporary traffic switch will take place to reopen the southeast arm of the roundabout and close the northeast arm. This will enable completion of the station roof strengthening works and creation of the opening in the peninsula for the superstructure elements for the new main station entrance. A final traffic management switch will take place in the summer to reopen the northeast arm of the roundabout and permanently close the northwest arm facilitating the construction of the public space, new passenger lift and new main station entrance in the peninsula area.

Hammersmith Bridge closure

We have committed £25m to progress the concept design, together with advanced works on Hammersmith Bridge, which are progressing to plan. While this activity continues, we will work with the borough on the likely final cost and a full funding status. We are also working up the feasibility of building a temporary foot and cycle bridge alongside the main bridge. The intention is that pedestrians and cyclists can be moved off the main

bridge to speed up the repairs to the structure.

Rotherhithe to Canary Wharf crossing

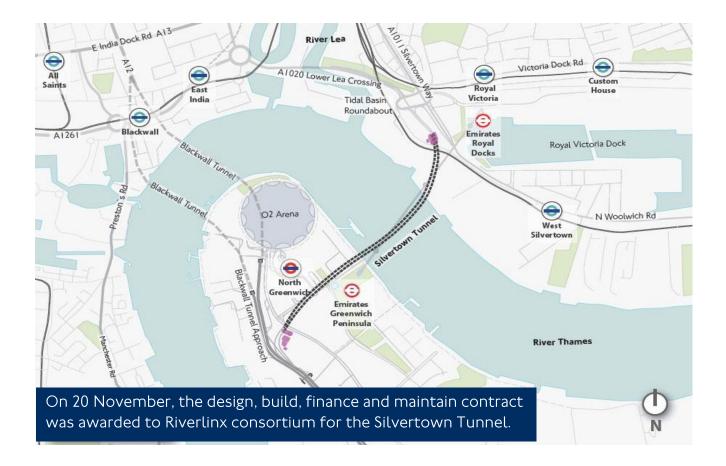
We are investigating the feasibility of providing a new pedestrian and cycling ferry crossing between Rotherhithe and Canary Wharf to improve cross-river connectivity and drive access and growth in the area. We are currently nearing completion of the options analysis, which is looking at our preferred pier locations, ferry type and delivery and operating model. These activities will better inform our forward programme ahead of starting work on concept design, procurement preparation and planning and consents preparation with the view to starting a procurement exercise in the summer.

Rotherhithe Tunnel

A concept design for the refurbishment of the Rotherhithe Tunnel is progressing to plan and is due to be completed in the summer. A separate work stream to install additional protective measures at the tunnel entrances and prevent overheight vehicles entering the tunnel has commenced and is planned to be operational by the summer.

Silvertown Tunnel

Silvertown Tunnel will also provide significant crossover, increased public transport capacity in east London and help reduce traffic congestion at the Blackwall Tunnel.



The new twin-bore tunnel, within the extended ULEZ, will help eliminate congestion and the problem of standstill traffic to deliver an overall improvement in air quality. The tunnel will improve cross-river public transport connections, with around 37 buses an hour during peak periods in each direction using the tunnel, including the current six single-deck buses per hour that run through the Blackwall Tunnel. All of the new double-deck buses that use the Silvertown Tunnel are expected to be zero-emission from launch. These routes will link places such as Stratford and Canary Wharf to Eltham, Grove Park and Charlton, unlocking new journey options and supporting wider regeneration across the Greenwich Peninsula and Royal Docks.

Following an extensive tender process, the design, build, finance and maintain contract was awarded to the Riverlinx consortium on 20 November 2019. Prebuild activities to facilitate a smooth start

to construction are well underway.

Design for the replacement of North

Greenwich car parks is complete and work
is ongoing with utility companies to agree
how to progress early service diversions.

Monitoring of both existing structures
and noise continue ahead of the start
of construction.

Arrangements have been agreed with the Greater London Authority and Silvertown Homes and discussions are ongoing with third parties to put these in place, including negotiating land access. During the tunnel's construction, we will work to ensure that any disruption to local residents and businesses is kept to an absolute minimum.

Liveable Neighbourhoods

Liveable Neighbourhoods are a key part of how we work with boroughs to deliver the Mayor's Transport Strategy, by creating locally led, attractive, healthy and safe neighbourhoods that encourage walking, cycling and public transport use and reduce car journeys.

Progress continues on the current I8 Liveable Neighbourhood projects. Public consultation commenced on the Deptford Parks project in the London Borough of Lewisham on 4 November 2019. Also, on 19 November 2019, and as part of the third bidding round, we received 19 new bids from across the capital. The boroughs that submitted bids were:

- Barking & Dagenham
- Bexley
- Brent
- Ealing
- Enfield
- Hammersmith & Fulham
- Haringey
- Harrow
- Hillingdon
- Hounslow
- Islington
- Kingston
- Richmond
- Sutton
- Tower Hamlets
- Waltham Forest
- Wandsworth

The bids will be assessed over the next few months and we intend to announce the winning bids in March 2020.

Demand-responsive bus trial

Our second I2-month demand-responsive bus trial – SlideEaling – launched on I3 November 2019 in the London Borough of Ealing where up to 40 per cent of residents and commuters make their journeys by private car or taxi. It is operated by public transport group RATP which already operates many bus routes in London, and the Volkswagen mobility subsidiary, MOIA, which specialises in ridesharing in Hannover and Hamburg.

We are now exploring whether this more flexible, personalised option can complement our existing bus network, and what role it can play in moving people from private vehicles onto public transport. It can be booked for a flat-rate fare of £3.50, and £2.00 for each additional passenger, and operates from 06:00 to 01:00, seven-days-a-week, covering an area from Southall in the west to the North Circular, and the A40 to Boston Manor in the south of Ealing.

Trips can be booked on a downloadable app or by phone, enabling people to travel immediately or within the next 30 minutes. Freedom Passes and the English National Concessionary pass are accepted. The customer inserts their virtual pick-up point and destination, and the app advises when, where and what bus will be arriving. The bus calls at predetermined safe stopping points within the service area.

We continue to run another I2-month demand-responsive bus trial, GoSutton, which is due to end on 27 May 2020. The recently expanded service area now includes most of the Sutton borough. Operated by Go-Ahead, with technology from ViaVan, patronage has consistently risen since the launch on 28 May 2019 and customer feedback is very positive. It also focuses on a high car use area and connects people to local destinations including hospitals and rail stations.

Bus priority

We have completed two schemes on our road network so far this year at the A503 Seven Sisters Road, and the AI0 Kingsland Road in Hackney. A further project on Madeley Road, Ealing and another four projects, A2I Tweedy Road, A23 Brixton town centre, A2 Old Kent Road and the A40 Greenford Roundabout are currently programmed for delivery by the end of the financial year.

We have completed the delivery of 67 traffic signal technology projects throughout London to help further improve efficiency. We continue to work with the boroughs to progress delivery of over 100 bus priority schemes on their road network this financial year.

Bus driver facilities

Good progress has been made since the Mayor announced increased funding for bus driver facilities in February 2018. We are now working towards the final target of having permanent facilities on all 42 priority bus routes by the end of March 2020. To date, we have installed 30 permanent facilities across London, leaving I2 temporary sites to be made permanent before the end of March 2020. Where possible we are adapting existing infrastructure to ensure integration with the local environment.

Tackling the climate emergency – zero carbon infrastructure

We are part of the Net Zero Infrastructure Coalition with Mott MacDonald, Skanska and other groups. The aim of this coalition is to drive the transition of the UK's economic infrastructure to support a netzero carbon economy.

In December, Mott MacDonald facilitated a workshop focused on how we could best manage and reduce lifecycle carbon emissions across our infrastructure and major projects. The business case for reducing carbon is compelling and helps with our sustainable finance agenda as well as supporting our ongoing action to tackle the climate emergency.

December also saw the Piccadilly Line
Upgrade programme hold a carbon
baselining workshop. We mapped out
the operational and capital carbon
requirements for the programme with the
aim of developing a proof of concept of
how carbon can be modelled at a

programme level and roll out the methodologies across the organisation.

Water fountains

We have been working to install water refill points at London Underground and Overground stations. We have two refill fountains operational at Highbury & Islington and West Hampstead and a third was switched on at Imperial Wharf Overground station at the end of November 2019. A further eight stations are close to completing installation subject to planning and approvals and further locations have been identified if additional funding is made available. We are developing standards and specifications for refill fountains in all future station upgrade works.

Operational safety and compliance

We are developing a consolidated compliance and enforcement programme to support a more versatile policing and on-street services operation. This will contribute toward making greater efficiencies and supporting safe, secure and reliable journeys. We are currently in the process of defining the project scope, with a view to confirming a delivery strategy next year.

This programme includes procuring systems and services to support us licensing taxi and private hire vehicles (PHV), drivers and operators. We will ensure that business continuity is

maintained; protecting customers and ensuring vehicles are safe, accessible and meet strict environmental standards. The new system aims to provide an efficient service to taxi and PHV owners, drivers and operators.

Events, protests and incidents

Through late November into December and January, we traditionally see a slowdown in largescale events across London. This is replaced with many local Christmas focused festivals and markets, as well as an increase in people attending the major shopping hubs in and around the Greater London area, which are monitored closely to provide bus and transport services.

On 4 December 2019, NATO leaders attended a conference at The Grove Hotel in Watford, Hertfordshire. In advance of this, all delegates were invited to attend events held in London on 3 December. Road closures were implemented to allow for critical vehicle movements. Some planned protest activity took place in the Trafalgar Square and Buckingham Palace areas in the evening.

The year ended with the annual New Year's Eve 'Marking of Midnight' celebration where more than 100,000 spectators visited central London to view the fireworks display.



Extensive road closures in central London were phased in throughout the afternoon to create safe viewing areas and once again the display played its part in showcasing London as a global city.

Extensive work took place to make the event a success and manage the disruption to the bus and road network. This was followed by the New Year's Day Parade, with some road closures staying in place. The parade followed its traditional route from Piccadilly to Parliament Square.

Collaborative Christmas roadworks

We delivered several collaborative works over the festive period, taking advantage of this quieter time to reduce the impact on sensitive areas of the bus network. The first was a blockade on Bishopsgate/Norton Folgate for two major crane operations, works by UK Power Networks (UKPN) and Thames Water, as well as the build of a bus driver

welfare facility, saving weeks of potential disruption. We also had major gas works on Upper Thames Street on Cycle Superhighway 3 for works to reduce the impact on commuting cyclists at a time of heavily reduced usage. This is just a small sample of the huge amount of collaborative works we have carried out this year at 2,668 works sites to date.

Uber private hire licensing decision On 25 November 2019, we informed Uber London Limited (ULL) that we would not renew its private hire vehicles (PHV) operator's licence as we had concluded that it was not "fit and proper" at this time.

As the regulator of taxi and private hire services in London, we are required to make a decision on Uber's fitness and propriety. Uber has made a number of positive changes and improvements to its culture, leadership and systems in the period since the Chief Magistrate granted

it a licence in June 2018. However, we have identified a pattern of failures by the company, including several breaches that placed passengers and their safety at risk. Despite addressing some of these issues, we do not have confidence that similar issues will not reoccur in the future, which led us to conclude that the company is not fit and proper at this time.

A key issue identified was that a change to Uber's systems allowed unauthorised drivers to upload their photos to other Uber driver accounts. This allowed them to pick up passengers as though they were the booked driver, which occurred in at least 14,000 trips – putting passenger safety and security at risk. This means all the journeys were uninsured and some passenger journeys took place with unlicensed drivers, one of which had previously had their licence revoked by us.

Another failure allowed dismissed or suspended drivers to create an Uber account and carry passengers, again compromising passenger safety and security. Other serious breaches have also occurred, including several insurance-related issues. Some of these led us to prosecute Uber last year for causing and permitting the use of vehicles without the correct hire or reward insurance in place. While Uber has worked to address these issues, they highlight the potential safety

risk to passengers of weak systems and processes.

This pattern of regulatory breaches led us to commission an independent assessment of Uber's ability to prevent incidents of this nature happening again. Following this work, we concluded that we do not currently have confidence that Uber has a robust system for protecting passenger safety, while managing changes to its app.

ULL submitted an appeal to Westminster Magistrates' Court on I3 December 2019. Pending the outcome of the appeal, ULL may continue to operate and we will continue to closely scrutinise them, including the need for ULL to meet the 20 conditions set by us in September 2019. Particular attention will be paid to ensuring that the management have robust controls in place to manage changes to the Uber app so that passenger safety is not put at risk. An initial procedural hearing for the appeal process will take place on I3 February 2020.

Judicial review proceedings have been issued against TfL by the United Trade Action Group Limited challenging whether ULL is entitled to continue to operate pending the outcome of the appeal. We do not consider there is any basis for the claim and have responded to the Court that permission for judicial

review should not be granted and a decision is awaited.

Topographical tests for PHV drivers

There is a statutory requirement for PHV drivers to satisfy us that they have an appropriate level of general topographical skills. As part of their licence application process, applicants are required to take a TfL topographical skills assessment at a centre approved by us. Of the 108,000 licensed private hire drivers in London, the vast majority take our own robust topographical skills assessment. However, we currently allow a small number of concessions for applicants who can demonstrate that they already satisfy the topographical skills requirement, such as providing evidence of a relevant vocational qualification.

Vista Training Solutions, which provides some of these vocational qualifications, has been identified as carrying out fraudulent activity by presenting certificates to candidates who have not completed the required training. While issues around the qualifications are a matter for the relevant examination board, Pearson, and the qualifications regulator, Ofqual, we were extremely concerned to learn that certificates could be obtained in this manner and used as part of an application to become a private hire driver in London.

Knowledge of London and Topographical testing move to Baker Street

On 23 December 2019, the Knowledge of London, our examination process for prospective taxi drivers and our private hire applicant topographical skills assessments moved to TfL's premises at 210-212 Baker Street. This new location provides us with the opportunity to expand our capacity for topographical skills assessments.

We have completed a full investigation and have now revoked the licences previously issued to 143 licensed private hire drivers who obtained their qualification from Vista Training Solutions. Similarly, all new applications received with a certificate issued by Vista Training Solutions have been refused. We have not been provided with any evidence about other colleges providing a similar service. However, should any further instances be brought to our attention we will consider the appropriate licensing action. In addition, from I February 2020, the relevant vocational qualification concession will be removed, and all new applicants will need to carry out a TfL topographical skills assessment at a TfL centre.

Taxi and Private Hire Health and Wellbeing Forum

In early December, we hosted a Taxi and Private Hire Health and Wellbeing Forum, where we invited experts to speak to trade representatives and licensees about a range of health and wellbeing topics. I opened the forum which helped to raise awareness of the importance of health and wellbeing within the taxi and private hire industries by bringing together a range of specialist organisations that showcased the advice, support and help that is available to drivers. The forum was well received and provided a valuable opportunity to discuss how we and industry groups can continue to work together to help reach a wide audience in the trade and ensure they have access to the tools they need to support their health and wellbeing.

5 A good public transport experience

Elizabeth line

On 10 January, Crossrail Limited issued its latest update on progress to complete the Elizabeth line and confirmed that it plans to open the central section between Paddington and Abbey Wood in summer 2021.

This latest forecast is based on the current progress with completing software development for the signalling and train systems along with safety assurance for the railway so that intensive operational testing can begin in 2020.

Following the opening of the central section, full services across the Elizabeth line route from Reading and Heathrow in the west to Abbey Wood and Shenfield in the east will commence by mid-2022. This will connect the eastern and western sections straight through central London.

Health and safety remains CRL's number one priority and overall performance remains under scrutiny. With every incident and high potential near miss, CRL will establish the root causes of the incident and will share the learning across the programme and with the wider industry.

The central section remains on schedule to be substantially complete by the end of the first quarter this year except for Bond Street and Whitechapel stations where work will continue until the end of

2020. Fit-out is nearing completion at many stations with all physical works complete in the tunnels, shafts and portals. CRL has increasing confidence that Bond Street will be ready to open with the rest of the central section.

Good progress continues to be made with completing software development for the signalling and train systems along with the safety assurance for the railway. CRL expects to transition into intensive operational testing of the central section, known as Trial Running, in Autumn 2020.

After Trial Running, a final phase known as Trial Operations is required before the Elizabeth line can open for passenger service. Trial Operations involves people being invited onto trains and stations to test real-time service scenarios.

TfL Rail services to Reading

We successfully launched full services to Reading on I5 December. Passengers on the route can now use contactless pay as you go between London Paddington and Reading. TfL Rail fares are aligned with National Rail fares. Daily and weekly capping are expected to be introduced in spring 2020 and will make some journeys cheaper.

During peak times, services to and from Reading will run every I5 minutes, and two trains an hour will run during off-peak times.

London Overground

Frequency increases

London Overground services increased from four to five trains per hour during peak periods on both the Richmond and Clapham Junction branches on Sunday I5 December, providing a more frequent ten train per hour service on the busiest part of the route between Willesden Junction and Stratford. The introduction of these additional trains will also enable a more even service to operate on both branches throughout the day. This change will help contribute to the Mayor's objective of a good public transport experience due to the improved journey times and reduced crowding on this important transport link.

Earlier services on the Gospel Oak to Barking route

On Monday 16 December 2019, two additional early morning London Overground services were introduced on the Gospel Oak to Barking route to meet growing customer demand. The new weekday services depart Barking at 05:39 and 05:54. This builds on the introduction of the new electric trains earlier last year.

London Underground

Northern Line Extension

The Northern Line Extension project includes a twin-tunnelled extension from Kennington to a new terminus at Battersea Power Station, via a new station at Nine Elms. It is expected to be completed in autumn 2021.

Over Christmas Day and Boxing Day we commissioned the points connecting the extension to the existing Northern line in the Kennington loop. The new points mean a reduction in the number of Northern line trains that can wait in the loop from three to two. We have introduced a new interim timetable to handle this.

At Nine Elms station, we have completed the entrance glazing, and are constructing the canopy frame above the station entrance. Transformers have now been delivered, enabling UKPN to carry out electrical works in the street, installing the wires to connect mains electricity to both Nine Elms and Battersea stations.

At Battersea station, we handed the west end of the site to Battersea Power Station Delivery Company on Friday I November 2019 as planned, for construction of the over-station development. Tunnel vent fans have been delivered to site and lowered into the fan room while installation of the third escalator bank has started. The connection into the existing combined Thames Water sewer has been made and the installation of a new drainage pipe is in progress.

For the first time, the UKPN transformer rooms have been energised at Kennington Green and Kennington Park. Achieving UKPN power-on is a key step towards getting the new extension operational.

Public health and station vent works are going well at Kennington Green. In the basement areas at Kennington Park, we continue to install key cabling and bracket work. Signal sighting trains are running in the Kennington Loop to ensure that signals and signal-related signage are in the correct position for drivers.

Modernising the Circle, District, Hammersmith & City and Metropolitan lines

We are installing a new digital signalling system on the Circle, District, Hammersmith & City and Metropolitan lines. The first section was successfully introduced in early 2019 between Hammersmith and Latimer Road. In September 2019, we extended operation of the new signalling system to Euston Square on the Circle and Hammersmith & City lines, and from there to Finchley Road on the Metropolitan line, and to Paddington on the District and Circle lines. This section includes the major junctions at Baker Street and Edgware Road, with the latter enabling the closure of a signal cabin that had routed trains manually for 94 years.

As with any project of this scale, some disruption was planned for. However, despite extensive testing of the new signalling outside operating hours, we have had issues with software reliability on Metropolitan line trains. This has been causing disruption and delays to some

journeys. We are working with our signalling supplier to find robust fixes and have already taken a number of steps that have resulted in gradual improvements to reliability. These include:

- Installing a software upgrade for all mobile radio units on the 192 trains that were not communicating reliably
- Investigating the key locations where incidents took place, and replacing assets, infrastructure and radio equipment to further improve connectivity
- Placing dedicated extra staff, technical experts and response managers, on duty at key points to enable us to respond to incidents immediately
- Making further software upgrades to the system

This is a move in the right direction, and there is more work to be delivered to further improve and offer a more consistent service. We continue to update customers on this work.

Once the modernisation of the four lines is complete, the benefits will include a one third increase in capacity, hugely improved frequency from 28 to 32 trains per hour, and quicker journey times. This is one of the most important upgrades in the history of the Tube network.

Bank station

We continue to make significant progress, with the project now nearly two thirds complete. The work on the new station entrance on Cannon Street is progressing ahead of programme. We are creating dividing walls for the operational rooms that are spread across II floors. This is in preparation for the fit-out stage that will equip the rooms, which will start in the spring next year.

We have completed the excavation of the last two new connection cross passages from the new escalator barrel to the Central line. These will reduce journey times from the Central line to the Northern line and DLR. Secondary lining works to the new southbound Northern line platform tunnel are now completed, and the structural works that will house the two new moving walkways are also nearing completion. Secondary lining works to the escalator barrel from the new ticket hall down to the Northern line have also begun.

Victoria station

At Victoria, we have built a new north ticket hall and 300 metres of subways. We have increased the size of the south ticket hall by 50 per cent. Step-free access to all platforms is now meeting the needs of the 83 million customers who use the station each year.

The overall station and the surrounding buildings are largely complete. A design study is underway to identify how best to use the space at ground level formerly occupied by retail units on 175-179 Victoria Street.

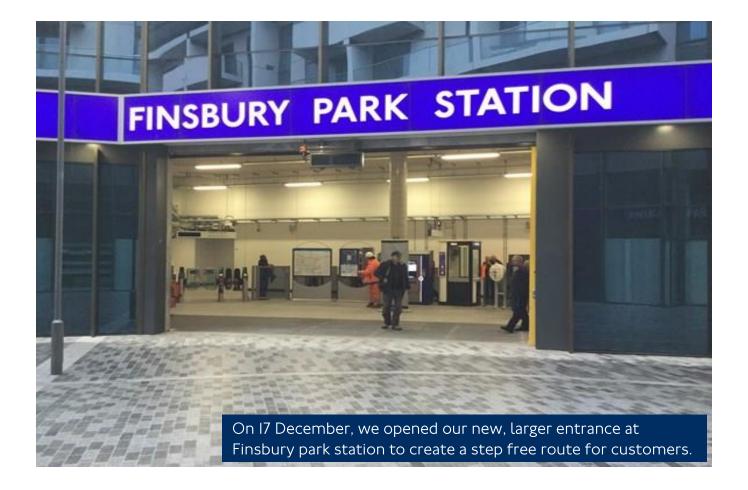
Marble Arch station

At Marble Arch station, we worked with the Marble Arch Business Improvement District to unveil a series of panels celebrating the history of the local area, including information about the station, Hyde Park, and the arch itself.

The installation consists of 43 panels installed along what was formerly a hallway, making use of disused advertisement panels. It appeared immediately before the popular Winter Wonderland festival that draws visitors to the park and is the station's busiest time.

Waterloo station

Lambeth Council has approved an application from HB Reavis to redevelop the site of Elizabeth House at Waterloo. As part of the scheme, the developer will help to provide step-free access to the Northern line and make a financial contribution towards it.



HB Reavis will work on the lift shaft in tandem with its own works. Providing step-free access to the Northern line at Waterloo is technically possible only while the site above is clear for the construction of the lift shaft. The redevelopment of Elizabeth House provides us with an opportunity to achieve this. It is currently estimated to complete in 2025.

Finsbury Park

The new entrance to Finsbury Park station opened on I7 December. The new, larger entrance creates a step-free route and will ease congestion for customers using the station.

The upgrade has provided lifts to the Piccadilly and Victoria lines, as well as to the Network Rail platforms at the station, making it easier for customers with mobility needs, buggies or heavy luggage to use the Underground. The new entrance features six new ticket gates,

including two new wide-aisle gates, as well as two new ticket machines and a new station control room.

Finsbury Park is the third-busiest station outside central London, with more than 30 million customers using the station in 2018. It links north London to vital stations such as Leicester Square, Green Park and Piccadilly Circus, as well as to National Rail services at King's Cross St Pancras, Euston and Victoria.

Two lift shafts were excavated using traditional mining techniques to provide step-free access at the station. This produced 7,500 tonnes of spoil – equivalent to around 600 New Routemaster buses.

The improvements at Finsbury Park are the result of collaborative work between us and the developer of an adjacent site, City North Finsbury Park. The new site will feature a mix of commercial

properties, including Cineworld, Marks & Spencer and GymBox, and more than 300 new homes.

Victoria line

A new timetable, introduced at the beginning of November 2019, means Victoria line trains now arrive every 100 seconds for three hours during the morning and evening peak. These high-frequency services previously operated on the Victoria line for one and a half hours every day.

The Victoria line is already one of the most frequent metro services in Europe. The new timetable increases capacity by a further five per cent – helping reduce crowding and congestion along the line.

The Victoria line is used by 250 million customers each year and serves Oxford Circus, King's Cross St Pancras and Victoria, which are among the busiest stations on the network.

Jubilee line

On 8 December 2019, we completed a four-year, £26m refurbishment of our fleet of 63 Jubilee line trains.

These mid-life refurbishments are an essential programme of works to extend the life of the fleet, refresh the carriage interiors and exteriors and ensure the trains are in line with the Rail Vehicle Accessibility Requirements legislation that came into force on I January 2020.

Through careful planning, we also managed to achieve savings of £5.5m on this project, which provides us with money to invest in other areas of our transport network.

We recently identified mechanical defects on some Jubilee line trains which resulted in trains being taken out of service for repair. As a result, passengers suffered from delays to service during the morning and evening peaks. Our team worked extremely hard to return these trains to service and I am glad to report that since 2 January, a full service was reinstated on the Jubilee line.

Bakerloo Line Extension consultation

Our consultation on proposals to extend the Bakerloo line to Lewisham and potentially beyond closed on 22 December 2019. We asked for views on more detailed proposals on the tunnel route, location of tunnelling worksites as well as a further extension of the line to Hayes and Beckenham Junction. Just under 9,000 responses to the consultation were received. We will analyse these responses and report the feedback later this year. If a decision is made to go ahead with the scheme, we could apply for powers to build and operate the extension in 2023 with the earliest services running from mid-2030s.

Crane trains

We have taken delivery of two Kirow crane trains and eight tilting wagons for lifting and transporting track. The new equipment was built to our own specifications and transported I,400km (870 miles) from the Kirow manufacturing site in Germany.

The tilting wagon mechanism enables us to pre-fabricate track and transport through our sub-surface network and tunnels for installation, instead of constructing it onsite. This is a quicker and more cost-effective approach, but to transport them the wagons need to tilt the panels to an upright position to get them through our sub-surface tunnels.

Each crane can lift 25 tonnes and together they can lift close to 50 tonnes. These cranes are uniquely designed to lift with their booms parallel to the ground, which makes them well-suited for use on our network.

Both the cranes and the tilting wagons are certified to run on both Network Rail and London Underground tracks, meaning panels can be collected directly from the manufacturers dotted around the UK and delivered directly to an Underground site to be installed.

Having the Kirow crane trains in our fleet will reduce the number of closures for complex track installation, improve track installation quality and reduce the need for costly maintenance. It will also mean fewer construction vehicles on London's congested roads as everything will be transported by rail.

Tunnel cleaning

We have been cleaning some of our deeper Tube tunnels. After a successful trial on a section of the Piccadilly line earlier this year, we have now started work on the Bakerloo line between Kilburn Park and Elephant & Castle.

While the air quality on our network is well within the Health and Safety Executive specified limits, we are determined to make air quality on the Underground as clean as possible.

The Bakerloo line cleaning involves vacuuming the tunnel walls, cables, track and fixtures, followed by treating the area with a dust suppressant, which reduces airborne dust. This cleaning programme is due to be completed by the end of the year, when we will re-test the air quality to measure the improvement.

Alongside this work, we have started cleaning works on the entire Victoria line, using a similar vacuuming method to clean inside tunnels.

We are also trialling a new piece of cleaning equipment on the Waterloo & City line.

4G pilot on the Underground

We are preparing to run the first extended public pilot of 4G services on London Underground from March 2020. The pilot will run on the eastern section of the Jubilee line from Westminster to where the line emerges above ground near Canning Town. Mobile services will be available to Jubilee line customers on trains, all platforms and in most station areas, except for Waterloo and London Bridge. Work to install the required pilot infrastructure is underway and we are working closely with four mobile operators, Vodafone, O2, EE and 3, to enable them to provide 4G over this infrastructure from March 2020. This pilot is the first step towards making mobile services available across the entire London Underground network over the next few years.

High Speed 2

Our interface with High Speed 2 (HS2), the new high-speed railway connecting London to the West Midlands and the North of England, includes new assets, infrastructure and operational facilities at Euston and Old Oak Common.

The Oakervee Review, commissioned by the Government in August, was due to be completed before the end of October 2019, but its publication was delayed as a result of the general election. We are supportive of the benefits that HS2 can deliver for London and the UK, and stressed to the Oakervee panel that the options being considered must include both Euston and Old Oak Common stations as part of the solution.

In the meantime, we continue to work with HS2 Ltd in supporting the early works to minimise disruption at Euston. For example, to minimise the impact on traffic, we are working on alternatives for diverting utilities on Euston Road and Hampstead Road in 2020.

In October, HS2 Ltd appointed Balfour Beatty Vinci Systra JV as the construction partner for Old Oak Common. Introductory meetings took place between us and the new contractor in December.

In November 2019, we completed a review of the designs for elements of the new HS2 Euston station. We will continue to work with HS2 to ensure the designs achieve the best outcomes for London.

Highbury Corner

Construction is substantially complete for the major reconfiguration of the road network and removal of the gyratory at Highbury Corner. The remaining urban realm and tree planting was completed in November 2019. Installation of new hostile vehicle measures outside Highbury & Islington station will follow this year once approval has been obtained from Network Rail.

Vauxhall Gyratory

The project continues to finalise a concept design so we can deliver a new bus station and remove the Vauxhall Gyratory to improve conditions for bus users, pedestrians and cyclists. The project is awaiting a decision on an interfacing developer's planning application, which was called in by the Secretary of State for Housing, Communities and Local Government in May 2019. The Secretary of State's decision is anticipated in summer 2020. Assuming there is a positive outcome from the planning decision, we will continue to progress the scheme, appoint a contractor to complete the design to build the new bus station and remove the gyratory.

King's Cross

Safety, cycling and pedestrian improvements are being delivered in phases in the King's Cross and Euston Road area, with phase one advanced works completed on 15 December 2019. Main works will follow in February 2020.

Safety improvements for the Duke's Road and Churchway junction on Euston Road will be the first phase. Proposals include a 'green man' pedestrian crossing across both Churchway and Duke's Road and provision of safer north-south movements for cyclists. The sequencing and scope of other phases of work at Kings Cross have been reviewed, taking

the outputs from recent design workshops. We are discussing these changes with the boroughs of Camden and Islington.

Lambeth Bridge

The scheme provides a significant upgrade for the safety and comfort of pedestrians and cyclists, by removing the current roundabouts on both sides of the river and replacing them with signal-controlled junctions. The proposal includes segregated approaches for cyclists, with dedicated cycle phases at the junction, and new signal-controlled pedestrian crossing facilities.

The shared space has been reviewed with small changes being introduced to separate pedestrians and cyclists where possible. Survey and design continue to detail the work required to replace the waterproofing, drainage and expansion joints on the bridge deck. The design for the permanent protective security measures on the bridge is progressing well.

We have concluded our discussions with key stakeholder about their responses to the 2017 public consultation. The design amendments and proposed way forward will be published in spring 2020 as part of the consultation report.

Wandsworth Gyratory

The purchase of properties from landowners on Putney Bridge Road is progressing, with the purchase of the remaining three properties expected to complete in early 2020. The revised scheme layout in Armoury Way has been completed with the design refinements requested by the London Borough of Wandsworth. Agreement for the amended layout has passed committee and gained leaders approval on 7 October 2019. The intention is to procure a detailed design and build contractor via the Civils Project Framework. Detailed design remains on track to run in parallel with the Compulsory Purchase Order process to follow this. We plan to start construction at the end of 2021.

Fiveways

We are working in partnership with Croydon Council to determine how best to transform the area, improve cycling and pedestrian facilities and unlock capacity at the Fiveways Corner junction. A review of the Fiveways project, to consider its strategic fit with wider Croydon Growth Zone objectives, is almost complete and a decision will be made in Spring 2020 on the best way forward.

Waterloo City Hub

The scheme provides a significant upgrade for the safety and comfort of pedestrians, cyclists and public transport users. The scheme will provide a new pedestrian walking route to the river, improved road crossings, segregated cycling facilities and improved bus waiting and boarding areas. The detailed design continues to progress well. We aim to commence with construction in early summer 2020, subject to securing the necessary consents. We continue to work closely with the London Borough of Lambeth and developers in the area, to ensure delivery is coordinated with the future for the Waterloo area.

Barking Riverside Extension

We are delivering a new rail link to serve the I0,800 new homes that are planned for the Barking Riverside development area. The link is a spur from the Tilbury Loop east of Barking, to extend our London Overground service from Gospel Oak to Barking Riverside. Our main works contractor has successfully completed piling works during the Network Rail blockade in July and August. This was an important milestone for the project, maximising the opportunity for works while the mainline was temporarily closed for public use.

Despite extensive searches during early stages of the project, the amount of underground utilities over such a large I.5km long site present an ongoing challenge to the programme. Notably, previously undiscovered utilities at piers I4 and I5 of the viaduct require either a

redesign of the piers or diversion of the utilities. This is putting considerable pressure on the programme to complete works for opening in December 2021 and was the subject of a report to the Programmes and Investment Committee on 18 December 2019.

Enhanced bus services

Four new bus routes were introduced in the north-west and west London on 7 December 2019. This includes two services giving improved links between Heathrow, Hillingdon and Harrow (278 and XI40), with two additional routes giving improved links between Acton, Hammersmith and Fulham (218 and 306). Three other routes were extended, with the H9 and HI0 now serving more parts of Northwick Park Hospital and the 440 extended to Wembley Eastern Lands and rerouted between Acton and North Acton. Nine further routes, including the 140, 224, 226 and 391 underwent changes following the introduction of the new bus services.

Improved security on our Oyster online and contactless account web pages

In August and October 2019, a small number of customers had their Oyster online account accessed after their login credentials were compromised when using non-TfL websites. While no customer payment details were accessed, we asked our Oyster and contactless customers to reset their passwords

as a precautionary measure to help keep their accounts secure.

Since 28 November 2019, all Oyster and contactless accounts have been locked and will only be unlocked once customers request a reset for their password, which will be sent to their registered email. Customers will still be able to travel using their Oyster or contactless card, as well as top up their cards at a ticket machine or an Oyster Ticket Stop while the account is locked.

In line with official guidelines, we also made the Information Commissioner's Office aware. No enforcement action was taken.

Extensions to contactless

We have extended pay as you go for contactless customers on two routes as an alternative to printed single and return tickets. On 26 November 2019, pay as you go was introduced on the Go-Ahead Thameslink Railway route to Welwyn Garden City and on 2 January 2020, it was introduced on both our services and Great Western Railway services between West Drayton and Reading.

World Children's Day partnership with Unicef UK

To coincide with World Children's Day, on 20 November 2019 we worked with Unicef UK to give children a voice on the transport themes that matter to them most. Children from our STARS schools

and Unicef UK Rights Respecting Schools, submitted competition entries to redesign our roundel and developed one-off 'Thought of the Day' whiteboard posters. Each roundel came with an explanation, written by the child who designed them, outlining why transport is important to them. There were also special tannoy announcements by children on bus routes and at some of our busiest stations, including King's Cross St Pancras, Waterloo and Green Park. More than 300 London schools took part in this project.

Art on the Underground in Brixton

Art on the Underground celebrates its 20th anniversary in 2020, a key milestone in its history of working with prominent contemporary artists as a leading commissioner of public art. In 2020, Art on the Underground will present major site-specific commissions by Lucy McKenzie, Vivian Suter, and Helen Johnson, alongside two Pocket Tube map covers by Elisabeth Wild and Phyllida Barlow.

The 2020 programme will seek to create space for quiet contemplation, reflection and solitude. The programme reimagines how we interact not just with each other but the world around us.

Bringing leading international artists to London, we invite the public to step out of their daily routine and observe our civic spaces in a new light. For her first UK public commission, Lucy McKenzie will take over the Art Deco Sudbury Town station and will create a suite of artworks that interact with the station's history. Vivian Suter will create her first public commission in the UK, comprising more than I20 new paintings at Stratford station. Helen Johnson's intricate painting marks the fourth commission in the Brixton series, using local murals from the I980s as inspiration.

For the spring pocket Tube map, Elisabeth Wild will create a new collage inspired by London Underground architecture, in colours that recall the landscape of her home in Guatemala. Phyllida Barlow will use her daily practice of drawing to create a composition for the autumn pocket Tube map.

6 New homes and jobs

Crossrail 2

The Crossrail 2 Strategic Outline Business Case (SOBC) was submitted to Government in June. In late October, the DfT's Board Investment and Commercial Committee met to review and consider it. The DfT has confirmed that the SOBC satisfies Her Majesty's Treasury's Green Book guidance in terms of making a case for change and exploring a preferred way forward. Additionally, it was confirmed that the SOBC is technically robust at this stage of development, no further work is required on the SOBC at this time, and it could therefore be used to support a decision on the project at the next Spending Review.

The project team continues to work on the latest cost estimate for the scheme. The team is working closely with DfT colleagues to ensure that variable factors are applied in a consistent manner and are using benchmarking data from Crossrail and other major infrastructure projects to inform the estimating process. The estimating process itself is the subject of an assurance process and has been assessed as appropriate.

Alongside this, we have been learning lessons from industry experts on the pros and cons of various consent processes; in particular we have received legal advice and outline costs and benefits for each consent mechanism.

Affordable homes

Kidbrooke

We received planning permission for our site in Kidbrooke and are hoping to start construction in 2020. The development will provide 619 well-designed new homes, built to high environmental standards, which cater to a wide range of needs. Of these homes, 50 per cent will be affordable, with the first phase consisting entirely of affordable homes. Overall, the development will provide new landscaped areas, green spaces and play areas to residents and the public.

Build to Rent

Our Connected Living London partnership with Grainger plc. will see more than 3,000 homes built, with 40 per cent of homes made affordable, as well as new commercial space, cycling facilities and improved public space being delivered across seven sites. We have run an extensive programme of engagement with nine events and pop-ups, five meetings with stakeholders and community groups and 3,486 people have given us their feedback through our online engagement platform. We are submitting Arnos Grove and Southall planning applications in early 2020, with more to come before the end of the financial year.



Earl's Court

As one of London's most important development opportunities, we welcomed the announcement that an entity established by Delancey, on behalf of its client fund and APG, has acquired the controlling interest in Earls Court Properties Limited which is responsible for developing the 26-acre site in west London. Delancey's first step was to return the two adjoining estates to Hammersmith and Fulham Council, and confirm that they want to create a new London Plan compliant masterplan for the site, with much higher levels of affordable housing.

Harrow car parks

In Harrow, we are progressing planning applications for more than 500 new affordable homes at our car park sites in Stanmore, Rayners Lane and Canons Park with our development partner Catalyst. All three sites will also provide improved access to the stations and better environments for walking and cycling.

In Stanmore, we are proposing a mix of apartment buildings and townhouses ranging from three to eleven storeys, providing around 280 new affordable homes within easy access to public transport. The plans also include a lift to provide improved step-free access to the station and platforms, a cycle hub, commercial units and new public realm. Rain gardens and tree planting will also be introduced. There will also be pocket community gardens in between the buildings at street level incorporating play space provision for all ages.

At Rayners Lane, we want to build I28 new homes as well as a new station cycle parking hub and new landscaping and at Canons Park, we are proposing to create three, seven-storey mansion blocks providing around II8 affordable homes with easy access to public transport. We will provide a new station cycle parking hub and significantly improve the natural landscape and public realm around the site, providing a safer and more attractive environment.

Bollo Lane, Ealing

We recently consulted on our proposals for 800 new homes for rent and sale at Bollo Lane near Acton Town station, half of which will be affordable. Our proposals include a mix of tenures and sizes to help meet the growing local demand for new housing. All new homes will be of a highquality design and will be designed to be sensitive to the important heritage of the surrounding area. Access to green space is an important part of Acton's identity. The site benefits from being a short walk from both South Acton Park and Gunnersbury Park, as well as having a number of trees already on site. The site's location provides the opportunity to create new public spaces and enhanced public realm along Bollo Lane. The initial consultation was an opportunity to present the early concepts for the site to the community. A more detailed consultation will follow in January 2020, ahead of a planning application being submitted in early 2020.

Hounslow West

We have invited members of the London Development Framework 2 to compete for the site at Hounslow West and we are now in the process of selecting a partner. The proposals will transform the site into more than 350 affordable homes, and 10,000 square feet of retail and commercial space. We are keen to improve the heritage setting, including the

existing listed station buildings, and improve accessibility at the station.

Once a development partner is appointed, we will start working with the local community, ahead of submitting an application during 2020/21.

Wembley Park

We have selected Barratt London as our joint venture partner for Wembley Park. This site, located in in the London Borough of Brent, could provide around 400 homes, half of which will be affordable. Located next to Wembley Stadium, the site is designated within the Wembley Growth Area, which seeks to deliver at least II,500 new homes by 2026.

Along with our partners Barratt, we will start engaging with the borough and local community ahead of submitting a planning application later this year.

Construction is due to start in 2021.

Finchley Central

Working with Taylor Wimpey, we are bringing forward more than 400 new homes in Finchley Central. Currently at the last stage of consultation before we finalise the design, we are asking the local community and stakeholders for their thoughts on our proposals for new homes, which include 40 per cent affordable housing.

Our development will also provide new public areas and improved routes to the station from the high street, as well as new commercial space to encourage people to use the town centre. Alongside the station development, we are working to improve walking and cycling facilities, and public transport connections.

Elsewhere in Barnet we are developing proposals for High Barnet station. Following detailed public consultation in 2019, we will submit a planning application for up to 300 new homes (including 40 per cent affordable) by spring 2020.

Tottenham Court Road over station development

We continued our successful programme of I2 major developments above and around new Elizabeth line stations and Crossrail construction sites. We exchanged contracts with Galliard for the over station development above the new Tottenham Court Road Elizabeth line western entrance, generating more than £43m to reinvest in our transport network. The site has planning consent for 92 residential units and construction is due to start in spring 2020, with completion expected in summer 2022.

Commercial Opportunities

Southwark over-station development We will provide around 200,000 square feet of commercial office space, together with extensive landscaping and local benefits through our over station development, which is currently in its last stages of design. We hope to submit a planning application before the end of the financial year. Working closely with the local community, we continue to meet with local residents to agree details of a landscaped area between our development and the adjacent residential estate. This space will be shared between the residents of Styles House and the occupants of the commercial building, but maintained by us, as part of the land swap deal that was agreed with the London Borough of Southwark.

Wood Lane

We were pleased to see the opening of the first of our arches in Wood Lane, which as the first of our arches on the Hammersmith & City line railway viaduct to be transformed. A BBQ restaurant and Tap Room, Prairie Fire, opened its doors on 2 December 2019. We have planning permission to convert 31 arches into commercial units, which could become cafés, restaurants or shops. We expect to see more businesses moving in over the coming months.

7 Our people

Top Industry Award for Sustainability

Helen Woolston, from our Safety, Health and Environment team has been awarded the Director's Individual Award from Civil Engineering Environment and Quality (CEEQUAL).

Helen was recognised for her work in leading the environment team, and for embedding the sustainability rating method at TfL so project teams can understand, assess and report on sustainability issues. As a result of Helen's work, virtually all our major projects in the past five years have CEEQUAL assessments and will continue to do so. This award recognises the work that we have done to embed sustainable design and delivery in our work.

Best Diversity & Inclusion Strategy Award

On 5 December 2019, our Skills and Employability Early Years team won the award for the best Diversity & Inclusion Strategy at the In-house Recruitment awards.

This team is responsible for apprentice and graduate recruitment, along with our employability programmes, which aim to support those with barriers to work gaining work experience and employment opportunities.

The team beat stiff competition from Accenture, Expedia Group, Paddle and Version I and demonstrated the huge amount of work that takes place to ensure we achieve a diverse talent pipeline now and in the future.

Public Building Energy Project of the Year

On 21 November 2019, Environmental Manager Quinten Babcock and his team were awarded the Public Building Energy Project of the Year award.

The team completed a major energy efficiency programme with E.ON, which enabled significant carbon and cost savings within our head office building in Southwark. Energy management upgrades were carried out under the RE:FIT scheme to help achieve the Mayor's aim for London to be a zero-carbon city by 2050. RE:FIT is jointly funded by the GLA and the European Union European Regional Development Fund.

At the end of May 2019, results showed the two-year project did even better than expected, with £442,000 saved in the past 12 months, and £684,000 total savings since December 2017. Energy efficiency is 22 per cent better, with CO2 emissions down seven per cent from 2017.

The project is an example of the work we are doing to save carbon emissions and cost as part of our drive to improve our offices from a financial, environmental and wellbeing perspective.

Queen's New Year Honours

Natalie Gordon has been recognised as a Member of the British Empire (MBE) in the New Year Honours for services to transport in London and the community.

Natalie, who works in our contact centre, has been recognised for her dedication to providing outstanding customer service and working collaboratively with other organisations in the aftermath of the tragic Grenfell Tower fire in 2017. Natalie went above and beyond to ensure we were able to give the best travel support to those affected by the fire in the days, weeks and months that followed.

Soon after the incident, Natalie went to the Westway Centre, which was set up to support those affected and provided residents with Oyster cards and travel passes so they could travel between work, school, hospitals or their temporary accommodation.

Natalie's relentless efforts made sure there was a seamless link with the many other organisations who were providing support. Working alongside the Driver and Vehicle Licensing Agency, she formed and led a team of TfL volunteers, who provided face-to-face support, and set up a dedicated helpline to provide assistance with any travel related enquiries.

International Day of Persons with Disabilities

To mark the International Day of Persons with Disabilities, we held a series of events across the organisation. These aimed to raise awareness of the benefits to society that including persons with disabilities in every aspect of political, social, economic and cultural life brings.

To mark the occasion on 3 December 2019, there was a flag raising ceremony at 55 Broadway, led by the chair of our Disability Staff Network Group.

Other events to celebrate the day included a photography exhibition, which ran in the reception of Palestra from 29 November to 3 December 2019. The exhibition aimed to showcase diversity in the workplace by capturing the various disabilities of our employees, what they feel are their greatest achievements and the ways that they have faced both positive and negative challenges in the work environment.

We continued our 'Living With' series, which provides a first-hand account of living with different disabilities with a presentation from Winnie Lam, who leads our Disability Staff Network Group.



We also worked alongside disability charity and advocacy group, Transport for All, to host a Step-Free Tube Challenge, where two wheelchair users visited all of our step-free stations in one day to see who could get across our network in the quickest time. Dr Jon Rey-Hastie, CEO of DMD Pathfinders and Alan Benson, Chair of Transport for All, visited all 78 stepfree Tube stations over a combined time of 2I hours and 23 minutes. They both followed a different route and finished in Uxbridge. This was a fantastic learning experience, which provided us with invaluable feedback that we will use to improve how we cater to our customers with disabilities.

Steps into Work

On II December 2019, we celebrated the students who successfully completed their Steps into Work programme and their BTEC Level I Work Skills qualification.

The Steps into Work programme is a partnership between us, disability specialist employment agency Remploy, and Barnet and Southgate College. This one-year programme is designed to help people with mild to moderate learning disabilities to gain valuable knowledge and skills to aid their development towards paid employment.

The national employment average of people with learning difficulties is just six per cent full or part time. Of last year's group, 67 per cent are now in paid work, which demonstrates the positive impact this scheme can have and the outstanding contribution of those involved.

Building on this success from this scheme, last September we increased the number of students on the programme from I2 to 24.

Our Ethnicity Pay Gap Report

On 20 December, we published our 2019 Ethnicity Pay Gap Report, which showed our median ethnicity gap has reduced slightly from 9.3 per cent in 2018 to 9.2 per cent in 2019. This is encouraging, but there is still more work to do, particularly when it comes to representation of black, Asian and minority ethnic staff in our operational areas and senior roles.

We are committed to becoming an organisation that welcomes people from diverse backgrounds and actively supports their professional development. Our focus is on sustainable change with long-lasting impact, developing scalable initiatives to ensure women and black, Asian and minority ethnic colleagues successfully progress in their careers.

This includes proactively diversifying our talent pipeline through apprenticeships and work placements to maximise opportunities to retain talented black, Asian and minority ethnic staff through mentoring, secondments and our leadership programmes.

Our Women in Tech network

Members of our Women in Tech network, a sub-group of the Women's Staff Network Group, were honoured on 3 December 2019, as the group was named Network of the Year 2019 in the TechWomen100 Awards.

Our Women in Tech network works hard to raise awareness of technology as a viable career for women and helps women to build the confidence to develop technology skills and encourages them to put themselves forward for roles in this area.

The network launched in 2017, and helps provide coding workshops, advice, mentoring, shadowing, sponsorship, tech career talks and networking opportunities for women who are interested and curious about technology.

The team also raise awareness to the wider external community of the technology skills needed for the future, and the role women need to play in designing and developing our products in order to meet the needs of the growing population we serve. The team meet regularly with underrepresented groups and host events and networking opportunities to encourage more women to see this as a viable career, and hopefully consider us as their next employer of choice.

Employee health and wellbeing initiatives

To support our focus as an organisation on improved health and wellbeing, there have been a number of employee health and wellbeing initiatives including 'Think Diabetes' and 'Menopause Matters'.

The Think Diabetes NHS Educational Programme sees us partner with the South London Health Innovation Network to offer employees diagnosed with Type 2 diabetes a choice of courses, both online and face-to-face.

Menopause Matters is delivered via the health and wellbeing programme and has put together an awareness campaign to produce frequently asked questions, information leaflets, videos and talks for colleagues.

8 Securing value and generating income

Transformation

Our ongoing programme to improve the efficiency and effectiveness of our organisation continues. We are reducing our operating costs and ensuring we are focused on delivering our core Mayoral priorities, including safety. In October 2019, we launched further change in four business areas.

In our Contact Centre Operations, a new structure reflects the final stage of an outsourcing strategy, roster changes and the reduction in the use of non-permanent labour. Our Performance Analysis and Improvement team is evolving to support London Underground to continuously improve reliability and performance through analysis and insight.

Our new Safety, Health and Environment directorate will enable us to make faster progress on reducing road death and meeting our Vision Zero ambitions. It will also work to improve the health and wellbeing of our staff and our corporate environmental performance.

We are taking a new organisational approach to tackling workplace violence and aggression and are developing the first pan-TfL strategy to eradicate it, supported by a single point of accountability and an integrated framework.

Connect Private Finance Initiative

The Connect radio system provides critical telecommunication services for London Underground, including all radio communications between control centres, train drivers and station staff. The 20-year private finance initiative under which the system was originally implemented and operated, expired on 2I November 2019, and was replaced by a new contract with Thales for an initial period of four years. The new contract brings savings of more than £40m per annum to London Underground and will deliver a major upgrade to the radio system next year.

Revenue protection

We have introduced a Revenue Protection Programme to improve the way we tackle fare evasion and ticket fraud across all our public transport modes. We have set ourselves the ambitious targets of reducing revenue loss by £10m in 2019/20 and halving ticket irregularity rates by 2024. By the end of Period 7, the programme achieved an estimated £3.7m in revenue gains and further loss avoidance of £1.9m – resulting in a total benefit of £5.6m. The programme remains on track to achieve the £10m target and work is underway to identify new innovations, which can be used to enhance the integrity of our systems,

policies, processes and station infrastructure.

One item on the programme is the Irregular Travel Analysis Platform (ITAP), which uses existing data to remotely identify suspicious journey patterns, target enforcement activity and engage with those who may be evading their fare. Following successful prototyping, ITAP is now being prepared for full operational roll out on London Underground.

In November 2019, we concluded the first series of Fare Dodgers: At War with the Law on Channel 5, which brought the work our revenue staff are doing to tackle fare evaders to national attention. The series averaged more than 1.5 million viewers per episode and was the highest performing show on Channel 5 during its running time. Given these positive viewing numbers, Channel 5 has asked us to for second series of ten episodes, which we will consider. The series, which was watched by a predominantly young demographic, clearly amplified our message on the significance of fare evasion and will hopefully have a deterrent effect as a result.

Recover and Reuse approach

The redesigned cafeteria at the London Transport Museum in Covent Garden highlights the effectiveness of our Recover and Reuse approach in delivering the Mayor's Circular Economy ambition. As part of the update, we used tiles recovered from works at Sloane Square, benches from Gloucester Road and heritage lights from Embankment station.

Recovery and reuse helps to prevent wastage of unused assets and materials, as well as recovering old assets. For example, £150,000 of unused materials and spares were recovered from the Bond Street Station Upgrade and close to £65,000 worth of unused fixtures and fittings from previous projects have been utilised at an upgrade project at Finsbury Park.

The Story of the London Underground We have collaborated with publishers Bloomsbury, author David Long and illustrator Sarah McMenemy to create 'The Story of the London Underground', a new book for children and adults.

Recognised by booksellers Waterstones as one of the best books of 2019, it highlights the breadth of activities on the Underground, from busking and ghost stations, to wildlife on the Tube and the Lost Property Office.

This partnership with Bloomsbury is an example of how we create innovative and creative products for the UK and international markets that excite interest in our organisation, protect our brand and generate licensing income that we reinvest back into the network.

Working with Sky in a similar way, we recently earned more than £150,000 from licensing and filming the London Underground brand for the television drama Temple, which starred Mark Strong. Licensing partnerships and collaborations will help us earn more than £800,000 in revenue this year, a growth of more than 25 per cent year on year.

Refillable water bottles

We are giving refilable water bottles to colleagues in our track teams and reducing single use plastic waste by at least 5.6 tonnes every year.

Previously, we provided our colleagues with drinking water in disposable plastic bottles, which amounted to almost 600,000 bottles last year alone at a cost of £94,000. The track teams routinely work in temperatures of 32 degrees, amplified by the protective clothing they wear, so reliable access to clean drinking water is essential.

Having tested a variety of approaches, including hydro-packs for people to wear on their backs, we decided on the new bottles, which are strong and open easily with gloved hands. They come in bags that can be hung on 'hydration stations' with a space for people to write their names.

We are also giving reusable drinking flasks to our colleagues in customer services, which will further reduce use of plastic cups and save an estimated £67,000 a year.

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