

## Delivering the vision for London's streets and roads

Annex to Transport for London's response to the Roads Task Force
July 2013



#### Annex A – Delivery programme 2013/14-2021/22

This annex sets out TfL's proposed plan to transform London's roads.

Outcome	Within current mayoral term: present to 2016	Within TfL business plan - 2016 to 2021/22
Improved Asset Management Life cycle planning techniques through sustained investment		Ardleigh Green Bridge - full reconstruction Blackwall Tunnel Southbound - ventilation upgrade to align with Northbound Rotherhithe - refurbishment of structural components and mechanical & electrical equipment Country Way Viaduct - repair and refurbishment of concrete and expansion joints Power Road Bridge - full reconstruction
	Hammersmith Flyover Phase 2 - continuing work to strengthen remaining spans Chiswick Bridge - refurbishment including major repairs to concrete/masonry, parapet upgrades	Twickenham Bridge - major works including concrete repairs and deck waterproofing  Hogarth Flyover - possible reconstruction as part of a wider junction review / redesign at Hogarth Roundabout
	Fore Street Tunnel - repairs to address water ingress, mechanical & electrical equipment renewed Woodlands Retaining Wall - reconstruction to allow reopening of adjacent footpath	Westway - major refurbishment including waterproofing, bearing replacement, concrete repairs, parapet upgrades  George Green Tunnel - renewal of mechanical & electrical equipment  Green Man Tunnel - renewal of mechanical & electrical equipment

#### mproved Asset Management

techniques through Life cycle planning investment sustained

Brent Cross Structures - major works including parapet replacement, deck waterproofing

Upper Holloway Bridge - full reconstruction

Highbury Corner Bridge - reconstruction or strengthening; solution to be identified following feasibility study Lambeth Bridge - major works including repainting of metal components, deck waterproofing

Vauxhall Bridge - major works including repainting of metal components, deck waterproofing

Westminster Bridge - repainting of metal components

replacement of bearings and expansion joints, drainage Battersea Bridge - repairs and repainting of metalwork, repairs, deck waterproofing

Safety Camera Replacement Project - upgrade 'wet film' cameras to digital technology at approx 600 locations

Traffic Control Maintenance & related Services (TCMS) –

contract ensuring high level of availability of traffic control equipment; to be developed and enhanced

contract offering cost savings; work with Boroughs to

encourage uptake of contract

collaborative highway maintenance & improvement

London Highways Alliance Contract (LoHAC) -

implementation in 2014, subject to DfT approval Dutch style roundabouts - identify locations for

Low aspect traffic signals – identify locations for mplementation in 2014, subject to DfT approval Early start traffic signal technology – identify locations for implementation in 2014 Over height vehicle detection – introduce technology to protect all vulnerable tunnels and structures by 2016

#### **Enhanced Safety** Features

Improving safety for all road users

Infrastructure & Assets Fit for the Future

# **Enhanced Safety**

Improving safety for Features all road users

#### 21st Century Roadworks

Reducing delays and frustration

Infrastructure & Assets Fit for the Future

#### Materials & Kit Innovative

Re-investing lane rental revenues

#### mprovements **Basic Street**

Improving areas with simple measures

# Within current mayoral term: present to 2016

signalised junctions, with further delivery as part of HGV Blind Spot Mirrors - 100 mirrors for HGVs at standard design Safe Streets for London Road Safety Action Plan – deliver actions identified in plan

Average Speed Cameras – consider areas where this technology may be appropriate

freely available; promote use by technology developers Digital Speed Limit Map – update, maintain, and make

Smart Cameras – to be developed for monitoring ongoing Lane Rental Charges – provide incentives to works undertakers to minimise road work disruption works and determining lane rental charges

Underground 'Utility Corridors' -allowing engineers to access utilities without the need for roadworks; opportunities for construction to be explored

concrete or 'Core and Vac' technology; development to appropriate, trial where necessary; e.g. use of CMA for Smart Works Solutions Research – such as fast setting Newly Developed Materials – make use where be funded through lane rental charge revenue de-icing roads across the network

as 'tidy, decluttered, or relocated/merged' by March 2014 Better Streets Evaluation –100% of TLRN to be classified

Enhanced Inspection Regime – improving the performance New Streetscape Guldance – to be published 2014, ensuring 'the right material for the right location' of utility companies

Families with high 'living' aspirations by end of 2014, TLRN 'Living' Areas- re-assess TLRN against Street implement 3 year improvement plan

Licence Trade & Highway Activity - optimum balance

between competing demands for space on footway

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# Greener Streets

Environmental measures

# Within current mayoral term: present to 2016

Iree Planting – increased tree planting on the TLRN making streets greener and more appealing

Extra Low Voltage (ELV) Traffic Signals – continue rollout of new technology for all new sites and modernisations

Centrally Managed Lighting Systems – dynamically operated lighting to suit differing locations; to be implemented by 2016 LED and Low Energy Lighting – 25% of all replacements

(including tunnel lighting) to be completed by 2018

Mayor's Air Quality Fund - investment in measures such

as green walls, no engine-idiling campaigns, local green action zones

replace existing discount by summer 2013 to ensure only Ultra Low Emission Discount to Congestion Charging zero or ultra low emission vehicles receive a 100% discount (also outlined in 'Cleaner Vehicles')

Innovative Bus Technology Trials - e.g. more hydrogen buses, electric buses with wireless inductive charging support fleet and trial hydrogen cars by 2016

Cleaner Fleet – bring 120 electric vehicles into the TfL

harmful emission reduction technology; introduce a LEZ 700 hybrid buses (600 of which will be NB4L) by 2016; Reduce Bus Fleet Emissions – expand fleet to include retire most polluting buses; retrofit older buses with standard for London Buses by 2015 Source London Charge Point Network – take forward with private sector partner, ensuring secure future

Low Emission Vehicle Strategy - document outlining the next steps in supporting increased uptake of LEVs operating in London; to be published early 2014

Electric Powered Two Wheelers (eP2Ws) - encourage use by working with the motorcycle industry and providing a charge point network for users

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Infrastructure & Assets Fit for the Future

Cleaner Vehicles

Supporting more environmentally friendly vehicles Within current mayoral term: present

### More Efficient People Movem

efficient use of road **Encouraging modes** that make more space

running from the Westway through Hyde Park Corner and Crossrail for Bikes (E-W CSH) - new Cycle Superhighway Victoria Embankment and out to Barking North – South Cycle Superhighway (Blackfriars/Farringdon corridor) - new Cycle Superhighway running from Kings Cross to Elephant & Castle

central London, incorporating central sections of East-Central London Grid - new network of cycle routes in West and North South Cycle Superhighways

CS2 - extension from Bow to Stratford

CS5 – extension from Oval to central London

Further Cycle Superhighway Network Expansion—several new routes and extensions under consideration Cycle Superhighway Upgrades (CS2, CS3, CS5, CS7, CS8) facilities such as segregated cycle lanes, cyclist presignals, trixi mirrors, Deep ASL's

Barclays Cycle Hire - expansion of scheme to H&F, Lambeth and Wandsworth Ouietways & Greenways - cross-London network of high-quality guided routes on low-traffic back streets and other routes; first routes to be delivered by end of 2014

Legible London – improve wayfinding; 3000 new signs installed by 2021

Discouraging Pavement Obstruction – assess feasibility of issuing fines to businesses and organisations that persist in obstructing pavements; trial to run in July 2013

Encouraging Walking - through engagement with schools and regular guided walks in spring, autumn and winter

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# Within current mayoral term: present to 2016

## More Efficient People Movem

efficient use of road **Encouraging modes** that make more space

MPS Motorcycle Safety Team training – providing bespoke training aimed at promoting safer motorcycling; 1500 iders to be trained in 2013

targeted safety action plan to be published autumn 2013 Powered Two Wheeler (P2W) Safety Action Plan -

P2Ws on Bus Lanes – encourage Boroughs to replicate IfL's initiative to allow P2Ws to use bus lanes P2W Safety Campaign – promoting safer riding through targeted road safety messaging, release summer 2013 Bus Reliability Pinch Points (annualised scheme) - scheme to identify around 30 sites where bus priority measures will be implemented to improve bus and road network reliability

Bus Priority Corridors - investment supporting economic revitalisation in London's Opportunity Areas by providing new links and services (see also 'Junction Enhancement Plan' and 'Connections to Growth Areas')

Bow Roundabout - upgrade to cyclists early start facility on NW arm, plus installation of similar facility on SE arm

Mile End Road / Burdett Road - improvements to the safety of vulnerable road users 8lackfriars – improved cycle facilities on Blackfriars Bridge/Victoria Embankment (aligned along CS N-S) London Bridge North - redesign cater for vulnerable road users at this key cycle route from river into the City with high pedestrian flows at Monument Station Tolworth Broadway: Kingston – increase pedestrian/cycle permeability, narrowing of traffic lanes to reduce speeds AI Archway - close southwest arm of gyratory to traffic,

Oval Triangle - improve road safety and cycle facilities

improved cycle environment & bus/tube interchange

Bow Roundabout - consideration of future layout of the junction to align with local need

expected increase in cycle usage with local development Holland Park Roundabout - cycle facilities to provide for

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More Efficient

People Movem

Within TfL business plan - 2016 to

more accessible to pedestrians and increase the numbers of Marble Arch Gyratory - improvements to make the area cyclists using the junction

> Highbury Corner - decrease traffic dominance/severance and promote sustainable transport modes

Tottenham Hale Gyratory - removal of gyratory and return to two-way working, improvements to public transport interchange, and pedestrian & cycle facilities

efficient use of road

space

that make more

**Encouraging modes** 

Boroughs through LIPs; trial 20mph zones on TLRN 20mph Zones - continue to fund 20mph zones in

Roads Fatality Review Group – bring together road safety experts to learn from fatal and serious collisions

Trial Community Roadwatch Scheme – engage local communities in managing speeding locally

Improving road safety

Lower Speed

Environment

Olympic Legacy Cycling Events - mass participation and professional cycling events in August 2013

Tour of Britain – host final stage over 10km circuit in central London in September 2013

Four de France – host final stage in July 2014

Maximising the use of

community events public spaces for

Fun and Active

Support Local Events - work with Boroughs on local events requiring temporary road closures

Celebrating London's Urban Realm - programme for the temporary use of landmark public road space and promote it's enjoyment by bike and foot Accessible Bus Stops – ensure that 95% of bus stops are accessible by end of 2016

**Providing Space** 

for Stopping Supporting vibrant,

Cycle Parking – deliver an additional 80,000 cycle parking spaces by 2016 Cycling Super Hubs – attractive, high capacity cycle super hubs at key interchanges (Waterloo hub to be delivered by

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town centres

accessible, inclusive

to 2016

## Providing Space for Stopping

TLRN Parking – allow parking on the TLRN for up to 30

accessible, inclusive Supporting vibrant, town centres

### Streets and Plac Re-imagined

to keep pace with the needs of Londoners **Evolving city spaces** 

## feasibility of relocating some servicing to side streets to Relocating Servicing – work with Boroughs to examine improve access minutes

realm enhancements between Streatham Hill station and A23 Streatham High Road - Footway widening and urban Mitcham Lane Elephant and Castle Northern roundabout - replacement of roundabout with peninsular scheme; improve cycle facilities, urban realm, reduce collisions

upgrades in pedestrian and cycling infrastructure (see also A3211 Tower Hill Gyratory - streetscape enhancements, Connections to Growth Areas')

Euston Circus – Decrease traffic dominance, improved pedestrian/cyclist facilities and public transport interchange, enhanced urban realm

Walthamstow TC- Eastern Gateway: Waltham Forest reduced traffic dominance and speeds; improved pedestrian, bus user facilities, urban realm Mitcham Town Centre: Merton - improved bus operation and interchange, public realm, pedestrian/cycling accessibility

severance, provide improved cycle facilities, and rejuvenate A1/A503 Nags Head Gyratory - work required to reduce Nags Head shopping centre

severance, improve urban realm, enhance pedestrian/cyclist Euston Road Corridor - decrease traffic dominance/ facilities

Camberwell Town Centre - improved public realm, safety, reduced severance

dominance, enhance urban realm and pedestrian provision Victoria Circle - highway improvements to decrease traffic

### streets and Plac Re-imagined

to keep pace with the **Evolving city spaces** needs of Londoners

pedestrians, cyclists and public transport users, improved Harlesden Town Centre: Brent - better provision for public realm

Mini Hollands - investment in cycling and walking provision focused on a number of outer London boroughs; Boroughs to be selected by 2014 Iwickenham Town Centre: Richmond - enhance & create new civic spaces; improve pedestrian facilities, reduce traffic speed, maintain traffic flows Connected Croydon - East Croydon Interchange: Croydon Measures to improve urban realm, pedestrian facilities, bus & taxi accessibility

Hounslow Town Centre: Hounslow - enhanced bus stop accessibility, urban realm, pedestrian & cycling facilities

Oxford Street East- Phase II: Westminster - redesigned streetscape layout for Oxford Street East between Berwick Street and Tottenham Court Road Holborn Circus: City of London - improved urban realm, cyclist & pedestrian provision Old Street (Tech City) - replacement of roundabout with cycle facilities (see also 'Connections to Growth Areas') peninsular; improve urban realm, interchange facilities,

Sutton Station Gateway: Sutton – access and urban realm improvements to station and surrounding area; improved links to High Street and cycle facilities

Romford Town Centre: Havering – enhanced urban realm and public safety, improved interchange with station

pedestrians; additional crossing points, improved lighting carriageway, increased area available for market and Bethnal Green: Tower Hamlets – re-alignment of

West Hendon - Station Road : Barnet - opening western end of Station Road to two-way traffic. Improvements to urban realm, pedestrian crossing facilities, accessible bus stops

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#### Re-imagined Streets and Places

Evolving city spaces to keep pace with the needs of Londoners

Hayes Town Centre: Hillingdon - Linked to Crossrail investment; measures include re-opening Station Road to two-way working, improved urban realm & ped facilities

Bexleheath Town Centre (phase I): Bexley – new shared space areas, improved lighting, paving & street furniture

Bromley North Village: Bromley – revitalise Market Square; improve pedestrian access and urban realm, reduce traffic dominance

Wood Green Town Centre: Haringey – Improved urban realm between Wood Green and Tumpike Lane LU

stations; more pedestrian/cycle facilities

Hornchurch Town Centre: Havering – improved urban
realm, pedestrian facilities and safety, decreased traffic
dominance

Clapham Gateway: Lambeth – transformation of Clapham Old Town area; more public space, greater accessibility and public safety

Sydenham Town Centre: Lewisham – footway widening. better crossings, improved cycle facilities, and creation of pocket' squares Manford Way – shared space elements to make retail area more accessible, improved pedestrian/ cycle access Clapham Junction Town Centre: Wandsworth – realignment of carriageway, increased area for pedestrians,

Ponders End: Enfield – urban realm, safety, and cycle access improvements at High Street and Queensway

better conditions for cyclists and bus users

Woodford Bridge Town Centre: Redbridge – improved urban realm, pedestrian and cycle access re-connecting eastern and western sections of local town centre

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Waterloo IMAX - TLRN & public transport interchange improvements to support redevelopment of Elizabeth House, Shell Centre, Waterloo station capacity increase

#### Re-design of Gyratories

prominent gyratories Overhauls of several

investment; bus/rail interchange improvements, enhanced Ealing Broadway interchange: Ealing – linked to Crossrail pedestrian and cycle routes

Swiss Cottage Gyratory - increase road safety and cycle facilities; option to partially remove gyratory

reduced severance, wider footways, better conditions for Aldgate Gyratory: City of London - new public spaces, cycling, accessible walking routes

route on northern arm of gyratory; return other arms to Highbury Corner (Gyratory): Islington – new bus/cycle two way working to reduce severance

Brent Cross/ Cricklewood - alterations to highway layout at MI/A406, A5/A406, A406/A41, traffic & pedestrian bridges

across A406; changes to bus movements & station facilities

and urban realm improvements at up to 30 surface stations Crossrail Complimentary Works – significant interchange across London A3/A203 Stockwell Gyratory - increase road safety and cycle facilities; potential phased removal of gyratory

Ram brewery development; improvements to urban realm, Wandsworth Gyratory - gyratory removal to coincide with improved access for cyclists, pedestrians Shoreditch Triangle Gyratory – improvements to better cater for vulnerable road users, public transport and urban realm enhancements

pedestrian/cycle facilities, consider gyratory removal A10 Stoke Newington Gyratory - Improvements in

Vauxhall Cross (Nine Elms/Battersea) - gyratory removal and two-way working on all arms, possible modifications to railway viaduct; supporting VNEB development

Kings Cross - footway widening, streetscape enhancements, floating bus stops, wide bus/cycle lanes to cater for increased demand due to HS2

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#### Proposed conversion of Tottenham Court Road and Gower Street to allow two-way working for buses and cyclists Within TfL business plan – 2016 to 2021/22 West End Project - Tottenham Court Road: Camden -Within current mayoral term: present New Crossing Points- list of potential new crossing points and pedestrian safety at over 30 key junctions in London Pedestrian Countdown – deployment of 200 pedestrian Better Junctions – junctions that are addressing cyclist Supporting Events – continue to support events that (most locations are listed individually under other countdown units at traffic signals by April 2014 make informal use of London's great spaces on TLRN published by mid 2014, prioritised to 2016 implementation plan by end of 2014 categories) Better Crossings Informal Spaces Outcome Improved safety for Creating spaces for communities pedestrians

Intelligent Systems and Management

space

# Strong Customer

'Mobile first' Website – new site featuring more detailed

roads information. Easier to access on all platforms

Improving customer experience

#### Customer Focused Strategy & Communications Campaign infrastructure spending, how fines/charges are reinvested Blackspot fund – implement Mayor's £50m fund by 2016 Publish Traffic Data – new sources for use by 3rd party Real-Time Information Services - continue to expand explain TfL's role in managing the road network & Monitoring Customer Satisfaction – through regular services through social media, such as Twitter customer satisfaction and attitudinal surveys developers SUSS

### otspot Busting Congestion

congestion areas Tackling key

#### **Better Targeted** Enforcement

Ensuring a safe and efficient network

# Corridor Improvement Programme - small interventions addressing congestion hot spots, facilitating multi modal service standards (approx. 150 sites delivered per year)

locations to improve journey times for these modes Bus & Cycle Priority Points – implemented at key

Traffic Signal 'Call Cancel' Technology - introduced at selected sites across the network

driver behaviour have a significant impact through 2014 locations where congestion, collisions, and anti social Improved Enforcement Plans - implemented at key

Unified Transport & Traffic Policing Command – bringing together MPS Traffic Command and Safer Transport Command by March 2014

between enforcement authorities; ensuring TfL funded Coordinated Data Driven Compliance - coordination resources use flexible, targeted, and appropriate enforcement measures

approach to enforcement within these areas by 2014 Congestion Management Areas – trial zero tolerance

Intelligent Systems and Management

Within current mayoral term: present \

# Better Targeted Enforcement

Ensuring a safe and efficient network

# Flexible Lanes and Management

Improving road space management

# Yellow Box Junction Cameras – assess impact of installing enforcement cameras at 205 yellow box junctions on TLRN that are currently unenforceable

Enhanced Vehicle Compliance – work with VOSA and traffic commissioners to enforce non-compliant and dangerous commercial and public service vehicle operators

## **Bus Priority Measures** – work with Boroughs in determining whether further measures would be beneficial

Flexible Lanes – examine potential role flexible lanes in managing street functions that may vary by time of day; e.g. dynamic tidal lane allocation is being considered on the A40 between Gypsy Corner and Old Oak Common

Flexible Bus Lanes – consider the use of bus lanes in accommodating other specific road users

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Intelligent Systems and Management

# Within current mayoral term: present \

night time delivery & servicing pilot studies to examine Olympic & Paralympic Games Lessons Learnt - up to 3 applying elements of the successful Games freight Re-timing Freight

supporting change in managing freight, complete by 2014 Review of Freight Regulations and Incentives – work

deliveries are made

Examining when

programme to BAU conditions

Improved Freight Data Gathering – greater modelling

capacity to inform freight management

Freight Re-timing Feasibility Study – work with Boroughs &

Freight Consolidation Campaign – promotion campaign industry to develop proposals for central London

delivered to retail and construction sectors in central London by end of 2014

> Re-moding Freight / Servi

planning authorities, relevant suppliers and customers Promote use of rail and water – engagement with PLA,

LAst Mile Logistics (LAMILO) Project – EU funded project delivering a freight consolidation centre in Camden and consolidation capability at Euston Station by 2015

study examining methods of reducing congestion from Logistical Information & Collaborative Working - pilot the growth of internet shopping

Freight Management Studies – further studies to improve the management of freight

replace existing discount by July 2013 to ensure only zero Ultra Low Emission Discount to Congestion Changing or ultra low emission vehicles receive a 100% discount also outlined in 'Greener Streets'

**Smart Charging** 

Reducing congestion

and pollution

Ultra Low Emission Zone Feasibility - study to examine implementing a ULEZ in central London by 2020

Low Emission Zone – feasibility study into consider future Folling Feasibility – study to examine potential for tolling of new infrastructure

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#### Changing Behaviour / Managing Demand

deliveries are made

Examining how

Tactical TDM - targeted interventions associated with construction of major road schemes &/or changes to network

promote flexible working; encouraging London businesses

Encouraging Flexible Working – campaign in 2013 to

to change their employment policies and practices, to

better facilitate employees working remotely

operation (activities delivered in tandem with respective road scheme / network operation)

support behaviour change that maximises the use / value

of TfL investments, e.g. promoting cycling on new CSHs

Behaviour Change Initiatives - targeted interventions to

Cycle to School Partnerships – increase number of pupils

travelling safely to school by bike

practice learnt from London 2012 Olympics, disseminate

message through business engagement programme

Supporting a Reduction in Vehicular Traffic – using best

Car Clubs – work in partnership with industry to support

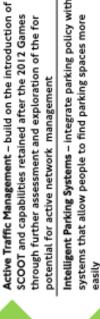
and Use Planning

management Intelligent

#### Changing Behaviour / Managing Demand

Outcome	Smart Work Centres & practices	Flexible working  Travel Demand  Management	TDM to encourage put of peak travel and cycling/walking	Active Network	Managing demand across the network	Parking Policy
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expanding the use car clubs	Work Active Traffic Management –			potential for active network	Off Annual Parishing Contents
	Active Network	Management	Managing demand	044	across the network



Intelligent Parking Systems – integrate parking policy with systems that allow people to find parking spaces more easily  London Tourist Coach Action Plan – launched by autumn 2013, will address key issues for tourist coach parking
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collaboration with Confederation of Passenger Transport

Coach Parking Map – to be updated annually in

Cycle Parking Standards – research strengthening the case for more demanding cycle parking standards

'Car-Lite' and London Plan - work with GLA on policy to reflect car-lite development in planning decisions

	nt Within TfL business plan – 2016 to 2021/22		A23/A232 Fiveways Croydon - fundamental reconfiguration of existing fiveways junctions	AI MILL HILL Circus - options to improve efficiency of roundabout operation are being investigated	A40 Acton - Possible dynamic tidal lane allocation on A40 between Gypsy Corner and Old Oak Common	ng and	и	ш	36	ole .	<u>.</u>	- t	Tooley Street - revised highway alignment and gyratory operation following completion of London Bridge development	f. (s
	Within current mayoral term: present to 2016	A243 Leatherhead Road Junction with Malden Rushett (Rushett Lane) - capacity enhancements/junction widening				Bus Priority Corridors - investment supporting economic revitalisation in London's Opportunity Areas by providing new links and services (see also 'More Efficient People Movement' and 'Connections to Growth Areas')	Inner Ring Road Study – recognition of strategic importance of network function and new developments	Further Studies – to address remaining sites where congestion will not be addressed over medium/long term	Roofing – research into covering major roads, minimising traffic impact, reducing severance	Tunnelling – research into tunnelling to remove strategic traffic from surface, freeing space for other uses	Local grade separation – research into separation measures, such as flyunders or floating roundabouts for cyclists, at pinch point locations	Engagement with Developers – help promote innovative proposals which provide new public spaces and support sustainable transport modes		Old Street (Tech City) - replacement of roundabout with peninsular; improve urban realm, interchange facilities, cycle facilities (see also 'Re-imagined Streets and Places')
	Outcome	Junctions Enhancement Plan		_					Improved Separation,		Measures to balance competing functions of the road network		Connections to growth areas	Unic
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# Within current mayoral term: present Outcome

Within TfL business plan – 2016 to

to 2016

Connections to growth areas Unlocking potential

growth areas

Bus Priority Corridors - Investment supporting economic

revitalisation in London's Opportunity Areas by providing

new links and services (see also 'More Efficient People

Movement' and 'Junction Enhancement Plan')

White City - TLRN improvements required on A40 and A3220 to support growth in homes and jobs in this area

A12 Bromley-by-Bow - potential new grade separated A12 junction tied to Bromley-by-Bow North and South development sites

A12 Upper + Lower Lea Valley - ongoing improvements at Tottenham Hale Gyratory and subsequent TLRN work to facilitate Meridian Water development Earls Court - scheme to facilitate/unlock substantial growth in area as identified by London Plan

Shepherds Bush Town Centre (West) - Improve linkages/ routes from the local area to the two stations on the

Connected Croydon - improving pedestrian permeability and quality of urban landscape between key interchanges and residential, recreational, and commercial areas Hammersmith and City Line

to provide adequate highway capacity linkage between A13 A13 Renwick Rd (Barking Riverside) - Junction improvement and Barking Riverside development

development to open 2021, subject to consents/funding Silvertown Tunnel / Gallions Reach Crossing – support

studies for future schemes for capacity enhancement, Future Studies: North & South Circular Improvements improving journey times and journey time reliability

upgrades in pedestrian and cycling infrastructure (see also A3211 Tower Hill Gyratory - streetscape enhancements, 'Re-imagined Streets and Places')

#### Glossary

Call-cancel technology	Technology typically used at crossing signals that identifies when it is no longer necessary to provide a 'green man' signal phase to allow crossing as pedestrian(s) have already crossed or have moved away
Central London Cycle Grid	Delivery of a central London 'Bike Grid' of high- quality, high-volume cycle routes, using a combination of segregation and quiet shared streets, along with some innovative use of existing infrastructure
CIP	Corridor Improvement Programme
CMA	Calcium Magnesium Acetate is a de-icer and can be used as an alternative to road salt
Core and vac technology	This technique allows for rapid repairs to faults such as gas leaks, typically saving up to five days of carriageway occupation. A small core is drilled out and 'keyhole' tools are used to make the repair with the core replaced immediately afterwards
DCLG	Department for Communities and Local Government
De-cluttering	De-cluttering a street involves the removal of unnecessary signs, road markings, guard railing, bollards and any other superfluous street furniture, as well as merging the functions of other on-street facilities where feasible
Early-start traffic signal technology	Early-starts operate at traffic signals and provide a dedicated green light for cyclists to wait ahead of other traffic, often at junctions or roundabouts
ELV	Extra Low Voltage
Freight consolidation	This is when several small deliveries, all being forwarded to the same location, are bundled and transported together
GLA	Greater London Authority

Green wall	Also sometimes known as a Living Wall.
	This is a wall covered with vegetation which has benefits such as cooling city blocks, reducing loud noises, and improving a building's energy efficiency
HGV	Heavy Goods Vehicle
LAMILO	EU-funded 'LAst MIle LOgistics' is a European Commission funded project. The project will simplify last mile logistics and embed new ways of delivering goods by changing behaviour of private companies, the public sector and consumers
LED	Light-Emitting Diode
Legible London	An easy-to-use way finding system that presents information from a pedestrian perspective in a range of ways, including on-street signs and printed maps to help people navigate London
LIP	Local Implementation Plan. This is a borough transport strategy outlining their transport objectives and programmes for the future
LoHAC	London Highways Alliance Contract is a joint initiative between TfL and London's boroughs, to deliver a reliable, reputable and cost-effective highway works service across London. Until now, highway works have been carried out by a vast range of different contractors
LSTCC	London Streets Traffic Control Centre
Mini-Hollands	Transformational change in up to four Outer London town centres to provide exemplar facilities for cyclists. Programmes will be based around providing cycle-friendly town centres, cycle routes and cycle 'superhubs' at local railway stations
MPS	Metropolitan Police Service
Over-height vehicle detection	System to warn drivers of an impending problem and alert drivers to take corrective action.  Predominantly used in advance of bridges, tunnels

	and railroads
Pedestrian Countdown	Pedestrian Countdown is an automatic system used at traffic signals that shows exactly how much time is left to cross the road
P2W	Powered Two-Wheelers; motorcycles and scooters
eP2W	Electric Powered Two-Wheelers or electric motorcycles and scooters
PPA	Planning Performance Agreement
Quietways	A well-signed network of radial and orbital routes outside central London, mainly on low-traffic back streets, for those wanting a more relaxed cycle journey
RTF	Roads Task Force
SCOOT	Split Cycle Offset Optimisation Technique
Source London	Source London is the Capital's electric vehicle charge point network and membership scheme
TCMS	Traffic Control Maintenance and related Services
TDM	Travel Demand Management
TLRN	Transport for London Road Network
Utility corridors	These are also known as 'pipe subways' and allow the placing of utility services in structures that can be accessed without the need for excavation, avoiding traffic and pedestrian disruption
ULEZ	Ultra Low Emission Zone
UTC	University Technical College
VMS	Variable Message Sign
VNEB	Vauxhall Nine Elms Battersea
VOSA	Vehicle and Operator Services Agency

