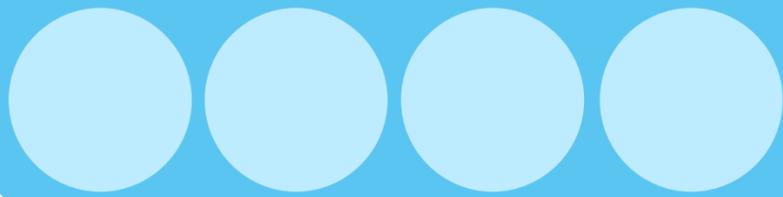
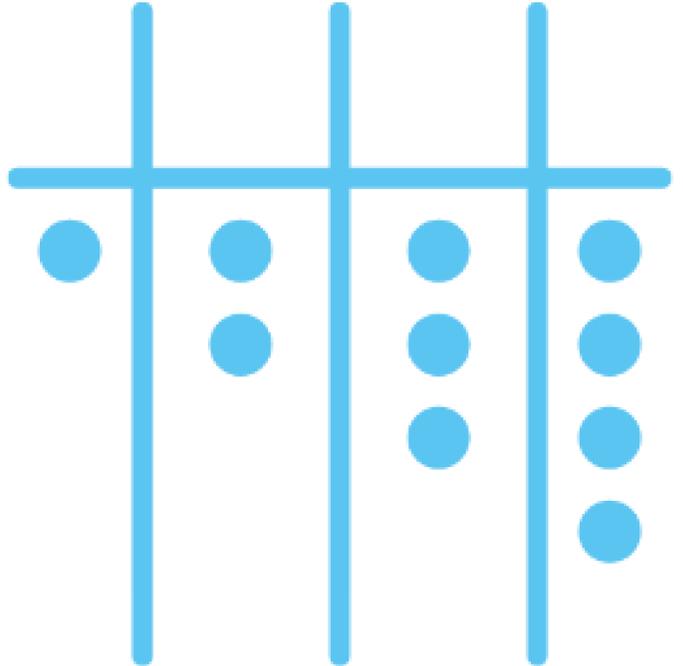


CRP's Connect 4 Series: Session 3



CRP's Connect 4 Series



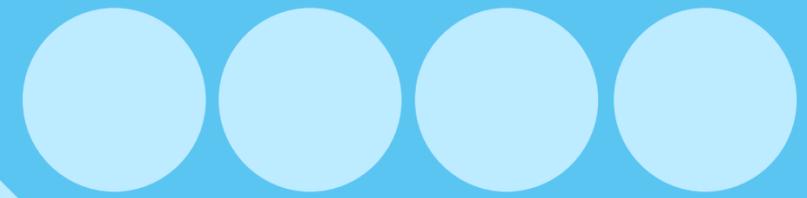
Mitigating the negative impact of road traffic in London: Reduction, Innovation and Legislation



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Today's Agenda



Isidora Rivera Vollmer



Ollie Bolderson



**Gordon Sutherland
Mark Thirkell
Morag Robertson**



**Discussion
and
questions**

Please post your questions and thoughts throughout this session in the chat box





Annual Report 2021 - 2022

Business Plan 2022 - 2023

CRP's vision is to address sustainability challenges collaboratively in London and beyond. As a testbed for exciting projects in towns and cities, we will share knowledge, evidence, and best practice for the people who live, work and visit these places.



I am delighted to be writing this introduction from such a positive perspective after the years we've all just lived through. CRP has weathered the storm incredibly well. From cutting annual fees to support our BID partners to cutting our coat according to our cloth in terms of costs, we've managed to maintain and often enhance our support to you and our projects throughout. Working to support the climate emergency remains a top priority for us all and our unique history of utilising our role withing the public/private sphere has made it possible. Being part of the CRP Board has become one of the proudest parts of my working life and I hope you all appreciate, as much as I do, our relationships and the support we all receive from our wonderful team. 2022 is going to be another year of challenges and rewards. Let's get to it!

Simon Pitkeathley, CRP Co-Chair,
CEO, Camden Town Unlimited & Euston Town BIDs

Cross River Partnership brings people together across London, across sectors and across communities to develop and deliver far reaching and sustainable ideas and projects. This collaboration ensures a London for all that live, work and visit our capital.

Keith Bottomley, CRP Co-Chair, Vice Chairman of the Policy and Resources Committee Chairman, Port Health and Environmental Services Committee

At Central District Alliance, we are proud supporters of the work CRP have done, and continue to do, across London. We are working directly with the CRP team on delivering the Clean Air Villages 4 programme, which will have a direct impact on air quality in the capital. We are committed to working in partnership with organisations like CRP and will champion their work alongside CDA's own sustainability priorities. The work they do to bring the London BID community together on key issues such as climate resilience is incredibly valuable, not least as the capital city is pulling together more than ever in response to the COVID pandemic.

Debbie Akehurst, Chief Executive,
Central District Alliance

CRP is a vital partner for innovators and they have given EMSOL the opportunity to prove our pollution solution in a new environment – along the River Thames. The Clean Air Villages 4 project is an important test bed for the future of freight movements in our cities and will be the exemplar evidence and solution that we can roll out across London and take to other cities.

Freddie Talberg,
CEO and Co-Founder, EMSOL

It's been great having the support of the CRP team. Their work exploring the possibility of implementing a micro-consolidation hub in West London for Museum deliveries is of real value and wouldn't have happened without them. We're really looking forward to the outcomes of this study.

Kimberley Lewis, Environment and Sustainability Officer, Natural History Museum

CRP continues to go from strength to strength. We are extremely grateful to all of our funders, partners and associates for their ongoing support. The need for collaboration has never been stronger. I know we will all rise to the challenges of doing our bit to address environmental and economic issues effectively in London and beyond.

Susannah Wilks, Director, Cross River Partnership

I'm looking forward to another year of collaborating with our partners to bring positive change to London. Together we tackle many projects, including air quality, greening spaces, reducing congestion, cultural endeavours, active travel and more. It's gratifying to see our work take shape and improve the quality of life for Londoners, and even better when it serves as a template for other cities.

Sefinat Otaru, Project Manager,
Cross River Partnership

ecofleet moved into its warehouse in Battersea in August 2019 and began operating as one of London's last mile zero emission cargo bike delivery service providers. In October 2019 Cross River Partnership passed by for a visit and since then an amazing collaboration has ensued, taking our team of riders to five south London boroughs, covering 2,003 miles, with a savings of 797 kg CO2e emissions. This would be equivalent to charging 96,913 mobile phones. At the time, as newcomers to this industry, CRP's belief in our work, gave us not only validation of our mission but also marked them as one of our first valued clients. Serving the various London Boroughs including Westminster, Lewisham, Merton, Richmond-upon-Thames and Wandsworth has been highly rewarding, knowing that the CRP team is doing its best to investigate, identify, educate and thereby help improve London air quality through great collaborations not just with ecofleet but other bike operators in the greater London area. Clients in this area have had the chance to try an alternative means of transport replacing polluting vans and lorries and some have become clients going forward.

Farah Asemi, Founder and CEO, ecofleet mindful delivery

The Port of London Authority has worked with Cross River Partnership through the development and implementation of innovative projects to tackle London's environmental challenges and to secure modal shift. The PLA supports CRP's vision across London to promote the sustainable use of the River Thames to help tackle the climate emergency.

James Trimmer, Director of Planning and Development, Port of London Authority



Speaker 1

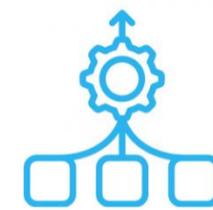
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Vollmer**



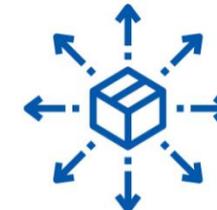
Rail Freight Feasibility Study - Context

CRP's Clean Air Villages 4 (CAV4)

- Defra-funded project led by Westminster City Council, in collaboration with 26 project partners
- Aims to improve air quality across different London 'villages'
- Building on award-winning CAV1, CAV2 and CAV3 programmes
- Freight Solutions include Consolidation, Distribution, Mode, Technology and Policy elements



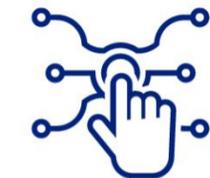
Consolidation



Distribution



Mode



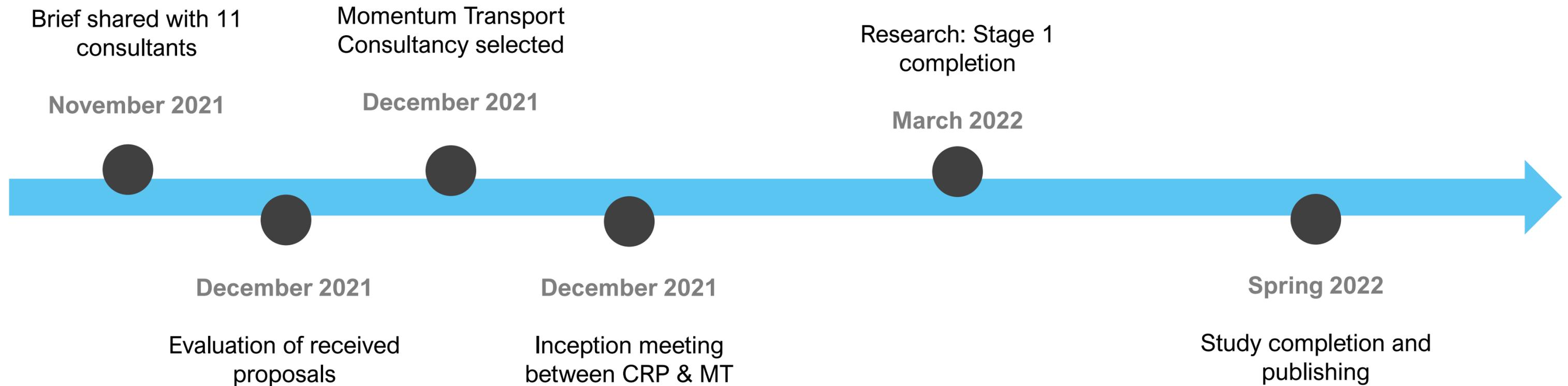
Technology



Policy

Rail Freight Feasibility Study - Context

Timeline



Rail Freight Feasibility Study - Context

Why did we commission this feasibility study?

- A shift towards rail freight can tackle issues such as:
 - Air quality
 - Congestion
 - Sustainable last-mile delivery challenges
- Businesses in London interested in incorporating rail freight into their logistics are looking for viable solutions and guidance



Rail Freight Feasibility Study - Context

What are the aims of this feasibility study?

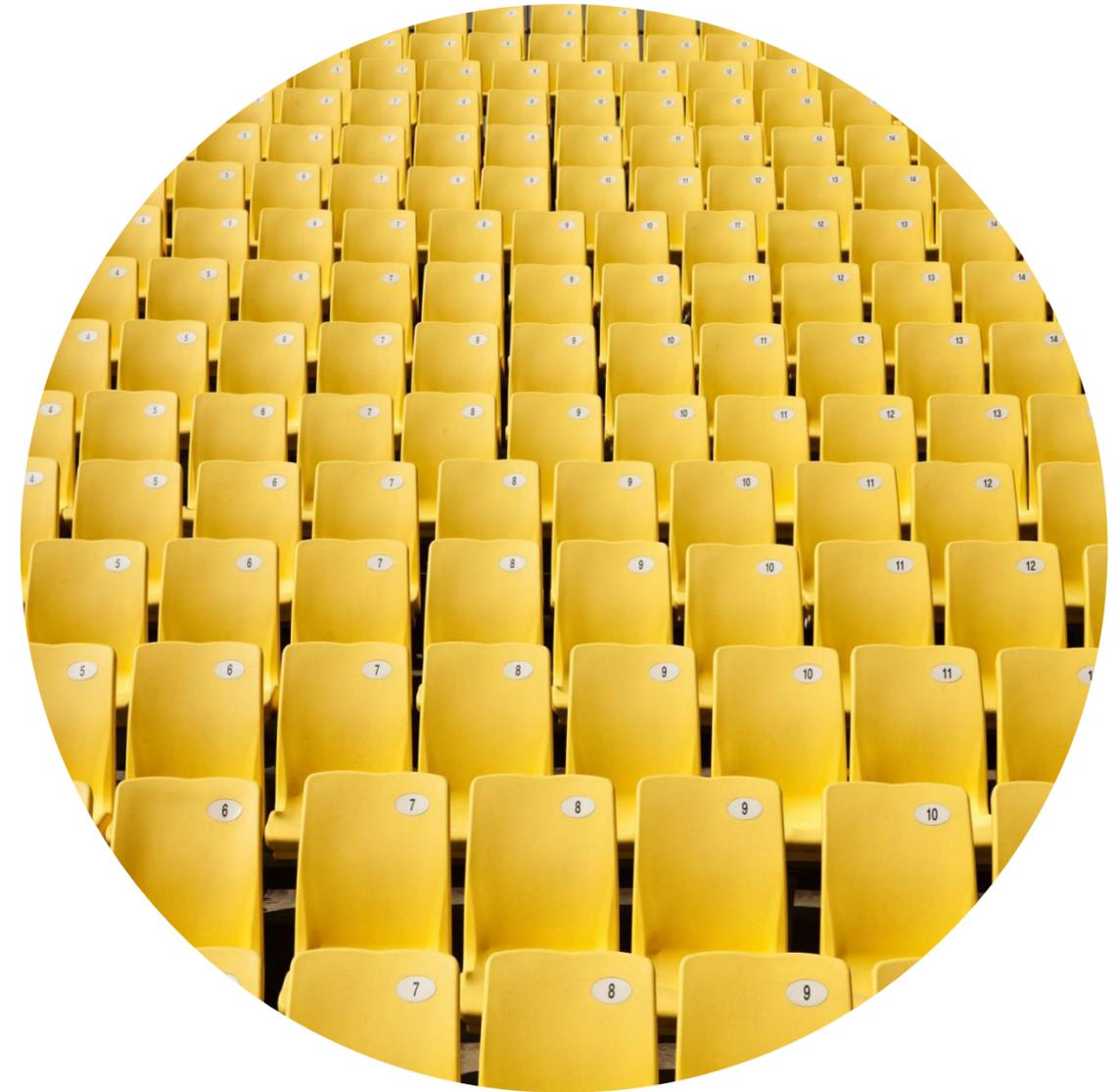
- Identify and understand barriers and opportunities for rail freight.
- Help to enable the use of rail freight for supply chains and logistics.
- Include helpful learnings and recommendations on how to solve identified challenges surrounding rail freight into London.



Rail Freight Feasibility Study - Context

Who are we aiming to target?

- Retailers / Businesses / Organisations
- Logistics providers
- Freight operators
- Rail operators
- Wider rail industry
- Facilitators (BIDs, local authorities, landowners)



Rail Freight Feasibility Study - Context

What will this study include, for example?

- Research on past trials as well as current freight and rail models
- Key findings of stakeholder engagement
- Summary of barriers and key challenges
- Summary of identified opportunities
- Recommendations and viable solutions



Rail Freight Feasibility Study - Context

What next?

- Momentum Transport Consultancy is carrying out this study
- Study to be published in spring 2022
- Study will be shared with CAV4 project partners and also posted on CRP's website



Rail Freight Feasibility Study - Context

CRP's next projects:

- Clean Air Logistics for London (CALL)
 - Defra-funded project
 - July 2022 – June 2023
 - to be delivered with 10 project partners
 - River freight supported by zero emission delivery methods
- Clean Air Freight (CAF)
 - Urban Health - funded project
 - May 2022 – June 2023
 - public and private sector partners
 - Rail freight into London and last-mile logistics

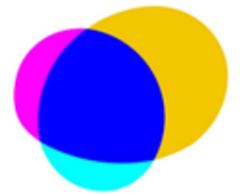




Speaker 2

Ollie Bolderson

momentum
transport consultancy



Jacobs

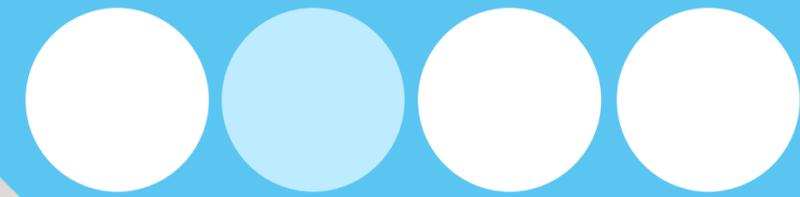


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Department
for Environment
Food & Rural Affairs

Who we are



Momentum is an integrated transport consultancy. We specialise in the study of transport and mobility in complex environments.

**50+ person team of
Planners
Modellers
Engineers
Analysts
& Designers**

By combining vision, technical understanding and design, our integrated team and services ensure that transport and mobility are accounted for in the development of successful urban and regional spaces.

With offices in London, Scotland and Canada, we work with urban and regional development stakeholders around the world to develop areas for the long term and to ensure the sustainability of the built environment. We aspire to create spaces, buildings and places that operate efficiently whilst being lively and welcoming for the people who use them. We're proud of our lasting relationships with our clients, including architects, planners, developers, public institutions and local authorities. Our team - of transport planners, engineers, modellers and analysts - embraces the unique challenges facing our projects. Tackling the complexity of transport issues by developing innovative and bespoke responses for each scheme.

3

OFFICES IN

LONDON
MONTREAL
EDINBURGH

3

FOUNDING DIRECTORS

9

YEARS OF OPERATION

Jacobs



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The Study

The Premise

Freight vehicles disproportionately contribute to key issues in cities:

- Air quality
- Road safety
- Congestion

Transitioning to more freight by rail could address some or all of these issues.

The Study

Feasibility study into expanding the rail freight network in London.

Understanding where trials have been undertaken and what we can learn.

Focussing on both freight trains and adapted passenger trains.

Considering different demand and goods types.



Parameters

Limiting impact on rail timetabling

Focus on terminus stations

Demand and goods match

Goods that are easier to consolidate and lend themselves to bulk packaging will be best for freight by rail

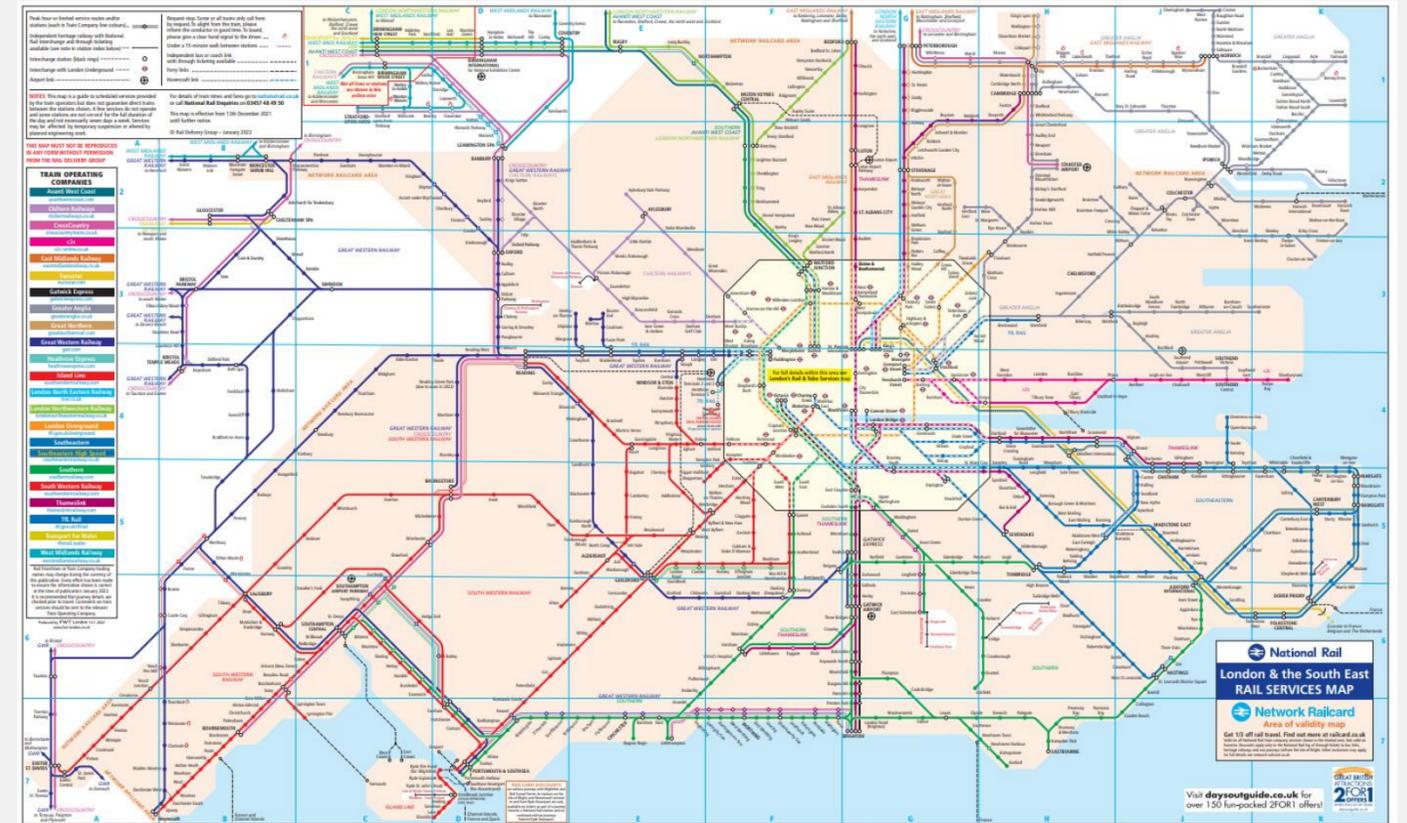
Learning from a wide range

River freight – e.g. DHL service; Walbrook Wharf for CoL waste

Construction-specific rail and river freight

Cargo planes

Interviews with major stakeholders



Trials and case studies

Samada, Logistics subsidiary of Monoprix, France

Operational 2007-2017. **Warehouses siding the rail line**, which allowed **direct transfer to the carriages**.

Connections had to be built between the warehouses and the railway network, and an agreement was needed with the SNCF (French national railways) for the shuttle service and for the use of 3,700sqm of platforms in Bercy. Goods were then dispatched with natural gas vehicles.

5PL and East Midlands Trains (EMT), UK:

Same-day service is provided for small volumes of freight (food and drink, legal documents and computer equipment) in secure compartments on High Speed Trains operating between Nottingham and London St Pancras International.

Door to door service is provided through the integration of first and last mile courier operations.

Orion High Speed Logistics, UK

Converted passenger trains used to carry freight. The interior of the train was stripped of seats and fitted with metal floors and equipment to hold wheeled cages full of retailers stock. This could accommodate significant volumes of parcels.



Interviews – key takeaways

Passenger trains

COVID impact on passenger demand may free up capacity. Freight trains are already in very high demand by large singular operators like major supermarkets.

Commercial challenge

Freight operators can work to very low margins – 1-3%. This can limit the ability to invest in innovative approaches with high up-front cost and more risk.

The appetite is there

All of the key major players want to introduce rail freight into their daily operation. They are largely motivated by sustainability – end users care increasingly about their supply chain, freight operators look to minimise carbon footprint, and Network Rail and TfL are



TRANSPORT FOR LONDON
EVERY JOURNEY MATTERS

CAMDEN
TOWN
UNLIMITED



Public realm impact

Stations are busy places – major pedestrian movement hubs, retail units, interchange, onward facilities – buses, pavements, roads. Careful consideration needed to integrate freight into this already complex picture.

The main motivation is road freight cost

As it becomes more expensive to drive in central cities – ULEZ, fuel costs, HGV driver shortages – operators are increasingly open to non-road operations. Future Road User Charging in London could be a catalyst for change.

Station Assessment

Limiting impact on rail timetabling

Focus on five terminus stations in London:

- Liverpool Street Station
- London Euston Station
- Old Oak Common Station
- London Victoria Station
- London Waterloo Station

Demand and goods match

Goods that are easier to consolidate and lend themselves to bulk packaging will be best for freight by rail: High value goods, bulk items, non-perishable goods.

Spatial demand

Land-use demand for these goods ranked:

1. Residential
2. Non-food retail
3. Offices
4. Food retail

RAIL FREIGHT FEASIBILITY STUDY

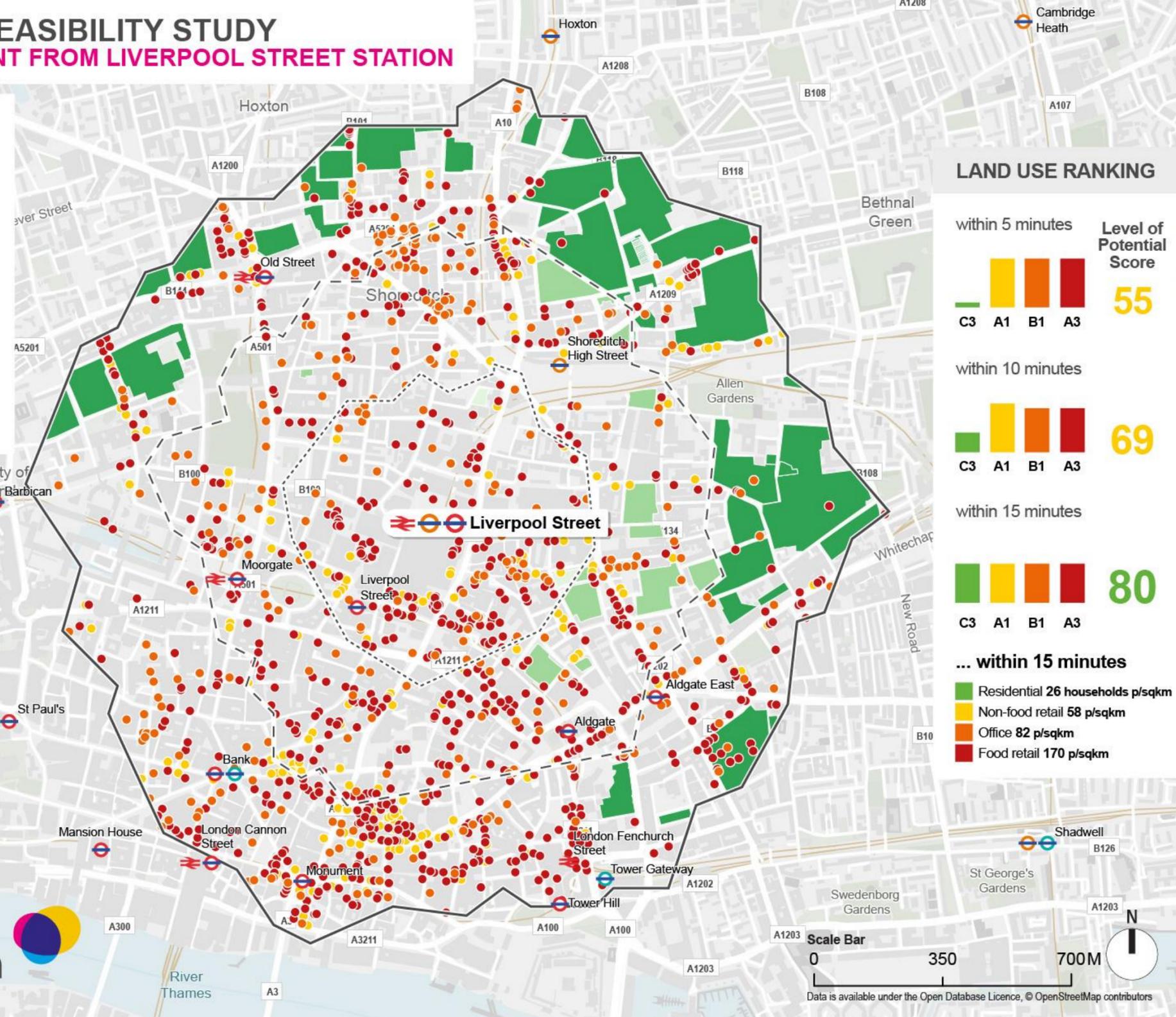
WALKING CATCHMENT FROM LIVERPOOL STREET STATION

- National Rail
- London Overground
- London Underground
- Docklands Light Rail

Walking Catchment
(based on 4.8 km/ph walking speed)

- 5 minutes
- - - 10 minutes
- 15 minutes

- Land Uses**
- Residential (C3)
 - Non-Food Retail (A1)
 - Office (B1)
 - Food Retail (A3)

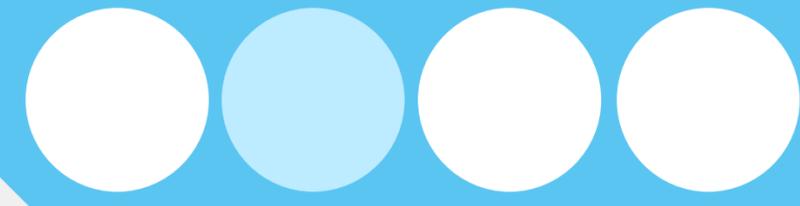


LAND USE RANKING



Scale Bar
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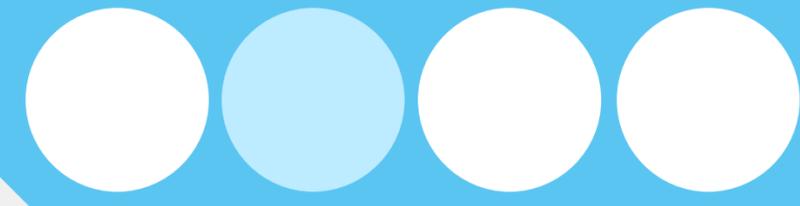
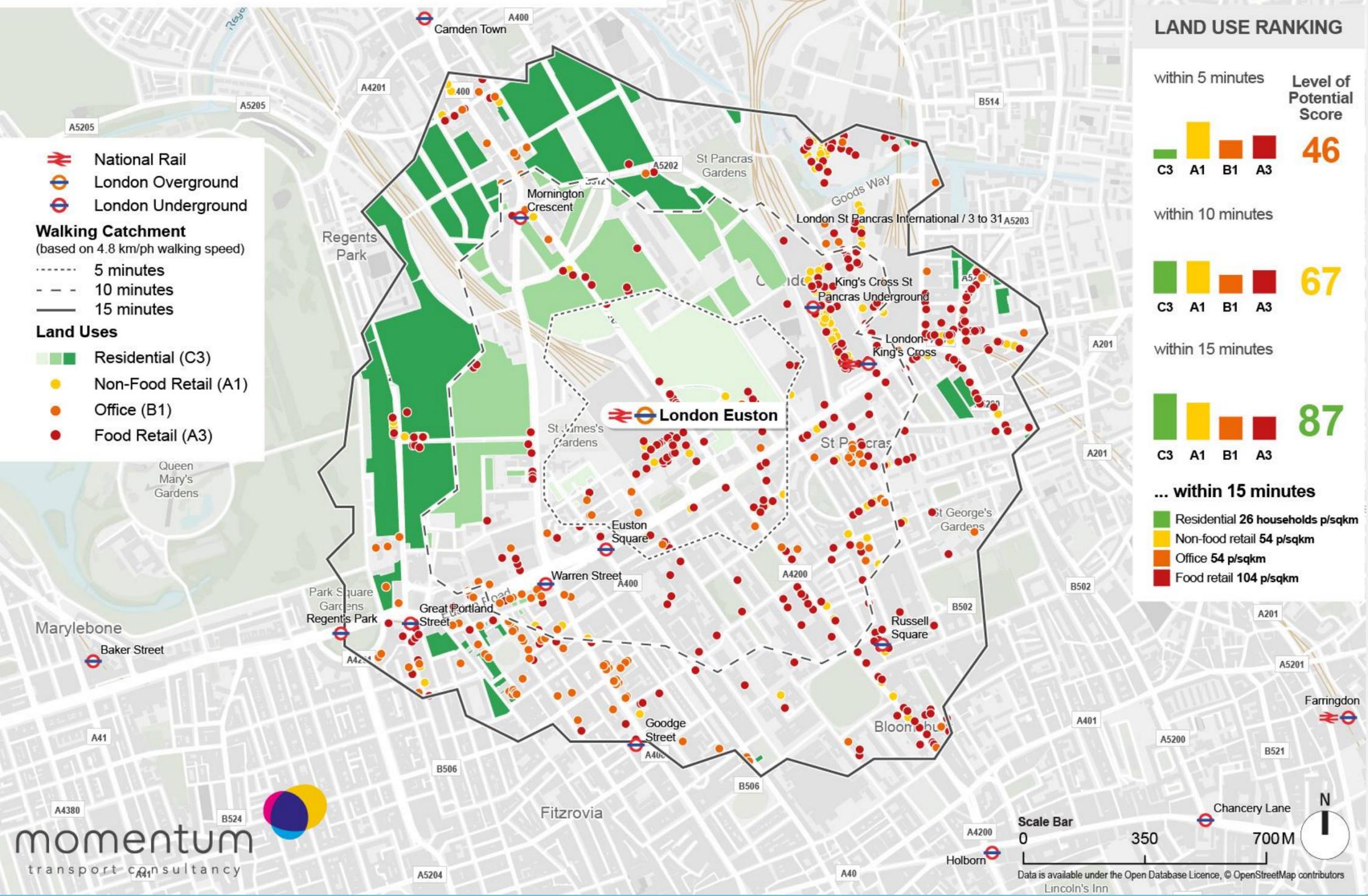


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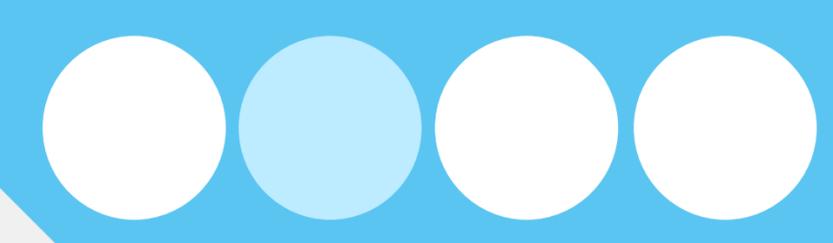
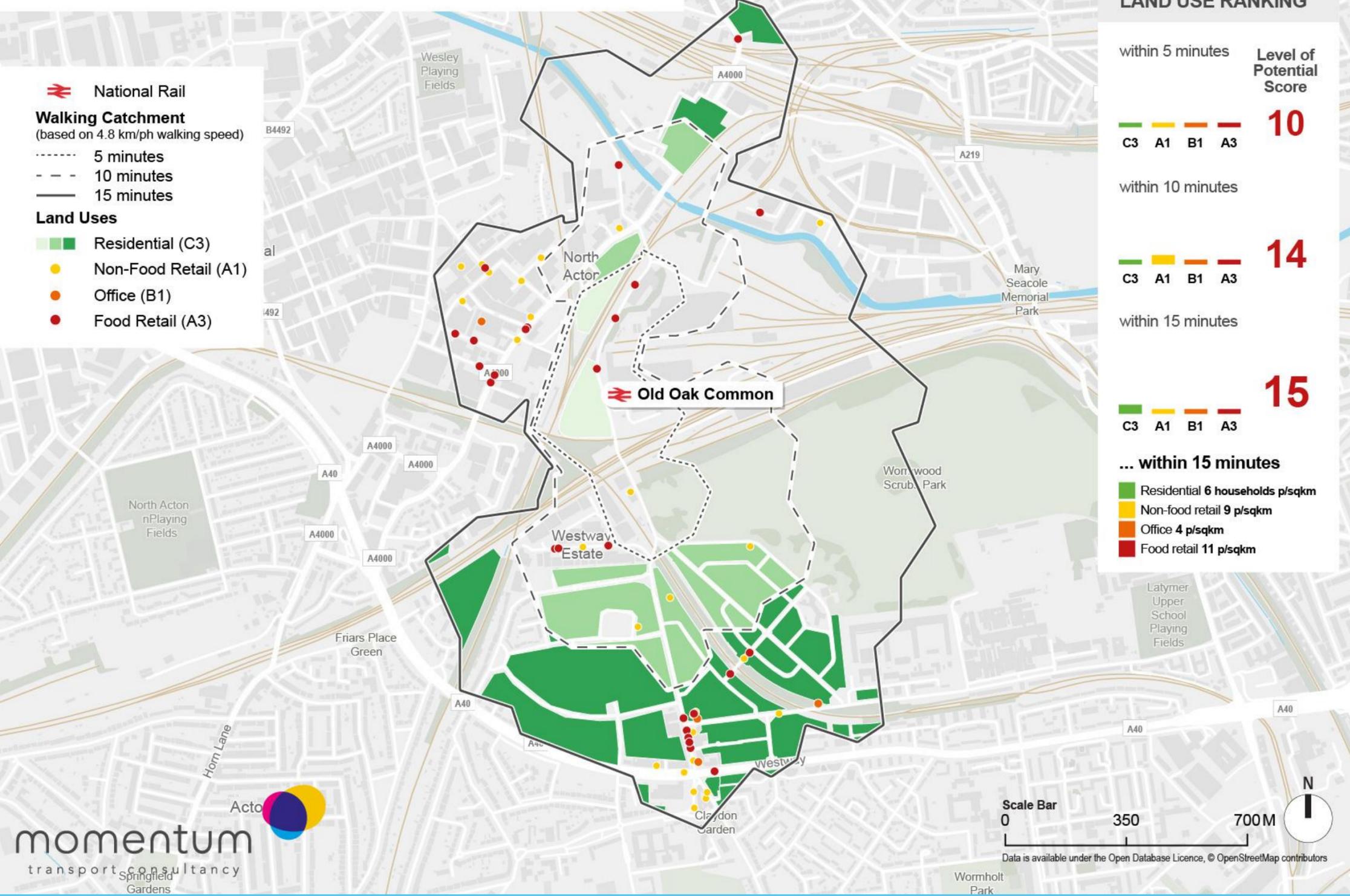
RAIL FREIGHT FEASIBILITY STUDY

WALKING CATCHMENT FROM LONDON EUSTON STATION



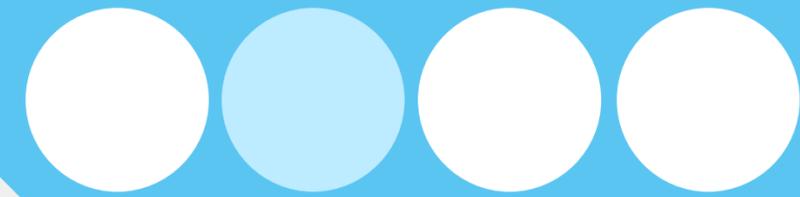
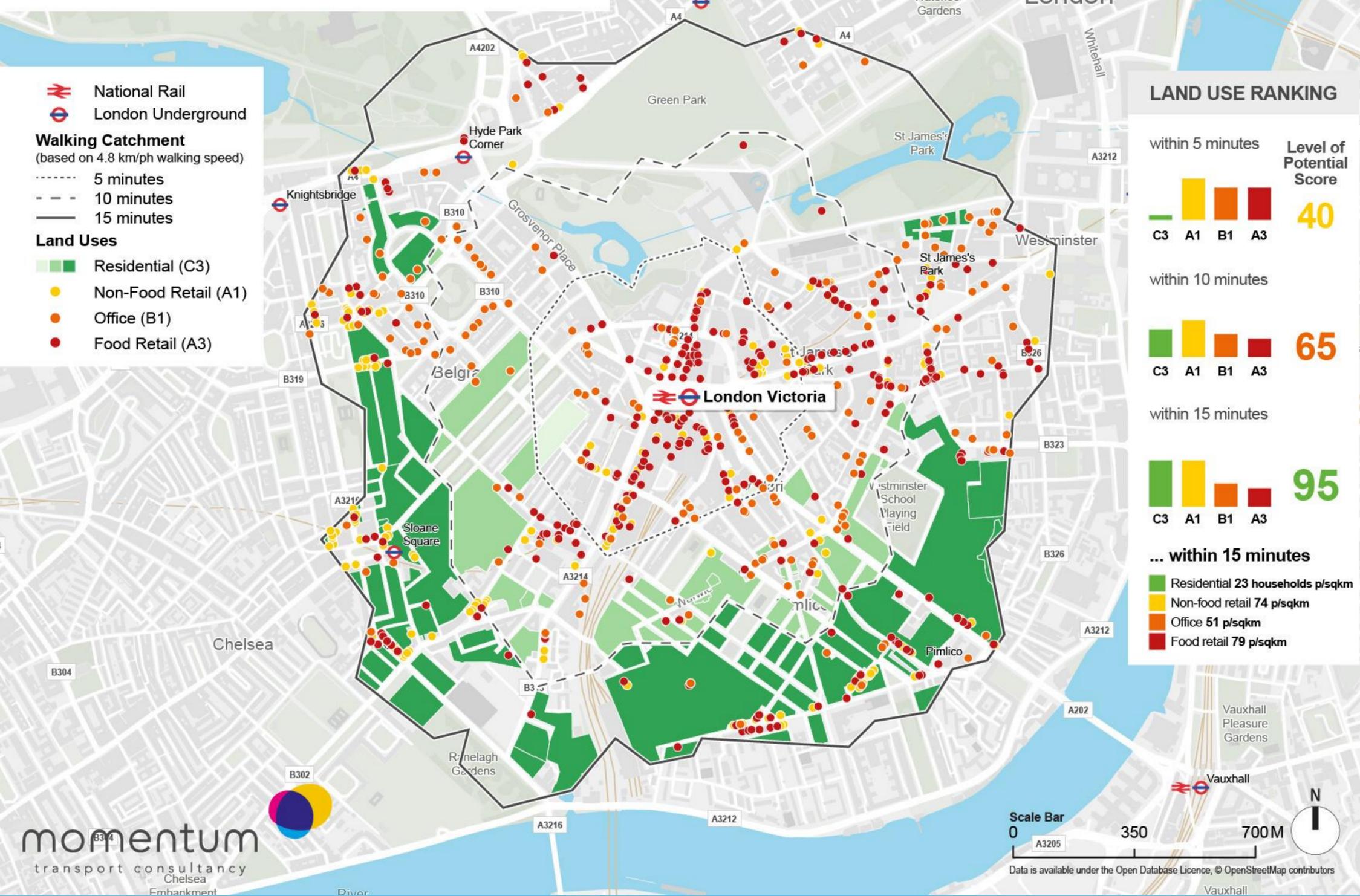
RAIL FREIGHT FEASIBILITY STUDY

WALKING CATCHMENT FROM OLD OAK COMMON STATION



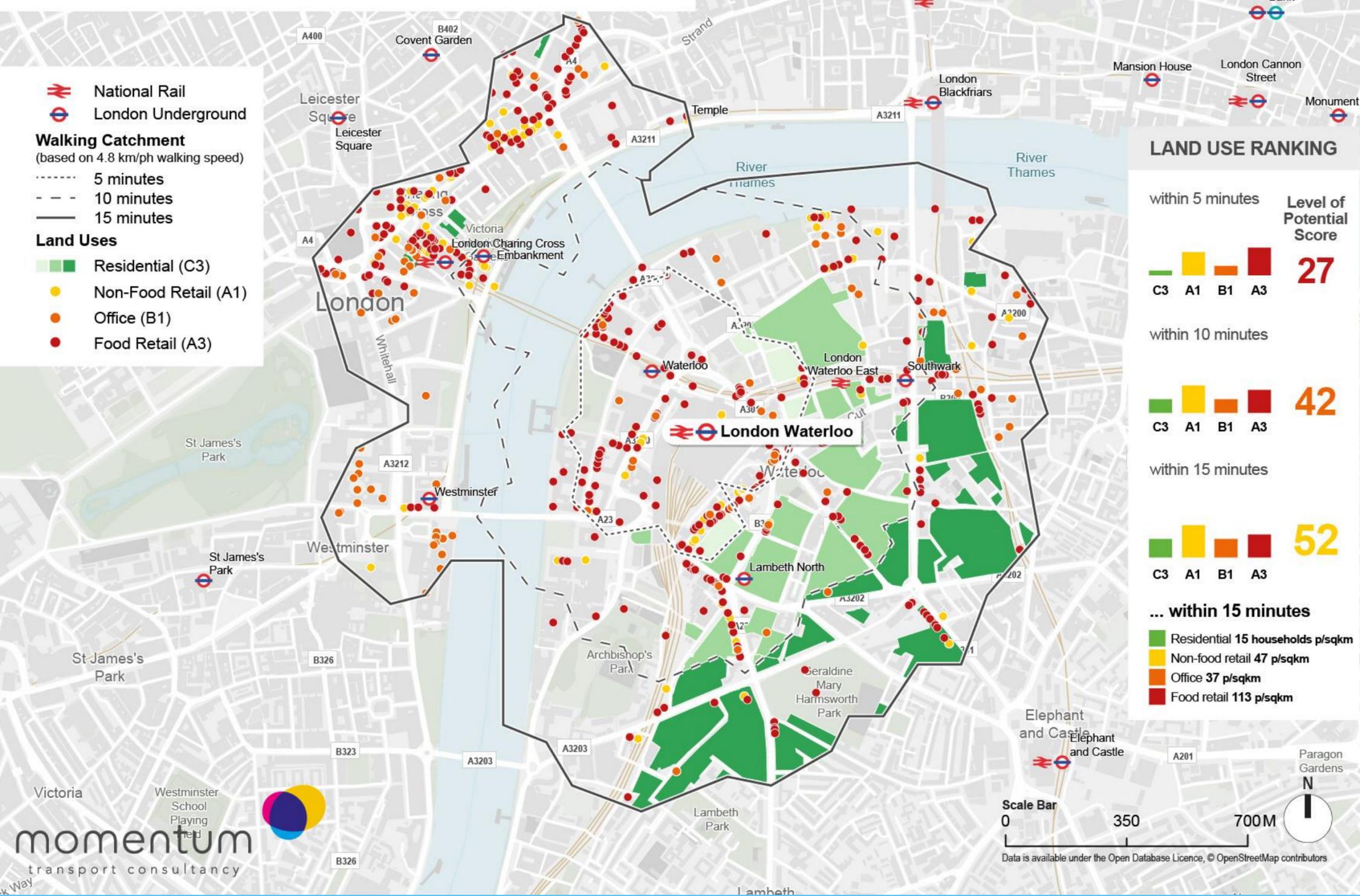
RAIL FREIGHT FEASIBILITY STUDY

WALKING CATCHMENT LONDON VICTORIA STATION



RAIL FREIGHT FEASIBILITY STUDY

WALKING CATCHMENT FROM LONDON WATERLOO STATION



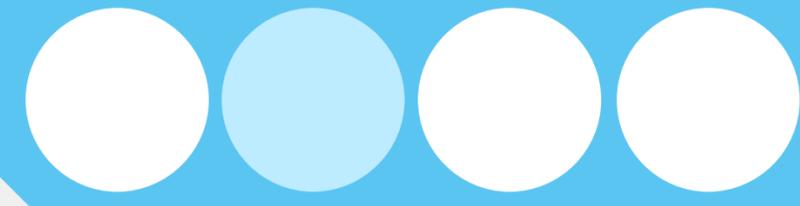
- National Rail
 - London Underground
- Walking Catchment**
(based on 4.8 km/ph walking speed)
- 5 minutes
 - 10 minutes
 - 15 minutes
- Land Uses**
- Residential (C3)
 - Non-Food Retail (A1)
 - Office (B1)
 - Food Retail (A3)

LAND USE RANKING

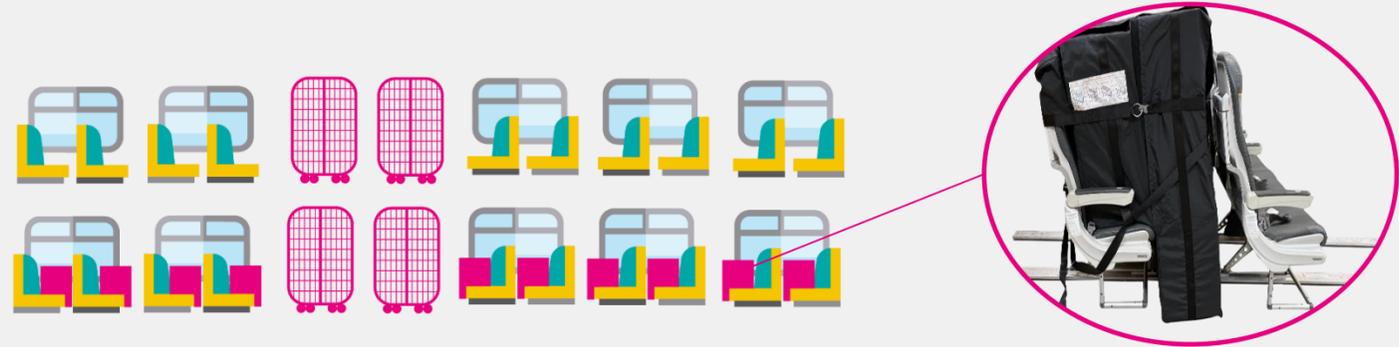
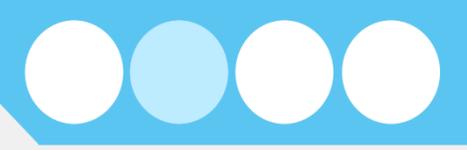


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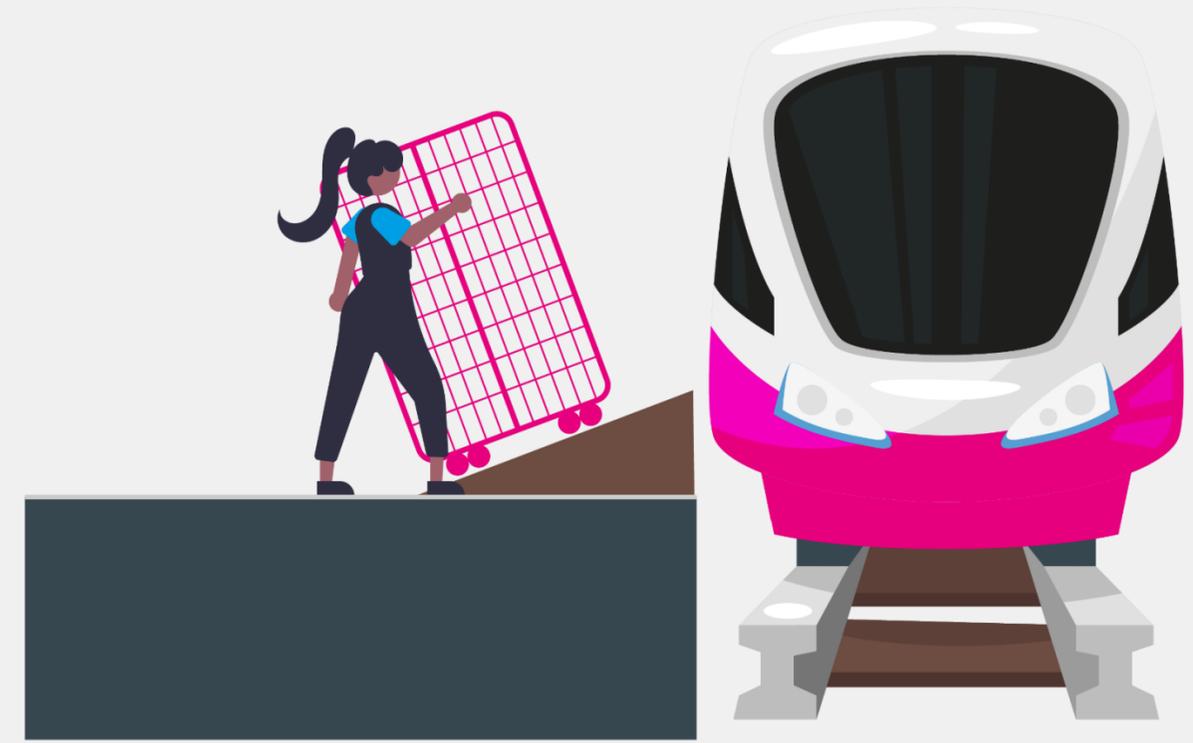
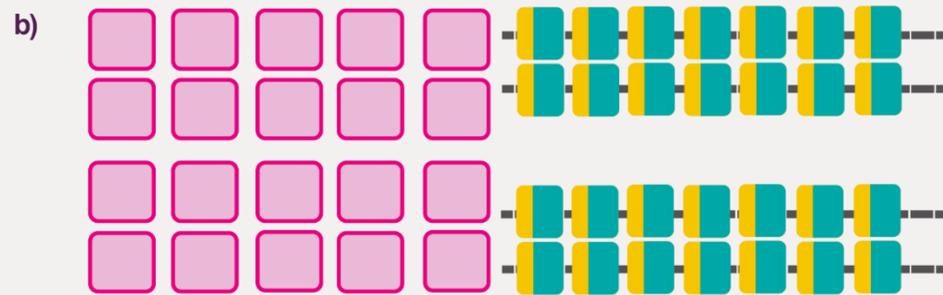
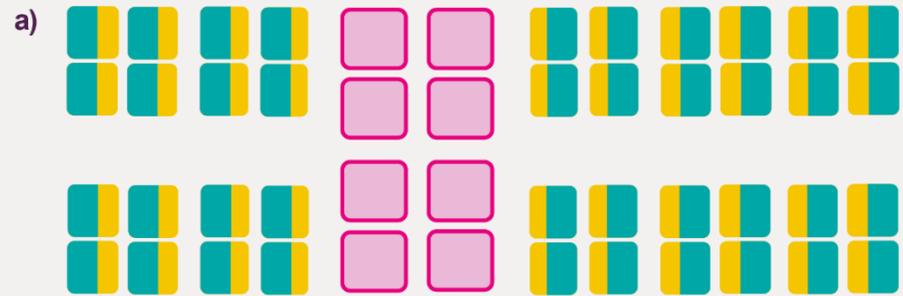
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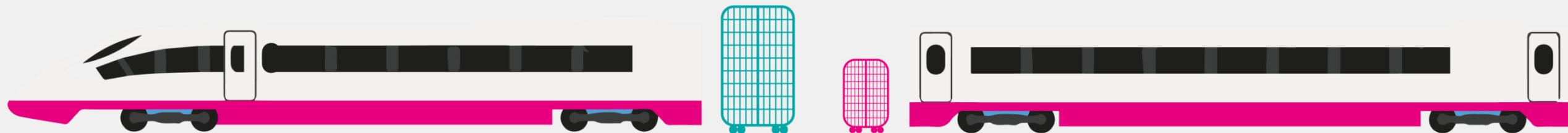
Interim Findings & Recommendations



Overhead train carriage



Platform



Interim Findings & Recommendations

Policy Recommendations

Road User Charging in London: Will catalyse non-road freight.

Real-estate management: Save spaces at stations for operational uses. There is a potential to coordinate with Great British Railway, and discuss the opportunity of using trains holding areas near stations.

Manage station / road interface space: Prioritise pedestrians around stations to implement last-mile vehicles (cargo bike / EV vehicle) infrastructure. This can take the form of soft landscaping well incorporated into the public realm around the station and only activated during delivery times.

Operational Recommendations

Types of goods: Focus trials on high value goods, non-perishable goods and bulk items.

Spatial strategy: Implement trials in strategically located stations, within walking / e-bike distance of higher potential land-uses: London Victoria Station, London Euston Station, Liverpool Street Stations.

Container adaptation: Focus on converted passenger trains with temporary or permanent adaptations.

Rail / Freight forum: Improve understanding of requirements and operations to create a friendlier design and policy environment and encourage partnership.



Gordon Sutherland
Mark Thirkell
Morag Robertson

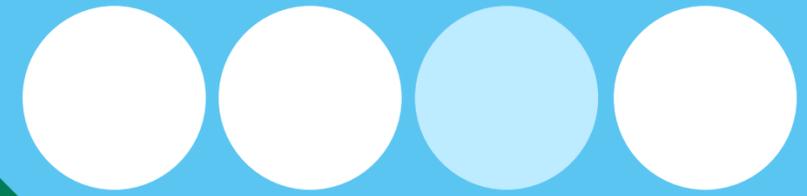
Jacobs

Jacobs



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Environmental benefits of CLPs

Mark Thirkell, Jacobs
Morag Robertson, Jacobs
Gordon Sutherland, Jacobs



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If this is the answer – what is the question?

35%

How much of London's HGV
traffic is related to
construction?

What are Construction Logistics Plans?

- A Construction Logistics Plan (CLP) is a key tool for planners, clients/developers, construction contractors and their supply chains.
- The CLP focuses on construction supply chains and how their impact on the road network and the site environment can be minimised.



Why Construction Logistics Plans?

- The Mayor's Transport Strategy promotes the use of CLPs.
- For all planning applications that meet the criteria for referral to the Mayor, comprehensive transport assessments, travel and CLPs will need to be submitted in accordance with TfL's best practice guidance.
- London's local authorities develop their own guidance and policies about the use of CLPs and what they need to include.



Environmental Benefits of Construction Logistics Plans

Congestion reduction

- Congestion reduction can be achieved by more efficient management and coordination of construction vehicles going to and from a site.
- The CLP will state what delivery booking and scheduling system is used to organise deliveries.

Environment

- Environmental benefits through minimising the number of journeys needed to service a construction site and applying best practice efficiencies to those journeys.

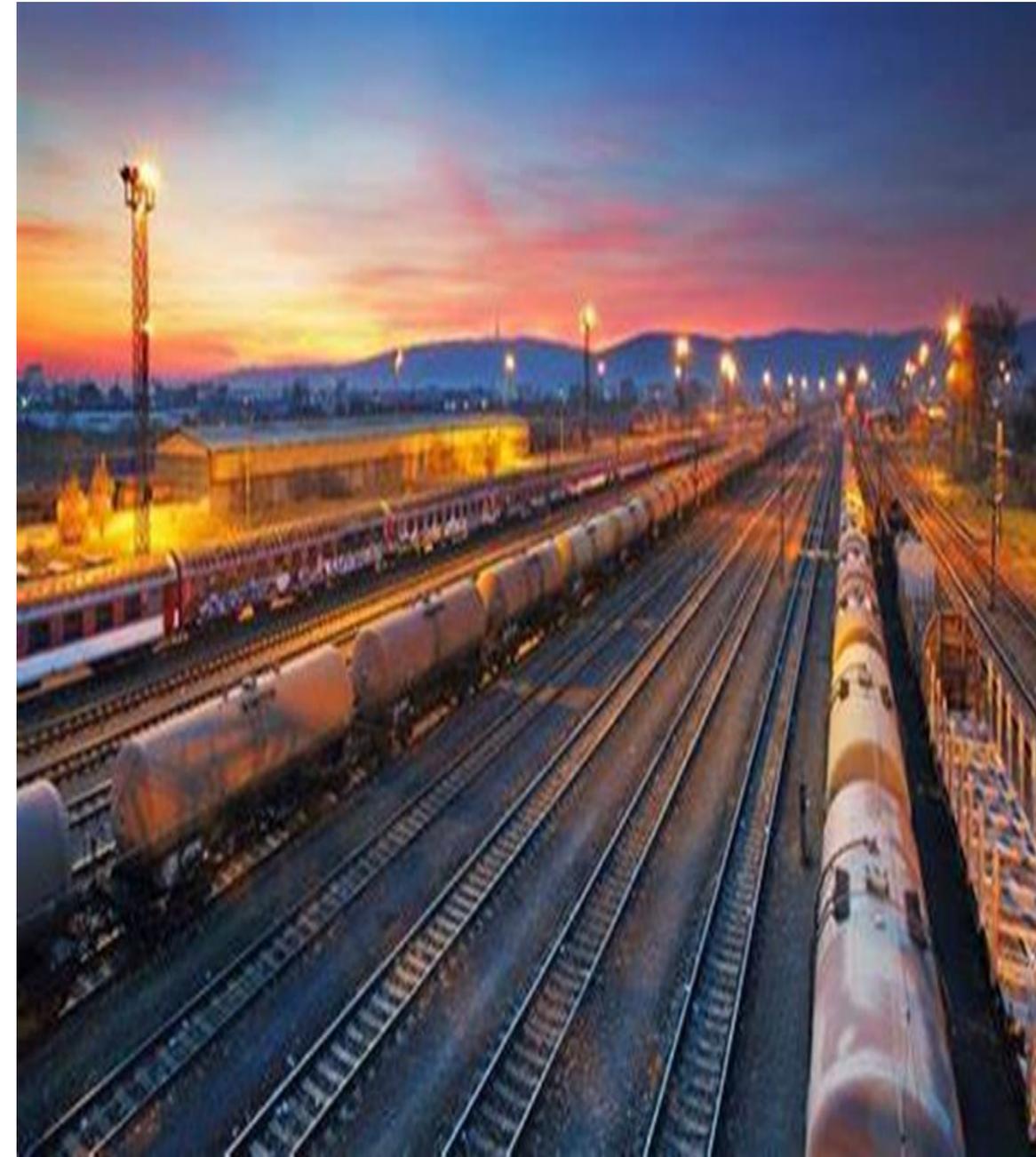
Safety

- CLPs encourage fewer road trips.
- CLPs oblige clients and developers to set out their strategies for addressing risk to vulnerable road users
 - Vehicle safety equipment
 - Driver training standards



How do CLPs improve air quality and carbon?

- Planning deliveries to maximise vehicle capacities
- High delivery success rates
- Using modern, low emission vehicles
- Making optimal use of vehicle management
- Using rail and water freight wherever possible
- Off site manufacturing / DfMA / modularisation
- Consolidation, holding areas
- Re-timing and off peak deliveries
- Innovation



Driving innovation - Construction Delivery by Cargo Bike

- Total distance for van (restricted route and holding) = 33.6 km
- Total distance by cargo bike = 21 km
- CO₂ (diesel 25mpg) for van = 10 kg CO₂/km
- Approx. total time by van (incl. compliance check) = 76 mins
- Approx. total time by cargo bike = 39 mins
- Cargo bike rider benefits (calories) = 310 kcal

Additional benefits of using cargo bikes include the ability to utilise cycle lanes and avoid associated congested areas thus reducing the cumulative impacts on the environment.

However, consideration needs to be given to rider competency, load distribution and obligations to other road users



Case Study: Tideway



TIDEWAY ROUTE MAP

WEST SITES	CENTRAL SITES	EAST SITES	SITE TYPES
1 Acton Storm Tanks	8 Falconbrook Pumping Station	17 Chambers Wharf	○ ○ ○ Main tunnel drive site
2 Hammersmith Pumping Station	9 Cremorne Wharf Depot	18 Earl Pumping Station	● ● ● CSO site
3 Barn Elms	10 Chelsea Embankment Foreshore	19 Deptford Church Street	■ Main tunnel reception site
4 Putney Embankment Foreshore	11 Kirtling Street	20 Greenwich Pumping Station	○ System modifications
5 Dormay Street	12 Heathwall Pumping Station	21 King Edward Memorial Park Foreshore	— Main tunnel (West)
6 King George's Park	13 Albert Embankment Foreshore	22 Bokesbourne Street	— Main tunnel (Central)
7 Carnwath Road Riverside	14 Victoria Embankment Foreshore	23 Abbey Mills Pumping Station	— Main tunnel (East)
	15 Blackfriars Bridge Foreshore	24 Beckton Sewage Treatment Works	— Connection tunnels
	16 Shad Thames Pumping Station		— Lee Tunnel
			◀ Proposed drive direction



Case Study: Tideway

- At Tideway the primary concerns of local stakeholders and communities has included vehicle movement volumes, roadworthiness and emissions. CLPs oblige the developer and the contractors to meet certain standards as may suit the local area. These concerns informed the Development Consent Order (DCO) which embedded commitments on Tideway to address them in consultation and agreement with local planning authorities
- By completing a CLP, contractors will be able to ascertain when certain materials, plant and equipment is needed in line with the programme, which in turn allows them to explore opportunities in terms of economies of scale during their procurement processes for example.
- The CLP also requires compliance with key initiatives such as FORS and CLOCS which help to ensure fuel efficiency of HGVs and other related vehicles such as vans.
- Through driver training obligations in CLPs, this reduces the risk of collisions and hence the social and environmental impact of deliveries on the locality

The environmental benefits of CLPs: Tideway

- CLPs will also incentivise contractors to think about how best to transport what they need to and from site, with emphasis being placed on sustainable freight principles; i.e. the use of rail/water ahead of road and air, or a combination which produces the least emissions and associated risk.
- CLPs include commitments to adhering to the minimum standard set by the LEZ and ULEZ. There is no exemption allowed by simply paying the charge.
- Performance of the employers' contractors has been governed by a set of KPIs embedded within the Construction Logistics Plan (CLP). Performance reports are produced for presentation to key stakeholders every quarter where the EC's performance was reviewed, including areas for improvement. This contributed to an over 99% compliance rate for safety and environmental performance of road transport.



What next for CLPs?

- Improved consistency / compliance and improved monitoring by Boroughs and TfL
- Better promotion of use and benefits – creating good case studies, encouraging wider uptake outside of London - working with CLOCS
- Further work on proofs and promotion of the environmental benefits of CLPs
- Highlighting more examples of how CLPs help address the congestion and provide efficiency benefits
- Any scope for quantifying the benefits of CLPs based on empirical data?? For example the CLP has resulted in X amount of carbon reductions / has improved Air Quality by X compared with a baseline start.



Contact Information



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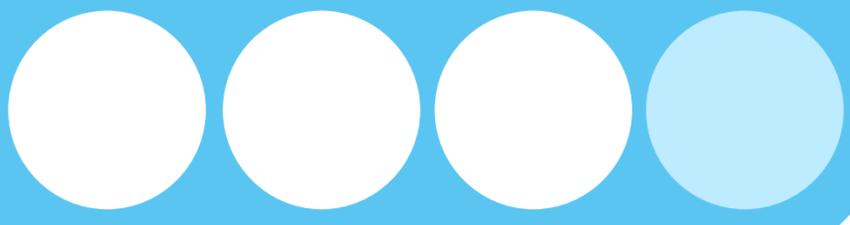
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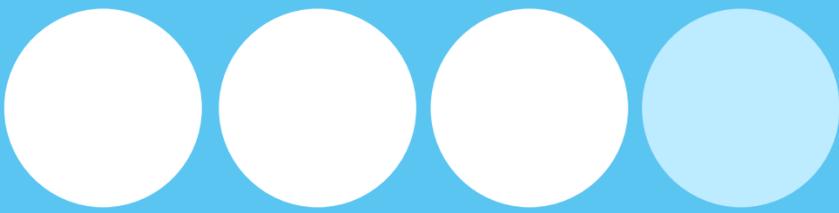


Search 'Cross River Partnership' on YouTube

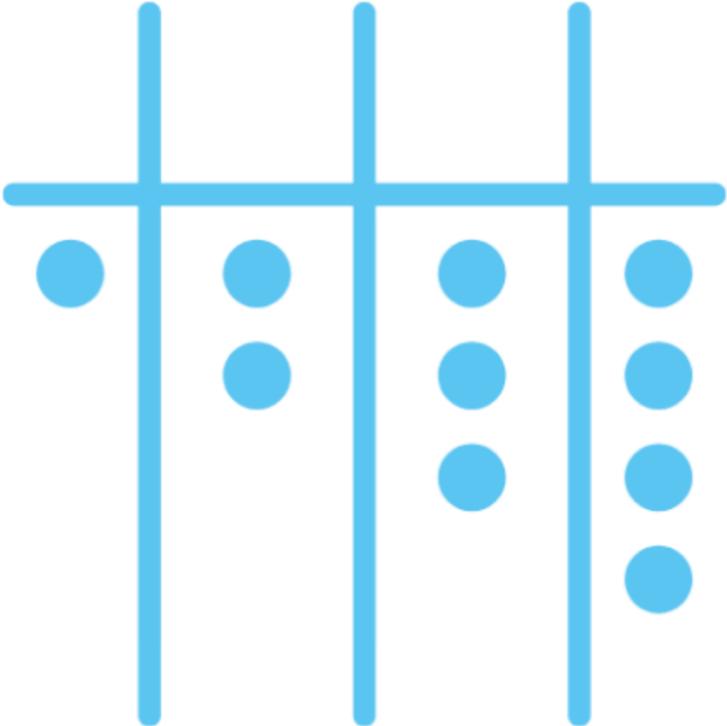


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CRP's Connect 4 Series



CRP'S CONNECT 4 SERIES

**SESSION 4:
Thursday 28th April
4pm - 4:45pm**



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