



# Over site development

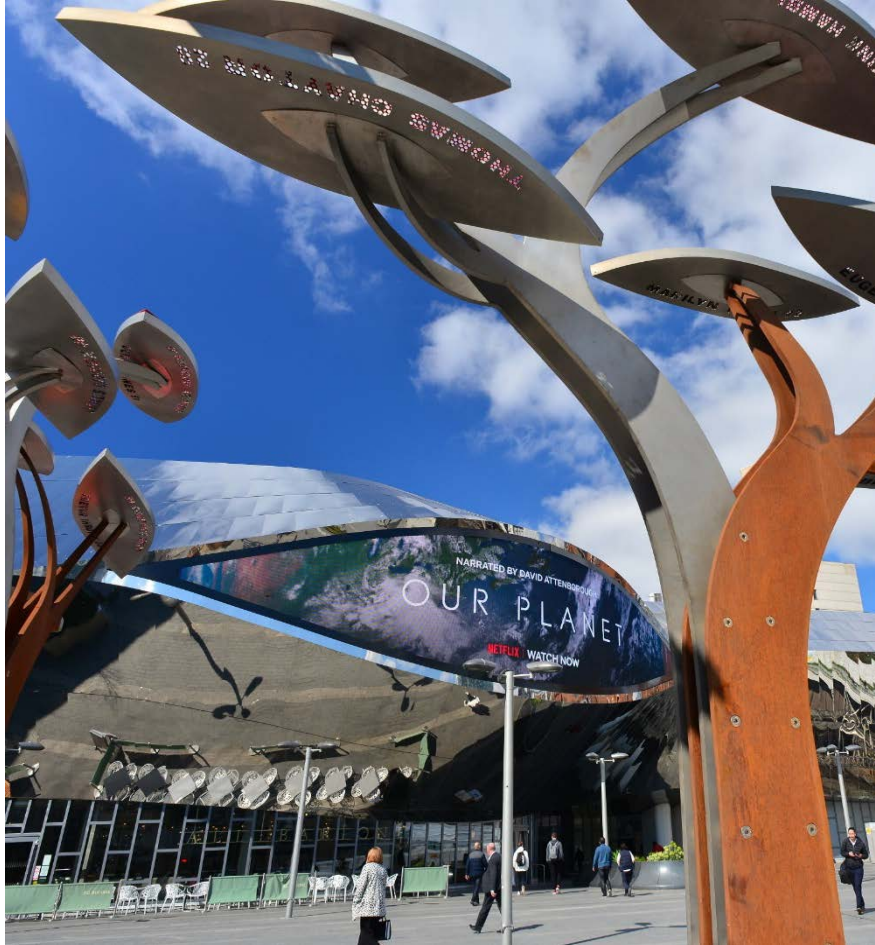
Ivan Dowman | Network Rail



# Network Rail

- Circa 1.8 billion passengers in 2018
- 20,000 miles of track
- 40,000 bridges and viaducts
- Thousands of tunnels signals and level crossings
- 2,500+ stations
- We manage largest 19 stations
- Encourage development in and around the railway and re-invest in the railway
- Release land for housing
- Work with local communities





# The case for station investment

- 92 % of UK population will live in cities by 2030
- Passenger numbers to double in the next 25 years
- Stations as destinations
- Driving a new wave of economic and social development
- Helping to address the UK's housing needs
- Creating jobs and business opportunities
- 30 % uplift in property values following substantial station improvements

# Property

- Champion the role of stations
- Supporting the operational railway and large enhancement schemes
- Deliver a Sustainable Income Model and create Secure new sources of investment
- Create great places for passengers & communities through social value & sustainability



**Increasing demands on budgets** to operate and maintain the railway mean we need to increase the value we realise from our assets by greater involvement and innovation.

**Changes in our funding model** will mean business cases will need expertise that can draw together composite funds from Government and third parties and support Regions in evaluation and approvals.

**Putting the passenger first** is a direct challenge to explore opportunities that actively contribute to infrastructure enhancements, beyond capital or revenue income.

**Overcoming traditional railway challenges** can make a measurable contribution to national policies such as house building and cleaner air for better placemaking and access to low emissions modes of transport.



## Generating future investment

- Day-to-day activities of development are to dispose of c.250 sites surplus to operational requirements, to:
  - Deliver over c.9,000 residential units
  - Generate c.£500m in capital receipts
  - Deliver c.£225m of additional railway enhancements
- Investigate over-site development and decking opportunities
- More ambitiously pursue major development and regeneration opportunities, such as at Euston, Clapham Junction and East Croydon station through land assembly



# IDEAS ABOVE YOUR STATION: EXPLORING THE POTENTIAL FOR DEVELOPMENT AT LONDON'S STATIONS

Kat Hanna  
Nicolas Bosetti

## Potential for over site development

- Centre for London independent publication
- Increasing urbanization
- Population growth
- Demand for housing
- People want to live near stations and urban centres
- Opportunity to create exciting new spaces/connect communities historically cut off by the railway
- King's Cross gross added value of £600m per annum from the development
- OSD only viable in high value areas due to decking construction costs
- Still in early stages of maturity so costs could come down
- Other countries facing same challenges – Jernhusen ref Stockholm rail OSD site

## Out of Thin Air

Building above  
London's rail lines



wsp

# The case for station investment

- Possible to develop around a quarter of a million new homes in London by building apartments above rail lines
- Estimated around 10 % of the capital's 1,142km of open rail lines could be boarded over and blocks of homes built on top

### Issues:

- Access
- Ownership of adjacent land
- Nature of development above the tracks



# Decking: rafts over the railway

- Projects around the operational railway have a set of specialist issues:
  - Schedule 8 compensation
  - Possessions which can be cancelled at short notice as well as cost.
- This can pose obstacles for developers to price the risk
  - Network Rail leading early solutions would create new opportunities for residential and commercial development in high value parts of London.
- Decking (or rafting) over the railway is not new. Examples such as Broadgate and Liverpool Street and Arundel Square in Islington have shown what is achievable.





# Decking: rafts over the railway

- There are two main construction methodologies.
  - Bridge structures – the Solum Twickenham scheme
  - Encapsulating rail lines – the Royal Mint project
- A fund could be used to pay for the construction of the raft structure, isolating the railway and disposing of a site to a developer who is then protected from ongoing rail interface issues.
- This would create new opportunities for residential and commercial development in high value parts of London



4  
13-15  
storey  
blocks



50%  
Site footprint  
available for  
foundations



200  
Apartments



- The DLR lines cut deeply through the middle of the site and a Network Rail viaduct runs along the northern boundary.
- Beams span over the DLR encapsulation. Braced cores in the buildings support cantilevers over the railway.

## Decking: Royal Mint Gardens



- United House Developments and Londonnewcastle, working with architects Pollard Thomas Edwards
- Delivered decks over a railway cutting in Islington, creating an extra acre of land and the opportunity to create a fourth side to a incomplete Victorian square with a contemporary six-storey apartment building.
- The project also extended and regenerated the gardens in the centre of the square and restored an adjacent terrace of 18 houses.

# Rafting: Arundel Square, Islington





1200sqm  
Decked area



14.1m  
Track spanned  
at widest point



50 %  
Site footprint  
available for  
foundations



2011-19  
From planning  
application to  
completion



18  
Railway  
possession  
used

## Decking: Solum at Twickenham

Delivering a new station as part of a holistic station-related over site development (OSD). Constructed with station closures over three weekends.

The new station concourse includes:

- 115 residential units
- New public open space
- improved station facilities
- lifts from the plaza to platform
- Improved retail and café spaces
- Enhanced local environment
- mixed-use development.

### Planning approval

The scheme did not provide any affordable housing due to the costs of oversite development, which was accepted by the local authority because of extensive station redevelopment.

**MAXIMUM DECKING AREA**

**DEVELOPMENT POTENTIAL**

**DEVELOPING A DECK**


# Clapham Junction

- Busiest railway interchange in the UK
- Lowest customer satisfaction in NRPS
- Over crowded and uncomfortable for passengers
- No concourse, poor connectivity to local area, housing action area nearby, great opportunity for local regeneration
- Considering straighter platforms, future requirement for Cx2 station, customer facilities, connectivity
- Exploring decking solution to provide a platform for mixed use development that could deliver 8,000 homes
- Commercial receipt to help fund operational requirements
- Initial solutions being considered



- Insufficient train capacity requiring platform lengthening and straightening
- Station congestion
- Poor interchange and requirement to integrate Crossrail 2
- Inadequate gate lines requiring retail removal
- Poor public realm, connectivity, wayfinding and poor visibility within and without
- Life expired roof and other operational equipment in Grade II listed station

# Victoria

## Opportunities

- NR is working with TfL, WCC, GLA, DfT, VBID and landowners in a Strategic Working Group
- Jointly funding a Station Environs Strategy as part of a WCC prepared Place Plan
- Kent side track changes would require deck rebuild hopefully enabling property opportunity over Kent Air Space
- Retail to be upgraded and replaced where possible





- Options for development above and adjacent to the station
- Mixture of high rise residential and offices
- Initial design work already underway.

# East Croydon



- Euston station OSD actively being progressed
- A number of other potential sites to come forward
- Each a once in a generation opportunity needing partners able to work in the railway environment.

# Euston station





**Thank you  
Questions?**