Capacity for growth at Camden stations
London Borough of Camden
Culture and Environment Scrutiny Committee Meeting
18 September 2013
In 2012/13 the Tube saw a record breaking year . . .

- **Record passenger numbers**: 1.229 billion journeys
- **Record reliability**: delays down by 20%; down 56% since 2002/03
- **Record service levels**: operating 4.5% more kms over 2011/12
- **Record customer satisfaction**: Games-time record sustained

. . . and demand levels continue to grow in 2013/14
To keep London moving in the years ahead

TfL must continue to meet the travel demands of the capital
Population and total jobs in London forecast to grow significantly by 2031

**POPULATION**

- **750k more by 2031**

**EMPLOYMENT**

- **1.26 Million extra by 2031**

*London is growing at a rate equivalent to Tube train full of people added every week*

Source: London Plan, GLA
Demand is outstripping supply

Rail & Underground Growth since 2003/04
Demand & Supply

- Demand (Passenger Journeys)
- Service Volume (Train KMs)

Growth Reflected at Camden stations

Weekday Passengers
Camden Town

Weekday Passengers
Holborn

Green = interchanging, Yellow = exiting, Red = entering
<table>
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<tr>
<th>Project</th>
<th>Key Milestone</th>
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<tr>
<td>Jubilee line upgrade</td>
<td>A key milestone in our Olympic readiness</td>
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<tr>
<td>Victoria line upgrade</td>
<td>Full fleet in service on Metropolitan line</td>
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<tr>
<td>Circle, District, H&amp;C, Met</td>
<td>A key milestone in our Olympic readiness</td>
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<td>Green Park station</td>
<td>A key milestone in our Olympic readiness</td>
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<tr>
<td>Overground upgrade</td>
<td>Exceeded customer journey target for year one</td>
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<td>Overground orbital</td>
<td>London’s first new orbital railway in 128 years</td>
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<td>Stratford International</td>
<td>Integral part of Olympic Legacy</td>
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<td>Stratford International</td>
<td>DLR extension provides four new stations</td>
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<td>King’s Cross St Pancras</td>
<td>Key station capacity upgrade</td>
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We have increased capacity on the network
and continue to deliver ways to meet the capacity demands of the city
A new Tube for London

This includes ensuring that our next generation of upgrades provide greater capacity, faster, more frequent and reliable trains.
Future Stations Capacity Plan:
Camden Town station upgrade
Northern line: today

- Line provides one of the lowest train frequencies through central-London
- Heavily congested
- Camden junctions cause operational challenges
Northern line: 2014

• Northern line upgrade is underway and on target for completion by December 2014

• New signalling allows for increased train frequency and 20% capacity increase

• No additional trains ordered, increased service frequencies constrained

• Current service patterns continue to operate
Despite line upgrade, new capacity will be quickly absorbed

Key
- <50% seats taken
- <100% seats taken
- <1 person per m²
- <2 person per m²
- <3 person per m²
- <4 person per m²
- <5 person per m²
- >5 person per m²

Demand outstrips supply and crowding will be chronic
Further Northern line upgrade

- In Business Plan
- Scheme is yet to be fully defined
- Several factors need to be considered:

1. Camden Town station is not fit for purpose
2. New approach to line upgrades
3. Changing service patterns
**Camden Town background:**

- In past 5 years Camden demand has grown by 13% in the AM and 18% PM peaks
- Controlled access at peak times/Saturday, no access on Sunday PM
- Growing congestion at bottom of escalators hinders access and interchange
- Some stations have insufficient capacity for *interchange* - when peak reaches approximately 30,000 (total entrance, exits and interchange)
- Assuming current demand growth station any new capacity will be quickly absorbed
- Key interchange at the heart of a Borough poorly served by step-free access
Animation describing the proposed Camden Town station upgrade.
Summary:
• Station upgrade to provide increased capacity, an additional station entrance, step-free access
• Estimated cost between £200-250m

Opportunities:
• Taking lessons from 2004 scheme, a lower scale intervention with new station entrance to complement and connect with existing at platform level
  • Potential to improve Buck Street to realise new gateway to Camden Town e.g. shared surface/pedestrianisation, removing vent shaft to create new space, improved connectivity between the tube, Kentish Town Road and Camden High Street
  • Potential to use school site to improve design/reduce risk
  • The scheme will enable full weekend access and accommodates all planned line upgrade scenarios including enhanced upgrade or full separation
  • Reduced impact on Tube service: all fit out works take place within construction box simplifying programme
  • Lower construction impact than previous scheme e.g. on Trinity Church and Electric Ballroom
Option 1 – Buck Street station entrance

Station design

• Opportunity arising from potential release of school site, ‘Hawley Wharf Development’;

• Incorporation of a ground floor ticket hall on Buck Street, within proposed redevelopment of the site;

• Direct escalators to northbound platform level and Step Free Access provision, all constructed within demise of the box, reducing programme;

• Scheme provides greater concourse space on northbound and southbound levels;

• Potential to realise new gateway for London following removal of the vent shaft and creation of vibrant new space, improving connectivity between Kentish Town Road and Camden High Street;

• Proposed 4 year construction programme.
Option 1 (cont.)

Station box on old school site.

New central

Stair link to lower level and existing station

Tunnelling works can take place in parallel to box construction, via the existing vent shaft, reducing construction programme.

Box construction to -5 level will enable incorporation of lift, associated fire stair and escalators.

Developing Option 1 requires:

• Understanding LB Camden proposals for current school site and if any construction synergies exist

• Defining boundary of proposed worksite and buildings which will be impacted to aid development of diaphragm wall piles and OSD piles

• Agreement on delivery strategy for site which would assess proposals for OSD development and station box construction
Option 2 – Corner of Buck Street / Camden High Street

Station design

• Proposal to utilise previous interim station footprint as permanent scheme;

• Incorporation Heavy Duty metro escalators helps reduce original footprint of station;

• Direct escalators to northbound platform level;

• Additional cross passages between platforms, relieving congestion at base of existing escalators;

• Incorporation of step free access;

• Retention of existing ticket hall which would remain operational during construction;

• Proposed 5 year construction programme.
Developing Option 2 requires:

- Extended construction programme due to additional tunnelling works from station box;
- permanent removal of Buck Street market, replaced by ground floor ticket hall;
- Vent shaft is accessed at sub surface level to facilitate construction access, but will remain on site following project delivery.
Holborn station
Holborn

- Holborn is 11th busiest station on LU network
  - c180,000 customers every weekday and 42.3m trips made annually through the station

- Customer experience is poor with
  - delayed journey times within station
  - AM peak leads to heavy congestion at lower levels of station needing station control
  - PM peak queuing extends out of station and down Kingsway which affects both pedestrians and other transport users
  - regular station control including non-stopping of trains
  - station closures when major assets fail
  - no step-free access

- Demand forecast to grow further over the next decade. Even including the ‘Crossrail Effect’, the congestion situation will deteriorate requiring more station control interventions
Holborn

Animation describing the proposed Holborn station upgrade.
Holborn – Current layout & congestion
Existing AM peak

- Central line staircases and insufficient route-ways leads to congestion to/from platform entrances and route-ways

- Insufficient interchange routes lead to congestion at base of main escalator bank

- Piccadilly line’s lack of routes off the platform leads to congestion at platform level and route-ways
Preferred design solution

Benefits

• Step-free access to all platforms including interchange routes

• Provides interchange routes at low level reducing congestion throughout the station

• Minimises tunnelling impacts

• Allows for future enlargement of ticket hall

• Allows for future Over Station Development opportunities
Preferred design solution – 3D

Grey = Existing
Cyan = Proposed

New route to Central line
New step-free spine
New route to Picc line
Holborn station

Proposed construction methodology
- Use Kingsway Tram Tunnel and surface site at eastern side of Kingsbourne House for construction
- Secondary worksite on site of Kingsbourne House
- Aldwych line for maximised use of spoil removal
- Use of LU engineering trains for delivery of heavy plant and bespoke construction elements
- Station to remain open to customers throughout

Opportunities at street level
- TfL is keen to work with LBC and local stakeholders to identify if wider improvements are possible at Holborn especially with regards to improving access into and around the station and junction.
Holborn station: next steps

• Overall programme is subject to approval of TfL Business Plan
• Seek your input on how we should engage
• Continue and build working relationship with Borough and key stakeholders to develop ideas and identify opportunities
• Commence public consultation
• Continue design development later in 2013
• Aim towards seeking consent (incl. Transport & Works Act) during 2015/16 for Holborn, and to commence construction in 2018
• Camden Town will follow a year or so behind the Holborn programme
• Further innovative and 3\textsuperscript{rd} party opportunities will be investigated to understand potential programme acceleration and cost benefits