### **Board**

Date: 3 July 2013



Item 8: Bank Station Capacity Upgrade Project

# This paper will be considered in public

# 1 Summary

- 1.1 This paper provides an update on the Innovative Contractor Engagement (ICE) procurement process for the Bank Station Capacity Upgrade Project (the Bank SCU Project).
- 1.2 It requests that the Board grants:
  - (a) additional project and procurement authority. This is to enable the Bank SCU Project:
    - (i) to progress to the next phase of design;
    - (ii) to prepare documentation ahead of a Transport and Work Act Order (TWAO) submission, including the preparation of over station development (OSD) proposals and secure associated planning consent;
    - (iii) to continue to schedule critical enabling works to support both scheme development and the TWAO process; and
    - (iv) to continue property purchases, including compensation payment; and
  - (b) procurement authority for the design and build contract for the Bank SCU Project. The Board is asked to note that although the contract will be let as a whole it will comprise two stages where Stage 1 is the work required up until the granting of the TWAO and Stage 2 is all subsequent work. Under the contract TfL will have the right not to proceed to Stage 2 and approval will be sought from the Board if it is proposed that the work proceeds beyond Stage 1.
- 1.3 The amounts requested are within the funding available in the Business Plan for this programme.
- 1.4 On 8 May 2013, the Projects and Planning Panel considered the proposal and supported the recommendations.
- 1.5 On 23 May 2013, the Finance and Policy Committee noted the proposals in this paper and supported the recommendations to the Board.
- 1.6 A paper is included on Part 2 of the agenda, which contains exempt supplemental information. The information is exempt by virtue of paragraph 3 of Schedule 12A

of the Local Government Act 1972 in that it contains information relating to the business affairs of TfL. Any discussion of that exempt information must take place after the press and public have been excluded from this meeting.

#### 2 Recommendations

#### 2.1 The Board is asked to:

- (a) note the paper and the supplemental paper on Part 2 of the agenda; and
- (b) grant Project and Procurement Authority in respect of the Bank Station Capacity Upgrade Project, as detailed in the supplemental paper included on Part 2 of the agenda;
- (c) delegate to the Subsidiaries and TfL Officers (as described in paragraph 2.2 below) authority to award the contract to the bidder offering the most economically advantageous offer and to approve and finalise the terms of the contract and to authorise any documentation to be entered into in connection with the contract (including, without limitation, all agreements, deeds, guarantees, indemnities, announcements, notices, contracts, certificates, letters or other documents);
- (d) authorise the TfL Officers and Subsidiaries to do all such other things as they consider necessary or desirable to facilitate such documentation; and
- (e) note that the contract will comprise two stages (where Stage 1 is the work required up until the granting of the Transport and Works Act Order and Stage 2 is all subsequent work) and that London Underground will have the right not to proceed to Stage 2 and approval will be sought from the Board if it is proposed that the work proceeds beyond Stage 1.
- 2.2 The following Officers and Subsidiaries shall have delegated authority:
  - (a) TfL Officers: the Commissioner, Managing Director Rail and Underground, Managing Director Finance and General Counsel.
  - (b) Subsidiaries: Subsidiaries of TfL including Transport Trading Limited and any other subsidiary (whether existing presently or to be formed) of Transport Trading Limited and any of the directors of the relevant company shall be authorised to act for and on behalf of that company.

# 3 Background

- 3.1 In November 2012, the Board approved authority to purchase six key properties to enable construction to commence.
- 3.2 It is proposed that authority be sought from the Board to appoint a main contractor to develop the scheme's design to support an application for a TWAO in July 2014, including securing any necessary consents and conducting

- consultation. The project will seek Board and Mayoral approval prior to TWAO submission next year, and will seek full authority from the Board for implementation following the TWAO being made.
- 3.3 The current project milestone for contract award of 1 August 2013 requires a decision from the Board in July. If the project does not achieve the contract award milestone, a four month programme delay will be incurred and this carries a financial impact as well as a reputational risk due to expectations in the market created by the ICE process that this milestone would be achieved.
- 3.4 The key project dates and approvals between now and the submission of the TWAO application are:

TfL Board	Contract award	Mayoral Approval for TWAO submission	TWAO submission
3 July	1 August	Spring/Summer	Spring/Summer
2013	2013	2014	2014

# Progress since previous submission

### **Land Assembly**

3.5 The Land Assembly is currently ahead of schedule. Procurement of four of the six properties authorised in November 2012 has completed, plus the procurement of the headlease on the fifth property. Discussions on the remaining property interests are well underway.

#### TWAO and other preparatory works

- 3.6 Some advanced works have been undertaken to shore-up historic properties in the area which may be affected by the works. These costs are included in the total TWAO costs. Memoranda of Understanding have been signed with the Corporation of London and the Church of England.
- 3.7 It is highly likely that the Secretary of State will call a public inquiry once the application for a TWAO has been deposited. In anticipation of this a programme of public information events is underway and will continue in the period up to submission of the TWAO.

# Docklands Light Railways (DLR) Bank Head Shunt study

- 3.8 The head shunt is not included within this submission but design work is ongoing (DLR client led) in order to refine the preferred layout and detail the cost and risk of the scheme.
- 3.9 The DLR programme is not aligned to the Bank SCU programme. A decision as to whether or not to include the head shunt at the time of seeking approval for the TWAO can be made if there is a strong business case and funding in place. However, at this point the proposed Bank SCU tender document does not provide for a joint TWAO. As the design work progresses, a clearer impact of a possible joint TWAO on programme, price and risk to Bank SCU will become known.

### Rationale for project

- 3.10 The effective operation of Bank station is critical to maintaining access to the City of London and to the wider functioning LU and DLR networks.
- 3.11 Bank station has been developed piecemeal over the past 120 years and built in expectation of passenger levels far less than those now using it. Bank is the fourth busiest station on the Underground network, with 96,000 passengers boarding, alighting and interchanging during the AM peak period (07:00-10:00). Demand has increased significantly since 2003 (when this project commenced) with the station experiencing 25 per cent increase in entry, 29 per cent in exit and 41 per cent growth in interchange demand. This trend is expected to continue.
- 3.12 Areas of the station are close to 'saturation' point where day to day demand overwhelms capacity, even during 'normal' operations. Operational controls are commonly implemented due to passenger congestion. These controls range from imposing lengthy one way systems including on-street interchange between lines, non-stopping the Central and Northern lines, suspension of the DLR service or a full controlled station evacuation.
- 3.13 By 2016, the AM peak three hour passenger demand is expected to exceed 100,000 through the effect of significant new employment generated by major commercial development and the increased train service capacity from LU and DLR line upgrades. With this level of demand further operational controls will be required on an ongoing and increasingly disruptive basis to manage congestion at safe operating levels.
- 3.14 The implications of operational control/non-stopping trains at Bank are:
  - (a) increasing levels of delay for customers as operational control extends journey times;
  - (b) London Bridge, Moorgate and Liverpool Street stations, as alternatives to Bank, have little spare capacity and become vulnerable to closure themselves as is currently experienced when Bank is closed;
  - (c) the benefits of train upgrades, particularly the Northern line, may be compromised if future train services at Bank station are regularly disrupted due to congestion; and
  - (d) the DLR could be regularly and seriously disrupted by restricted or suspended access into Bank during periods of station control. The terminus at Tower Gateway, where the station and train service capacity is restricted, would not be a viable diversionary route. Under these circumstances, the Jubilee line is a natural alternative to the DLR exacerbating an already congested Jubilee line and the respective stations which serve it.
- 3.15 This proposal relates to the Station Capacity Upgrade programme which addresses the following items of the Mayor's Transport Strategy:
  - (a) increasing capacity and equipping the station to meet forecast increased demand will 'Support economic development and population growth' and

'improve transport connectivity' particularly in terms of enabling the total number of people forecast to pass through the station in the peak period to do so without long delays and/or diversions, thereby also 'improving journey experience';

- (b) providing step-free access (SFA) between street and the Northern line will 'Improve accessibility' at the fourth busiest station on the Underground network; and
- (c) enhancing fire and evacuation protection measures will 'Improve public transport safety'.

# 4 Proposal and opportunity

- 4.1 The Bank SCU scheme will bring the following benefits:
  - (a) The project will increase capacity at Bank station principally to the Northern line and DLR areas, and the interchange routes with the aim of reducing journey times and congestion, ensuring that passenger density throughout the Bank/Monument station complex for all Northern line and DLR customers during peak times is such that the need for regular station control is avoided;
  - (b) The project will provide a step-free route(s) to the Northern line platforms from street and DLR levels, and an accepted means of escape for Persons with Reduced Mobility (PRM) and the ability to provide assistance to PRMs; and
  - (c) Compliant emergency fire and evacuation protection measures will be provided for Northern line and DLR passengers, ensuring a place of safety within the limits prescribed in the appropriate standards.
- 4.2 This shall be accomplished through:
  - (a) the construction of a new station entrance with access, including step-free access, to the Northern Line and DLR;
  - (b) the construction of a new tunnel and platform for the southbound Northern Line;
  - (c) the conversion of the old southbound platform into passenger walkways; and
  - (d) the construction of an additional interchange capacity between the Northern and Central lines.
- 4.3 The full programme of works at Bank station includes the SCU discussed in this paper, the construction of a new entrance to the Waterloo and City line at Bloomberg Place, an upgrade to the station control systems and replacement of lifts and escalators. Local integration between these programmes will take place to ensure minimum disruption to the travelling public, although most of the work will be completed before the main scheme construction starts.

- 4.4 The Bank programme is also working with other programmes of work on the Northern line in order to ensure an overall strategy for closures. These include Northern Line Extension, Northern Line Upgrade, Thameslink, Elephant and Castle station upgrade and associated Travel Demand Management.
- 4.5 All tender returns suggest a blockade is a prerequisite to upgrading Bank Station. The construction of the scheme will necessitate a period of disruption to the Northern Line. However, once the blockade is lifted, it should be possible to operate normal services at the station.
- 4.6 The proposal will improve the accessibility of the station by providing fully compliant SFA from street level to all the Northern line and DLR platforms, and step-free interchange between the Northern line and DLR.
- 4.7 During the construction of the scheme, steps shall be taken to ensure access to places of worship which are adjacent to the construction site. The proposal will not affect any of the other groups identified in the Equality Act 2010.

## 5 Financial

## **Operational costs**

5.1 The operational costs associated with Bank SCU are included in the financial appraisal model and the business case.

## **Estimate and Benchmarking**

- 5.2 All bids have been independently costed by E C Harris (ECH) and Gardiner & Theobald (G&T) on a blind basis.
- 5.3 Three of the bidders prices fall between the estimates prepared by ECH and G&T and on this basis it is concluded that none of these bids should be considered as abnormally low as defined under the procurement rules. The fourth bid price fell below both ECH and G&T estimates and therefore may be abnormally low. However, it has not been investigated further as the bid was not one of the top two.
- 5.4 The Benchmarking table, previously submitted to the Projects and Planning Panel in February, has been updated to include the revised project costs following due diligence and is included in Appendix 1.

### Efficiencies and cost recoveries

5.5 The selection of leading bidder has been carried out through the use of an ICE process, whereby tender submissions were assessed against a previously developed RIBA-D design. This innovative process was strongly supported by Infrastructure UK and the construction industry. The original target was an increase in value of 15 per cent, made up by a combination of reduction in the EFC, improvements in the benefits, reduction in dis-benefits or an improved schedule. The process has been successful with three out of four of the bidding consortia exceeding this target.

- 5.6 The lead bidder substantially exceeds this target and offers both the lowest bid price and the highest increase in benefits.
- 5.7 The property strategy for the project has sought to maximise the commercial return from the replacement OSD and this is reflected in the project's EFC. In addition, early property acquisition of a primary worksite has commenced, to facilitate an efficient programme and de-risk the TWAO. This also optimises the commercial return from rental receipts prior to commencement of the works.

#### 6 Commercial

## **Innovative Contractor Engagement**

- 6.1 The procurement follows a process of ICE. Key features of this model are:
  - (a) the development of a Base Case design which satisfies the requirements, albeit at a potentially too-high cost;
  - (b) the use of an Information Agreement to protect bidders' Intellectual Property during negotiations;
  - (c) extensive discussion with the supply chain about the requirements of the scheme:
  - (d) tender evaluation by reference to the Base Case, looking for improvements;
  - (e) the option to purchase innovation from unsuccessful bidders; and
  - (f) procurement based on project requirements statement (outputs) as opposed to pricing of a client design.

Bidders submitted their innovative and unique ideas on the basis of the above.

- 6.2 LU responded to these submissions by advising what it considered to be compliant with the requirements (genuine innovation) and no bidders have dissented from this. The Invitation to Tender requested the bidders to bid back their innovations and unique ideas as a part of their tender submission and to put a price to these, which they have done. LU has now reviewed these innovations and no individual innovation alters the evaluation and ranking of the four bids.
- 6.3 LU is currently finalising its position on which innovations will be purchased from bidders, to be used either for use on a selected scheme or to support TfL's position in the TWAO submission.

## **TWAO Process**

6.4 In order to secure the relevant powers to construct and operate the scheme, it will be necessary to obtain an Order under the Transport and Works Act 1992 from the Secretary of State for Transport.

6.5 Based on the current programme, the application for the TWAO will be deposited in Summer 2014. Board approval and Mayoral consent will be sought prior to any submission.

#### 7 Benefits

- 7.1 The project will increase capacity at Bank station principally to the Northern line and DLR areas, and the interchange routes with the aim of reducing journey times and congestion, ensuring that passenger density throughout the Bank/Monument station complex for all Northern line and DLR customers during peak times is such that the need for regular station control is avoided.
- 7.2 The primary benefits of the proposal indicate that there is a demonstrable improvement in business case benefits which satisfies the 15 per cent value improvement target set at the outset of the ICE process.
- 7.3 Furthermore, the business case is based on the assumption that severe station control measures are implemented to keep the station operational. However, it must be highlighted that these measures become redundant due to expected overcrowding in the long term. Maintaining viable operations at this station would then be at risk.

# 8 Views of the Projects and Planning Panel

8.1 At its meeting on 8 May 2013, the Projects and Planning Panel noted the proposals in this paper and supported the recommendations. Members were informed of all the issues raised by the TfL Programme Management Office and Independent Investment Programme Advisory Group. The Panel requested that the project close any remaining issues prior to seeking approval from the Board.

# 9 Views of the Finance and Policy Committee

9.1 At its meeting on 23 May 2013, the Finance and Policy Committee noted the proposals and supported the recommendations to the Board. The Committee was informed that the Independent Investment Programme Advisory Group had reviewed the project. It would endorse the lowest tenderer but had raised issues on the risk allowance and internal project management costs which have now been taken into account.

# 10 Alternative Options considered

- 10.1 Revert to previous scheme, RIBA D. The RIBA D design satisfied the design criteria under all conditions of demand considered. However, it has a greater cost than the proposed scheme and has a significantly lower business case (2.4:1). This is due to a combination of factors, including longer journey times, greater cost and greater dis-benefits during construction. The associated construction programme for the design does not complete ahead of the 2021 Department for Transport milestone. Not recommended.
- 10.2 **Do nothing:** Delay indefinitely the implementation of station improvements. With no capacity upgrade, operational controls will increase, resulting in passenger journey time and congestion dis-benefit occurring with growing severity. The

congestion at the station would also impact on line upgrades – specifically the Northern line and its ability to realise full benefits and targeted train frequency. TfL will also lose impetus with the Corporation of London along with the opportunity to support the City and East London's economic and demographic growth – **Not recommended.** 

#### List of appendices to this report:

Appendix 1 – Benchmarking Table

A paper on Part 2 of the agenda contains exempt supplemental information.

## **List of Background Papers:**

The paper submitted to the meeting of the Finance and Policy Committee held on 23 May 2013.

The paper submitted to the meeting of the Projects and Planning Panel held on 8 May 2013.

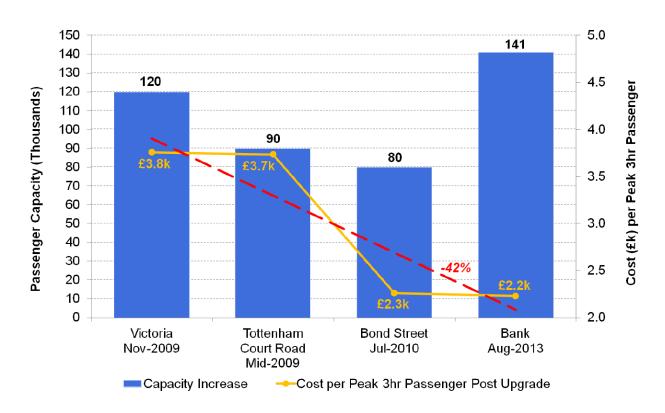
Contact Officer: Gareth Powell, Director of Strategy and Service Development

London Underground

Number: 020 7918 4664

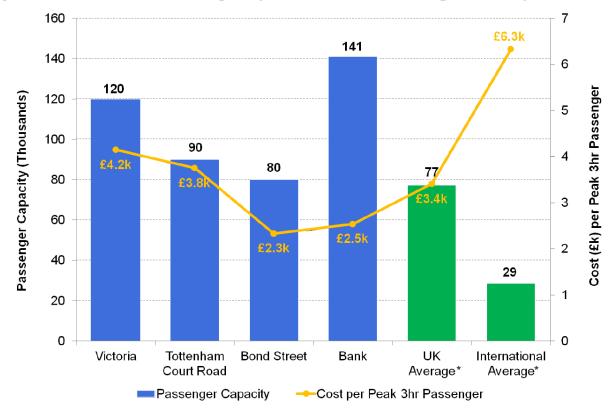
Email: <u>Garethpowell@.tfl.gov.uk</u>

# Appendix 1 – Benchmarking Table £ per Peak 3hr Passenger (Excludes Enabling Works)



Note: Excludes Enabling Works

# £ per Peak 3hr Passenger (Includes Enabling Works)



<sup>\*</sup> Source: Infrastructure UK
Assumption: Peak Hour Passenger figure x3 to align to LU Peak 3hr Passenger