Board

Date: **6 November 2013**

Item 10: **Sub-Surface Railway Upgrade Programme Contingency Request**

This paper will be considered in public

1 Summary

1.1 This paper requests that the Board grant an increase in project authority for the Sub-Surface Railway (SSR) Upgrade Programme (SUP) in order to undertake additional emerging works outside the agreed SUP defined scope.

1.2 The views of the Projects and Planning Panel and Finance and Policy Committee are set out in Sections 5 and 6 below.

1.3 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 financial 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 related paper on Part 2 of the agenda;

(b) grant an increase in SUP Project Authority of £15.3m to £4259.1m to deliver the additional works detailed in section 4; and

(c) approve funding of these works from contingency.

3 Background

3.1 TfL's management system defines contingency as "a provision controlled by senior management for the uncertainty inherent in the estimation of costs and risks". TfL calculates project contingency provision by using Quantified Risk Assessments (QRA) for each project, subtracting the P50 (50 per cent probability) estimate from the P80 (80 per cent probability) estimate. The sum of all the projects' contingency provisions is then assessed across the business portfolio and a total allowance and phasing is agreed by the business. When a project is authorised, it is granted both base costs and the P50 risk estimate, but not contingency.

3.2 The project is expected to fund risks considered in the QRA, priced on the basis that there is a 50 per cent probability of these arising. Project contingency is therefore intended to cover those events not envisaged within the P50 QRA, and caters for 'unknown unknown', events which could not have been predicted at the time when the initial base cost and risk provisions were calculated. Project contingency does not include those scope changes initiated because it enhances the product or benefits, but will include those where there is a need for scope change to deliver the initial benefits. This request meets the defined project criteria for contingency.

3.3 In accordance with TfL Standing Orders, any increase in Project Authority for SUP, including any utilisation of project contingency, requires the approval of the Board.

3.4 Over the last year a number of items of additional or altered scope have been identified that were not derived from the originally agreed Sponsor Programme Requirements. These items are detailed in Section 4 below and have an anticipated total cost of £15.3m.

3.5 Since the SUP was baselined in March 2009, following its transfer from Metronet, there has been no use of contingency. Moreover, in line with best practice, the SUP strictly controls all proposed changes to scope outside that specified in the Sponsors Programme Requirements. While in reality, all the items listed below have already been progressed (though mostly not yet implemented) by the SUP using SUP risk funding on an interim basis to avoid delay/increased costs, the reality is that they represent additional items of scope requested of SUP, rather than the realisation of inherent programme risk. Accordingly, it is recommended that they be funded through the use of contingency.

3.6 At Period 3 2013/14, the base cost forecast of the SUP scope items was £4,070m (excluding the £15.3m requested from contingency in this paper), with a target post-mitigation risk exposure of £174m, giving an estimated final cost of £4,244m, against the SUP programme authority of £4,244m. Therefore, there is insufficient headroom within the existing authority to fund the additional scope items detailed in this paper without triggering an increase in Project Authority. This context should be noted, although does not in itself underpin the justification for use of contingency.

4 SUP Scope Changes Requiring Contingency Funding

4.1 This section of the paper details the scope items for which contingency funding is being sought. The paper on Part 2 of the agenda sets out the cost of each element below.

(a) S Stock Cab Changes: The approved design of the new S Stock train cab, which is compliant to LU standards, has a fixed volume radio, limited control of the air conditioning and a manually operated demister. Following feedback from drivers of the S8 trains in service, and extensive discussions with staff representatives, it was decided that of all the many ideas raised, three changes to the design of the cab had significant merit in improving staff working conditions and hence operator performance:

(i) implement variable volume control of the cab radio, which comprises design, new controls in the existing space envelope and removal and replacement of the existing panelling on S8 and S7 trains;

(ii) implement increased functionality in the controls of the cab air-conditioning to provide: variable temperature from 17°C to 24°C inclusive, and boost functionalities for both cool and heat to provide immediate temperature change, as well as extending the choice of operating modes from four to five. This change comprises design, new panels, new switches, additional wiring, software upgrades, installation and rework on S8 and S7 trains; and

(iii) modify the train control management system to provide auto-start for the cab demister when the train is started in temperatures under 4^{o}C. This change will give added operator comfort and increase reliability of the train.

As part of ongoing discussions, staff representatives have been assured that the measures above have been instructed to be implemented (though only now beginning to be carried out). These modifications are reasonable improvements to the working environment, supported by the Sponsor, and are low cost (approximately 0.1 per cent) when compared with the lifetime cost of the trains over 40 years and the avoidable consequences of sub-optimal working conditions.

(b) Strap Hangers: Following the successful introduction of the S Stock into service it was decided to add strap hangers to the interior grab-rails of the train to increase handholds. The grab-rails, although built to the approved design, are too high for a significant proportion of passengers and there are too few vertical poles to compensate. This led to customer complaints and a loss of effective saloon capacity as people congregated around the vestibule areas.

(c) Customer Information System (CIS): SUP's current CIS related scope does not include the necessary interfaces with multiple legacy station systems which are required to the existing station customer information at SSR stations. Failure to rectify this omission will result in there being no CIS information at SSR stations following the implementation of the automatic train control signalling system (potentially as early as late 2015 in the first regions). Therefore, there is an urgent requirement to undertake this work.

(d) Passenger Train Interface (PTI): Two PTI related scope changes, as follows:

(i) being a level access train, S Stock requires horizontal gaps to be wider than hitherto, a particularly significant factor on curved platforms. Subsequently, the level of PTI incidents at several stations has been found to be unacceptably high and the SUP has been instructed to identify and implement further measures to reduce this. The cost covers urgent additional PTI mitigation works

at specific sites, product development and behavioural research; and

(ii) the SUP's currently agreed scope of work relating to station platforms is limited to resolving gauging issues and platform lengthening at specified stations. An additional requirement has been identified to remove platform humps which were previously installed at a limited number of Metropolitan line stations to provide level access for A stock trains. Due to different stopping positions and floor height for S Stock, failure to remove these humps would present a potential PTI risk. Although formally outside the agreed scope of SUP, it was agreed prior to the 2012 Games that the SUP should fund their urgent removal.

5 Views of the Projects and Planning Panel

5.1 At its meeting on 3 October 2013, the Projects and Planning Panel noted the proposals in this paper and supported the recommendations to the Finance and Policy Committee.

6 Views of the Finance and Policy Committee

6.1 At its meeting on 17 October 2013, the Finance and Policy Committee noted the proposals in this paper and supported the recommendations to the Board. As requested by the Committee, further information is included in the paper on Part 2 of the agenda.

List of Appendices to the Paper:

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

List of Background Papers:

None

Contact Officer: Gareth Powell, Director of Strategy and Service Development, London Underground
Number: 020 3054 8196
Email: GarethPowell@tfl.gov.uk