

Implementation of Track Alignment Improvements – award of contract

Date of meeting 21 February 2025

Date of report 28 January 2025

Report by Director of Transport Operations

1. Object of report

To recommend that the Committee approves the award to Story Contracting Limited of a contract for implementation of track alignment improvements within the Subway.

2. Background to report

The Inner Circle and Outer Circle are routed through twin tunnels, each approximately 10.5km in length, beneath Glasgow. Throughout the Subway route, tunnel construction and geometry vary, with localised changes resulting from factors such as ground conditions, original construction contractor, and subsurface infrastructure (building foundations) pre-existing at the time of tunnel construction. These factors, particularly the resulting curvature and unusually small diameter of the tunnels, significantly influence and constrain the alignment of the track, which is sub-optimal.

Whilst ideal track alignment cannot practicably be achieved throughout the Subway, SPT engaged a designer to develop a 'best-fit' track alignment design that could be implemented within the Subway with a view to contributing to improvements in the interaction between the track and rolling stock – the wheel-rail interface. This led to development of a series of designs, broken down into proposals for approximately 200 discrete sites (of varying length) and including activities such as localised track lifts, regulating of cant, and track slews.

In order to achieve successful implementation of the track alignment designs, there is a requirement to overcome a range of technical and logistical challenges particularly in relation to the limited diameter of the Subway tunnels and the nature of the fixed (concrete) trackbed. Critical considerations include ensuring that: changes do not compromise acceptable clearances between the rolling stock and infrastructure; acceptable offsets from the track to third rail and in-tunnel signalling equipment are maintained; changes are accurately recorded and can be maintained; and, the works are delivered within limited engineering hours, accompanied by robust assurance measures to allow sites to be safely returned to Subway operations in a timely manner. In advance of the works, there is a requirement to develop and prove the effectiveness of a delivery strategy that addresses these considerations and provides a flexible and efficient foundation for achieving the required outcomes.

3. Outline of proposals

3.1 Scope of works

SPT has a requirement for a contractor to deliver track alignment improvements within the Subway. The scope includes:

1. Development of a track alignment implementation strategy. The strategy will address the considerations identified above and will be informed by site visits and close working with SPT and SPT's suppliers. A prioritised ranking of sites will be developed, informed by consideration of the ease of implementation and potential benefits of each design proposal.
2. Implementation of design proposals for six sites in line with the strategy developed in task 1. The sites will be selected with a view to providing a sample that is representative of the full package of over 200 designs. The contractor will manage and deliver the works within the Subway in order to demonstrate the effectiveness of the implementation strategy and identify any opportunities for improvement.
3. Update of the track alignment implementation strategy to reflect lessons learnt in task 2 and to provide the working basis for progressing with further works (task 4).
4. Implementation of design proposals for further sites.

Tasks 3 and 4 are optional. SPT will determine whether, and to what extent, to progress with these tasks based on evaluation of the outcome of tasks 1 and 2.

3.2 Procurement process

In August 2024, SPT issued a Periodic Indicative Notice on the Public Contracts Scotland website to seek notification of interest from organisations with the capability to undertake track alignment works within the Glasgow Subway. Following review of responses, SPT issued an Invitation to Tender (ITT) to five organisations in September 2024.

The ITT was issued via Public Contracts Scotland - Tender (PCS-T) as an NEC4 Engineering and Construction Contract. Tenderers were requested to submit bids comprising qualification, technical and commercial responses. Tenderers were advised that, subject to pass/fail evaluation of the qualification envelope, the award would be based on the most economically advantageous tender, with evaluation adopting a 55:45 cost:technical split.

For the purpose of technical evaluation, tenderers were asked to provide details of their proposed approach to development of the track alignment implementation strategy and to identify personnel proposed to deliver the works, highlighting their experience of working in a concrete trackbed (slabtrack) environment.

Tenderers were requested to submit fixed costs for task 1 along with a schedule of rates that will apply for all other tasks awarded through the contract. For the purposes of commercial evaluation, in addition to the fixed cost for task 1, tenderers were requested to provide a cost for implementation of a typical design proposal, with the cost built-up using the tenderer's submitted rates.

Three bids were received. One bid was set aside at the qualification stage and one bid was set aside in the technical evaluation. The technical submission from Story Contracting Limited was found to fulfil the requirements and their commercial submission was also found to be acceptable.

4. Committee action

The Committee is recommended to approve the award to Story Contracting Limited of a contract for implementation of track alignment improvements with value of up to £4,250,000 (excl. VAT).

Contract spend will be dependent on outcomes of the initial contract works (tasks 1 and 2) and will be subject to available budget provisions.

5. Consequences

Policy consequences	<i>None identified.</i>
Legal consequences	<i>Contract will be awarded subject to the conditions of contract contained within SPT's ITT.</i>
Financial consequences	<i>The costs will be accommodated within the capital budget, under project 10375 "Tunnel and Infrastructure Works". This project is funded from the Subway Infrastructure Fund (General Fund – Earmarked Reserve).</i>
Personnel consequences	<i>None identified.</i>
Equalities consequences	<i>None identified.</i>
Risk consequences	<i>None identified.</i>
Climate Change, Adaptation & Carbon consequences	<i>None identified.</i>

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