

THE GLOBE

AMP REVIEW REPORT

For

Stockton on Tees Borough Council

June 2019

Driver Project Services Limited
15 Evolution
Wynyard Park
TS22 5TB

1) Executive Summary

Following a detailed due diligence exercise and subject to approval of an additional funding commitment, Driver Project Services (DPS) are able to recommend that Stockton Borough Council (SBC) appoint Willmott Dixon Construction (WDC) as Principle Contractor for The Globe project, subject to the submission of the revised AMP reflecting the required adjustments.

WDC has undertaken a thorough programme of investigation and design work in conjunction with SBC, SBC's professional advisors and the end-user, ATG, to develop a scheme which is buildable, complies with the brief and is in full accordance with the end-user's requirements.

As far as possible given the specialist nature of much of the project, WDC has market tested the works packages to their approved supply chain or has provided evidence of previous competition to justify the selection of single sourced suppliers where required to meet key programme dates or provide specialised design input.

2) Introduction

Following the submission of WDC's Preliminary Agreed Maximum Price (AMP), a detailed due diligence exercise has been undertaken by Driver Project Services (DPS) and reported to SBC officers on 4th June 2019.

The AMP was comprised as follows:

Cost Heading	Value	% of AMP
Advance Works	£2,096,778	10.37%
Main Works	£11,736,198	58.05%
Targeted Value Engineering	-£1,932,590	-9.56%
Option E Sums	£3,651,001	18.06%
Preliminaries, including Advance Works Preliminaries	£3,010,197	14.89%
WDC Design & Pre-Construction Fees	£1,012,487	5.01%
WDC Risk Allowance	£795,380	3.93%
WDC Overheads & Profit	£347,886	1.72%
Scape Fee	£100,819	0.50%
WDC Commercial Adjustment	-£600,000	-2.97%
Total AMP as Submitted	£20,218,156	

Despite targeting ambitious Value Engineering, the Preliminary AMP is significantly in excess of the approved budget.

The AMP also included a negative adjustment to the tender submission under the heading 'WDC Commercial Adjustment'. The £600,000 reduction included provision for late quotations yet to be received, the conclusion of commercial negotiations with their supply chain, the correction of minor errors in sub-contract tender submissions and potential over-measures within their bills of quantities.

3) Background to AMP / Early Contractor Involvement

In order to progress works on site whilst the detailed design was being undertaken, Willmott Dixon were commissioned to undertake packages of advance works, such as demolitions, stripping out, service diversions, foul drainage, groundworks and the placement of orders for critical long lead in items such as structural steelwork.

Wherever possible, these packages have been market tested to numerous supply chain partners and the quotes reconciled on an open book basis before the preferred supplier was chosen. The works have been and continue to be instructed, by way of Compensation Events (CEs) to the Advance Works Contract. The AMP includes agreed CEs to the value of £2,096,778.

4) Arithmetical Check

The Preliminary AMP was checked for arithmetical errors and none were found.

5) Completeness Check / Gap Analysis

5.1) Scope

The design proposals submitted as part of the AMP were reviewed by SBC and found to be in compliance with the Client Brief. It was noted that some minor changes may be required to reflect ongoing discussions with the operator and key suppliers, however if necessary, these could be accommodated through the Compensation Event process, rather than delay agreement of the AMP.

5.2) Principle Quantities – Omissions and Duplications

In support of the AMP submission, WDC provided DPS with a complete copy of their bills of quantities which they used as a basis for engaging their supply chain. DPS were therefore able to carry out an analysis of the quantities contained therein and check for any over and under measures. A number of queries were raised with WDC and a schedule of adjustments prepared by way of an addendum to the final AMP submission.

5.3) Change Control Register

The Main Works were market tested on a design, the layouts for which were 'frozen' for tendering purposes on 21st January 2019, with much of the detail still to be finalised. The elements of design that were subsequently finalised were captured on a Change Control Register and valued at £115,000, which is included in the Main Works total of £11,736,198 in the summary table in Section 1 of this report.

Until such a time as the AMP is agreed, WDC will continue to update the Change Control Register to reflect ongoing design development.

6) Technical Check

6.1) Rates & Prices

In principle, WDC will typically seek to obtain three quotes from the market for all trades. DPS have reviewed the priced Bills of Quantities and highlighted any erroneous rates and provided feedback to WDC accordingly.

6.2) Single Sourced Tenders

One of the factors that was considered in the decision to appoint WDC through the SCAPE Framework, was the added value that they could bring to the Globe, through the recent experience gained on the Darlington Hippodrome Project. In early discussions with WDC it was agreed that further benefit could be gained by early engagement with their Mechanical and Electrical Services sub-contractor, Leybourne Urwin (LU). The M&E Services were recognised as a critical component of the scheme and as LU had previously been appointed to the Hippodrome through a competitive tender process it was agreed that WDC could single-source the services from LU, subject to the provision of a fully transparent tender build-up and demonstrable market testing of their own sub-contract prices.

At approximately £4.8m, the M&E sub-contract forms the largest component of the single-sourced tender packages. To ensure effective governance, the prices submitted have been supported with access to a comprehensive schedule of sub-contract quotations and internal analysis, which Driver have been able to interrogate and benchmark.

From a total value of all works packages of £13,827,718, including advance works, WDC have obtained competitive quotations for works, valued at £7,945,890. This means that they have single-sourced £5,881,828 worth of works. Many of these packages are of a specialist nature, for example, the Crittall windows, are a bespoke product manufactured to replicate the original Crittall windows installed at the Globe; equally, the damp proofing strategy needed to be developed by a specialist sub-contractor, to provide an insurance backed guarantee, for the benefit of the Council and the Operator.

Where other packages, such as those for the provision of lifts, lift shaft and catering equipment, have been single sourced without alternative quotations, DPS have requested further market testing from WDC to evidence value for money.

To summarise:

	£	% of Works Value	% of AMP
Competitively Tendered	£7,945,890	57%	39%
Single Sourced	£5,881,828	43%	29%

6.3) Preliminaries

6.3.1) Review of Scape Framework Rates

The project preliminaries have been based upon a pre-tendered set of Framework rates and prices, used throughout the Scape 3 Framework. The rates tendered by WDC have been validated against the Framework Rates and found to be correct.

In addition to the tendered rates, WDC had however included a sum for inflation on the Scape 3 preliminaries rates, in the sum of £141,625. A breakdown and analysis of this lump sum has been requested from WDC in advance of their finalised AMP, to justify the amounts claimed.

6.3.2) Benchmarking

DPS have been able to view WDC's Preliminaries Workbook from their recent renovation of Darlington Hippodrome, which was similar in Gross Internal Floor Areas and duration to The Globe and compare it to their Preliminaries Workbook provided as part of their AMP submission for the Globe.

The analysis showed greater allowances for site supervision and scaffolding associated with the Globe, reflecting the enhanced levels of complexity and restrictive site access. For example, the works to the Globe require much more extensive scaffolding to support the roof replacement and to gain access to the heritage plasterwork at high levels and include numerous adaptations and stripping/rebuilding around other ongoing works due to the major restrictions gaining access to the workfaces. It should be note that the scaffolding package has been market tested to two suppliers and the lowest price included in the Preliminary AMP.

WDC also included allowances for fixing their price against future inflationary cost pressure, which were reflective of the current levels of uncertainty regarding the potential impact of Brexit on the construction market in the UK. No such allowance was included with the Hippodrome AMP but it should be noted that the Hippodrome was priced at a time when the UK construction market was a lot more predictable.

	Darlington Hippodrome	The Globe (Main Works)
Value	£1,614,733	£2,673,298
% of Overall AMP	14.18%	15.34%

Notwithstanding these differences, the resultant costs represent broadly similar percentages of the overall cost of construction within both projects.

6.4) Risk Allowances

6.4.1) Risk Register

The risk register included within the Preliminary AMP has been reviewed by both SBC and their advisors. The risk allocations and associated allowances represent approximately 3.9% of the Preliminary AMP and were considered to be fair and reasonable for this particular project.

6.4.2) Additional Contractor's Risk Allowances

WDC have added the following additional risk monies within the work packages which are over and above those included on the main risk register:

Rendering Package;	£10,000 for SFS Design Development Risk
Generally, across all sub-contract packages;	£67,325 for Fixed Price Risk

Following review with WDC it was agreed to omit the £10,000 for SFS Design Development Risk from the finalised AMP as it overlaps with the general Design Development Risk allowance on WDC's Risk Register.

6.4.3) Additional Client Risk Items with AMP

As well as the Option E Sums discussed below, WDC have also included the following Option E items with their work packages which represents potential additional pricing risk to SBC:

M&E;	£20,000 for lead paint measures required during the M&E installation works
Groundworks;	£30,000 for allowance for joints in stalls floor not yet designed
Groundworks;	£80,000 for surface water drainage not yet designed

SBC will be liable for the final value of these items and so should be aware that it may be higher or lower than the Option E Sums which WDC have allocated in the AMP.

6.5) Reasonableness of Option E Sums

The Option E, or Provisional Sums, are included by the Contractor for works that are not fully defined or for which design work is still ongoing. Whilst they are incorporated within the AMP submission, the sums do not form part of the Contractor's risk allowance and would be subject to adjustment, should the final designs or quantities differ from those envisaged at the time of submission.

The inclusion of Option E Sums represents a financial risk to SBC and as such the value of each would be subject to review with the client, prior to submission of the final AMP and may require that SBC consider the overall level of Client Contingency held externally to the AMP. Whilst it is recognised that it might be more appropriate for the risk on some items to sit with SBC, wherever possible, the sums should be de-risked and the resultant allowances included within the Contractor's control.

The Preliminary AMP included the following Option E Sums:

Item	Allowance	Notes
All Signage	£40,000	
Stage Engineering	£894,401	Based on Stage Engineering Quote
Performance Bond for Stage Engineering	£10,000	
Stage AV Installations	£1,051,458	Based on Northern Light Quote
Performance Bond for Stage AV Installation	£10,000	
BWIC with Stage Engineering & AV	£31,544	
Auditorium Seating	£399,665	Based on Audience Systems Quote
April price increase for Auditorium Seating	£13,029	3.26%
GRP Grid	£198,400	Based on Fibregrid Quote
e/o for handrails	£22,300	Based on Fibregrid Quote
e/o for design development	£55,175	25%
Heritage Handrails	£231,036	Based on Topp & Co. Quote
Terrazzo Flooring	£150,000	Based on Anchorite Guidance
Fibrous Plaster	£358,993	Based on JPS Guidance
Concrete Repairs	£50,000	
Timber/Rot	£50,000	
Grilles & Roof Lantern Refurbishment/Repair	£75,000	
Remediation of Drainage Outside 153	£10,000	
Total	£3,651,001	

7) Budget Cost Check

The Council's agreed budget was based upon highly detailed cost plans prepared by DPS that were reflective of the scheme that was originally to be built. In the event, major elements of the scheme have proven to be un-buildable following completion of the significant and largely unforeseen stabilisation works. Key elements of the revised scheme were therefore not possible to understand until discussions with specialist sub-contractors over the best methodologies for carrying out the works had taken place.

The following are the key areas of resulting cost pressure within the Preliminary AMP:

Final Mechanical & Electrical Services Design Solution - £1,931,000

Changes to the mechanical and electrical design to provide 'better technical solutions' in support of the finalised theatre design have significantly increased the scale and complexity of the required M&E installation. Following submission this has been subject to the value engineering review discussed in Item 8 below.

Final Steelwork Design - £625,000

The quantity of steel required has increased to carry the loads imposed by the new roof structure (in addition to the roof structure itself) and also as a result of increasing spans and the creation of voids to accommodate the final M&E design. There is also now a requirement for extra steelwork to tie the structural frame in with additional foundations that only became apparent after the demolition and stabilisation work were completed. As with the original design, the price increase has been compounded by the premium attached to manhandling and threading the new steelwork through the existing building structure and historic features and creating custom joints not normally required when access to the workface is more straightforward and steel can be craned into place in full length sections.

Final Roof Design - £1,400,000

WDC's design proposals had been based around the construction of a new roof enclosure to incorporate the plant room in a new roof void, constructed from lightweight steel sections, alongside siting major elements of plant on the existing Fly Tower roof. The loadings imposed by the finalised M&E design, however, proved too great for this design and therefore a revised roof solution was found to be necessary. This now involves traditional hot rolled structural steel members on larger foundations and the complete replacement of the existing Fly Tower roof structure.

Technical Theatre Fit Out - £500,000

The Technical Theatre fit-out is a very specialised area of the Globe and will be critical to its success. SBC had appointed an independent consultant, ACT Consultant Services, to advise upon stage and auditorium planning, design of theatre equipment, integration and costing. ACT have provided advice and assistance to both the Council and latterly WDC, to help ensure these core elements are fully integrated into the project. As part of this work, there has been ongoing discussion with the end-user, ATG, to identify the most appropriate selection of stage engineering equipment, lighting and sound systems.

As the detail of the design was being progressed, ATG had identified the need for more flexibility within the 'house' equipment so that they could accommodate a wider variety of touring shows within the completed venue. The resultant revisions to the schedule of equipment has led to an increase cost within the initial capital cost of the project of almost £500,000. A series of Value Engineering meetings has been undertaken with the operator and the specialist fit-out contractors, to help refine this list of equipment and mitigate the overall financial impact.

Heritage Handrails - £125,000

As part of the early design works it was always intended to salvage and restore a significant proportion of the original handrails from the many staircases servicing the auditorium. Once the detailed design solutions had been developed by the Contractor, it became clear that it may not be possible to re-use many of the existing handrails, due to the introduction of new tanking/wall linings as well as the requirements for modern safety standards. As a consequence, the AMP included provision for the provision of new handrailing to many of the stairs as well as specialist heritage feature railings.

As part of the Value Engineering exercise the extent of the new handrailing has been challenged and some aspects of the circle balcony rest rail have been re-designed to remove the requirement for a new rail, which will help mitigate this cost pressure.

Preliminaries - £1,319,000

Only after the buildable design had been finalised were WDC able to discuss the best works methodologies with their supply chain. Only then were the complexities and constraints of constructing the works in such a confined location fully understood and they were able to produce an accurate works model and programme. This called for a much more extensive scaffolding solution, additional management and technical staff in order for the works to progress as quickly as possible. Nevertheless, this still served to increase the programme duration and many of the preliminaries costs are time related.

Extra Areas of Fibrous Plaster - £300,000

It has only become apparent after the advanced works to the existing finishes that the extent of repairs to the existing historic fibrous plasterwork can be fully seen. A major part of this is the discovery of rotten members with the timber subframes supporting the plaster which mean that the plaster will have to be carefully removed to enable the timber repairs to take place, all which is at ceiling level, impacting on the scaffolding requirements.

Final Drainage Solution - £200,000

The design of the foul and surface water drainage from the Globe had always been considered to represent significant challenges to the project's designers. At the date of the 'design freeze' in January the AMP included some allowances for the ongoing development of workable drainage solutions. The drainage package was however one of the earliest pieces of work in the final design phase to be undertaken on site and once design solutions had been finalised, it has been necessary to undertake some works out of sequence, in order to maintain progress with the overall programme.

Items of plant and equipment had to be dismantled, craned into the Globe basement and then subsequently re-assembled to facilitate the works. Temporary ramps have been constructed and much of the rubble and arisings from the excavation, double and triple-handled to remove it from the basement to ground level. As a consequence, the cost of this work carried a premium that had not been anticipated within the budget and which could only have been determined once the designs had been completed and the construction sequences had been fully mapped out.

8) Value Engineering

An allowance of -£1,932,590 has been included within WDC's Preliminary AMP for 'targeted value engineering', based upon assumptions made by WDC and their supply chain.

SBC and WDC have subsequently held detailed workshops with specialist suppliers to review the targeted value engineering and confirm the realistic and achievable value engineering scope in the following terms:

- i) What is acceptable to SBC?
- ii) What is acceptable to the end user, ATG?
- iii) What will the impact be?
- iv) Can the estimated value be realised?
- v) Are there any further opportunities for value engineering not already identified?

The outcome of this exercise will be factored into the agreed AMP.

9) Client Contingency

Given the nature of the existing building and the potential issues that can only be assessed once works have progressed to the appropriate stage, DPS recommend SBC set aside a Client Contingency of at least £500,000 for this project.

10) Recommendations

Following a detailed due diligence exercise and subject to approval of an additional funding commitment, Driver Project Services (DPS) are able to recommend that Stockton Borough Council (SBC) appoint Willmott Dixon Construction (WDC) as Principle Contractor for The Globe project, subject to the submission of the revised AMP reflecting the required adjustments.

WDC has undertaken a thorough programme of investigation and design work in conjunction with SBC, SBC's professional advisors and the end-user, ATG, to develop a scheme which is buildable, complies with the brief and is in full accordance with the end-user's requirements.

As far as possible given the specialist nature of much of the project, WDC has market tested the works packages to their approved supply chain or has provided evidence of previous competition to justify the selection of single sourced suppliers where required to meet key programme dates or provide specialised design input.

As an outcome of this due diligence a revised AMP Submission has been requested from Willmott Dixon, reflecting the following:

- Adjustments to reflect any items missing from the scope of the works
- Adjustments to the value of Compensation Events
- Adjustments to the quantities and prices, highlighted by Driver Project Services
- Adjustments to the Change Control Register, accommodating design development since submission of the preliminary AMP submission
- Adjustments to the Value Engineering items
- Adjustments to the Option E Sums, retaining a greater proportion of items within the AMP
- Adjustments to the Scape Inflation adjustment agreed with Driver Project Services
- Incorporation of items previously identified within the Interpretation Budget
- Adjustment for late quotations