# Taunton Deane Borough Council

## Executive – 11 July 2012

### New Cremators and Mercury Filtration Project – Taunton Deane Crematorium

**Report of the Housing and Health Manager**
(This matter is the responsibility of Executive Councillor Hayward)

**1. Executive Summary**

This report provides an update on the project to install three new cremators at the Crematorium along with Mercury filtration equipment. In addition it seeks consent for approval for additional funding and therefore extension of the previously approved budget, following recent receipt of tenders associated with the building works element of the project.

**2. Background**

Taunton Deane Crematorium carries out over 2200 cremations per annum. The crematorium is a great asset to the council. It was built in 1963 to a very high specification and is truly an outstanding example of this type of facility, in fact; the building has been listed due to its architectural interest. The crematorium has a catchment area that extends well outside the Borough boundary and attracts business from Bridgwater, Chard, Minehead etc.

Emissions from crematoria have been regulated under Part 1 of the Environmental Protection Act 1990 since 1991. These controls have not, however addressed emissions of mercury from crematoria, DEFRA and Government's PG5/2 legislation has addressed this issue. It is estimated that in the absence of intervention, emissions of mercury from crematoria would rise by two-thirds from 2000 to 2020. In response to this DEFRA consulted with the industry on the introduction of gas cleaning equipment to remove mercury emissions.

Due to the prohibitive cost on smaller crematoria of this equipment a compromise approach has been agreed, whereby 50% of cremations will be abated nationally for mercury by 2013. This allows a trading scheme to operate nationally (the CAMEO scheme) and gives crematoria a choice on how they approach Mercury filtration. Taunton Deane has previously decided to invest in full abatement technology and take the opportunity to install three new cremators.

Consequently and following a procurement exercise a tender was accepted from Facultatieve Technologies (FT) for the supply and installation of three new cremators and mercury filtration equipment. The tender price was £1,020,937.00.

However supply and installation of the equipment by FT forms one part of the project. What was then required was securing the professional services to oversee the project, and secure a second contractor to undertake the ancillary building works to the structure of the crematory building to facilitate the installation, as FT are not a building contractor.

Subsequently through the autumn of 2010, proposals for professional services were considered from a number of contractors, with final agreement to award the work to the Southwest One Property Services. This team have the majority of professional services required in house, but do have to sub-contract some, for example structural engineering.

Early assessment from SW1 Property Services was that the alterations required to the Crematorium building were reasonably straight forward. This resulted in a project assessment of fees and building works combined of £300k.

Consequently a capital budget for the project was agreed arising from:-

| | £k |
|---|---|
| Tender price for supply and installation of equipment | 1,020 |
| Professional services, project management and building work | 300 |
| **Total approved budget** | **1,320** |

It is important to note that at this early stage in the project other than the tender for the equipment, all other costings were purely estimates prior to detailed design, interface of the FT and building work requirements and a tender exercise for those building works. Consequently, the costs were always likely to change as the project progressed.

## 3. Project Delays.

The project is well behind schedule and there are a number of reasons for this.

i. **Contract** – Following selecting a preferred tender for the supply of the equipment, there was a delay in agreeing a contract due to negotiations concerning penalty clauses. FT were reluctant to release full technical details required for design until the contract was signed.

ii. **Provision of technical information** – FT are the market leader in crematory equipment, consequently they have clearly picked up many orders, as many crematoria seek to replace equipment due to the statutory deadline for mercury abatement. This has put the organisation under considerable pressure, consequently they have been slow to provide information regarding technical specifications and works scheduling, which has considerably delayed the design processes of SW1 and has been the major factor in the delay of the

project. Having said this, our machines have been built for a while and are ready in the factory for us.

iii. **Unforeseen works** – SW1 Property Services operate on the basis of high levels of accuracy in the design stage of the project, so that as much about the build is known and specified as possible prior to going to tender. This then results in more accurate tender prices with less risk built in, which ultimately, in theory, means that once tenders are received there is better financial control on the project and therefore more certainty regarding budget. In this case this approach appears to have been successful with lower than expected tender prices and this is also evidenced through the close spread of tenders received.

With additional works added through the design stage, the build is now much more technically complex than originally envisaged. Each of the changes/issues identified below not only impacts on the time required to undertake detailed design, but also has to be reconciled with the work phasing, to ensure the works can proceed in a practical fashion. An additional complication of this build is that it is all being planned to ensure that throughout most of the process the crematorium can continue to operate, to ensure we are able to provide a service and do not lose income.

The following issues are examples of additional works or design issues that were unforeseen initially or were only raised by FT during ongoing design discussions.

- Roof replacement required due to extensive number of new service penetrations and requirement for additional scaffolding cover for weather protection.
- The width of the crematory doors need to be increased to accommodate the installation of the larger machinery
- Phased replacement of crematory floor
- Alterations to toilet / changing rooms to provide location for Heat Exchanger, Pump and Expansion Vessel
- Replacement of existing flue liners due to extensive corrosion.
- The need for temporary stacks and associated support framework and phasing of connections to the stacks,
- Discrepancy in plans
- Small extension required to accommodate larger water ‘boiler’

It is worth noting that the crematorium is a listed building, therefore each change to the proposed works both inside and outside, needed to be checked against planning criteria.

## 4. Tenders for Building Works

Evaluation of tenders received has been completed and the contract for the works is in the process of being awarded. Tender prices are better than expected by SW1 Property team. However, with tenders now received a final project budget can be agreed.

## 5. Project Budget

Due to the additional works required to facilitate the installation of the new equipment, and the additional time required from SW1 professional services on the project, the current assessment of the costs of the project is that it is £73k above the approved budget. Consequently a request is made for an addition to the project budget that will cover the gap and add an additional £40k (3%) as contingency on the basis that work has not yet started on site.

## 6. Current Position

Work is due to start on site on the 19th July. The outline schedule of the works and a written narrative is attached at Appendix A. It is worthy of note that works on site alternate between the Main Contractor and FT as described in the phasing, with the first new cremator being operational in late September, but final handover in April/May 2013.

## 7. Finance Comments

The total budget for the project currently is £1,320k. Taking into account the tender costs, ancillary works, fees, and a proposed contingency for unforeseen costs during installation, the current budget provision is not sufficient for the project. The following table summarises costs and commitments.

| | £k |
|---|---|
| Updated Commitments | |
| Supply and installation of equipment | 1,021 |
| Ancillary Works and Professional fees | 372 |
| Contingency | 40 |
| Total Commitments | 1,433 |
| Total Scheme Budget | 1,320 |
| **Budget Supplement Required** | **113** |

A proportion of the scheme costs have already been incurred, with the balance due in the current financial year, as summarised in the following table.

| | Budget £k | Costs £k |
|---|---|---|
| 2010/11 Actual Spend | 24 | 24 |
| 2011/12 Actual Spend | 330 | 330 |
| 2012/13 Estimated Costs | | 1,079 |
| 2012/13 Current Approved Budget Remaining | 966 | |
| 2012/13 Budget Supplement Required | 113 | |
| **Grand Totals** | **1,433** | **1,433** |

It is evident that the current budget approval is not sufficient, therefore for the scheme to continue the Council will need to approve a recommended budget increase of £113k.

The current funding approval for the scheme includes borrowing approval of £770k with the balance funded from a combination of revenue earmarked reserves and capital receipts. In order to avoid the need to borrow further to fund the proposed budget increase, it is proposed to fund the additional £113k costs and contingency from General Fund Revenue Reserves. There are sufficient funds in the reserve to make this affordable. The alternatives would be to fund the £113k as a 'first call' on new capital receipts or to approve additional borrowing. The latter would result in additional debt repayment costs of £4k per year.

**8. Legal Comments -** None

**9. Links to Corporate Aims –** No direct links

**10. Environmental Implications**

The abatement of Mercury from cremations is an environmental protection provision and a requirement of statute. The new installation will also include a heat exchanger to provide heating and hot water for the crematorium thus reducing the carbon utilisation of the facility.

**11. Community Safety Implications -** None identified

**12. Equalities Impact -** No detrimental impact on any protected groups identified.

**13. Risk Management –** The project is a requirement of statute and as such completion is required to avoid potential action against the Council.

**14. Partnership Implications –** None identified

**15. Recommendation**

That the Executive recommends to Full Council a supplementary budget of £113,000 be added to the Capital Programme 2012/13 for the Cremator Replacement Mercury Abatement project, funded from revenue resources by a transfer from General Fund Reserves.

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**Appendix A**

**Phasing Details as Contained Within Tender Drawings**

**Phase 1 A Main Contractor**

Start Thursday 19th July 2012 -Complete Friday 9th September 2012
Remodel existing Toilets to form additional plant room. Break out existing brick room
floor and construct extension. Form internal openings.

**Phase 1 B Main Contractor**

Start Thursday 19th July 2012 -Complete Friday 27nd July 2012
Enlarge external double doors in to cremator room. All existing cremators to remain operational

Roof
Fit new access roof light in to existing opening and form
new opening in roof over existing brick room

**Phase One FT**

Ground Floor
Starts Wednesday 1st August 2012 -Complete Monday 6th August 2012
Decommission existing machines E1 and E2 and remove.
E3 to remain fully operational

**Phase Two Main Contractor**

Ground Floor
Starts Thursday 9th August 2012 -Complete Friday 17th August 2012
Form enlarged opening between Cremator room and Committal Room. Break out half
of the existing floor and lay new
Existing cremator E3 to remain operational
Roof
Fit steel frame for FT equipment and form opening in wall
of the high level roof for temporary ducting

**Phase Two FT**

Ground Floor
Starts Thursday 23rd August 2012 -Complete Thursday 27th September 2012
Position first new machine FTA and commission, decommission and remove last existing machine E3 and Fan Room equipment
FTA to remain fully operational

Roof
Erect temporary stack for FTA and remove existing equipment from high level roof

**Phase Three Main Contractor**

Ground Floor
Starts Thursday 4th October 2012 -Complete Friday 12th October
Break out the remaining half of the existing floor and lay new. Form new opening to
chimney from Fan Room. Remodel Fan room.
FTA to remain fully operational
Roof
Form opening in wall of the high level roof for temporary ducting

**Phase Three FT**

Ground Floor
Starts Thursday 18th OCtober 2012 -Complete Friday 26th October 2012
Reposition FTA and commission, install boiler, bag filter equipment and replace chimney liner

Roof
Reposition temporary stack to service FTA

**Phase Four Main Contractor**

Roof
Starts Thursday 1st November 2012 -Complete Sunday 2nd December 2012
Remove existing high level roof enclosure and roof, replace with new roof and refit
existing enclosure Erect new roof enclosure on
lower roof. Make good opening from temporary stack and form new openings for FT
equipment

**Phase Four FT**

Ground Floor
Starts Thursday 6th December 2012 -Complete Friday 25th January 2013
Install FTB and FTC machines, bypass ductwork, pump, heat exchanger and expansion vessel. Final commissioning of all new equipment

Roof
Remove temporary stack and install air blast cooler. Install all external ductwork and
ID Fan

**Phase Five Main Contractor**

Ground Floor
Starts Friday 25th January 2013 -Complete Thursday 7th February 2013
Connect heat exchanger to existing heating system, fit floor vents

Roof
Make good opening from temporary stack

**Phase Five FT**

Positioning of Air Blast Cooler
Mechanical installation and commissioning of FT2
Connect and commission FT3
Electrical installation works
Insulation and cladding of ductwork
Positioning of remaining FGT Equipment
Connections to permanent bypass duct work
Removal of temporary stack