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**From:** Stewart McGarrity  
**Sent:** 20 June 2007 14:35  
**To:** John Boyle; Susan Clark  
**Cc:** Willie Gallagher; Steven Bell; Graeme Bissett; Colin McLauchlan  
**Subject:** Letter for Willie re MUDFA

Dear John/Susan,

Willie wants a letter by cop tomorrow to send from him personally to John Swinney to give comfort on our utilities approach and why we are confident it is deliverable to cost and programme. This is in response to specific concerns voiced by Mr Swinney on the radio today.

Please can John take the lead in drafting supported by Susan to review and embellish. The key messages would be at least those under 1-7 below:

**1) It's a smart strategy to move the utilities first.....**

Precise of following text cribbed from DFBC:

MUDFA enables completion of the utilities diversions before commencement of infrastructure works thus reducing risk during the construction phase and avoiding the risk premiums that would otherwise be included if this work was included with the Infraco package.

A significant benefit arising from having undertaken early design work is that tie is able to procure the necessary utility diversions to enable delivery of the permanent infrastructure work prior to commencement of the system construction. This provides very significant construction programme benefits and therefore cost benefits, due to reduced risk exposure of the infrastructure provider, creating the best opportunity to minimise disruption and maximise infrastructure construction productivity.

The principal attributes of procurement approach for this contract are:

- Scope – Delivery of multi service utilities diversions, including pre construction phase programme development, design and constructability advice.
- Approximate two year contract duration
- Priced bills of approximate quantities with work remeasurable on completion
- Prices include for inflation over the duration of the contract
- Interim payments made each month based on the prices contained in the bills of approximate quantities applied to the completed volume of work.
- Liquidated damages for to provide cost recovery in the event of delay to completion due to default on the part of the contractor.

It is clear from other light rail projects that the risks associated with utilities diversions are among the most difficult for the private sector to manage and price and have been a barrier to progressing with light rail schemes as highlighted by the NAO. One of the underlying reasons for this is that utility companies are not usually willing to negotiate with the private sector while there remain several competing bidders. However in situations where utility diversions are included in the scope of the Infraco (or equivalent) all bidders still need to price utility diversions for their specific solutions, making suitable allowance for significant uncertainty of scope and the uncertainties of the prices that statutory utilities companies may subsequently charge.

This means that much of the work related to utilities is delayed until after a contract is signed. The process of agreeing a programme, designing the solution and carrying out the utility diversion works adds significant cost, time and risk to the development programme. A consequence of this is that there is a risk that utilities work can delay the scheduled construction works, and that the works are priced at a premium at bid stage. Increased forecasts of the costs of utilities diversions have been one of the significant reasons for cost overruns on other tram procurements.

The scope of this contract was determined by tie based on advice from the SDS provider, the TSS provider and input on scope from the utility companies themselves. The SDS determined the area of the track bed and which utilities apparatus underneath it will need to be replaced elsewhere, diverted or protected. The utilities affected are waste water, potable water, gas, telecommunications and power.

Diversion and protection of high pressure gas, high voltage power and certain BT and other telecommunications utilities are outside the scope of the MUDFA contract and will be separately procured by tie direct with the relevant utilities.

**2) We had a robust approach to getting value for money tenders for the work.....**

Describe the process including structure of bids (detailed B of Q based upon design to provide transparent pricing) no of bidders, basis of selection, benchmarking of rates etc. (I was up to my ears in JRC at the time we awarded MUDFA so have little paperwork in this area at my immediate disposal – Susan will need to help with this bit.

**3) The cost estimate is based upon rates which have been contracted by AMIS.....**

The price per unit of work is known (unless AMIS claim the shit out of us for current prolongation....and I bet they will) and quantities are the variable. But see comments on value engineering at 4 below. Commentary on payment mechanism from DFBC:

The MUDFA contractor is paid the value of the final scope of work delivered based on the prices contained in the approximate bills of quantities. Interim payments will be made each month by tie valuing the work in this way. Incentivisation is difficult where the scope of the work cannot be defined in advance. To mitigate the consequential risk to programme and price tie will adopt an intrusive management and supervision regime to ensure control to deliver the works within budget and programme thus mitigating the risks to the commencement of Infracore works by the due date.

**4) AMIS have been working with us to further value engineer the design of utility diversions, essentially minimising the quantities we have to move.....**

Summary of the RATS process.

**5) Remaining uncertainty in the works is dealt with by a significant risk allowance (20%) which we will be working hard to ensure we don't spend all of it.....**

Construction/commitment management whereby the works orders process will manage commitments at a micro level

**6) Minimising disruption for stakeholders in the local community and road users is an integral part of the process for both us and by AMIS.....**

Describe stakeholder consultation activities with a cross party team from tie / AMIS / CEC (and even TEL re managing impact on bus times). Mention temporary IPR extension? Detail major building blocks in the TTRO.

**7) We have the smartest people in the business working on this.....**

Big team on the case from tie side of the house – hands on management of the construction. Previous experience of utilities work of senior people (Willie G, Graeme Barclay, Steve Gorry, AMIS credentials)

**8) We need to get on with it now or MUDFA costs and follow on infrastructure costs and risks will be much higher.....**

We've managed programme slippage by keeping them busy elsewhere (digging a hole at Gogar) but were now running out of such ideas

I will not be in the office tomorrow.

Stewart

**Stewart McGarrity**  
Finance & Performance Director  
tie Limited