

b. Services Diversions

A total amount of €3,000,000 is included within the current cost plan for services diversions. A breakdown and backup of this amount was requested. The DAA provided backup in the form of existing services drawings and an “estimate summary” of the services diversions was provided as follows:

| | |
|---|------------|
| Telecoms (based on discussions with Arup IT team) | [.....] |
| ESB | [.....] |
| GAS | [.....] |
| DAA Services | [.....] |
| Watermains | [.....] |
| Utility charges for diversions – ESB, GAS & Telecom | [.....] |
| | _____ |
| Sub-total | [.....] |
| Foul sewer diversion | [.....] |
| | _____ |
| Total | €3,000,000 |
| | ===== |

Having reviewed the drawings and information provided by DAA, it was not possible to determine the scope and extent of services diversions included, as the drawings provided related only to existing services and did not indicate the proposed diversions. A further request was issued to DAA for drawings indicating the actual extent of services diversions upon which the allowance above was based and also for the detail behind the “Estimate Summary”. DAA have confirmed that the detail as requested is not available. It is difficult therefore to provide a definitive comment on the above costs.

We note that as part of the responses to our queries, the DAA have advised that these preliminary estimates have subsequently been confirmed by quotations and tenders. However this information was not provided (we assume this is due to the quotations and tenders originating post October 2006).

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Design Fees @ 10%

The planning and design fees contained within the cost plan are calculated at 10% of the construction cost, and amount to €47,446,092. RR&V requested supporting details for this total fee allowance. DAA provided a memo setting out the procedure followed in the appointment of design and cost consultancy services for T2. The tendering and appointment of design and cost consultancy services for T2 went through full open and competitive OJEU process which resulted in the appointment of a design team consortium lead by Arups, and separately DLPKS as cost consultants.

The DAA advise the Design Team fee allowance of 10% is based on the outcome of this tendering process. Due to considerations of commercial sensitivity, DAA were not in a position to provide RR&V with details of the fee bids received. The DAA have committed to providing further backup and information in this regard directly to CAR if deemed necessary.

RR&V have previously been provided with a document entitled “Terminal 2 Project Management & Design Commission Briefing Document”. This document requested that fee proposals for site supervision should be included as a separate cost as part of fee bids for T2.

DAA advised that this site supervision fee was requested for information purposes only, and the above fee allowance of 10% does not include for site supervision. DAA advise that an additional 4.8% (c. €20M) for site supervision is included within the general preliminaries in respect of anticipated site supervision works by the design team.

The CAR may wish to review any further detail that DAA can provide in relation to the fee bids received, and the additional costs in respect of site supervision. The combined fee % equates to c. 15% which seems high, having regard to the scale of the project. Due cognizance should also be given to the fact that there is a separate Programme Manager involved, on a separate and additional fee.

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Capital Contributions

The following is a summary of the information received and reviewed by RR&V.

- The Cost plan provides for capital contribution of €11,768,334 (103,231 Sq M @ €114/ Sq M). This relates to the total new build area included within the cost plan of 103,231 Sq M.
- The Fingal County Council Grant of Planning Permission included total Contributions of €12,674,240. This apparent anomaly was queried to the DAA. The DAA explained that the Cost Plan relates only to phase 1 of T2, whereas the planning application relates to both phase 1 and phase 2 and that this would explain part of the variance between the cost plan total and the planning condition.
- From a review of the full development description published as part of the planning application detail on Fingal Co. Council website, it appears to note a total new build area of c. 121,150 Sq M for phase 1 & 2. On this basis the average rate/ Sq M applied in the planning permission would be €104.62 (€12,674,240/ 121,150 Sq M). If this assumption is correct, the proportion of the total contribution applicable to Phase 1 would be €10,800,027 (103,231 Sq M x €104.62). This is c. €1m less than the amount noted in the cost plan.

Further clarification should be sought from DAA in relation to this apparent anomaly.

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Project Contingency

The current cost plan contains an overall project contingency of €74,119,000 amounting to 15.6% of the construction cost or 13.8% of the overall budget. In addition to this overall project contingency, general construction contingency of 5.2% (€24,646,944) is included within the measured work sections of the cost plan. This brings the overall level of contingency to €98,765,944 (20.8% of construction cost or 18.4% of the overall budget). The DAA have clarified in response to a query that the 5.2% contingency relates to “Design Development”, whereas the €74,119,000 contingency relates to specific DAA related risks such as programme, planning adjudication and enabling works.

RR&V requested detail of the build-up of the project contingency amount of €74,119,000. DAA advised that risk workshops were established and a detailed risk assessment process undertaken by the DAA and the design team. During this process a risk register was established (see appendix B). We understand Risk analysis was carried out using the Latin Hypercube method, a commonly used quantitative risk analysis method. The 80th percentile probability level was adopted by the DAA (i.e. 80% chance that the contingency sum is sufficient, 20% chance that contingency sum is not sufficient) to produce the contingency amount of €74,119,000. The selection of the 80th percentile is common practice in analysis such as this.

This process is a suitable and appropriate method of risk modeling. However the outcome of such a process is dependent on the approach adopted in relation to the identification of risks and the quantification of their impacts. We would note that RR&V are not risk analysis experts and to fully and scientifically review this procedure and calculation, it may be useful to undertake an independent risk review by an independent expert. An independent risk review may examine, for example, the following:

- Validity of the inclusion of each risk and the logic behind its selection and inclusion on the risk register
- The level of probability applied with each risk and the validity or otherwise of the probabilities
- The validity and accuracy of the estimated costs applied to each risk.

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At a more specific level, in relation to the risk register provided, we would question the inclusion of the following items / assumptions:

- Whether some of the risks included in overall risk register and overall project contingency should be deemed to be covered by the 5.2% construction contingency sum contained separately within the cost plan (e.g. “Uncertain ground condition results in additional cost of design changes and programme delays”).
- A number of risks included, where probability may be low e.g. “Change in legislation results in redesign costs and programme delays”
- Inclusion of risks in risk register that are not appropriate/ relevant in the context of the CIP e.g. “Construction inflation and CPI differential increases scheme cost”
- Risks included that may now be historical e.g. “Cost of moving/ rebuilding Corbalis House”

Notwithstanding the specific comments above, in our view, and based on our experience, contingency in this amount (€98.8M or 18.4% of overall budget) appears to be relatively high given the current stage of this project (planning application). An independent risk review may assist in verifying the appropriateness of the current level of contingency.

In overall terms, we would note that the project cost considered and compared to cost benchmarks should, in our opinion, include the full contingency allocation.

While the level of contingency will vary as the project develops, if it is a realistic allocation, the overall cost should bear comparison with out-turn costs for comparable projects, on the basis that out-turn costs will incorporate the “contingency” expenditure which was ultimately required in relation to those projects.

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APPENDIX A
DLPKS Cost Plan Summary

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APPENDIX B
Risk Register

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