



20.0 COSTS

20.1 BASIS OF Masterplan ESTIMATE

20.1.1 Housing New Build

The cost of the housing is based on the outline specification included on the first page of this section. The mix of housing is as follows:

Type	Number	Occupancy (persons)	Assumed Area (M2)
4 Bed (H)	105	6+	102.5
3 Bed (H)	1,908	5	89.5
2 Bed (F/H)	272	3	60.0
1 Bed (F)	365	1/2	47.5
1 Bed Sheltered	170	1/2	47.5
Total	2820		

Allowance has been made for 2% of the units to be suitable for wheelchair bound residents. Allowance has been made for 4% of the units to be constructed to extra best practice and a further allowance has been made for 1% of the units to be innovative/experimental.

20.1.2 Demolition/Deconstruction

The cost of the demolition/deconstruction has been based on carrying out the works to the highest safety standards and practice. The cost includes for scaffolding, dust protection and tower cranes as necessary. Also included is the disconnection and cutting back of all service mains including the district heating. An allowance has been made for dealing with a minimum amount of asbestos identified in the construction of the units.

20.1.3 Site Development Costs

The Site Development Costs include for all new roads, pavements and car parking as identified on the Masterplan. Allowance has been made for site clearance and foul and surface water sewers based on historical data from similar housing schemes. New incoming services mains and connections on the basis of no charge from gas and telephone companies, the electricity and water supply companies will levy a charge on each unit. Trenching and ducts for mains have been included to be provided for the service supplier. A provisional allowance has been made for diversion of services necessitated by the development.

20.1.4 Alterations, Realignment to Roads, Sewers, Services

Allowance has been made for alterations and re-alignment to Ballymun Road, Balbutcher Lane, Sillogue Road and Shangan Road as identified on the Masterplan. Provision has been made for major service diversions, undergrounding of overhead electricity cables and provision of major new foul and surface water sewers necessitated by the development.

20.1.5 Landscaping Works, Parks and Play areas

The landscaping works include all areas of planting in local and major park areas, the provision of play spaces, playground areas, 10 Nr sports pitches and 2 Nr all weather pitches with full lighting provision and 2 Nr sports changing rooms all as advised and in discussion with the Masterplan Landscape Architect.

20.1.6 Local Estate Management Offices/Community Buildings

Budget provisions for these works have been included.

20.1.7 Design Fees

Allowance has been made for design fees and this has been added to the budget for each of the above items.

20.1.8 Base Date/Inflation

The Masterplan estimate is based on a base date of January 1998. No provision has been made for inflation on construction/tender prices from this date.

20.2 IMPLEMENTATION

20.2.1 Key Objectives

The objectives for implementation of the project from this Masterplan stage are:

- To confirm there is a clear established and deliverable programme
- To develop a workable phased sequence of development
- To ensure all assumptions which underlie the redevelopment process are explicit and tested (they will need to be both reasonable and robust)
- The elements driving the programme are consistent with the client's objectives and are clear and explicitly thought through
- That each identified phase of work can operate effectively before development, during development and after development
- All implications for the client, its residents and surrounding area are identified during each stage of development
- All logistical considerations have been identified and taken on board and all issues of interface between contracts are identified
- To develop a detailed cost plan for each phase of each area of the works against which design development can be controlled and procurement monitored
- To identify the funding requirements and develop strategy for obtaining range of funding sources
- To review procurement options and select the most appropriate - establish range of options to suit different situations and objectives
- Identify potential economies of scale
- Establish a mechanism for review and change where appropriate
- That all Health and Safety matters have been addressed in terms of a strategy

20.2.2 The objectives for management of the implementation process are:

- To ensure comprehensive and clear lines of management with appropriate client control. Each player in the process should be clear about their role and responsibility with interfaces identified and clear
- Ensuring there is one point of overall control for the implementation of the redevelopment which ensures that all the elements which need to be marshalled into line for the successful and comprehensive redevelopment are achieved
- To ensure that suitable quality control checks are in place so that a quality process is delivered
- That a review process is put in place to ensure that lessons learnt from earlier individual phases are reflected in the planning and implementation of later phases

20.2.3 The key objectives for construction are:

- To establish a partnership working environment with all concerned in the project including the client representatives, the contractors and the residents
- To work in a spirit of help and co-operation and avoid adversarial contractual situations
- To be aware and sensitive to the needs of all those people who will have to live and work in close proximity to a large redevelopment site
- Ensure the building project is delivered to the client's complete satisfaction and that residents are happy with their new home environment

20.2.4 Programme

The outline programme shown in this section has been prepared in consultation with Ballymun Regeneration Ltd and the other consultants in the Master planning Team.

The programme takes into account and has been tested against priority areas,

procurement considerations, construction issues, feasibility of sequences and available funding.

As more information becomes available and each of these issues is examined in detail the effect on the programme will have to be considered.

20.2.5 Procurement

In parallel with the design process specific procurement procedures will need to be developed which reflect BRL's objectives. These will include not only Time, Cost and Quality but training, employment and tenant issues.

Pre-qualification strategies need to be implemented taking into account the availability of suitably sized and experienced contractors and the need to place the necessary advertisements to establish tender lists.

Tender documents in addition to providing the appropriate level of financial control will need to encompass the requirements for separation of construction activities from tenants, training and employment objectives and any tenant choice procedures.

Detailed procedures for the analysis, evaluation and reporting of tenders need to be established to demonstrate value for money and total transparency, to ensure the highest standards of public accountability are achieved.

20.3 COST MANAGEMENT

20.3.1 Management of Risks

The effective management of Risk needs a pro-active (project team) involvement at both strategic and tactical (project specific) levels.

Risk Management should be an integral part of the project delivery process linking directly to the Project Execution Plan and also Value Management initiatives.

The approach will need to be customised to suit BRL's specific requirements. However the broad methodology can be summarised as follows:

1 Study RMI (Risk Identification)

- Undertaken at project feasibility stage
- Seeks to identify and classify risk factors (concept risk)

2 Risk factors considered typically include:-

- Source
- Effect
- Whether controllable/uncontrollable
- Likelihood and severity
- Risk identification may comprise 3 phases
- Assimilation of project objectives
- Review of potential concept risk sources
- Risk identification and compilation of a project risk register
- Qualitative Risk Assessment and classification of risk items in terms of their likely probability and impact on the project

3 Study RM2 (Risk Assessment/Response)

- Undertaken at Outline Proposals/Scheme Design Stage
- Risk Analysis and Response techniques used to develop the risk register and formulate a Risk Management Plan
- Typical quantitative assessment techniques used include Sensitivity Analysis, Risk Measurement, Probability Analysis (including Monte Carlo and Latin Hypercube simulation) etc
- Risk Response management actions include:
 - Risk Avoidance
 - Risk Reduction
 - Risk Transfer
 - Risk Sharing
 - Risk Retention

These early stages of the Risk Management process culminate in the preparation of a Risk Management Plan which includes a checklist of actions resulting from

Studies RM1 and RM2 and which is capable of validation during subsequent project design and implementation phases.

The Risk Management Plan would therefore be closely linked to the Project Execution Plan and would also be reviewed as part of parallel Value Planning/Engineering studies.

Risk Management should not be considered as a discrete technique but rather as a pro-active tool to be used by the project team to enable the Client to make best informed decisions in good time.

20.3.2 Value Engineering

The approach to value optimisation should adopt a total Value Management philosophy aimed at addressing key project issues which include:-

- Linking tactical or project related goals with Client's strategic objectives
- Improving the validation and justification of projects
- Improving the project briefing process
- Eliminating unnecessary cost without detriment to time, quality, safety and performance criteria

In a similar manner to Risk Management studies at defined project intervention points can be utilised which are summarised as follows:

- Value Planning (Feasibility/Outline Proposals Stages)
- Study VP1: Concept/Project Validation
- Study VP2: Consideration of Options/Alternatives
- Value Engineering (Scheme/Detail Design Stages)
- Study VE1: Analysis of Project Elements
- Study VE2: Analysis of Project Components

Rather than using replacement or external Value Management Study teams, the preference is to utilise existing (project team) members (including Client and User representatives) and manage studies using facilitators not directly involved in the project.

Study Workshops are frequently undertaken over no more than two days and are structured around a Job Plan which typically includes the following stages:

- Information
- Creativity (Brainstorming)
- Evaluation of Alternatives
- Development of Alternatives
- Presentation
- Decision/Implementation
- Feedback (for future projects)

'FAST' or 'SMART' diagrams are often used to focus the Study Team's effort on identifying key project objectives or functions.

The action points contained within the Risk Management Plan are also reviewed during Value Management Studies on an on-going basis to ensure that the implications of design or specification amendments are fully appreciated.

With special reference to Ballymun, the Value Management process could be used not only to consider project specific issues, but also as part of the Resident Consultation process and to address Local Employment initiatives.

In producing budgets, cost sensitive items and areas of risk will need to be identified so that they can be monitored and that appropriate timely action can be taken. Monetary provisions need to be made against risks taking into account the likelihood of the incident occurring. Methods of minimising the potential for cost over-run will need to be investigated.

20.3.3 Cost Control

Strict financial and procurement management should be established so that BRL's short and long term requirements are met. An independent monitoring and reporting process should be established. A computerised cost control system will need to monitor a wide range of contracts against cost plan and budgetary targets.

During the design development the targeting of cost-in use profiles should be examined. The aim would be to produce low maintenance dwellings with low running costs.

20.3.4 Inflation Forecasting and Monitoring

Although all estimates of construction costs are current it is essential to also consider likely rates of inflation over the development period.

To establish cash flows and annual funding requirements inflation will need to be allowed for. Regular monitoring at quarterly intervals against published data and contracts let will ensure greater accuracy of forecasts.

20.3.5 Cash Flow Forecasting and Monitoring

Large regeneration projects such as Ballymun require funds from different sources over different periods. The cash flow given in this report gives a simplified annual profile and is derived from the outline programme.

Regular monitoring of actual expenditure at monthly intervals and comparison with the cash flow profile will allow up to date funding requirements to be maintained.

BALLYMUN REGENERATION PROJECT										
CASHFLOW - SUMMARY OF ANNUAL SPEND										
	1998	1999	2000	2001	2002	2003	2004	2005	2006	
	IREk	IREk	IREk	IREk	IREk	IREk	IREk	IREk	IREk	IREk
1. Housing + related infrastructure		17,593	23,021	31,009	22,736	26,463	27,968	18,873	3,839	171,500
2. Demolitions			1,215	1,725	2,775	880	2,055	2,100	1,250	12,000
3. ADVANCE ITEMS										-
Play areas	400									400
Service Diversions	2,650									2,650
4. MAIN INFRASTRUCTURE		5,700	4,900	2,000	1,650	1,200				15,450
5. LANDSCAPING		500	1,500	1,500	1,500	1,100				6,100
6. OTHER ITEMS		2,300	2,750	5,850	1,500	1,100	200	-	-	13,500
7. Consultant fees	3,500	4,700	5,200	4,000	4,000	4,000	2,700	600	100	28,800
8. Contingency	150	1,200	1,800	2,050	1,550	1,550	1,550	1,000	150	11,000
ANNUAL TOTAL	6,700	31,993	40,386	47,934	35,711	36,293	34,471	22,573	5,339	261,400

The Masterplan attempts to be a flexible framework. Consultation will be on-going throughout the regeneration process.

This section explains the apportionment of the anticipated budget for the whole project.

