



**FACILITIES & SERVICES DIVISION**

# **GUIDE FOR USERS**

Planning and Construction of Major Capital Works

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## Guide for Users

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# GUIDE FOR USERS

## Planning and Construction of Major Capital Works

1. This paper is a guide for Users and Clients setting out the decision making structure and roles of the various groups involved in a major capital work, together with the various stages in the delivery of the project. The paper refers to building works but the principles involved can be applied to other major capital works.
2. The paper refers to processes by which the interests of future users of new buildings at the ANU are represented through the delivery process, from feasibility study to handover and beyond. While all projects are, to some degree, unique, and the actual delivery process will in each case be adapted as necessary to suit the particular circumstances, some general principles apply to all projects. The decision making and consultative structure once the project is approved is an indicative one, to be modified as particular circumstances dictate; the three tier structure described would normally be applicable only to major projects - that is of value generally over \$2 million.
3. All buildings are University buildings (that is, they belong to the University, rather than to a particular College, School or Division) and except for very specialised buildings, their design should recognise the possibility of a future change of use. Nevertheless, they must satisfy the needs of their immediate users, and their success or otherwise in doing this will in large part be a function of the consultation that takes place between the Users, the Facilities and Services Division, Architect, and the Project Manager or Builder.

## Decision-making Structure

4. There are normally three stages in the consideration and approval of projects:
  - Stage 1 - Planning approval: This means approval to commit funds to undertake a feasibility study or a broader examination of the needs. This approval is by either the Director, Facilities and Services, or the Vice-Chancellor.
  - Stage 2 - Project Approval by the Vice-Chancellor: This includes a scope of works and a budget.
  - Stage 3 - Approval to proceed with construction: This is normally at the final sketch plan stage and approval is given by the Director, Facilities and Services within the approved budget.
5. Stage 1 planning approval is based on an assessment of needs, including:
  - growth in student or staff numbers, consolidation of activities.
  - reference to options for meeting the needs, eg. is there an existing facility which could be refurbished.
  - a statement of accommodation requirements (total space, type of space).
  - a statement of functional links required (proximity, etc.).
  - a statement of other requirements, eg. special laboratory space, acoustic requirements.
  - the availability of funding sources other than the University.
6. This is known as the "User Brief". Once the project is approved (Stage 2) the Client, users, officers of the Facilities and Services Division and others will be consulted in the preparation of the "Design Brief", which is a detailed document used as the basis for the design of the facility.

7. Stage 2 will have detailed costings following a critical examination of the planning and development issues. Costings will include those relating to construction, consultants and other fees, and preliminaries (this is a technical term covering all basic infrastructure for the project, eg. site sheds, scaffolding) as well as a contingency and escalation costs appropriate to the nature of the project and the risks to the University.
8. A distinction is drawn between cost estimates on the one hand and the budget on the other. The budget is the total sum of money approved by the Vice-Chancellor for the project. Although it takes into account cost estimates, it may or may not be the same as the total cost estimate. Every cost estimate sets out exclusions as well as those items specifically costed and the exclusions have to be critically evaluated to ensure that the items concerned are appropriately covered, eg. genuine exclusions from the project or those that are included but to be funded from sources other than the project budget.

## **Processes**

### **Project Delivery**

9. This refers to the method of delivering the project. Normally this is the "Project Management Method" where a Project Manager is appointed by the University to act as its agent for the delivery of the project. The Project Manager manages the project on the University's behalf, which includes the coordination of the work of the consultants and contractors, specific directions to be given to consultants and contractors to ensure that the result for the University is acceptable. Acceptability is in terms of four basic criteria:
  - that the project is delivered within budget
  - delivered at an agreed target date
  - the work is performed in terms of University standards, aside from the basic Building Code of Australia standards required by law, for the building to be occupied.
  - the satisfaction of the Client.
10. There are possible variations in terms of the basic project management agreement, eg. whether the University or the Project Manager pays the contractors direct.
11. All consultants and contractors have a responsibility to the Project Manager, except the Cost Planner who is appointed directly by the University and is responsible only to the University to ensure objectivity in the cost planning, cost review processes.
12. The Project Manager submits formal monthly reports to the Project Control Group (PCG). These reports cover the construction activities, program expenditures against the overall and individual budgets as well as site issues such as safety.

### **The Project Control Group (PCG)**

13. The Project Control Group (PCG) acts as the executive control group with overall responsibility for the project. It will generally consist of:
  - Director, Facilities and Services or his delegate (Chair)
  - the designated Client(s) (and users determined by the Chair)
  - the User Coordinator
  - the Project Coordinator and other relevant staff from Facilities and Services.

(The roles of the various people are set out below.)

14. The PCG generally meets monthly during the project. The Project Manager and/or Architect as required will be in attendance at appropriate times. Specifically, its tasks are:

- to monitor the progress of the project and make decision on recommendations as appropriate;
- to control the project budget and program;
- to represent the interests of the eventual occupants of the proposed building; and
- to represent the wider interests of the University, particularly in regard to the University Master Plan, local Precinct Plans, and the impact of the new building on adjacent buildings and their occupants.

15. The PCG will appoint sub-committees as appropriate. These may include the groups below.

### **The Project User Committee (PUC)**

16. The Project User Committee (PUC), as its name implies, provides oversight on a day-to-day basis for the project within the constraints set by the Steering Group. It reports to the Steering Group. Its main focus is the satisfaction of the User's requirements - rather than representing the wider interests of the University, which is the role of the PCG and PRG (see below). It will meet frequently in the early stages of a project (fortnightly or as required), where its primary function will be assisting in the preparation of the User Brief, and providing information and direction to the Architect and/or Project Manager.

17. The Group generally includes:

- The Client (Chair)
- the Planning Officer or relevant Project Coordinator (Facilitator)
- the User Coordinator
- representatives of the various user groups involved

### **The Project Reference Group (PRG)**

18. Where the size or sensitivity of the project warrants it, a Project Reference Group (PRG) may be established by the Steering Group and chaired by a person designated by the Steering Group. This Group will comprise the other 'stakeholders' in the project, including others likely to be affected such as occupants of neighbouring buildings. It may be involved during the early stages of the project, during the site selection, preparation of the User Brief, and selection of the final design.

19. It will also assist in the development of strategies for site access and working hours, that will minimise the impact of the construction phase on neighbours. While it will not have a decision making role in the project, the PRG will be asked to comment on proposals, and to provide advice where appropriate. Membership of the PRG may change through the life of the project.

### **Roles to be undertaken**

20. There are four major groups involved once the project has been given internal planning approval:

- The User(s) and the Client(s). The Client is the formal user authority. The Users are those actually occupying the building or using the facility.
- The Facilities and Services Division. The Division has overall responsibility to the University for the delivery of the project.
- External service providers. Normally the providers are:
  - the Project Manager - the organisation commissioned by the Facilities and Services Division to manage the project
  - architect, engineer, consultants
  - building contractor(s)

- The external approving authority(ies) - normally the National Capital Authority but may also include other bodies eg. Actew/AGL.

21. The roles within the University are:

### ***The Client(s)***

22. The Client is the individual authorised to make decisions on behalf of the future building occupants (the users). Generally this will be the Director of a School, College Dean, Head of Division or equivalent, or his/her nominee. In some cases, there may need to be more than one formal Client. In these cases, they will decide who is the Chair of the PUC. As Chair of the Project User Committee, the Client takes overall responsibility for ensuring that the needs of the Users are met. On the basis of the type of project, its staging, and the Client's own expertise and other commitments, he or she may devolve responsibility for the actual chairing and minuting of meetings to the Planning Officer, Project Coordinator, or Project Manager.

### ***The User Coordinator***

23. This person acts of behalf of the Client(s) on a day-to-day basis and complements the work of the Planning Officer, Project Coordinator and Architect. The person is normally not the Client, as defined above. The User Coordinator assists the Client in his or her work on the PUC, given that the Client will still have their normal responsibilities to the University to fulfil. The User Coordinator will also assist in the day-to-day work of collection and dissemination of information, organisation and minuting of meetings where this is not carried out by the Project Manager. Experience indicates that the ideal person to fill such a role will be someone with prior or current connections with the relevant School, College, Faculty, Division or Department. It is important that this person be selected by the Users themselves. It is also important that this person is physically based in the relevant School or Department where this is practicable and has a continuing role after the completion of the project.

24. Where the size or complexity of a project warrants it, the User Coordinator may be specifically employed for the life of the project from project funds.

### ***The Planning Officer and Project Coordinator***

25. The primary role of these representatives of the Facilities and Services Division is that of coordinating the work of external consultants (including project managers), other service providers (within and outside the University), approval authorities, and the Users. To prevent confusion or ambiguity, all communication between the University and external consultants and authorities must be channelled through one of these officers (as designated), who also provides specialist technical advice to the Users. The Planning Officer carries out this role from the inception of the project, through feasibility studies, engagement of consultants, site selection, and preliminary design work. During the design and documentation phases the Project Coordinator takes over this facilitator role, carrying it through the construction stage.

### ***The Project Manager***

26. See paragraph 9

### **Budget and Value Management (VM)**

27. The formal approval identifies the source of funds. A distinction is drawn between University central sources and external sources. Depending upon the nature of the project and other factors considered by the Vice-Chancellor, only a limited amount of money may be made available from University sources, with the expectation that the area or areas concerned will obtain external funding assistance. This should be considered when projects are being submitted for approval.

28. In the vast majority of cases the sum total of the Client's needs will on first iteration exceed the amount of money available in the budget. It is vital that the University overall and the individual Clients and users achieve maximum value for money from the project, and the essential needs are met at least cost. Therefore, all projects will include at least one formal value management (VM) assessment, usually when the specific requirements are being considered against the budget, but it may be used at other times. The time required for the VM assessment varies from project to project, but all parties must be willing to set aside at least a full day to participate in the assessment. The assessment includes not only Users and Clients, but also a number of consultants – architect/engineer(s), Project Manager, Cost Planner, etc. The overall VM process involves a rigorous (and often painful and demanding) review and assessment of costs and needs. Generally the VMS will be run by an independent facilitator with assistance, on larger projects, from an independent group of design and services professionals.
29. It is important to recognise that the budget is set in terms of a maximum figure. This means that the Client should not assume that all the funds are available for expenditure. Where there are savings during, say, the construction period it should not be assumed that these savings will automatically be available for inclusion of additional items in the project, although sympathetic consideration will be given to the Client's needs.

## **Siting and Design**

30. Site Selection: On advice from Facilities and Services Division, possible sites are selected for consideration, then a recommendation is put forward to the Campus Planning and Development Committee (CPDC).
31. Design Development: After appointment of the Architect, the Design Brief is prepared and design development takes place in consultation with the PCG/PUC and where appropriate, the PRG. Again, approval of the design is with CPDC (internally) and with the National Capital Authority (externally).
32. There are normally two distinct phases:
- Preliminary Sketch Plans - where the broad design issues are resolved, ie. building size, footprints, heights, floor layouts, and building facade.
  - Final Sketch Plans - where specific designs are approved and signed off in terms of internal and external issues (the latter includes precise building materials and colours).

## **Handover of the Building**

33. Handover and Post Occupancy Evaluation: When the building is complete and ready for occupation, the building is handed over to the users, together with manuals, warranties, and "as-built" documentation. However, the involvement of the Facilities and Services Division and the Project Manager does not end at this point. During the Defects Liability Period - generally twelve months - any faults in the building that occur are rectified. At the end of this period, a post-occupancy evaluation will be carried out to confirm the adequacy or otherwise of the finished building in terms of the originally briefed requirements. The review will also cover performance issues in relation to project managers, architects and builders.
34. The time for the entire process will vary according to the complexity and size of the building. A typical program for a \$5 million project might comprise three months for the feasibility phase; another five months for design and documentation; and a further ten months for construction.

## **Artworks**

35. The Council has approved processes and procedures relating to the provision of artworks in new buildings (paper 1084/1997 attached). A sum for artworks may be approved separately. Discussions with the architects and users about artworks should occur early in the planning process for a new building.

## University Standards

36. In all projects the University will insist on a number of basic standards in terms of the design and construction of the building as well as specific targets, eg. "green star" ratings. These cannot be traded off in terms of the negotiations relating to the Client needs in respect of the budget available.
37. These standards will be included in the Service Level Agreement to be signed by the parties.

## Appointment of Key Consultants

38. The two key consultants for the project are the Architect and the Project Manager. The Client and nominated users will normally be involved in the selection of these two key players, especially the Architect.

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**Attachment:** 1084/1997  
**History:** Revision of Paper 1966/1998; itself a Revision of 20A/1997  
**File:** Policy - Facilities & Services - 2001 04906  
**Web:** Facilities and Services - Policies <http://facilities.anu.edu.au/index.php?pid=80>