



Construction and Capital Project Management

Capital Project Planning

Fulfillment of the academic plan is accomplished by creating a physical environment conducive to the goals of the University. The academic goals of the University are the primary impetus to all campus planning. As the academic and enrollment plans evolve, it is possible to define the individual physical development projects that address the academic and support requirements of the institution. At Bryant University the President, supported by the Vice Presidents and their staffs, plan and envision the course of campus development. All proposed initiatives are prioritized in support of the strategic plan. These initiatives can address maintenance and repair needs, renovation to upgrade facilities to a higher standard, alteration to convert existing space to serve a change in function and new construction that supports the ongoing University Mission.

The first step in the planning process is the development of a program statement that is the written description of the proposed physical development plan. The development of the program should be led by a professionally qualified leader, often a Project Manager (PM) with the Campus Management Staff. The PM brings together members of the community selected by divisional Vice Presidents architects, engineers and qualified consultants to define the project objectives.

In large capital projects, the architect is often the first professional engaged in the process. The architect develops a conceptual plan to satisfy the intent of the program. Often, at this stage, an estimator or Construction Manager (CM) is engaged to develop cost ranges and preliminary construction schedule. These are presented to the President and his cabinet for assessment. Projects that fit the financial and program requirements of the institution can proceed to the various planning, documentation, and bid stages.

Budget Development

A project budget includes all the costs pertaining to the completion of a project; it contains so-called hard construction costs and the soft costs for planning and miscellaneous fees and expenses. In the early stages of planning, estimates of these costs are provided by professional estimators or construction managers. Early pricing is often based upon comparison with recent projects on a cost-per-square-foot of area or a cost-per-occupant. As the plan becomes more detailed, such as at the end of the design



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development and subsequent construction documentation process, then more precise estimates can be developed. Accurate cost control through the design process helps to ensure that the project will emerge from the bidding process consistent with program and financial objectives.

Normally the planning process culminates in the completion of a thorough set of construction documents that are distributed to a pre-approved list of bidders. The bidders are invited to submit competitive bids on or before a specified time to the Director of Purchasing. However, when a CM is engaged by the University to manage the project, the CM receives all subcontractor bids and provides the University with an analysis and recommendation of which subcontractors should be engaged on behalf of the University.

For smaller projects of limited scope, budgeting can occasionally be done by a University PM who may use historical cost records, published cost data, or advice from trusted subcontractors to establish a reliable estimate.

(Minor Projects) An annual capital request process provides department budget managers with an opportunity to propose specific capital projects for the consideration by the President's Cabinet. A notice is issued by the Director of Capital Projects to Budget Managers who are asked to submit requests to their respective Vice Presidents. The Campus Management Staff often aids in the preparing the cost estimates for these proposals. The Vice President selects projects to pass on to the entire Cabinet for review. Projects approved by the President and his Cabinet are passed on to the Board of Trustees for final approval.

Capitalization Policy

Not all projects qualify as a Capital Project. The following policy establishes the criteria for what can and cannot be capitalized.

[Bryant University Fixed-asset Capitalization Policy](#)

Contract Management

Capital projects involving the campus infrastructure are usually managed by the Director of Capital Projects and the Project Management Staff. Early in the planning process, the Director assigns a PM to the project. The PM follows established procedures for acquiring the services of the design professionals and arranging for meetings with the University Review Committee. When the design is complete, the PM procures the project in accordance with established University Procurement



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Procedures. For major Capital Projects, a construction manager is often selected during the early stages of the design process. The selection of the CM is normally made by the Vice President for Business Affairs and the President through a comparison of three or more competitive proposals. For exigent projects when the overall project schedule does not allow for a competitive bid process, the CM can be selected by a negotiated bid providing fixed percentages of Fee and General Conditions.

The nature of the project determines the type of contract document used to define the scope and obligations of each party. As a rule, the University provides a modified version of a standard American Institute of Architects Document.

The University PM provides leadership to the project team and manages the overall project schedule and budget. She/he reviews the quality of the work and ensures that the project is constructed in accordance with the construction documents. She/he reviews payment requests; acts as University liaison to architects, engineers and consultants, and the Campus Community, and guides the project through the regulatory approval process. The PM ensures that accurate records are kept of project costs, shop drawings, operation and maintenance manuals, written guarantees, inspections and closeout documentation. Finally, the PM procures furnishings and equipment and oversees the final punch list, certificate of occupancy, and training for the building maintenance staff.

Bidding Process

Normally projects are bid competitively. Once plans and specifications are complete, the project is put out to bid. Contractors and subcontractors from Rhode Island and neighboring states are invited to fill a select list of bidders. The University has employed a variety of construction procurement methods, such as Lump Sum Bid, Fast Track, and Design Build but currently the most common method is Construction Management. In Construction Management projects, the construction manager divides the project into logical subcontract bid packages and invites multiple qualified subcontractors to submit bids for each package. Comparisons are made of the most attractive bids, and a scope review is conducted to ensure that the bidders have considered all elements of the required work. Once the CM has subcontracted a substantial amount of the project work on a particular project, he/she is normally asked to provide the University with a Guaranteed Maximum Price. This establishment of a GMP places the contractor in an “at risk” status, in that under the terms of the Contract the CM holds all the subcontracts and the only allowed changes to the contract cost will be through a properly executed Change Order.



In some cases, for example smaller projects, University PMs will perform the duties of CM and hire the subcontractors directly

Furniture and Carpet Selection Procedures

Furniture

Selection and purchase of University furnishings are done either by direct purchase by individual departments (small non-capital orders), or by the Campus Management Department (larger capitalized orders) on behalf of the end user.

Direct purchase by individual departments is limited to small orders confined to individual offices or to fill specialized needs. In this case, the Purchasing Department provides the purchaser with a range of choices that help set standards of quality and choice of pre-qualified vendors. Purchases are made directly by the end user and are usually funded by the department's operating budget and with the approval of the respective divisional Vice President.

Capital purchases of furniture are often associated with new construction or renovations and require the assistance of the Office of Campus Management. Normally a Project Manager (PM) is assigned to assist a client department in the selection process. The PM may procure the assistance of architects or interior designers, who will offer the client department a range of options that address programmatic, functional, budgetary, and aesthetic needs. Once the programmatic needs are well defined, the PM or the consultant will author a Request for Proposals (RFP) to be sent to three or more of qualified vendors. The RFP will require itemized pricing on all acceptable choices of furnishings and may also allow vendor-suggested alternatives. The RFP will also list all other relevant terms such as prepayment limits, delivery/placement, insurance, warranty, schedule, etc. Vendors will be directed how and when to submit their proposals to the Purchasing Department, who will record the bids and forward them to the PM in Campus Management. The PM in Campus Management will analyze and compare the bids and initiate the normal approval and purchase procedures. The PM will work with the successful vendor(s) during the execution of the work to ensure that all bid requirements are met and that the client departments needs are met.

Carpet

Carpet and floor covering are normally procured through or with the assistance of the Campus Management Department. For capital projects, the specification and recommended selection is made by



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architects or designers in consultation with the client department. Campus Management is responsible to see that selections are code acceptable and meet reasonable durability standards. Procurement is normally done by capital projects staff for new installations or renovations or by the Custodial Department for normal cyclical replacement. The PM is responsible for the observance of approved University purchasing procedures. Small-dollar projects that require immediate action are usually purchased from a preferred bidder. Larger projects that can benefit from competitive bidding are competitively bid. A PM will issue an RFP listing product specification for the required carpet. The RFP will also list all other relevant terms such as prepayment limits, delivery/placement, disposal of old carpeting, insurance, warranty, schedule, etc. Vendors will be directed how and when to submit their proposals to the Purchasing Department, who will record the bids and forward them to the PM in Campus Management. The PM will analyze and compare the bids and initiate the normal approval and purchase procedures. The PM will work with the successful vendor(s) during the execution of the work to ensure that all bid requirements are met and that the client department's needs are met.

Municipal Records

Bryant University values the good will of the state and local communities. The importance of successful public relations is critical in pursuing certain facilities projects. The institution depends on the soundness of these relationships for needs ranging from simple permits for building demolition to positioning public opinion in favor of major growth plans.

A healthy relationship is dependent on maintaining an open line of communications between local officials and a generally good public opinion of the role that the University plays within the community.

Bryant University, with its excellent educational programs and attractive campus is well positioned to be considered an important asset of the Town of Smithfield and the State of Rhode Island. However, maintenance of this impression cannot be taken for granted. A concerted, ongoing effort must continue to be made to achieve and maintain this image.

The overall responsibility for community relations is a multi-divisional team effort. The President and his office are often the first contact on matters of community concern. University Relations normally spearheads any public communication effort. Student Affairs is often involved in matters of Public Safety and student/community relations. Business Affairs is normally involved in matters of interest to specific town departments such as Building/Zoning, Fire Officials, and the Public Works Department. It is critical that the timing and content all important University communications with town and state officials be



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coordinated, open, and consistent. This critical role is managed by the University President, Vice Presidents, and University Relations.

Bryant hosts periodic meetings with town officials where University and community interests and initiatives are discussed. During these sessions, the University President briefs local officials on plans for upcoming projects that may be of mutual interest. The meetings allow for a strengthening of personal alliances and keep municipal officials current on nascent plans and objectives. These meetings also provide an opportunity for the University to present ideas about new initiatives that can further cooperation and community goodwill.

Bryant must continue to demonstrate an interest in the concerns and welfare of the local community. Occasionally the University is able offer the town the use of its facilities or the expertise of its faculty and staff. The community is invited to participate in cultural and sports events on campus. Each year scholarships are offered to Smithfield High School graduates. Bryant University students volunteer for local and state community charitable initiatives.

Periodic economic impact studies are conducted to demonstrate the substantial effect that the University has on the local and state economy. While the University maintains a tax-exempt status, it nevertheless provides significant contributions to the health of the local economy and through its support enables area businesses to offer a greater range of services to the larger community. Over the years, Bryant has also made substantial contributions to the development of the utility infrastructure.

The University strives to cooperate and maintain the respect of municipal officials who have responsibility for interpreting and enforcing local and state regulations. For larger projects, an effort is made to brief key decision makers early and often. Preliminary visits to the Smithfield building and engineering staff, as well as the Fire Department, help to surface technical and procedural preferences and gaining insight into the time that must be allowed to progress through the review process. It is critically important that the University continue to keep its commitments made verbally or in writing.

In addition to placing value on the relations with municipal authorities, Bryant takes particular care to maintain the trust and goodwill of its immediate neighbors who are most impacted by University activities. An effort is made to balance the interests of the University with the importance of having the community see Bryant as a friendly and caring neighbor. Neighbors should be invited to appropriate events and to enjoy the grounds. University officials invite residents to call should they perceive an issue



that threatens that relationship. Every effort is made to address these concerns or at least explain when they cannot be addressed.

Records Management

Project Records

Before a building is physically built, it is first constructed on paper. In order to ensure the success of the building process, all the materials, methods, spatial relationships, and functional outcomes must be described in detail. The documentation takes the form of contracts, plans, written specifications, schedules, regulatory permits, product submittals, operation and maintenance manuals, test reports, photos, etc. For a building or project, the accumulated body of documentation is referred to as the project record. Much of this documentation that makes up a project record has value beyond the initial construction process. Maintenance operations for the life of the structure are dependent on accurate records of all elements of the completed project. These documents play an important part in the building commissioning process that sets the stage for the ongoing maintenance process. Accurate and accessible project documentation is particularly important to the cost-effective upkeep of the active mechanical and electrical systems and the modification and adaptation of these systems over the course of time.

At Bryant, the Project Manager (PM) assigned to a project is responsible for the assembly and care of the project record. At the outset of a project, the PM establishes a standardized filing format for all correspondence and documentation related to the project. The PM is responsible for the maintenance and distribution of documentation to all members of the project team within the University, from the inception of the project until project closeout. Following the project completion and closeout period, the original project record is transferred to a common archive for use by all members of the maintenance staff.

Major projects constructed after 2000 have included, as a standard requirement, that the architects and engineers must provide to the University an AutoCAD version of the project plans. These plans are to be included in the limited body of existing building plans that have been converted to the more durable and accessible digital format.



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Environmental Records

Regulatory compliance requires extensive record keeping. EPA, OSHA, Fire Department, and other regulators have statutory requirements for documentation to verify the quality of ongoing compliance activities. Records are kept on such issues as; Asbestos Remediation, Air Duct Cleaning, Boiler Inspections, CFC Refrigerant Control, Department of Transportation Manifests, Elevator Inspections, Underground Tank Testing, Oil Spill Prevention and Cleanup, Right to Know Communications, Fire Alarm Inspections, and OSHA Training Records, to name a few. Much of this information is stored in the Facilities archives, and individual files are maintained by various staff members of the operations staff.

Technical Library

The Campus Management Department maintains a technical library consisting of engineering and architectural reference books, product literature, cost-estimating information, and code and regulatory reference books. Much of the library is in the archives room, and some of the reference materials circulate throughout the administrative offices.