# CHAPTER 6: PROJECT MANAGEMENT

## 6.1 Overview

One of the key roles in project management is the Project Manager (PM). The PM is the person responsible for leading a project from its inception to execution. This should include the planning, design, construction, and completion of the project. The PM is also responsible for ensuring clear communication between all of the project management team and stakeholders. The Project Manager is in overall charge of the planning, execution and managing of the people, resources and scope of the project.

While project management begins with master planning typically, a project manager and/or management team is not put in place until a potential project is identified and the initial project proposal is started. This chapter offers guidance for the manager and/or team to optimize the quality of a high-performance building project. Project Management is the application of knowledge, skills, tools and techniques to meet project requirements.

Effective project management is achieved through a structured process and includes multiple phases:

- Initiating
- Planning
- Executing
- Monitoring and Controlling
- Closing

The process balances the key project constraints and provides a tool for making decisions throughout the project based on stakeholder values, performance metrics, established procedures and project goals.

Successful project management includes strategies, tactics, and tools for managing the design and construction delivery processes and controlling key factors ensuring the district receives a facility that both matches their expectations and functions as intended. Improvements in building quality directly contribute to reduced operational costs and increased satisfaction for all stakeholders. Successful project delivery requires the implementation of management systems that control changes in the key factors of scope, schedule, budget, resources, and risk to optimize quality and, therefore, the investment.

Districts without project managers on staff, or that are inexperienced with managing their own capital outlay projects, should consider hiring an experienced professional to manage the project, keeping in mind that the role of project management changes during different phases of a project. When structuring the terms and conditions of an agreement with a project manager, there should be sufficient legal review to ensure that the form and content of the agreement clearly expresses the rights and obligations of both parties relative to scope, time and compensation.

The role of the project management team is to keep the project moving forward, while simultaneously adhering to state and local reporting requirements, following procedures needed for state funding and assuring compliance with environmental regulations, building codes, and other mandates.

It is also essential that the project manager or management team communicate regularly with district personnel on project progress, milestones, budget and any issues or risks encountered or anticipated. District staff or the project manager, with written district approval, must regularly contact the Chancellor's Office staff regarding these same issues.

All phases of a project should be managed without losing sight of the initial educational objectives of the project. A project should be continually monitored to assure that it still meets those objectives or, if the objectives are changing, that the project has enough flexibility to meet new objectives without affecting scope or budget parameters.

The importance of quality project management in the face of all these competing objectives cannot be overstated. Quality project management, whether supplied in-house by the district or by a consultant will:

- Keep all the stakeholders aligned with clear, appropriate objectives throughout the project
- Organize and manage all the in-house staff, consultants, tasks, budgets and schedules
- Coordinate submittals, reviews and approvals
- Maintain scope, cost, and quality criteria and controls
- Maintain clear organizational systems and records
- Facilitate the communications, meetings, discussion and decision-making of the stakeholders

- Provide problem-solving, decision-making and direction to keep the project on track
- Provide the leadership with the necessary analysis and control measures to produce a high-quality project within a complex “system”

## 6.2 Phases of a Capital Project

There are numerous phases to a capital project. Each phase must be properly managed for a successful project. A capital project begins when a need is determined in the master planning process; and, each state-funded capital project must show a direct link to the district’s master and/or educational master plan (see Chapter 2 for details). Once need has been documented, a district can move forward with an initial project proposal (see Chapter 5 for details). A management team is established, the scope of work is determined, construction drawings are prepared followed by bidding, construction, certification, occupancy, and project closeout.

### 6.2.1 Project Organization

Project organization is the establishment of the project management team and plans for managing and preparing the programming and design. Efforts made during this phase include selecting design and construction professionals; selecting a project delivery method; developing a work plan; setting up scope, cost and quality controls; reviewing applicable regulatory requirements; and setting up reporting methods.

### 6.2.2 Programming

Once the approval of an initial project proposal is obtained from the Chancellor's Office, the programming phase begins. This phase involves review of previous planning and the development of more detailed programming of the project in preparation for starting the design phase. Site analysis, initial environmental studies, program development, regulatory and code analysis, and feasibility reviews as needed occur during this phase.

### 6.2.3 Schematic Design

Schematic design, prepared by the architect, engineer or other design professional is completed by creating and evaluating alternative design approaches to the project until a single design has been selected, illustrated and approved by the faculty, staff, students, and administration.

### 6.2.4 Design Development

Design development is the continued development of the chosen design, incorporating elements, systems, materials and details until all significant design decisions are resolved and approved. This phase involves detailed analysis of alternative systems including life-cycle costing.

### 6.2.5 Preliminary Plans

Preliminary plans, (see Chapter 7 for details) often considered the same phase as design development, involves the completion of environmental requirements and preparation, submission, and approval of preliminary plans by the Division of State Architect, the Chancellor's Office, and the State Public Works Board.

### 6.2.6 Construction Documents

Upon approval of the preliminary plans, the construction document phase begins. It involves translation of the design documents by the architect, engineer or other design professional into construction drawings and detailed specifications for use by the contractor for the construction of the project.

### 6.2.7 Bidding and Award

The bidding and award phase includes submittal of the construction documents to the Chancellor's Office for approval, the approval to bid, the bid process, submittal to the Chancellor's Office for approval to award, and the award of the contract to the contractor.

### 6.2.8 Construction

Construction of the project must be completed as defined in the contract documents and any formal changes to the contract. The construction process includes equipment and system activation, commissioning and post-occupancy evaluations.

### 6.2.9 Project Closeout

State administrative regulations require that all projects financed with state bonds comply with ***Project Closeout*** procedures. The Project Closeout procedures on state funded projects continue to be administered through the FUSION system. See Chapter 7, Section 7.7.2.2 for more information on Project Closeout.

## 6.3 Project Management Team

Districts are encouraged to form a project management team prior to programming; however, expenditures incurred at this stage of the planning process are at district expense. The makeup of the project management team usually matches the overall strategy for funding and delivery of the project. There may be a single person filling several roles or a manager with a group of people filling separate roles. Positions may be filled by district personnel, consultants or committees. End users of the project often are fully integrated into the process to assure facilities are built which satisfy the educational intent and requirements. One method used successfully by districts is to have a member of staff appointed as the “single point of contact” (SPOC) for the project team and other interested parties such as faculty.

The tight coordination and cooperation of the project management team is essential to the success of the project. The fewer persons involved the easier the process. All team members should have clear responsibilities and the authority, information, resources, and time to fulfill those responsibilities. Where a committee is used, it would be more effective if a committee chair or administrator was ultimately responsible for making the final decisions in the event of committee deadlocks or defaults. An effective method to maintain progress is to have periodic “sign offs” of document agreements and approvals by participants along the way.

The project development team typically has several roles that need to be fulfilled:

1) Project manager(s) — This is a person with planning, design and construction experience who has:
    - The authority to make administrative and management decisions
    - The authority to make financial control decisions
    - The ability to manage the team and the process
    - The resources to operate effectively as an extension of staff
    - The responsibility to implement the project

Project management is normally carried out by a single project manager who acts as a clear point of coordination and decision-making for the project. If the project manager changes at the end of a phase, continuity should be maintained through careful records and orientation with the incoming manager, especially any outstanding action items and/or documented lessons learned.

2) Educational representative(s) — This is an educational planner, department representative, or user committee responsible for the educational objectives of the project. This person makes certain that the educational objectives are appropriate, clear, feasible, and adequately met as the project progresses through programming and design. If the project is not directly educational, infrastructure or support, then the appropriate support department would be represented.

Many districts have an established building committee that fills this role. It normally consists of faculty, staff, and student representatives from the user department(s); the chief business officer and representatives of the total campus. Some districts also include one or more community representatives on their building committee. Where the committee is large, a core committee can do the ongoing work and involve the larger committee at crucial points in the process.

3) Facilities planner — A planner, programmer, or architect who develops and translates the project program into a space plan and budget in accordance with State guidelines.
4) Operations representative — Usually a small committee of operations and maintenance staff that monitors technical decisions during the project for appropriateness and consistency with campus systems and ease and cost of maintenance.
5) Architect and engineer — a licensed Professional(s) who provide programming, design, document production, estimating, construction administration, and other services to the extent of their contract. The design professionals are selected, contracted, and held responsible for the design quality.
6) Construction manager — The owner's representative for the administration and coordination of the owner's interests during the construction of the project. The construction manager begins work during design, checking the design decisions, documents, and costs for viability during construction. This person could be the project manager or a professional construction manager and may, under special circumstances, have some of the responsibilities of a general contractor.

### 6.3.1 Single Point of Contact

A single point of contact (SPOC) is a person or a department serving as the coordinator of information between the Project Management Team and district management. The district assigned SPOC may also be a member of the Program Management Team. A SPOC is recommended where information is time-sensitive and accuracy is important.

Assigning a SPOC is a way to streamline project management so the district/campus (and the public): 1) receive necessary and timely updates, and 2) receive consistent information/data one time.

The Project Manager and/or Project Management Team is expected to keep the SPOC up-to-date at all times.

## 6.4 Selecting Design and Construction Professionals

Consultant selection is a critical step in any project. All projects reflect the capabilities and motivation of the persons working on them, and consultants typically provide a large portion of the work. Consultants are approved by the district board in accordance with procedures set up at the district.

The basic steps for retaining consultants are:

1) Determining which parts of a project may need to be done by consultants
2) Determining the scope of the consultant's work
3) Determining the process for monitoring the consultant's work
4) Selecting the consultants for the project
5) Contracting with the consultants
6) Formally appointing the consultants, if required

There are many different kinds of consultants that may be used on a project, as illustrated by the list at the end of this section. The district needs to evaluate:

- What kinds of expertise will be needed to do the project properly
- At what point in the project each type of expertise will be needed
- Whether the required expertise is available in-house and whether those persons will be available to work on the project
- What expertise is required from consultants
- Whether to hire a prime consultant with sub-consultants or several separate consultants
- How to pay for the consultants within the budget

### 6.4.1 Statutory Requirements Regarding Consultants

Architectural and engineering services are procured by a qualifications-based selection, not a bidding process. Although a bidding process is **not** required, the process must be open and competitive in accord with State law. The public agency shall adopt guidelines governing the procedures for contracting for these services. The standard for award of such contracts shall be based upon the demonstrated competence and qualifications of the individual or firm for the services to be provided and the price of the services shall be fair and reasonable to the public agency. These provisions are also applicable to the selection and retention of a construction manager.

### 6.4.2 Affirmative Action

California Code of Regulations (CCR) Title 5. §59500 allows each district shall have flexibility to determine whether or not to seek participation by minority, women and disabled veteran business enterprises (M/W/DVBEs) for any given contract.

### 6.4.3 Equal Opportunity

The following is a sample statement of equal opportunity as provided in the request for proposal or qualifications.

> *"From among appropriately comparable firms, using a process which is consistent and understandable, the Community College District will select the most qualified design professionals. No person employed by or seeking employment with the Community College District shall be discriminated against because of race, color, religion, marital status, national origin, ancestry, sex, sexual orientation, physical or mental handicap, medical condition as defined in Section 12926 of the California Government Code; status as a Vietnam-era veteran or special disabled veteran; or, within the limits imposed by law, because of age or citizenship."*

### 6.4.4 Selection of Consultants

The process for selection of consultants is fundamentally the same as the process used to hire other staff. The following items are considered:

- Required education, degrees, certifications, and licenses
- Related experience or transferable experience and learning curve
- Past community college project experience

- Financial, insurance, information and sub-consultant resources
- Project management, decision-making and communication skills
- Special creativity, problem solving, technical talents
- Satisfactory past performance
- Real time capability in terms of staff, equipment or processes
- Availability to the project
- References
- Compatibility with the client, approach and team
- Fees and contract terms

The usual steps in the selection process are:

1) Public advertisement of a request for qualifications or proposal
2) Screening of responses by a screening committee
3) Development of a short list of candidates
4) Any requests for additional information from the candidates on the short list
5) Interviews by a selection committee
6) Rating and ranking of the short list
7) Negotiation with the highest-ranking candidate
8) Agreement with the highest-ranking candidate, or
9) Negotiation with the next highest candidate until an agreement is reached
10) Approval by the Board

It is recommended that candidates passing the screening committee be ranked by qualifications before there is any consideration of fee.

### 6.4.5 Selection of Architects and Design Professionals

The process for selecting an architect or design professional is fundamentally the same as the process used to hire other staff.

#### 6.4.5.1 Advertisement

Advertisement is optional. Ordinarily, however, it is done the same way as advertisement for bid. Advertisements are typically placed in newspapers of general

circulation in the region and in the journals of minority, women, and disabled veteran's design professional organizations where such journals exist. Other media resources such as district & industry association websites should also be considered. See Chapter 8.3.12 for more information. The advertisement normally includes:

- Type of design professional required
- Title and type of project
- Size of project
- District and name and address for responses
- Date for responses
- A statement that each candidate firm will be required to show evidence of its equal employment opportunity policy or affirmative action program and its commitment to use qualified minority, women, and disabled veteran consultants

#### 6.4.5.2 Screening

The purpose of screening is to determine which of the candidates are qualified and, if several candidates are qualified, which candidates have superior qualifications and should be finalists. The members of the screening committee need to have the technical and field experience to know when an architect is qualified.

The screening committee normally considers:

- Responsiveness to the qualifications or proposal request
- The design team's experience on projects of comparable function, size, complexity, and cost in terms of project management, programming, design, and construction administration
- Any additional expertise required for the project, e.g., proposal preparation, DSA certification procedures and California Building Code knowledge as it pertains to community college construction (see section 6.10.1 for details)
- The design team's experience or expertise and success in incorporating the following into project design using latest design technology: energy conservation, water conservation, solid waste management, sustainability, maintainability, environmental quality, total cost of ownership and adaptability
- The design team's experience or expertise and success with the elements of project management: staying within budget, staying on schedule within an

academic environment, claims avoidance, quality control, value management, and life-cycle costing

- Prior experience with the community college state capital outlay process
- Overall functioning of the design team: the sub-consultants, organization, communication, coordination, and previous record as a team

#### 6.4.5.3 Selection and Contract Terms

The selection committee explores the qualifications of the short-listed candidates in depth, checking references, visiting past projects, visiting the firm's office, interviewing, or asking for additional information. The selection committee may be the same as the screening committee, but is usually a less technical committee with greater participation by the users of the project. It usually includes the client or user, the project manager, and other members of the project team.

In addition to reviewing the same information as the screening committee, the selection committee might consider:

- The candidate's design approach to the project
- The candidate's team composition, sub-consultants, and expected level of service
- The candidates fit with the rest of the project team and the client
- The candidate's approach to the management and control of the project
- References and review of past projects

Negotiation of the contract provisions and fee with the highest ranked candidate can be expedited by providing all candidates with a sample contract and expected fee level. Time limits can be placed on negotiations after which, the district will discontinue negotiations and move to the next candidate. Contract provisions for architects are discussed later in this section.

#### 6.4.5.4 Selection of the Construction Manager

The selection process for a construction manager is the same as that for an architect except the selection criteria are different. The construction manager may be selected early to provide project management services, or may be selected during design to participate in value engineering and constructability reviews. Hiring a construction manager at the beginning of construction is generally considered too late to get the full benefit of the construction manager's expertise.

Before starting the selection process, the district needs to be very clear about the scope of services to be provided by the construction manager, the responsibility and authority to be delegated to the construction manager, and the district's means of controlling and monitoring the construction manager.

Screening and selection criteria for a construction manager might include:

- Experience with the architectural process, if the construction manager is going to provide project management during the design phase
- Experience with current design technology
- Value engineering, life-cycle analysis, total cost of ownership, constructability, and document checking experience
- Experience with alternative project delivery methods
- Equivalent experience to that of a general contractor
- Experience with electronic delivery methods, if one is to be used
- Management, leadership, communication, recording skills
- Cost control methods and price negotiation skills
- Schedule control and coordination skills
- Quality control methods
- Knowledge of construction inspection
- Claims prevention and resolution experience
- Experience with equipment and systems design, procurement and commissioning
- Fees, liability, bonding and insurance
- Experience with the type of construction, materials and methods of the project
- The construction manager can provide project management during project closeout and certification.

In California, construction managers cannot guarantee a maximum cost of construction without being considered contractors subject to competitive bidding regulations. The construction manager cannot guarantee the schedule either. The only controls on the construction manager's performance are those in the construction management contract.

If the construction manager fails to perform, leading to delays, change orders and construction claims, the district may have little recourse in negotiations with the contractor.

In addition, districts should be aware that a construction manager's efforts to control the cost and schedule may or may not be successful. A poor construction manager, can add to the administrative and cost burden on the project exposing the district to construction claims. A good construction manager can be of immense help in managing the project and may suggest ways to save on construction costs.

#### 6.4.5.5 Contract with the Architect or Engineer

When writing architect's agreements, the district should be careful to include:

- The architect team including the name and specialty of sub-consultants
- The full scope of the architect's services and responsibilities during programming, schematic design, design development, construction documents, bidding, and construction
- Statement on expectations of current design technology use and deliverables
- The exact deliverables required from the architect at each phase
- The architect's participation in reviews and approvals, e.g., value engineering
- The architect's responsibilities with regards to code compliance and other regulations including energy use standards
- Expectations with regards to cost and any redraw clauses if estimates or bids are over budget
- Clear explanation of the architect's role during construction in relation to the owner's representative, the inspector, and the contractor
- The architect's responsibilities with regards to construction submittals, clarifications and changes
- The terms under which the district can request extra work from the architect
- The district's responsibilities to provide a program, site information, general conditions or any other documents. The individual responsible for overseeing the architect
- The architect's payment process including payment for extra services and reimbursable expenses

- The required level of insurance, liability clauses, termination clauses and all the safeguards in the event that the architect or district fails to perform
- The Architect can provide project management during project closeout and certification.

#### 6.4.5.6 Contract with the Construction Manager

Items to be included in a construction management contract include:

- Required insurance and bonding
- Method and timing of payment
- Responsibilities prior to and after construction for document review and checking, project closeout and certification
- Construction responsibilities: the scope of work, relationship to the architect and inspector, level of authority, threshold for cost decisions, extent of reporting to the district, etc.
- Expectations for cost control and change order and claims negotiations
- Expectations for schedule control with weekly reports to the district
- Expectations for quality control with reporting on crucial items
- Claims procedure to be followed
- Extent of direct district involvement in construction. Designation of a district' staff person to be the point of contact with the construction manager
- Responsibilities during the equipment and post-construction phases
- Expectations for record keeping and copies to the district and DSA
- Termination clauses and other safeguards in the event of failure to perform

## 6.5 Project Delivery Method

The delivery method for a project affects budget, schedule, team and consultant selection, quality control, and all the other elements of the project management process. The delivery method should be decided early, during planning or programming, and **must be included in the FPP.**

The most common delivery method for Community College projects is design-bid-build. Variations on design-bid-build, phased projects and contracting with multiple prime contractors may be used **if approved by the Chancellor's Office**. Other methods,

such as design-build, should be discussed with the Chancellor's Office prior to FPP submittal.

Special financing and delivery methods such as turnkey, lease lease-back, joint-venture, leasing, and lease purchase are defined here and will be expanded in a future version of this chapter. These financing methods may be used by the district on district-funded projects if the district board approves them; however, they are currently unavailable for State-funded projects.

If a district has the ideal project for an alternative delivery method, saving significant cost over the usual method, the project should be discussed with the Chancellor's Office to see if an exception can be negotiated. This discussion should occur before submittal of the FPP and will likely continue during the review process after FPP is submitted to the Chancellor's Office.

### 6.5.1 Coordinating Delivery Method with State Funding Configuration

The majority of community college projects have been design-bid-build with initial appropriations for Preliminary Plans and Working Drawings, and subsequent appropriations for Construction and Equipment (PW in year 1 and CE in year 2).

This funding schedule causes some concerns since a typical project often takes 5 to 8 years with delays for reviews and approvals. At a 4% inflationary increase per year, a three-month delay on a $10 million project amounts to a cost increase of $100,000. The extended time also makes projects vulnerable to scope changes, portions of the project becoming outdated before or shortly after construction due to technological change and shifts in educational program needs.

The district should be careful on choosing a delivery method that is compatible in time and cost with the budget process since the Chancellor's Office policy is no augmentations.

### 6.5.2 Types of Delivery Methods

A number of options are available for capital project construction.

#### 6.5.2.1 Design-Bid-Build — Standard Method

The traditional delivery of a state-funded construction project under state bidding laws is design-bid-build. The project is fully designed, put out to be bid by general contractors, and built by the successful bidder.

#### 6.5.2.1 Design-Build — Requires Chancellor's Office Approval

Design-Build changes some fundamental relationships between the community college district and the designers and builders. A Design-Build entity includes an architect and contractor, so only one contract exists between the district and the Design-Build entity. State funded Design-Build projects will only be considered for districts that have successfully completed a locally funded Design-Build project.

Specifically, Design-Build is:

- An alternate project delivery method where community college districts may select a Design-Build entity to provide design and construction services under one contract
- A method for community college districts to communicate performance criteria for the completed project as opposed to prescribing products and methods
- A means to pre-qualify and select a Design-Build team based on factors other than price alone
- An opportunity for community college districts to allocate risks to those parties most capable of handling those risks
- A different method for completing a project that requires a different approach and level of involvement by community college districts in order to realize the possible benefits of the Design-Build process

#### 6.5.2.3 Phased Projects — Requires CO and DOF Approval

Phased projects involve multiple designs and bids for different phases, which are all part of the same total project. Phased projects can be structured as a series of small projects or as one sequenced project with multiple sub-bids over time.

Significant savings can be realized by phasing a remodel project, using the first phase for demolition and abatement, uncovering all the existing conditions, and the second phase for the new construction. Foundations are often phased to occur early, due to weather conditions.

Phased building shell projects, construction of shell space followed by finishing at a later date, have historically remained unfinished due to lack of funds. If, however, funding was clearly committed by the district for finishing, a building shell project might be acceptable. On highly technical building projects, construction of the shell while designing the technical systems may be the best way to keep systems from becoming prematurely outdated.

#### 6.5.2.4 Multiple-Prime Contractors — Requires CO and DOF Approval

Multiple contracting with prime contractors is an alternative bidding and construction method. A construction manager is hired in lieu of a general contractor. The construction manager coordinates multiple contracts for portions of the project; each bid is contracted separately. For example, there may be separate bid packages for:

- Demolition and site preparation
- Foundations and structure
- Long-lead items, e.g., elevators, cooling towers
- Exterior enclosure
- Major mechanical and electrical systems
- Interior wall systems
- Casework

The advantage of this approach is that the district can select their own construction manager. Also, the subcontractors must be bonded, eliminating many of the problems with subcontractor performance. The disadvantages are increased coordination and management requirements with the risk that the construction manager might not be able to perform to expectations or that multiple contracts may result in some items falling between the cracks.

Care should be taken to make an early determination on how the project will be insured should it be covered as part of the CM contract or through the owner controlled insurance program (OCIP). See Section 6.5.3 for details on OCIP.

#### 6.5.2.5 Joint Venture and Shared Facilities

Joint venture and shared facility projects are developed on a case-by-case basis with other agencies and private industry. They normally involve very creative and complex financing, and should not be attempted without expert advice.

#### 6.5.2.6 Leasing, Temporary, Modular Buildings

The district may also increase space through leasing of permanent space, or leasing or purchase of temporary or modular buildings. Districts should be aware of Field Act (Education Code §§17280-17317 and 80030-81149) regulations requiring that leased and temporary space be brought up to code within three years, unless an extension is granted.

#### 6.5.2.7 Field Act (Education Code §§17280-17317 and 80030-81149)

The Field Act established the Office of the State Architect (now Division of the State Architect or DSA) which develops design standards, quality control procedures, and requires that schools be designed by registered architects and engineers.

### 6.5.3 Construction Insurance

Although not a project delivery method, the district must be properly insured during construction regardless of project delivery method. With multiple prime contractors, the district divides a project into two or more parts and then enters into a separate contract for each part. The most frequent use of multiple prime contracts is for phased construction, in which contracts are awarded sequentially for each phase. Multiple prime contracts require careful coordination because several contractors are involved, and no single contractor is responsible for the entire project. There are multiple insurance programs available to the district.

- An owner controlled insurance program (OCIP) is an insurance policy held by a property owner during the construction or renovation of a property, which is typically designed to cover virtually all liability and loss arising from the construction project (subject to exclusions). The policy package usually contains Commercial General Liability Policy, Workers Compensation policy with employer's liability and depending on the project or program in place there are specific forms outlining coverage via forms endorsement.
- A Contractor Controlled Insurance Program (CCIP) is similar to an OCIP except that the General Contractor or Construction Manager sponsors the insurance program. OCIP and CCIP can be combined where both the district and the General Contractor share in the savings or additional cost if losses are higher than expected on the primary insurance program.

## 6.6 Developing a Work Plan

A work plan for a project, prepared by the project manager, defines what has to be done, who is to do it, what each step will cost, and when it will be done.

The first work plan for the project establishes a baseline of a preferred schedule from which to evaluate the progress of the project taking into careful consideration state-funding timelines. At any point in the project thereafter, there are three indicators — the baseline prediction of progress, actual progress, and a current prediction of future progress. If the baseline, actual, and current prediction are close to one another, the project is on track. If not, **corrective action must be taken**.

The more realistic the initial work plan, the more likely the project is to progress smoothly with few delays, out-of-sequence activities, inappropriate personnel, or inappropriate tasks. This smooth progression translates into less time and effort, and probably into a better-quality project at a better value.

A typical work plan consists of a list of tasks and team assignments with a schedule and budget. It reflects the program, delivery method, and quality assurance plan for the project. Normally the plan is done using project management software which can be easily updated.

### 6.6.1 Project Schedule

It is critical that the project manager schedule and predict as accurately as possible the time needed for each step in the project and the interrelationships between tasks arranged in a sequence.

A common pitfall in scheduling occurs when the project manager starts by putting down the most rigid deadlines and then sandwiches all the tasks in between, without regard for the real time required for the tasks. If the time allotted is short, the tasks may get done, but there is a high probability that they will not be completed as thoroughly as they should be. If the time is too long, conditions and politics will change, disrupting the flow of activities. Also, overly long schedules may delay construction, causing inflationary increases in the cost of the project. As stated previously, a three-month delay on a $10,000,000 project at 4% inflation is a loss of $100,000 dollars.

The ideal project schedule will show a steady, even flow of activities with no delays and no need for accelerations. Accelerating a project requires extra time and effort by the project manager to rigorously monitor project progress against a timeline. Acceleration

increases administrative costs and requires rapid, clear decisions from clients. If not done well, acceleration results in mistakes, omissions, confusion, and inefficiencies. If a project must be accelerated some tactics which can be used include:

- Reducing the scope of the project within the critical deadlines or dividing the project into phases
- Simplifying the project by standardizing portions of it, e.g., typical laboratory designs or floors
- Simplifying management of the project by delegating greater control to the project manager and reducing the number of decision-makers and committee members
- Using a critical path method of scheduling and prioritizing the tasks so that at times when not everything can be done, the crucial items on the critical schedule will get done
- Overlapping phases of the project by using an alternative delivery method
- Simplifying the construction by using standard, readily available materials that can be put together easily
- Paying a premium for overtime work from the design and construction teams or providing incentive for early completion

*Advisory: In some circumstances, a contractor can claim "constructive acceleration" and related costs of the acceleration. Generally, constructive acceleration occurs where: (a) an event occurs justifying an extension of the contract time; (b) the contractor makes a request for extension of contract time in conformity with applicable contract requirements; (c) the owner, without appropriate justification, denies the request for time extension; and (d) the project schedule is not adjusted to reflect the additional time necessary due to the delaying event. Districts are to be sensitive to this area of potential claims and take appropriate measures to avoid conduct which can be deemed to have constructively directed the contractor to accelerate the time schedule. (No additional state funds are budgeted for these circumstances.)*

In order to be accountable, the project manager must have the power to control the process identified in the work plan. The district and project team must be cooperative and assist in keeping the project on track. The work plan must be reasonably accurate, allow for contingency, be regularly monitored, and be revised as necessary to allow for changing circumstances.

## 6.7 Project Management Tools

Beyond Gantt charts, which illustrate the start and finish dates of project milestones, there are multiple project management tools available to districts whether or not they use their own personnel or hire a project manager. Not all project management tools are appropriate for every project and careful consideration should be taken regarding time and cost when a management tool is considered.

The following is not an exhaustive list of tools and is meant as a starting point for the district considering a capital project.

### 6.7.1 Project Management Software

There are many software options available to assist in the management of a project or program of work. A key point in making a selection is ease of use—some programs are designed to handle very complex situations while others are more straightforward and user-friendly. Keeping in mind the end-user and information required to be generated will help in selecting a system that is scaled appropriately for the project at hand. Generally, all will require a Work Breakdown Structure (WBS) to be created within the system, breaking down the entire project or program into manageable pieces. The WBS can be customized to suit the agency's needs, and should be consistent across budgeting, scheduling and construction management.

### 6.7.2 Building Information Modeling

Building Information Modeling (BIM) is the process of generating and managing building data during its life cycle. Typically, BIM uses three-dimensional, real-time, dynamic building modeling software to increase productivity in building design and construction. The process produces the Building Information Model (abbreviated BIM), which encompasses building geometry, spatial relationships, geographic information, and the quantities and properties of building components. Utilizing BIM has the potential to save project time and cost and increase overall productivity of construction and delivery of building projects with less rework, design, and construction errors. Essentially, BIM builds the project electronically and notifies the modeler in advance of potential spacial problems.

BIM may offer the following advantages over the traditional design and construction process:

- BIM design efficiency may reduce the cost of design and preparing contract documents.
- BIM base information is uniform and can be shared with all participants.
- BIM three dimensionally identifies physical conflicts between elements prior to construction, potentially reducing construction delay, and additional expense. The impact of proposed changes is immediately apparent, subject to evaluation and reconsideration.
- BIM three dimensionally assists in sequencing and constructability reviews.
- BIM modeling can provide construction details and fabrication information.
- BIM can link information to quantify materials, size and area estimates, productivity, material costs and related cost information.

BIM does have some disadvantages that should be considered:

- Requires more effort at the beginning of the project to establish the future framework of the project model.
- Use of BIM can increase the amount of labor needed to enter and update data
- BIM allows for easy changes to the project to be made so stakeholders can make changes late in the design process.
- Requires a collaborative effort on the part of the design team and the general contractor & subs to meet the projects intended design outcomes.

Overall, the BIM digital model can help identify conflicts and their resolution before actual construction dollars are spent.

### 6.7.3 Building Commissioning

Building commissioning is a quality assurance process for achieving, verifying, and documenting that the performance of facility systems and assemblies meet the defined objectives and criteria for the project. It is a systematic process of ensuring that building systems perform interactively and effectively according to the design intent and the owner's operational needs.

This goal is achieved by documenting the district’s requirements and assuring those requirements are met throughout the entire delivery process and involves actual verification of systems performance; comprehensive operation and maintenance documentation; and training of the operating personnel and implementation of long term

trending and data logging to optimize operation. Building Commissioning Services may include Commissioning Plans, Total Building Commissioning, Systems Commissioning, Pre-installation Performance Testing/Commissioning, Re-Commissioning, Retro-Commissioning.

## 6.8 Control of Scope, Cost, and Quantity

Management of scope and cost is important in all projects; however, it is critical in state-funded projects. Once a project has been approved for state funding, no substantial change may be made without risk of losing the funding and/or project. Scope changes require Department of Finance approval; and, any cost increase must be paid with district funds.

### 6.8.1 Scope

Project “scope” is expressed as a combination of the educational or support program objectives and the square footage or systems required to meet those objectives. Project scope is defined by the district and the Chancellor's Office in accordance with state standards. The official scope is expressed in the final project proposal, the Capital Outlay Budget Change Proposal (COBCP) and the budget language associated with Legislative approval of the project. Once the scope is approved, the district is responsible for assuring that the scope is consistent throughout the project with no significant changes.

California Government Code (CGC), Section 13332.11(b) requires that:

> *“No substantial change shall be made from the preliminary plans or working drawings as approved by the State Public Works Board and the Department of Finance without written approval by the Department of Finance.”*

Changes (changes in program space, increases/decreases in capacity related areas, architectural design changes that will result in increased costs (above appropriation), etc.) must be approved by the Department of Finance prior to commencing work on the changes to working drawings or preliminary plans. If major changes are being considered by the district, the Department of Finance may require notification to the Legislature and request approval of revised preliminary plans by the State Public Works Board.

The Chancellor's Office has interpreted a significant change of scope as:

- A 5% change in project cost above the amount appropriated
- A 5% or more change in assignable square feet within each functional area or room type
- A 5% or more change in gross square feet
- A significant change in facility design or functional use of building space

The Chancellor's Office, per CGC, Section 13332.11(b), cannot support any significant changes in scope after preliminary plans are approved unless the Department of Finance authorizes such changes. The district is advised to be absolutely certain of the scope prior to submitting preliminary plans. Accordingly, no significant changes should be made prior to bidding the construction contract without first informing the Chancellor's Office of the change.

### 6.8.2 Budget

The budgeted amount for the project conforms to the scope of the project. It is also defined by the district and the Chancellor's Office using space and cost guidelines. The official budget is in the COBCP, project appropriation, and supplemental report language. It is the district's responsibility to stay within budget.

If the project has an inadequate budget for the scope, there are very few options for cutting cost. Project management and design costs may be reduced, but only at the risk of problems on the project. Construction cost consists primarily of labor, materials, and contractor overhead. Labor costs per hour are set by prevailing wage rates. Materials costs are fairly consistent. Construction cost can only be reduced by working faster or by eliminating the profit margin from the overhead costs. Neither strategy is likely to save large amounts of money.

Value engineering may work in some projects to assist in lowering the project construction costs. Types of material and installation methods initially chosen for the project can be reevaluated to determine if alternate materials or finish may provide the same quality of performance while reducing costs. There may also be alternative methods of installation that could bring cost savings without diminishing the end product quality.

With the scope of the project locked in, the design quality of the project is the only area that can be readily cut by specifying less expensive materials and systems. It is also the least desirable area to cut as it affects the value and life of the project. After the

construction is complete, it's the quality that will impact the district usually for several decades.

Any excess funds shall be reverted by the Chancellor's Office. If the project has more budget than required for the scope, other district's projects receive less money or none at all and public funds are not being used efficiently.

It is incumbent on the district to set an accurate scope and budget and then exercise control during the project in accordance with the final project proposal and the budget language. Districts must manage their projects so that:

- The design reflects the established scope and budget
    - If at any time during design the estimated construction cost is expected to exceed the budget, the district should employ value engineering to reduce the cost and complexity of the project (see value engineering above). The cost effectiveness of each building system should be reviewed to find alternative designs and materials to reduce overall project costs to a prudent level consistent with the budgeted amount, without affecting scope or overly reducing quality.
- The pre-bid estimates are realistic and within budget
    - Estimates should be realistic, including all the factors with the correct CCI adjustments to the mid-point of construction as approved by the Chancellor's Office. Estimates should be based on documents that are complete and have had a careful constructability review. Wherever possible, estimates should be double-checked by a third party estimator.
- The project is progressing on schedule
    - Delays in the project cause unnecessary inflationary increases in the project cost.
- Deductive alternates are used to assure that the bid will be within budget
    - Deductive alternates should be developed as part of the construction documents to provide options to reduce project costs if bids come in over budget. Additive alternates to add project features if bids come in low are also acceptable. Both additive and deductive alternates must be reviewed by the Chancellor's Office and the Department of Finance prior to bidding. Deductive alternatives cannot impact the approved scope of the project. If the district elects an additive and/or deductive alternate, the additive and/or deductive alternate becomes part of the official scope of work and the district is responsible for completion of the elected alternate(s). There are no exceptions.

- Construction change orders are to be kept within the construction contingency
    - During construction, the districts should closely control construction change orders so as not to exceed the construction contingency. Change orders should not be used for project additions that are not essential. On state funded projects, the number and costs of change orders needs to be entered in the FUSION Quarterly Reports.
- Construction claims are prevented
    - Construction managers should be alert to potential contractor claims and take steps to avoid such claims. Special attention should be placed on the construction schedule to avoid delay claims by the contractor. Contracts should be carefully reviewed to avoid claims which could result from unclear wording.
- Cost overruns are counterbalanced by reductions
    - If the district discovers a cost increase that may exceed the budget, the district should identify possible savings elsewhere in the project. Using a value engineering process, the district should analyze possible savings and the impact of those savings.

#### 6.8.2.1 Recognized Deficits

If savings cannot be accomplished to bring the project within budget, the district should notify the Chancellor's Office of a potential budget problem. The Chancellor's Office will review the value engineering cost analysis with the district. The Chancellor's Office may support a scope or budget change or request DOF to approve a “recognized deficit.” If the project has not yet had construction funds appropriated, a request for a scope or budget change to the Chancellor's Office and Department of Finance may be needed. If not, consideration will be given to using deductive alternates as a possible solution.

#### 6.8.2.2 Augmentations

While authority exists for the Public Works Board to approve augmentation for a project when there is a compelling need, the Chancellor’s Office has a long-established NO augmentation policy. Districts have the responsibility to maintain projects within the approved cost and scope. If the bids come in over the established budget limits, a project may be changed and rebid, or require additional district funding to move the project forward.

#### 6.8.2.3 Reversions

If a project is estimated to be over budget, the project may be discontinued and funds reverted to the bond source from which they came. The Chancellor's Office will work with the district and DOF to reduce the scope and cost of the project if possible so that it may continue with available funds and/or district may be asked to meet the additional cost with district funds.

If a project experiences bid savings (construction bid is lower than budgeted), the surplus funds will be reverted, typically at time of bid award. Any other use of bid savings will require advance approval from the Chancellor’s Office and the Department of Finance.

Appropriated funds can also be reverted when a project fails to meet the established timeframes for satisfying Section 1.80 of the annual Budget Act. Specifically, (1) the preliminary plans (P) must be approved and working drawing (W) funds must be released by June 30 of the initial funding fiscal year for PW and (2) the approval of working drawings and proceed to bid must be approved by June 30 of the initial funding fiscal year for Construction.

### 6.8.3 Quality Assurance Plan

In addition to controlling the scope and cost, the district must control the quality of the project. The first step in this process is writing a quality assurance plan, which establishes the quality levels for the project. The plan serves several purposes:

- It requires the project participants to come to agreement on quality standards and criteria
- It provides consistency among different reviewers by setting the criteria for internal reviews
- It provides the criteria for the evaluation of design alternatives
- It establishes clear checkpoints and controls to assure that the desired quality is achieved

There are several types of quality to be considered:

- Staying within scope and budget parameters
- Conformance with state and local statutes and regulatory requirements
- Staying on schedule to avoid escalation and meet move-in dates

- Development of a good quality program
- Meeting the objectives of the project program
- Development of a good quality design
- Production of clear, complete, error-free contract documents
- Provision of good quality construction
- Appropriate choice of materials and systems
- Prevention of construction problems and disputes
- Problem-free commissioning of equipment
- Timely correction of any post-construction problems

### 6.8.4 Long-Term Quality

There are two types of quality that deserve special mention: the design quality and the construction quality. If the design or construction is poorly done, the district will create a long-term problem. There may be a problem with the use of the space, the quality of the space, the flexibility of the space, the acoustics, light or equipment, or an ongoing maintenance problem such as roof leaks or high energy costs.

Construction quality is controlled by the contractor, the construction inspector, and the construction manager based on the drawings and specifications. While the contractor may attempt to do a reasonable job, the subcontractors may try to substitute cheaper grade materials. If the inspector and manager are alert, these kinds of problems can be caught and corrected. Problems with the design, however, are likely to be built into the project, unless they are found prior to bid or the construction manager issues changes to the construction contract.

Assuming that the planning and budget parameters are reasonable, it is the design quality that drives the success of the project. The way the architect interprets the program, the layout of the site, the design of the teaching and learning environments, the “fit” with the campus, the choice of materials and systems, the architect's cost assumptions, and so forth are all crucial to the project.

The district should be very careful selecting an architect, participate in the design decisions, and review the architect's work in detail. The best projects are realized when the owner has a strong presence throughout the design. For complex and costly

projects, the district may want to get a higher level of confidence by having a third-party architect review the work of the design architect.

## 6.9 Regulatory Requirements

This section discusses the California Building Code and other federal, state, and local regulations which affect community college capital outlay projects. The California Environmental Quality Act (CEQA) is discussed in the next section. This section lists most of those regulations, but may not cover the exact regulations for a given project. This section also discusses some probable future regulations. The district must meet current regulations and, whenever possible, anticipate future regulations.

### 6.9.1 California Building Code

Title 24 of the California Code of Regulations (CCR) includes the California Building Code (CBC), the Field Act requirements (in 2006, Assembly Bill 127 (AB 127) was passed, giving Community Colleges the option of choosing to design and construct under local building departments or under the Field Act), and a set of amendments to the Uniform Building Code (UBC). These codes, in turn incorporate other codes by reference, including the Uniform Fire Code (UFC), the Uniform Mechanical Code (UMC), the Uniform Plumbing Code (UPC), and the National Electrical Code (NEC).

The Division of the State Architect updates or changes Title 24 on an 18-month cycle. Information can be found at: http://www.dgs.ca.gov/dsa/Programs/progCodes.aspx.

Several state agencies share in the responsibility to administer building codes:

- California Building Standards Commission (BSC)
  - Application — State buildings of all occupancy types
- California Energy Commission (CEC)
  - Application — all occupancies
- Division of State Architect (DSA)/Access Compliance
  - Application — All buildings, structures, sidewalks, curbs and related facilities where public funds are used, including alterations, additions or structural modifications to publicly funded buildings
- Division of State Architect, Office of Regulatory Services

- Application — All essential services buildings such as hospitals, public safety, schools and their utility systems

- Occupational Safety and Health Standards Board (OSHA)
  - Application — Places of employment
- Office of Statewide Health Planning and Development (OSHPD)
  - Application — Clinics, hospitals and health facilities
- Office of the State Fire Marshall (SFM)
  - Application — All state-owned and/or occupied buildings
- State Historical Buildings (SHB) Code Advisory Board, Division of the State Architect
  - Application — Qualified historical buildings and their structure, and their associate sites
- California State Department of Fish and Game
  - Application — Where a project affects any endangered species

### 6.9.2 Approval by the Division of the State Architect (DSA)

At a minimum, Community College projects must comply with the codes by sending completed construction documents to DSA for approval. DSA coordinates compliance with structural safety, accessibility, and fire-life safety regulations per CCR, Title 24.

The Chancellor's Office with DSA has developed a concurrent code review procedure to speed up plan reviews. This procedure is discussed in the design section of this manual.

### 6.9.3 Other Jurisdictions

Other jurisdictions may have the right to review the project and approve or disapprove aspects of the project:

- Air Quality Control District (AQCD)
  - Application — Dust and airborne pollutants during construction; discharges by the completed project.
- California Environmental Protection Agency (CEPA)
  - Application — All projects having an environmental impact

- California Department of Transportation (Caltrans)
    - Application — Projects that have vehicular access to state highways that border or cross railroad right-of-ways, that introduce public transportation onto the site, or that have private aircraft facilities.
- California Coastal Commission
    - Application — All projects within one-quarter mile of the coastal shoreline, within the coastal flood plain, or in areas otherwise deemed to have impact on coastal water and shoreline.
- Department of Health Services (DHS) Licensing and Inspection
    - Application — Inspects and certifies health care facilities
- California Geological Survey (CGS)
    - Application — Applies CGS Note 48 by reviewing geologic engineering and seismology reports for the project site
- US Army Corps of Engineers (Corps)
    - Application — All projects within the controlled flow waters, navigable water or flood plains
- Federal Aviation Administration (FAA)
    - Application — Projects on airport flight approach paths and all buildings and structures over 600 feet tall
- American Assoc. for the Accreditation of Laboratory Animal Care (AALAC)
    - Application — Voluntary accreditation program for lab animal care facilities
- Local City/County Engineering Departments
    - Application — Projects which conduct storm water off-site (either surface drainage or storm pipe); projects which significantly alter natural grades and/or require the import or export of fill; and projects which have vehicular access to adjacent public roads. Projects which connect with city and county road, curb, walkways, or other systems.
- Local Fire Department
    - Application — Coordination of hydrants, sprinklers, and other fire systems with local fire district to assure adequate fire protection and emergency access for fire vehicles.

### 6.9.4 Utilities

In addition, public utilities may need to review the project with respect to access, easements, and utility hookups and consumption, including:

- Water districts
- Sewer (sanitary) districts
- Electrical power company
- Natural gas company
- Telephone company
- Waste removal company

### 6.9.5 Community Review

A district may, as a courtesy, allow review of the project by community groups. Many of the districts have a standing committee composed of community members that reviews projects for conflicts with community interests.

### 6.9.6 Cost Impacts of Regulations

Not all of the above code and other jurisdictions apply to a given district or project. It is evident, however, that meeting regulations is a complex task. Districts should be aware of several cost impacts associated with various regulations:

- Increased management time to coordinate submittals and reviews
- Review fees charged by various agencies
- Hookup and increased usage fees for utilities
- Fines for delayed or non-compliance with regulations
- Increased abatement and construction costs for delayed compliance

### 6.9.7 Regulatory Trends

Environmental regulations in California will continue to evolve due to health concerns and population stresses on the environment. Areas typically under the most scrutiny and, therefore, most likely to see regulatory change are air and water quality, soil and ecosystem preservation, garbage reduction, prevention of indoor pollution (air, sound, etc.), prevention of outdoor pollution (light, air, sound, etc.), elimination of volatile

organic compounds (VOCs) in construction materials, and energy and water conservation.

Districts should expect, and plan for, new social regulations as well. The Americans with Disabilities Act (ADA) guidelines should be minimum design standards. The best way to anticipate new regulations is to design with the best interests of as many people as possible in mind. Designs should provide safe, accessible, and quality environments for all people regardless of abilities.

Safety regulations are continually increasing. Regulations regarding seismic safety, emergency signage, safety areas, evacuation plans, and campus parking lot and pathway lighting have changed in the recent past. Districts should expect this to continue.

It is to the district's advantage to be able to anticipate regulations and incorporate them voluntarily into the design of projects. Voluntary compliance prior to a regulation can save a great deal of money. For example, avoiding potentially hazardous building materials can be a very effective approach to reducing costs associated with future environmental regulations. Another effective approach is to remove hazardous materials as soon as they are determined to be a problem, before the removal process becomes mandated and expensive.

### 6.9.8 Reference Standards

In addition to DSA and jurisdictional agencies, there are several organizations which help write sections of the codes, review and interpret the codes, and perform physical tests for code compliance. These organizations often have influence over building projects:

- American Society of Testing and Materials (ASTM): establishes and tests performance standards of materials, material finishes and assembly components
- American National Standards Institute (ANSI): establishes code requirements for fire protection and life safety
- Factory Mutual (FM): tests performance for strength and fire resistance
- International Conference of Building Officials (ICBO): Umbrella organization for many building codes, interprets codes, recommends revisions and tests building component assemblies

- National Fire Protection Association (NFPA): writes and interprets code for fire protection and firefighting
- Society of American Engineers (SAE): establishes standards for operating equipment and machinery
- Underwriters Laboratories (UL): tests performance for fire protection resistance. There are a number of other industry organizations that provide reference standards, code data, and on-site review

### 6.9.9 Code Analysis

The project manager, through the architect, must be aware of current code and other regulations. It is recommended that the district read Part 1 of Title 24, the Building Standards California Code of Regulations. The project manager should require a code analysis from the architect early in the project, and it must be updated as the project develops.

## 6.10 California Environmental Quality Act Regulations

The California Environmental Quality Act (CEQA), Public Resources Code, Section 2100, is intended to:

- Maintain a quality environment as a matter of statewide concern
- Insure that state government takes steps to safeguard the environment
- Assure that all agencies whose actions impact the environment or who regulate the activities of individuals, corporations or other public agencies that are found to affect the environment shall give major consideration to preventing environmental damage

When interpreting CEQA regulations, the district staff should consult a knowledgeable expert who is aware of updates in the process and applicable case law regarding similar circumstances. It is common practice to hire experienced consultants to prepare Environmental Impact Reports (EIRs). Some districts have citizen community advisory committees that help buffer community reactions to campus development.

### 6.10.1 CEQA Process

Compliance with CEQA requirements involves:

- Reviewing the proposed project to determine if it is subject to CEQA requirements
- If a project by its nature or purpose is exempt from CEQA requirements, prepare a Notice of Exemption
- If a project is subject to CEQA requirements, complete an initial environmental study to determine if an Environmental Impact Report (EIR) is necessary
- If an EIR is required, prepare a draft EIR for public review
- Prepare a final EIR, including responses to public comments received on the draft EIR and any necessary additional environmental analysis
- Obtain certification of the final EIR by the responsible agency (usually the district's Board of Trustees), including actions that will mitigate adverse environmental effect and adoption of the Mitigation Monitoring Program

A project is defined as:

- An activity directly undertaken by a public agency, including public works construction activities, clearing or grading of land, improvements to existing public structures, enactment and amendment of zoning ordinances, and adoption and amendment of local general plans
- An activity supported, in whole or part, through public agency contracts, grants, subsidies, loans, or other assistance from a public agency
- An activity involving the public agency issuance of a lease, permit, license, certificate, or other entitlement for use by a public agency

### 6.10.2 Statutory and Categorical Exemptions

To determine whether a project is subject to CEQA, review the statutory exemptions for emergency repairs and feasibility studies and review the categorical exemptions for:

- Operation, repair, maintenance, or minor alterations of existing structures or facilities not expanding existing use (*California Code of Regulations*, Title 14 [CCRT14] Section 15301)
- Replacement or reconstruction of existing structures or facilities on the same site (CCRT14 Section 15302)
- Construction of limited small new facilities, installation of small new equipment and facilities in small structures, and conversion of the use of small existing structures (CCRT14 Section 15303)

- Certain minor alterations of land, water, or vegetation (CCRT14 Section 15304)
- Certain minor alterations in land use limitations (CCRT14 Section 15305)
- Construction or placement of minor structures next to certain existing facilities (CCRT14 Section 15311)
- Sales of surplus government property, except in environmentally sensitive areas (CCRT14 Section 15312)
- Minor additions to existing schools (CCRT14 Section 15314)

The district should review the exceptions to categorical exemptions. The categorical exemption does not apply if:

- A reasonable possibility exists that the activity may have a significant environmental impact because of unusual circumstances
- Cumulative impacts would be significant
- A project within certain categories of exemption occurs in certain specified sensitive environments
- A project affects scenic resources within official State scenic highways
- A project is located on listed toxic sites maintained by the California EPA
- A project causes substantial adverse changes in significant historic resources

### 6.10.3 Notice of Exemption

A Notice of Exemption is issued when the district, as the lead agency, decides that a project is exempt.

### 6.10.4 Initial Study

If the project is not exempt, the district must determine if the project may have a significant environmental effect by doing an Initial Study.

The Initial Study is a preliminary analysis prepared by the lead agency to determine whether an EIR is required (Declaration of Significance) or not (Negative Declaration). The Initial Study identifies the significant effects to be analyzed in the EIR. The study must include:

1) A description of the project
2) Identification of the environmental setting

3) Identification of the environmental effects, by use of checklist, matrix, or other method
4) A discussion of ways to mitigate the significant effects identified, if any
5) An examination of whether the project would be consistent with existing zoning, plans, and other applicable land use controls
6) The name of the person or person who prepared or participated in the Initial Study

The lead agency decides if the project will have significant environmental impacts and will require a complete Environmental Impact Report. If the project will not have significant unmitigated environmental impact it will require a Negative Declaration.

### 6.10.5 Negative Declaration

The process for a Negative Declaration includes:

1) Preparing a draft of a Negative Declaration
2) Public notice and review of 21 to 30 days
3) Public responses to the Negative Declaration received and considered
4) The final Negative Declaration prepared
5) Commenting agencies notified of the date of the hearing
6) Negative Declaration adopted at the hearing
7) Any mitigation reporting and monitoring program adopted
8) The Notice of Determination filed and posted

### 6.10.6 Environmental Impact Report

The process for an Environmental Impact Report (EIR) includes:

1) Determining the scope of the EIR
2) Preparing a Notice of Preparation and send to responsible agencies
3) Allowing 30 days response time to the Notice of Preparation
4) Preparing a draft EIR
5) Allowing 30 to 45 days for a Public Notice of Completion and review of the draft EIR
6) Receiving comments on the draft EIR
7) Responding to comments (10 days)

8) Preparing and obtaining a certification on the Final EIR
9) Preparing and adopting findings and statement of overriding conditions
10) Reporting and monitoring program adopted
11) Final decision reached on the project by the district's Board of Trustees
12) Publicly posting and filing the Notice of Determination with the State Clearing House

The draft EIR includes:

1) A summary of the proposed actions and the related consequences
2) A description of the proposed project or action
3) A description of the environmental setting within which the project or activity will occur
4) A description of the potentially significant adverse environmental impacts
5) A description of the effects found to be significant and irreversible
6) A description of the impacts on public services, utilities, energy resources and management of hazardous substances related to the proposed project
7) A description of the growth inducing cumulative impacts
8) An identification of organizations and person consulted in preparing the draft

The final EIR includes:

1) The draft EIR or a revision of the draft
2) Comments and recommendations received on the draft.
3) A list of the organizations, persons and public agencies commenting on the draft EIR
4) Responses of the lead agency to significant environmental points raised in the review and consultation process
5) Any other information added by the lead agency

## 6.11 Project Status Report

To provide for consistent and effective control and accountability, the project manager should be monitoring the project and providing frequent reports to the project team and the district. See Appendix I for a copy of the Project Status Report form and see Appendix J for a copy of the Project Design and Approval Checklist. The Project Status

Report and Project Design and Approval Checklist can be used together to administer active projects.

The project status report fulfills several functions:

- It demonstrates accountability for taxpayers’ money (or public funds) in accordance with the public trust
- It increases the opportunity for future funding by demonstrating accountability
- It indicates potential scope or budget problems, avoiding last minute crisis intervention
- It can be used to give the Chancellor's Office information about systemic problems that may need correction
- On state funded projects, it should include the update of FUSION Quarterly Reports on a regular basis, regardless if claims have been made and until the project has been closed out completely
- Provides status on the project time schedules, delays, cost overruns